

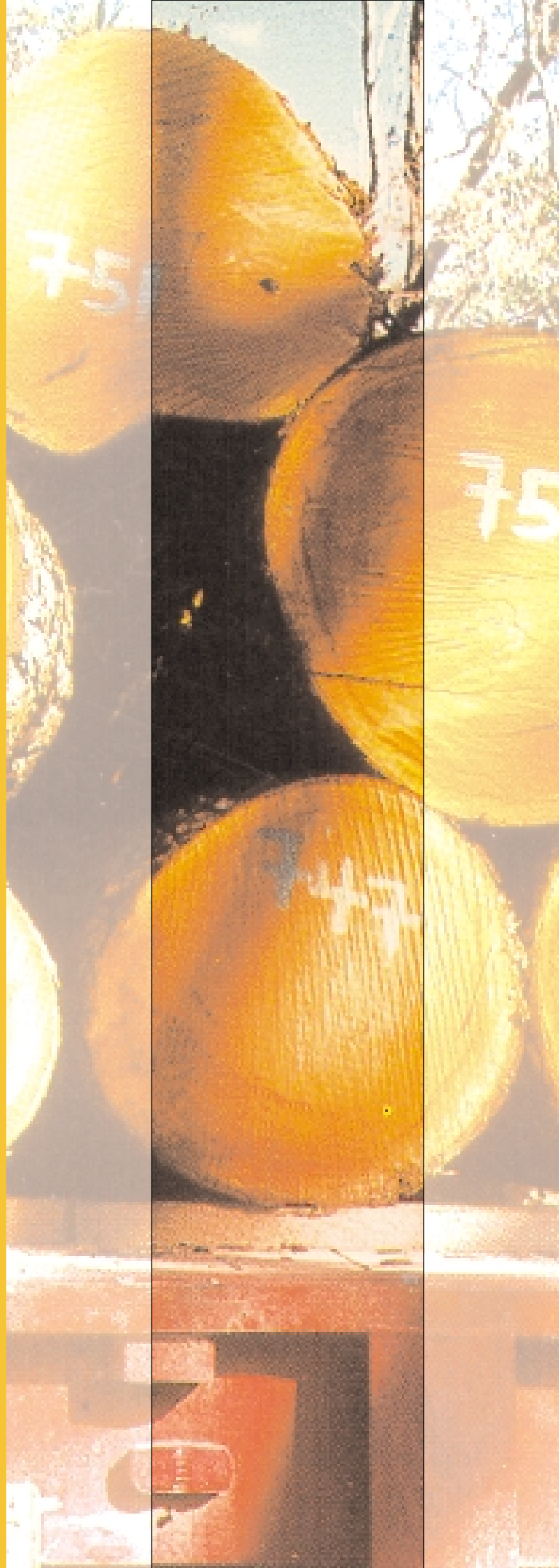
TRAFFIC Online Report Series

No. 1

**CITES
Appendix III
Implementation
for Big-leafed
Mahogany
*Swietenia
macrophylla***

Prepared by
TRAFFIC

May 2002



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Front cover photograph: Mahogany logs in transit.

Photograph credit: Jeff Hunt, Plywood and Lumber Sales, Inc.

CITES Appendix III Implementation for Big-leafed Mahogany *Swietenia macrophylla*

Prepared by TRAFFIC

May 2002



Credit: Margaret Stern

Impounded mahogany timber deposited with the National Forestry Superintendence (SIF) of Bolivia

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INTRODUCTION

The wood of the American mahoganies *Swietenia* spp. is renowned for its beauty and durability. Two species, Honduran Mahogany *S. humilis* and Caribbean Mahogany *S. mahagoni*, have been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), owing to concern regarding threats to the species posed by international trade. Proposals to list the third species in the genus, Big-leafed Mahogany *S. macrophylla*, in Appendix II were defeated in 1992 and 1994, prompting Costa Rica to list the neotropical populations of this species in Appendix III, with effect from 16 November 1995. The listing was annotated to include logs, sawn wood and veneer sheets, wood originating from countries outside the natural range of this species and finished products, such as furniture. These are therefore not covered by the terms of the Convention.

In 1997, TRAFFIC published a review of the implementation of the CITES Appendix III listing for *S. macrophylla* (Buitrón and Mulliken, 1997). This work was undertaken to contribute to consideration of the trade in this species and also the use of Appendix III as a tool to assist range States seeking to ensure that exports of native species were conducted in a legal and sustainable manner. It showed that while key range States and importing Parties had taken steps to implement the listing, implementation of CITES documentation requirements and border controls was far from universal. Specific concerns included the use and acceptance of certificates of origin that did not comply with CITES recommended formats, a lack of border controls between neighbouring range States, and the use of varying terms and units to describe timber in trade.

The status and trade of *S. macrophylla* has continued to be the subject of consideration by the Parties since 1997. An Appendix II listing proposal was considered and rejected during the ninth meeting of the Conference of the Parties to CITES (Harare, 1997), and the first meeting of a 'Mahogany Working Group' convened in 1998. Consideration of the outcomes of this meeting (*Doc. 11.38.2*) during the eleventh meeting of the Conference of the Parties (Nairobi, 2000) led to the establishment of a new CITES Mahogany Working Group. This meeting is scheduled to meet from 3-5 October in Santa Cruz, Bolivia.

At the request of and with support from the CITES Secretariat, TRAFFIC has undertaken a further review of CITES Appendix III implementation as a contribution to the October 2001 meeting of the Mahogany Working Group of the Conference of the Parties to CITES (Mahogany Working Group). This review focuses on the key exporting range States of Bolivia, Brazil and Peru, and on imports into the European Union (EU), the second-largest consumer of *S. macrophylla* in international trade. Readily available information was also collected for other range States as well as for consumer countries in Latin America, and CITES trade data, which was not available at the time of the 1997 review, was analysed for all Parties. Appendix III implementation in the USA, which imports the vast majority of *S. macrophylla* traded internationally, was reviewed by TRAFFIC North America and reported in Robbins (2000), and therefore was not a subject of the present study.

CITES Appendix III implementation requirements have been discussed in detail in Wijnstekers (2001), Buitrón and Mulliken (1997) and elsewhere, and will be summarised briefly here. Changes in implementing procedures recommended by Resolutions agreed by the tenth meeting of the Conference of the Parties to CITES will also be noted as relevant.

All *Swietenia macrophylla* range States are required to issue either a CITES export permit, if they have listed their populations in Appendix III, or a CITES certificate of origin if they have not, prior to the export of *S. macrophylla* logs, sawn timber and veneer. Products that have undergone further processing, e.g. plywood and furniture, are exempt from the listing under the current annotation. *Resolution Conf. 10.2 (Rev.)* recommends the information to be included in certificates of origin and that such certificates be issued by CITES

Management Authorities. Certificates of origin are only to be considered valid if presented within 12 months of the date of issuance. This Resolution also provides for the extension of the validity of export permits and re-export certificates of up to 12 months for trade in timber species included in Appendix II and Appendix III. Importing Parties are required to ensure that such documentation accompanies shipments at the time of import. All Parties are required to include information on imports and exports of Appendix III species in their CITES annual reports. A review of annual reporting of the trade in *S. macrophylla* is provided below, followed by a more detailed examination of Appendix III implementation by individual Parties.

METHODOLOGY

This review was undertaken by TRAFFIC South America, TRAFFIC Europe and TRAFFIC International on behalf of the TRAFFIC Network. Information provided on CITES implementation in range States and other Latin American and Caribbean countries was compiled by Ximena Buitrón of TRAFFIC South America with assistance from Susana Cárdenas, consultant to TRAFFIC South America. Information provided on CITES implementation in the EU as a whole, and in the Netherlands and Spain, was compiled by Karin Berkhoudt, TRAFFIC Europe, and such information for the UK was provided by Stephanie Pendry, TRAFFIC International. Analysis of CITES data and annual reporting was provided by Teresa Mulliken, TRAFFIC International and Donna Harris, consultant to TRAFFIC International, with assistance from John Caldwell, UNEP-WCMC.

Information provided in this report came from several sources. Questionnaires were sent to the CITES Management Authorities of all *Swietenia macrophylla* range States and to other Latin American and Caribbean countries (21 Parties), in August 2001. Responses were received from 18 recipients (**Annex 1**). Follow-up correspondence and telephone communications were undertaken with Management Authority staff in cases where clarification was required. Range State reports submitted to the CITES Secretariat in preparation for the October 2001 Mahogany Working Group meeting were also reviewed on receipt from the Secretariat. CITES Management Authority and Customs staff were contacted in the Netherlands, Spain and the United Kingdom, as was the European Commission and UNEP-WCMC. Information and trade data compiled during related TRAFFIC South America research regarding *S. macrophylla* trade and harvest and trade controls has also been included where relevant.

CITES trade data in several forms were compiled and provided by UNEP-WCMC staff. Analysis predominantly focused on the years 1997-1999, the most recent years for which relatively comprehensive data were available.

Unless otherwise stated, the CITES trade data presented in this report were manipulated as follows prior to further compilation and analysis:

- All records for which trade was reported in board feet were converted to cubic metres using the following conversion rate: one board foot (bf) equals 0.0023597 cubic metres (m³); 1m³ = 424 board feet. This conversion rate is that used by the CITES Secretariat and UNEP-WCMC for all timber shipments.
- All records for which data were reported by weight were converted into cubic metres using the following conversion rate: 1m³ = 0.73 t = 730 kg. This is the conversion rate used by Brazil (Buitrón and Mulliken, 1997), from which the majority of timber reported by weight originated.
- All records for which data were not reported by weight, volume or in board feet (e.g. carvings, square metres, etc.) were deleted from the dataset.
- All remaining records were considered equivalent to 'timber' regardless of the original term reported (e.g. logs, sawn wood, timber pieces, veneer, etc.).
- Owing to the relatively poor reporting of purpose and source information in CITES annual reports, reported purpose and source were not taken into account when further compiling the data.
- Analysis of trade reporting for re-exports was treated separately from the analysis of trade reporting for exports.

Gross trade reports and comparative tabulation data were then compiled as normal as the basis for subsequent analysis.

Gross trade data (gross imports and exports) are provided in several tables throughout the text. These data are compiled automatically by summing and then comparing reported exports with reported imports on a country-by-country basis, the larger number being considered the gross trade figure. Gross trade data give a rough idea of maximum reported trade volumes, but do not necessarily reflect actual trade volumes. The accuracy of gross trade figures is limited by several factors, including the facts that:

- Export permits may be issued in one year, and reported in the annual report of the issuing country in that year, but not presented for import until the following year, at which time they are reported in the annual report of the importing Party. This can result in shipments being counted twice, once in each year, inflating gross trade figures as well as indicating reporting problems where none may exist.
- Many Parties report on the basis of permits issued rather than on actual trade. As not all those permits issued may be used, this can result in reported export figures exceeding actual exports, and, as a result, reported imports. Information available to UNEP-WCMC, which compiles CITES trade data from annual reports on behalf of the CITES Secretariat, is provided in trade tables below.

More detailed information on compilation and analysis of gross trade data can be found in the CITES Data Users Guide prepared by UNEP-WCMC.

By combining all timber in trade under a single term (timber), it was possible to compare total reported trade volumes for *S. macrophylla* regardless of the reported form of individual shipments in trade (e.g. ‘timber’ versus ‘sawn wood’). This reduced problems of ‘double counting’ that would have arisen in cases where exporting and importing Parties used different terms to describe timber in the same shipment. However, it is possible that in some cases this has resulted in failure to account properly for what were in fact separate shipments. A further result was the loss of detail regarding the forms of wood reported in trade, e.g. veneer.

CITES ANNUAL REPORTING

CITES annual report data for *Swietenia macrophylla* were not available for review at the time of publication of Buitrón and Mulliken (1997), the Appendix III listing for this species having only gone into effect 18 months before. A review of CITES data available as of August 2001 indicates that annual reporting for *S. macrophylla* has improved significantly over the years since the listing took effect in late 1995. The majority of exporting range States and key importing Parties were providing data on the trade in this species as of 1997. The following analysis, therefore, concentrates on the period from 1997 to 1999: CITES data are not yet available for 2000. As shown below, however, several reporting problems remain, particularly with respect to non-reporting of trade by numerous Parties, especially importing Parties. The more detailed sections on CITES implementation by individual countries highlight additional annual reporting problems.

ANNUAL REPORTING BY RANGE STATES

A total of 11 range States were recorded in CITES trade data as having exported *Swietenia macrophylla* from 1997-1999 and this trade is summarised in **Table 1**, which compares gross trade figures with trade reported by exporting and importing Parties. **Table 1** also shows the availability of CITES annual reports from range States and information on the basis of annual reporting (e.g., permits issued, actual trade). Very few exports were reported as ‘logs’. No exports were reported from countries that are not a range State for this species.

Table 1

CITES-reported trade in *Swietenia macrophylla* (m³): gross exports, exports reported by range States, and imports from range States, reported by importing Parties, 1997-1999

Exporter	AR	G	E	I	G	E	I	G	E	I	G	E	I
		1997			1998			1999			Total		
Ecuador	NS	0	0	0	0	0	0	77	0	77	77	0	77
Panama	NS	0	0	0	71	0	71	23	0	23	94	0	94
Mexico	A	521	521	188	271	271	0	212	212	0	1 004	1 004	188
Belize	NS	233	0	233	125	0	125	2 326	2 326	1 409	2 684	2 326	1 767
Honduras	NS	885	885	0	880	880	28	1 324	1 312	12	3 089	3 077	40
Guatemala	NS	1 687	0	1 687	1 098	0	1 098	406	24	406	3 191	24	3 191
Nicaragua	A?	19 029	19 028	5 012	5 773	5 708	1 302	5 165	5 164	1 882	29 967	29 900	8 196
Bolivia	NS	27 963	27 914	21 520	20 159	14 494	19 251	8 520	8 520	6 663	56 642	50 928	47 434
Peru	P	10 893	0	10 893	20 720	0	20 719	35 170	0	35 171	66 783	0	66 783
Brazil	P	116 916	63 420	53 496	46 816	38 289	40 877	59 758	59 312	39 186	223 490	161 021	133 559
Total		178 127	111 768	93 029	95 948	59 677	83 471	112 981	76 870	84 829	387 056	248 315	261 329

Notes: G = Gross exports; E = Exports reported by range States; I = imports from range States, as reported by importing Parties; AR = basis for annual reporting by each country during the three-year period (A = actual trade; P = permits issued; NS = not stated). Years for which annual reports were submitted by countries of export are shaded in grey; grey shading in the 'Total' column indicates that annual reports were submitted for all three years.

Source: CITES annual report data provided by UNEP-WCMC

Nine of the 11 range States reported exports of significant quantities of *S. macrophylla* in their annual reports during one or more of the three years. The two remaining range States are Ecuador and Peru. In the case of the former, a CITES annual report has not yet been received by UNEP-WCMC for 1999, the year in which exports are reported to have taken place according to importing Parties. Annual reports from Peru for 1997 and 1998 have been submitted but these did not list any exports, while the annual report for 1999 had not been received by UNEP-WCMC at the time of writing. Problems with regard to annual reporting by Peru are discussed in more detail below.

Reported exports from Panama were limited to 25 timber pieces in 1999, which do not appear in **Table 1** as this contains only mahogany reported by weight or volume. This could correspond with the US-reported import of 23m³ from Panama during that same year, and reflect a discrepancy with regard to the reporting of units by one or both Parties. UNEP-WCMC had not received an annual report for Panama for either 1997 or 1998 at the time of writing.

In several cases, export volumes reported by range States significantly exceeded imports reported by importing Parties. This is particularly true for Mexico and the Central American countries of Honduras and Nicaragua. Quite the opposite was the case for Guatemala, with reported exports limited to 24m³ in 1999, compared with reported imports from Guatemala of over 3000m³ from 1997-1999.

Trade reporting from the three main countries of export, all in South America, varied widely. The problems with trade reporting for Peru were noted above. In contrast, reported exports from Bolivia are relatively close to reported imports from Bolivia for 1997-1999, overall trade figures varying by approximately 7% during this period. Reported exports from Brazil exceeded reported imports from that country in 1997 and 1999, but were lower than reported imports in 1998, potentially a reflection of the issuance of permits in one year but their use in the next. Brazil's unusually large gross export total for 1997 reflects a lack of information on countries of import in Brazil's CITES annual report for that year. Brazil's reported export of 63 420m³ to undeclared destinations in 1997 could not be compared to imports from Brazil reported by Parties during that year, the gross trade figure therefore potentially being double actual trade volumes.

Table 2

CITES-reported trade in *Swietenia macrophylla* (m³): gross imports; imports reported by importing Parties and exports reported by range States, 1997-1999

Importer	AR	1997			1998			1999			Total				
		G	I	E	AR	G	I	E	AR	G	I	E	G	I	E
Antigua/ Barbuda	P	0	0	0	P	0	0	0	P	31	0	31	31	0	31
Argentina	P	220	0	220	P	1 032	0	1 032	P	227	0	226	1 479	0	1 478
Australia	A	0	0	0	A	176	0	176	A	301	0	301	477	0	477
Austria	NS	0	0	0	NS	0	0	0	NS	54	0	54	54	0	54
Barbados	NS	0	0	0	NS	227	0	227	NS	150	0	150	377	0	377
Belgium	A	582	582	0	A	361	127	361	A	89	53	89	1 032	762	450
Canada	P	28	0	28	NR	470	0	470	NR	1 231	0	1 231	1 729	0	1 729
Chile	A?	43	0	43	NS	77	0	77	NS	59	0	58	179	0	178
Costa Rica	NS	96	0	96	NS	11	0	11	NS	8	0	8	115	0	115
Cuba	NS	832	0	832	NS	458	0	458	P	225	0	225	1 515	0	1 515
Denmark	NS	687	687	34	A	207	0	207	A	412	412	47	1 306	1 099	288
Dominican Republic	P	10 643	0	10 643	P	5 163	0	5 164	P	11 634	0	11 635	27 440	0	27 442
El Salvador	NS	29	0	29	NS	0	0	0	NS	0	0	0	29	0	29
Finland	A	0	0	0	A	34	0	34	A	182	0	182	216	0	216
France	A?	201	0	201	A?	32	32	32	A?	32	0	32	265	32	265
Germany	A	254	0	254	A	871	708	871	A	522	522	522	1 647	1 230	1 647
Guadeloupe	A	0	0	0	NR	33	0	33	NR	94	0	94	127	0	127
Guatemala	NS	80	0	80	NS	0	0	0	NS	32	0	32	112	0	112
Honduras	NS	143	0	143	NS	0	0	0	NS	0	0	0	143	0	143
Ireland	A	1 146	1 146	0	A	310	134	269	A	145	28	117	1 601	1 308	386
Italy	A	0	0	0	A	140	0	140	A	129	121	129	269	121	269
Japan	P	0	0	0	NR	38	0	38	NR	86	0	86	124	0	124
Lebanon	N/A	0	0	0	N/A	5	0	5	N/A	0	0	0	5	0	5
Malta	A	66	66	0	A	98	98	18	A	35	35	35	199	199	53
Martinique	A	0	0	0	NR	35	0	35	NR	68	0	68	103	0	103
Mexico	A	107	12	107	NS	201	150	51	NS	47	0	47	355	162	205
Netherlands	A	537	537	0	A	1 685	511	1 685	A	2 819	1 909	2 819	5 041	2 957	4 504
Norway	A/P	5	5	0	A/P	19	19	0	A/P	206	0	206	230	24	206
Peru	P	0	0	0	P	0	0	0	P	16	0	16	16	0	16
Philippines	NS	66	0	66	P	0	0	0	NS	0	0	0	66	0	66
Portugal	A	0	0	0	A	315	0	315	A	2	2	2	317	2	317
Puerto Rico (USA)	NR	327	0	327	NR	105	0	105	NR	573	0	573	1 005	0	1 005
Saudi Arabia	NR	0	0	0	NR	0	0	0	NR	205	0	205	205	0	205
Singapore	P	0	0	0	P	0	0	0	P	23	0	23	23	0	23
South Africa	P	0	0	0	P	45	0	45	P	377	0	377	422	0	422
Republic of Korea	P	0	0	0	P	0	0	0	P	8	0	8	8	0	8
Spain	A	825	30	794	A	2 392	1 991	1 993	A	2 034	1 333	1 531	5 251	3 354	4 318
St. Vincent	NR	0	0	0	NR	32	0	32	NR	0	0	0	32	0	32
Sweden	A	115	115	0	A	18	0	18	A	205	205	56	338	320	74
Taiwan, Province of China	N/A	0	0	0	N/A	5	0	5	N/A	54	0	54	59	0	59
Trinidad and Tobago	P	16	0	16	P	0	0	0	P	0	0	0	16	0	16
USA	A	90 870	83 224	34 168	A	77 066	75 534	42 471	A	85 307	76 571	50 302	253 243	235 329	126 941
United Arab Emirates	P	0	0	0	P	91	0	91	P	165	0	165	256	0	256
UK	P?	1 676	1 512	267	P?	4 167	4 167	3 181	P?	5 078	3 638	5 020	10 921	9 317	8 468
Venezuela	NS	0	0	0	NS	27	0	27	NS	114	0	114	141	0	141
Total		*178 127	93 029	111 768		95 946	83 471	59 677		112 979	84 829	76 870	*387 052	261 329	248 315

Notes: Years of annual report submission are shaded in grey. G = Gross exports; E = Exports reported by range States; I = imports from range States, as reported by importing Parties; AR = basis for annual reporting by each country during the three-year period (A = actual trade; P = permits issued; NS = not stated; N/A = not applicable). *Gross export volumes for 1997 (and therefore the total for 1997-1999) are inflated as a result of the double counting of exports from Brazil; country of import information was not provided in Brazil's 1997 annual report and therefore could not be compared with reported imports.

Source: CITES annual report data compiled by UNEP-WCMC.

ANNUAL REPORTING BY IMPORTING PARTIES

A total of 45 export destinations were reported in the annual reports of exporting range States from 1997-1999 (**Table 2**). Of these, 39 were Parties, 4 were European or US territories located in the Caribbean, and 3 were non-Parties. Of the 39 Parties reported as export destinations for *Swietenia macrophylla*, only 15, or 38%, recorded imports in their CITES annual reports. Ireland, a non-Party, provided annual report information in accordance with *Council Regulation (EC) No. 338/97*.

The USA was by the far the largest reported importer of *S. macrophylla*, with gross imports totalling over 253 000m³ from 1997-1999. Comparison with reported exports to the USA is hindered by the absence of reporting of *S. macrophylla* exports by Peru and the lack of information on destination countries for Brazil's exports for 1997, as noted above. Further information on US reporting of trade in this species can be found in Robbins (2000).

Based on gross trade figures, the EU is the second-largest importer of *S. macrophylla*, with gross imports totalling over 28 000m³ from 1997-1999 (see **Table 11**). Within the EU, the most significant countries of import according to CITES trade data were the UK, the Netherlands and Spain. However, as discussed in the section on Appendix III implementation in the EU, EU trade control procedures complicate analysis of the trade volumes of individual EU Member States. The EU was followed closely by the Dominican Republic, with exports reported to this country of over 27 000m³ during this same period. No imports were reported by the Dominican Republic, however, as discussed in more detail in the section on this country below.

Table 3 shows exports of *S. macrophylla* to the 24 Parties and Party territories for which no corresponding imports were reported. Most significant among these was the Dominican Republic, as indicated above. No other 'non-reporting' importing Party was reported as the destination for anything close to these trade volumes, the only others to be reported as the destination of over 1000m³ during this time being Canada (1729m³), Cuba (1515m³) and Argentina (1478m³). Puerto Rico, a US commonwealth territory, was reported as the export destination for 1005m³. These should have been identified separately in US annual reports.

Eight of the 'non-reporting' importing countries/territories listed in **Table 3** had not yet submitted annual reports for the years in which exports to them were reported as having taken place, and three had not yet submitted annual reports for any of the years during this period.

CITES permit data for *S. macrophylla* confirm that shipments for which export permits or certificates of origin are issued in one year may not be used until the next, with a resulting impact on CITES trade data, and specifically gross trade figures.

This may be more the case with timber, which is routinely shipped by sea, than with other products, e.g. live animals, which are more commonly shipped by air. The ability to issue export permits for Appendix II and III timber shipments and for certificates of origin with a validity of up to 12 months might be expected to exacerbate this problem. Based on research conducted for this study, range States do not appear to be making use of the provision for such an extended validity, however. Permit data available for Germany, for example, indicate that nine export permits issued by Brazil in 1998 were not reported as imported until 1999, with total import volumes of approximately 239m³. Two shipments were similarly imported into the Netherlands in 1999 based on Brazil export permits issued in 1998, with a total import volume of 280m³. A. Blundell (*in litt.* to J. Caldwell, UNEP-WCMC, 2001) noted that over a third of the 1999 US imports for which corresponding export records could not be identified in the same year took place in January, indicating that exports took place and were reported in the preceding year. As noted in the methodology section, this may result in 'double counting' of the same shipments in two separate years.

Table 3

CITES-reported exports of *Swietenia macrophylla* (m³) to Parties for which no imports were recorded in corresponding CITES annual reports, 1997-1999

Destination country	1997	1998	1999	Total
Antigua/Barbuda	0	0	31	31
Argentina	220	1 032	226	1 478
Australia	0	176	301	477
Austria	0	0	54	54
Barbados	0	227	150	377
Canada	28	470	1 231	1 729
Chile	43	77	58	178
Costa Rica	96	11	8	115
Cuba	832	458	225	1 515
Dominican Republic	10 643	5 164	11 635	27 442
El Salvador	29	0	0	29
Finland	0	34	182	216
Guadeloupe (France)	0	33	94	127
Guatemala	80	0	32	112
Honduras	143	0	0	143
Japan	0	38	86	124
Martinique (France)	0	35	68	103
Peru	0	0	16	16
Philippines	66	0	0	66
Puerto Rico (USA)	327	105	573	1 005
Republic of Korea	0	0	8	8
Saudi Arabia	0	0	205	205
Singapore	0	0	23	23
South Africa	0	45	377	422
St. Vincent	0	32	0	32
Trinidad and Tobago	16	0	0	16
United Arab Emirates	0	91	165	256
Venezuela	0	27	114	141
Total	12 523	8 055	15 862	36 440

Note: The year(s) of annual report submission are shaded in grey.

Source: CITES annual report data compiled by UNEP-WCMC.

IMPLEMENTATION IN KEY PRODUCER STATES

BOLIVIA

Introduction

Until recently, Bolivia was the second-largest source of *Swietenia macrophylla* in international trade. Annual exports have declined in the last three years, however, with Bolivia now exporting lower volumes of mahogany than either Brazil or Peru. Serious concerns have been expressed regarding the declining status of *S. macrophylla* in Bolivia in the past owing to overexploitation, illegal logging, and forestry legislation not conducive to sustainable forest management (Visinoni and Silva 1994; M.J. Levy, MDSMA, *in litt.* to M. Jones, USFWS, 1996, in Buitrón and Mulliken, 1997; Mansilla, 1999; Robbins 2000). It seems likely that declining export volumes reflect, in part, a decline in wild stocks. Increased harvest and trade controls are also likely to have been a factor influencing these declines (M. Bernabet, DGB/VMARNDP pers. comm. to X. Buitrón, TRAFFIC South America, 1999; R. Mansilla, pers. comm. to X. Buitrón, TRAFFIC South America, 2001).

The Government of Bolivia announced its intention to include its population of *S. macrophylla* in Appendix III during the tenth meeting of the Conference of the Parties (Harare, 1997), following the defeat of the Appendix II listing proposal for this species. Bolivia's Appendix III listing of its *S. macrophylla* population listing became effective on 29 March 1998 and several important changes with respect to implementing

harvest and trade controls have been made since then. These are summarised below, in conjunction with a review of current implementation of CITES Appendix III requirements and recent trade volumes.

Legislation and authorities responsible for implementation

The main legislation regulating *S. macrophylla* harvests and trade is *Forestry Law 1700*, agreed in 1996, which is implemented via *Supreme Decree # 24453*, agreed the same year. The Decree establishes a framework for sustainable and efficient use of forest resources and the protection of forests, in order to achieve harmonisation between social, economic and ecological interests. Implementation of *Forestry Law 1700* has resulted in positive changes in forestry harvest and trade controls through prompting modifications in forestry user rights and modifying the structures and functions of implementing agencies (Buitrón *et al.*, in prep.).

CITES is implemented in Bolivia in accordance with Art. XI of *Forestry Law 1700*, which relates to implementation of international agreements. *Ministerial Resolution No. 70* (April 9, 1998) designated the Vice Ministry of the Environment, Natural Resources and Forestry Development (VMARNDF) as the CITES Management Authority. Administrative *Resolution VMARNDF 009-98* allocated responsibility for issuing CITES export permits to the General Biodiversity Department of VMARNDF. Permits must be obtained from the General Biodiversity Department office in La Paz, and are no longer issued in Santa Cruz.

The CITES Co-ordination Office of the General Biodiversity Department collaborates with several other government offices in controlling the use and trade of *S. macrophylla* and other timber products in Bolivia, including:

- the National Forestry Superintendence (SIF), established in 1997, with responsibility for overall implementation of *Forestry Law 1700*. This independent agency, with technical and financial autonomy from government ministries, is not directly influenced by political considerations (E. Aguilera, pers. comm., in Buitrón *et al.*, in prep.; A. Bowles, CNF, pers. comm., to X. Buitrón, TRAFFIC South America, 1999);
- the Single Counter System for Exports (SIVEX), which operates under the Secretary of Industry and Commerce, which is responsible for supervising implementation of trade and export regulations, a main function being to register export companies; and
- National Customs and the Forestry Police officers, who collaborate with the Management Authority through a special Customs Operative Command (COA) (M. Baudoin, DGB/VMARNDF, *in litt* to TRAFFIC South America, 15 August 2001).

Procedures

Applications for CITES export permits must be made to the CITES Co-ordinator of the General Biodiversity Department and include:

- a letter from the applicant requesting the permit;
- a notarised power of attorney (for exporting companies);
- a receipt documenting payment of a USD20 application fee. This flat fee was introduced in July 1998, and replaced a fee based on export volumes of USD25/m³
- a copy of the certificate of origin provided by SIVEX, certified by a notary; and
- a Forestry Certificate of Origin for Wood Products Exports (CFO), a document proving the legal origin of the timber.

Additional documentation may also be required (M. Baudoin, DGB/VVMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001).

Upon receipt of an application, the CITES Co-ordinator forwards it, together with a report to the CITES Scientific Authority, which reviews the information and returns the applications with a new report and the decision on the application within 24 hours, unless additional information is needed. Upon completion of the



Credit: WWF / Andre Bartschi

Live mahogany tree

Scientific Authority review, a CITES export permit form is completed, signed and sealed the details registered with both the CITES Scientific and Management Authorities (M. Bernabet, pers. comm. to X. Buitrón, TRAFFIC South America, 1999). The time required for issuing CITES permits is five days (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001). CITES export permits are valid for six months, and have a security stamp affixed.

Unlike the CITES certificates of origin previously in use, CITES export permits contain a CITES logo, and indicate both the level of processing and volumes expressed in cubic metres (Buitrón and Mulliken 1997; M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001). In addition, punctuation of trade data (i.e. the use of commas and full stops to indicate thousands) has been standardised, reducing confusion regarding export volumes.

A Forestry Certificate of Export (CFO4), a SIVEX certificate of origin, a commercial invoice and a Customs departure certificate are also required to accompany exports.

As of 2000, all *S. macrophylla* shipments are required to be inspected at the port of exit prior to export (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001). Such regular inspections are considered necessary to enforce the requirements of a listing in Appendix III (M. Bernabet, pers. comm. to X. Buitrón, TRAFFIC South America, 1999). There are no designated ports of exit, but the vast majority (96%) of *S. macrophylla* is exported *via* Tambo Quemado Port in Arica, near the Chilean border (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001).

SIF, Customs, and the Forestry Police undertake inspections and controls during various points in the trade chain including on export. Inspections are based on harvest and export authorisation documents issued by SIVEX (SIVEX Certificates of Origin), SIF (Forestry Certificate of Origin) and VMARNDF (CITES Export Permits). There is no physical inspection by CITES Authorities at the time of export, however there is permanent communication and co-ordination with Customs authorities (Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001; M. Bernabet, DGB/VMARNDF, pers. comm. to S. Cárdenas, TRAFFIC South America, 6 September 2001).

Information management

Recent mechanisms established to assist with trade controls include the National Forestry Information System (SIFOR/BOL) and the CITES database for recording export permits issued. SIFOR/BOL operates under the Ministry of Agriculture, Livestock and Rural Development and began operations in 1998. Among its goals are compilation, analysis and diffusion of relevant information related to the use, transport and trade of forest products (Buitrón *et al.* in prep.; M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001).

Co-ordination and communication among institutions managing information relevant to *S. macrophylla* harvests and trade was not effective during the late 1990s, as is indicated by the discrepancies in export data reported by the CITES Management Authority, SIF and SIVEX, especially for 1997 and 1998 (M. Bernabet, DGB/VMARNDF, pers. comm. to X. Buitrón, TRAFFIC South America, 1999; Mansilla 2001). This situation could have been the result in part of restructuring, SIF not having been created until 1997, and has improved recently through increased co-ordination of the Management Authority with SIF and Customs and Forestry Police officers (M. Bernabet, DGB/VMARNDF, pers. comm. to X. Buitrón, TRAFFIC South America, 2001).

According to the recent Customs law and the related Customs General Regulation (2000), specific export tariffs are being developed for *S. macrophylla* and other forest products. This will assist in the management of trade information about this species (M. Bernabet, DGB/VMARNDF, pers. comm. to S. Cárdenas, TRAFFIC South America, 6 September 2001).



Credit: Margaret Stern

A farmer uses a mechanical saw and tractor to process mahogany

Trade volumes

Bolivia was the world's second-largest mahogany exporter from 1978 to 1995, export volumes averaging approximately 120 000m³ per year during this period. Average annual export volumes have declined dramatically, to approximately 11 000m³ per year from 1998-2000 (Table 4). The number of export certificates and permits issued has fluctuated considerably, but the number of exporters has remained relatively stable.

CITES trade data compiled by UNEP-WCMC show that exports reported by Bolivia do not differ significantly from data reported by importing countries for the years 1997 to 1999 (see Table 4). The discrepancy during this time averaged seven per cent, with reported exports higher than reported imports.

Export data recently provided to TRAFFIC South America by CITES Authorities for 1997 (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001) are significantly lower than CITES annual report data recorded in the CITES trade data compiled by UNEP-WCMC, 12 051m³ compared to 27 914m³. VMARNDF re-examined their trade records in response to a query from TRAFFIC regarding this discrepancy and confirmed the accuracy of their figure, suggesting that the problem could lie in the misinterpretation of the meaning of punctuation used to separate thousands and indicate decimal points for

Table 4

Summary of Bolivia's export volumes, permits issued and exporters for *S. macrophylla*, 1998-2000

	1998	1999	2000
Export volumes (m ³)	14 478	8 841	10 570
Permits/certificates issued (no.)	218	74	116
Exporters (no.)	25	28	28

Sources: Mansilla, 2001; M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001.

some shipments (M. Bernabet, DGB/VMARNDF *in litt.* to S. Cárdenas, TRAFFIC South America, 31 August 2001). Imports from Bolivia reported by other CITES Parties during that year totalled 21 520m³ according to CITES trade data. Further review is required to determine actual trade volumes.

For the years 1998 and 1999, the difference in reported trade volumes communicated to TRAFFIC South America by DGB/VMARNDF, that recorded in Bolivia's CITES annual report data and that reported by importing Parties decreased significantly, which would indicate that information management is improving. However, there was a significant discrepancy between export volumes recorded by SIF and DGB/VMARNDF for 1998: SIF recorded exports of 21 914m³ (Mansilla, 2001) compared to 14 479m³ recorded by DGB/VMARNDF based on CITES permits issued (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America 2001). These discrepancies declined in subsequent years: 1999 - SIF 10 108m³ compared to DGB/VMARNDF 8841m³; 2000 - SIF 11 956m³ compared to VMARNDF - 8988m³

The USA continues to be the largest importer of Bolivian mahogany, importing 94% of Bolivian exports in 1998. The main US importers are located around the Gulf of Mexico and the east coast of the USA. The remaining shipments were destined for Argentina, the Dominican Republic and Chile, with just one per cent destined for other countries, including within the EU (SIFOR/BOL, cited in Mansilla, 1999).

Illegal harvest and trade

According to the CITES Management Authority, creation and institutionalisation of SIF and the CITES office within the General Biodiversity Department has helped reduce illegal forestry activities (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001). However, problems of illegal harvest and trade remain, especially trade across borders of neighbouring countries (Visinoni and Silva 1994; Mansilla, 1999 and 2001 in Buitrón *et al.*, 2001). Brazilian CITES Authorities informed Bolivian CITES Authorities about the alleged illegal trade of 25m³. No further additional information of this nature has been provided to Bolivian Authorities, however, CITES Authorities affirmed existence of illegal cross-border trade, though acknowledged that this cannot be measured or estimated (M. Baudoin, DGB/VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001).

Perceptions regarding Appendix III implementation

CITES Appendix III implementation in Bolivia has resulted in improved monitoring and control of *S. macrophylla* exports and contributed to increased detection of and a reduction in illegal trade (M. Bernabet pers. comm. to X. Buitrón, 1999, in Buitrón *et al.* in prep.; Baudoin, VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001).

The forestry sector is aware that Appendix III does not constitute a trade prohibition but the instead the application of regulatory mechanisms to manage exports in conjunction with implementation of forestry management plans (M. Baudoin, VMARNDF, *in litt.* to TRAFFIC South America, 15 August 2001). However, some exporters still view Appendix III as a restriction imposed on the timber sector. The consultation process with the Scientific Authority, which extends beyond Appendix III requirements, is also considered to be a disincentive to exporting the species (J. Avila pers. comm. to X. Buitrón, 2001, in Buitrón *et al.*, in prep.).

Conclusions

The Government of Bolivia has made a significant effort to implement the CITES Appendix III listing for *S. macrophylla*, with continuous improvements in trade monitoring and information management in the context of CITES Appendix III implementation. Further, Bolivian authorities have shown a willingness to provide information on *S. macrophylla* trade to TRAFFIC when requested and have actively sought advice with respect to enhancing Appendix III implementation.

Forestry Law 1700 has facilitated the development and restructuring of government institutions and mechanisms which are contributing to more effective forest management, harvest and trade controls. Problems during the early years of the law's implementation were experienced with regard to co-ordination among implementing agencies and management and reporting of trade data. Although this situation has improved recently, further efforts at co-ordination and planning are required between government offices in charge of trade controls. In addition, there are concerns that the current lack of financial and human resources could affect the implementation of adequate and continuous harvest and trade monitoring and information management (M. Bernabet, pers. comm., 1999, in Buitrón *et al.*, in prep.).

Despite advances achieved in promoting and improving CITES Appendix III implementation, SIF faces economic and logistic constraints which may impede the effectiveness of future implementation.

Concerns remain with regard to the sustainability of current harvests. Further research regarding the decline in Bolivian *S. macrophylla* populations is required in order better to predict and analyse the effects of international trade on the species' conservation. There are also indications of illegal cross-border trade which require attention and more effective co-operation with CITES and enforcement authorities in neighbouring countries.

BRAZIL

Introduction

The wood of *Swietenia macrophylla*, known locally as 'mogno', has been one of the main forest products exported from Brazil in recent years and it is also used domestically in significant quantities. Once the source of the largest quantities of *S. macrophylla* in international trade, Brazil has reduced export volumes through a combination of increased harvest and trade controls. Reported exports from Brazil were exceeded by those of Peru in 2000. Brazil requested the inclusion of its population of *S. macrophylla* in CITES Appendix III on May 26 1998 and the listing became effective in July 1998.

Legislation

The Government of Brazil has adopted a variety of legislative mechanisms for controlling mahogany harvests and trade, including measures aimed at wider forestry management as well as measures specifically targeted at *S. macrophylla* (Buitrón and Mulliken, 1997; De Oliveira 1999, in Buitrón *et al.*, in prep.).

In July 1996, the government adopted *Decree 1963*, suspending all new authorisations and concessions for commercial exploitation of *S. macrophylla* for a two-year period in Legal Amazon (*Decree 1963*; Buitrón and Mulliken, 1997). This suspension was extended in 1998 for two more years and re-established again in 2000 under *Decree No. 3559*, August 2000.

A decree dated 1996 requires that mahogany timber for exports must come exclusively from forests with Sustainable Forestry Management Plans approved by IBAMA (T. Matsunaga and V. Ferreira, IBAMA, *in litt.*, to TRAFFIC South America, 23 August 2001).

Biannual export quotas were established in 1992. Modified *Law No. 71* of July 1994 established the Control System for Rationed Sawed Timber (*Sistema de Controle de Madeira Serrada Contingenciada*, SISMAD), which was created to assist with quota controls. The quotas have been significant in increasing control over exports of this species (Buitrón and Mulliken, 1999). Quotas are summarised in **Table 5**; as shown in this table, export quotas were exceeded in 1998 and 1999.

Table 5

Brazil's export quotas and volumes for *Swietenia macrophylla* (m³), 1997-2000

Year	Total export quota	Reported exports
1997	65 000	62 623
1998	65 000	72 864
1999	62 000	67 686
2000	50 000	43 364

Source: IBAMA/DIREN/DECOM (2001).

The fact that exports have exceeded quota levels in some years is believed to be an indication of influence over implementation of the quota system by exporters (De Oliveira, 1999, in Buitrón *et al.*, in prep.).

Responsible authorities

Brazil's CITES Management Authority, the Brazilian Institute for the Environment and Renewable Natural Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis*, IBAMA) is also the institution that manages and controls activities related to timber harvest and exports (De Oliveira, 1999, in Buitrón *et al.*, in prep.).

The Wildlife Department of IBAMA (*Departamento de Vida Silvestre*, DEVIS) is responsible for issuing CITES permits and compiling CITES annual reports. DEVIS is also responsible for developing public awareness programmes to protect natural resources.

Several other departments within IBAMA collaborate with DEVIS in controlling exports of *S. macrophylla*. For example, the Processing and Commercialisation Department (DECOM) co-ordinates export controls, establishment and control of forest product quotas and shipment inspections in the ports of Sao Francisco do Sul SC, Paranaguá PR, Belem PA, Itajaí and Santos SP (T. Matsunaga, IBAMA, *in litt.*, to TRAFFIC South America, 23 August 2001). DECOM and the Foreign Trade Department (DECEX) manage general trade statistics. CITES annual reports are produced by DEVIS.

The Forestry Resource Department (DEREF) works together with other IBAMA units such as the Inspection Department (DEFIS) on controlling development and implementation of Forest Management Plans, Deforestation Authorisations and Forest Products Transport controls (Rosetti, 1997). The *Secretaria de Receita Federal*, Brazilian Customs, plays an important role for Appendix III implementation and collaborates with IBAMA on export controls (T. Matsunaga, IBAMA *in litt.* to TRAFFIC South America, 23 August 2001).

Procedures

IBAMA originally used the Forestry Product Transport Authorisation (*Autorizacao para Transporte de Productos Forestal*, ATPF) forms as CITES certificates of origin necessary to accompany *S. macrophylla* exports (Buitrón and Mulliken, 1997). IBAMA began issuing CITES export permits for *S. macrophylla* upon inclusion of Brazil's population of the species in Appendix III (Buitrón and Mulliken 1999; T. Matsunaga, IBAMA *in litt.*, to TRAFFIC South America, 23 August 2001).

CITES export permits are issued either in the IBAMA central office in Brasilia (DF), or in the two port offices (Executive Directorates) authorised in Belem PA and Paranaqua PR (T. Matsunaga, IBAMA, *in litt.*, to TRAFFIC South America, 23 August 2001; T. Matsunaga, IBAMA, pers.comm. to X. Buitrón, TRAFFIC South America 27 August 2001).

Exporters must submit the following when applying for CITES export permits:

- a completed CITES export permit form
- a fiscal payment receipt
- a certificate of origin (ATPF) for mahogany
- a Wood Export Permit for mahogany
- a receipt showing payment of the USD15 fee for a CITES export permit.

Information that must be provided on the export permit includes the name of the exporting company, merchandise codes and the date, place and signature of the interested exporter. The date, signature, place and stamp of the officer processing the CITES permit must be also be included on the permit (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 1999).

Procedures for the issuance of CITES export permits and the permits themselves have certain features designed to avoid fraud or tampering. The permits include the seals of the Federal Republic of Brazil, MMA and IBAMA in addition to the CITES logo (T. Matsunaga, IBAMA, *in litt.*, to TRAFFIC South America, 23 August 2001). The Wild Fauna and Flora Directorate (*Dirección de Fauna Silvestre*, DIFAS), a DEVIS department, also stamps each copy of the permit with specific marks and seals that make it unique (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 1999). No cases of misuse of official documents have been reported nor have there been any accusations from third parties (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 27 August 2001).

Institutions involved in implementation of harvest and trade controls include IBAMA, the federal police, the federal Revenue Service (*Secretaria de Receita Federal*), the Ministry of Agriculture, and State agencies including the State revenue and State police organisations. In particular, the Department of Plant and Animal Sanitary Defence within the Ministry of Agriculture, which has a decentralised structure including federal units and State offices, carries out inspection of products to be exported.

IBAMA's Technical Divisions (DITECS), and Control and Inspection Divisions (DICOFS) are based in State *Superintendences* (SUPES) offices, which have headquarters in the State capitals. Other decentralised units include Control and Inspection Posts (POCOFS) and Regional Offices (ER), as well as offices for logistical support and inspections. All these offices are under the co-ordination and supervision of the IBAMA Technical Departments. However, the number of personnel involved in implementing controls appears to be insufficient for such the vast areas they are meant to cover (Rosetti, 1997).

IBAMA staff carry out field inspections in the Inspection Posts and control Posts located at ports of import and export. Ports authorised for export of mahogany are Paranaguá-PR, Belem-PA, Santos-SP, Sao Francisco do Sul-SC and Itajaí. (T. Matsunaga, *in litt.* to TRAFFIC South America, 23 August 2001; T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 27 August 2001).

IBAMA offers a training course to employees responsible for controlling and inspecting timber exports (T. Matsunaga, IBAMA, comm. pers. to X. Buitrón, TRAFFIC South America, 1999).

Information management

Information management programmes for Brazilian exports have been developed by the federal government through the Ministry of Industry and Commerce (MICT), the Operations and Foreign Trade Department (DECEX), the Foreign Trade Secretariat (SECEX), and the Industry and Commerce Technical Department

(DTIC) (Buitrón *et al.*, in prep.). Information systems currently used specifically for controlling the commercial trade in forest products are: : Forestry Products and Sub-products Flow Control System (*Sistema de Controle do Fluxo de Produtos e Sub-Produtos Florestais*, SISMAD), for domestic markets, and *Sistema de Controle do Fluxo de Mercadorias de Base Florestal na Exportacao* (SISCOMEX), for international markets (T. Matsunaga, IBAMA, *in litt.* to TRAFFIC South America, 23 August 2001).

Trade data compiled by these agencies do not specify whether export volumes are based on information from CITES export permits (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 27 August 2001). Those recorded by SISCOMEX do not differ significantly from those recorded by MICT/SECEX/DECEX (Table 6).

Currently, IBAMA is using both tonnes and cubic metres to record *S. macrophylla* trade (T. Matsunaga, IBAMA, *in litt.* to TRAFFIC South America, 23 August 2001). The conversion factor used by IBAMA for converting these data from tonnes to cubic metres is $1\text{m}^3 = 0.73\text{t}$. Computerised information systems and databases to help provide data in a decentralised fashion are being developed and will facilitate inspection and control of goods in trade (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 27 August 2001).

S. macrophylla export data provided by IBAMA for the years 1996-2000 by destination country are provided in Table 7. Exports totalled 319 134m³ during this period, averaging 61 635m³ per year. Annual export volumes were lower than those reported for 1990 to 1995, with exports decreasing from 1998 to 2000.

Table 6

Data for exports of *Swietenia macrophylla* from Brazil (m³) compiled by SISCOMEX and MICT/SECEX (1996-2000)

Countries of import	1996	1997	1998	1999	2000	Total
USA	36 710	30 848	38 137	34 868	31 444	172 007
Dominican Republic	10 693	7 833	19 214	19 818	5 188	62 745
UK	10 596	12 621	5 582	4 844	3 056	36 699
The Netherlands	1 689	2 605	2810	2 971	1 310	11 384
Spain	3 760	2534	1 610	627	293	8 824
Puerto Rico (USA)	1 256	940	507	1 608	244	4 555
Ireland	2 190	1 242	778	148	85	4 443
Germany	1 281	704	1 156	449	582	4173
Other EU countries	522	303	575	658	189	2 247
Australia	712	568	326	286	149	2 042
South Africa	660	585	236	379	103	1 963
Barbados	359	248	526	103	32	1 267
Belgium	179	308	178	38	548	1 251
Argentina	605	40	278	125	-	1 048
Guadalupe (FR)	296	364	105	92	-	857
Saudi Arabia	-	175	173	171	-	519
Jamaica	263	96	68	-	29	456
Malta	218	123	56	36	-	433
Finland	60	41	151	148	-	400
United Arab Emirates	60	-	105	177	-	342
Martinique (FR)	189	-	34	111	-	334
Cuba	119	182	-	-	-	301
France	40	144	63	29	-	276
Saint Vincent	36	86	121	-	-	243
Denmark	84	-	41	-	99	224
Venezuela	-	33	34	-	-	67
Netherlands Antilles	19	-	-	-	15	34
Mexico	-	-	-	-	-	-
Total	72 596	62 623	72 864	67 686	43 364	319 134

Source: IBAMA/DIREN/DECOM (2001).

Table 7

***Swietenia macrophylla* (m³) exports from Brazil, 1996-2000**

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Netherlands Antilles	19	-	-	-	15	34
Mexico	-	-	-	-	-	-
Total	72 596	62 623	72 864	67 686	43 364	319 134

Source: IBAMA/DIREN/DECOM (2001).

The USA is the largest importer of Brazilian mahogany, followed by the Dominican Republic, as of 1997, the UK, and other European countries. Within Latin America and the Caribbean, the US territory Puerto Rico (4555m³) and Argentina (1408m³) were the most significant export destinations after the Dominican Republic. Reported exports to Argentina declined from 1998 to 1999, with no exports reported to this country in 2000. Reported exports to Mexico, Venezuela and Cuba have also ceased in recent years.

From 1997 to 1999, the number of companies exporting *S. macrophylla* decreased from 30 to 23. The number of CITES export permits issued by IBAMA increased from 678 in 1998 to 916 in 1999, then declined to 521 in 2000 (T. Matsunaga, IBAMA, in litt. to TRAFFIC South America, 23 August 2001).

IBAMA reports that re-exports take place occasionally (T. Matsunaga, IBAMA, in litt. to TRAFFIC South America, 23 August 2001). However further information on re-exports was not available and additional analysis is required to determine trends and countries of origin.

CITES-reported exports

Brazil began including information on the total volume of *S. macrophylla* exports in its CITES annual reports in 1996. However, information on destination countries was not included until 1998, with total export figures

provided instead. Total CITES-reported exports during 1997 and 1999 exceeded total imports reported by importing countries, but were lower than imports reported during 1998. As Brazil is believed to base its reports on permits issued (J. Caldwell, UNEP-WCMC, *in litt.* to D. Harris, TRAFFIC International, August 2001), these discrepancies could reflect permits being issued in one year but not submitted at the port of entry until the following year.

Exports reported in Brazil's CITES annual report (as recorded in the CITES trade database maintained by UNEP-WCMC), were compared with export data for the years 1997-1999, compiled more recently from



Credit: Maristerra R. Lemes

Logging mahogany

several government departments and institutions, by IBAMA. These data are nearly equal for 1997. However, they differ considerably for 1998, with reported exports in CITES trade data totalling approximately 38 000m³ compared to almost twice that amount, approximately 73 000 m³ in data provided by IBAMA. The discrepancy in 1999 was lower, CITES data showing exports of approximately 59 000 m³ compared to 68 000 m³ in IBAMA data. As was noted above in **Table 5**, export quotas have also been exceeded.

Such discrepancies can be explained in part by some shipments being permitted to leave without CITES documentation e.g specific cases where juridical process has determined that such exports are allowed (V. Ferreira Carvalho, IBAMA, *in litt.* to TRAFFIC South America, September 2001). Further review of 1998 data should be undertaken to determine whether there were also errors in reporting, e.g. as a result of misinterpretation of trade volumes as a result of how data were punctuated.

Illegal harvest and trade

The CITES Appendix III listing of *S. macrophylla* has contributed to a reduction in illegal trade in Brazil as a result of related inspection and other control mechanisms implemented in ports of export for this species (T. Matsunaga, IBAMA, *in litt.* to TRAFFIC South America, 23 August 2001). No documented cases of illegal trade in Brazil have been reported by IBAMA. However, Brazilian timber producers have been seen working near Loreto and Madre de Dios regions in Peru (J. Arce, 1999, Buitrón *et al* in prep.), indicating that illegal trade may be taking place. According to Peruvian authorities, the restrictive export measures taken by Brazil in recent years have caused increased harvest pressure near the two countries' borders, especially on the Peruvian side (J. Mecinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

CITES Appendix III implementation impacts

Since June 1998, the date that Brazil's listing of *S. macrophylla* in CITES Appendix III became effective, improved implementation of harvest and trade controls for the species has been apparent. According to CITES Authorities in Brazil, this has in turn had a positive impact on the conservation of *S. macrophylla* (T. Matsunaga, IBAMA, *in litt.* to TRAFFIC South America, 23 August 2001). Lack of personnel and finances are impediments to improving trade controls in ports however (T. Matsunaga, IBAMA, *in litt.* to TRAFFIC South America, 23 August 2001).

Conclusions

Brazil has undertaken several modifications to harvest and export controls related directly and indirectly to CITES Appendix III implementation in the last five years, including its decision to include its *S. macrophylla*

populations in Appendix III in 1998. Although measures and steps for implementing Appendix III were undertaken before the listing decision taken by Brazil, other procedures, control mechanisms and information management systems have been revised and some newly instituted since 1998.

Although legislation and institutional proceedings include significant actions for controlling *S. macrophylla* trade, not all the mechanisms are fully implemented and/or function effectively. Constraints include a lack of sufficient personnel and financial resources for establishing well-defined procedures and co-ordinated implementation of harvest and trade controls.

Imports from other range States, especially from neighbouring countries, and re-exports from Brazil have not been subject to CITES trade controls, but such controls are now being put in place (T. Matsunaga, IBAMA, pers. comm. to X. Buitrón, TRAFFIC South America, 27 August 2001).

Increased harvest and trade controls within Brazil have influenced overall *S. macrophylla* trade trends, and, as noted above, appear to have increased demand for this species from Peru. It will be important to analyse how internal consumption within Brazil and exports from Brazil of more fully processed products with higher added value have been affected, neither of which are regulated under CITES Appendix III.



A hewn log of mahogany

PERU

Introduction

Peru has replaced Bolivia as the second-largest exporter of *Swietenia macrophylla*. Peru's export volumes have grown from 19 078m³ in 1996, to approximately 51 237m³ in 2000 (C. Salinas, INRENA, *in litt.* to X. Buitrón, TRAFFIC South America, 28 June 2001), coinciding, and perhaps prompted by, declining export volumes from Bolivia and Brazil.

Peru listed its *S. macrophylla* population in Appendix III in March 2001 and the listing came into effect in June 2001.

Legislation

The legal framework regulating harvest and trade of *S. macrophylla* in Peru was modified recently by the approval of the *Forestry and Wild Fauna Law 27308* in July 2000 and the related *Forest and Wild Fauna Law Regulation* on 9 March 2001.

According to *Law 27308* and the accompanying Regulation, mahogany products allowed for export must have some type of added value: exports of raw timber and forest products in their natural state are prohibited for commercial and industrial purposes (*Law 27308, Art. 22.2, Regulation Art. 261*). Article 312 of the Regulation is even more specific, emphasising that exports of finished *S. macrophylla* products, wood pieces and wood parts must conform to the definitions indicated in Article 3:

- 3.56 Part: timber unit sized in thickness by longitudinal sawing, in width by longitudinal edging and in length by transversal log cutting; artificially dried to a humidity level not higher than 16%, and from which can be obtained one or more pieces.

3.59 Piece: timber unit that has been transformed and will be put together with others to shape a partly finished or finished product.

Under *Urgent Decree No. 85-2000*, with respect to sawn mahogany exports already agreed before *Law 27308* was approved, INRENA was allowed to issue export permits until 31 December 2000. The total permitted volume for export under the Decree was 14 013m³ (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Two temporary and complementary regulations included in *Law 27308* would affect the total volume of *S. macrophylla* exports. According to the Seventh Transitory Complementary Resolution (*Séptima Disposición Complementaria Transitoria*), *S. macrophylla* harvests are banned for 10 years in the river basins of Putumayo, Yavarí, Tamaya and Purus as well as in other areas to be declared in the future. The Eighth Transitory Complementary Disposition limits exports of sawn mahogany belonging to forests not included in the Seventh Transitory Complementary Resolution to finished products, wood pieces and parts. Even though the Seventh and Eighth Transitory Complementary Resolutions are already part of the Law, they continue raising objections and proposals for modifications from the trade sector (R. Arce 2001; Buitrón *et al.*, in prep.).

In general, *Law 27308* institutionalises sustainable forestry management at all exploitation levels, imposes restrictions on exports of the two main forestry species (*S. macrophylla* and cedar *Cedrela* spp.), and requires that future exports involve products with higher added value. The new law has advanced significantly in terms of positive efforts toward *S. macrophylla* conservation, however discussions regarding export rules and added value impede the establishment of clear parameters for controlling exploitation and trade of this species.

Responsible authorities

CITES is implemented in Peru under the *Forestry and Wild Fauna Law*. The National Institute of Natural Resources (*Instituto Nacional de Recursos Naturales*, INRENA), the CITES Management Authority, authorises exports of forest products regulated by national laws or international treaties to which Peru is a party.

Among its CITES-related responsibilities INRENA is required to:

- § organize and manage records of forestry permits and exporting companies
- § submit trade records to the CITES Secretariat;
- § approve all the regulations regarding the functions that must be undertaken by CITES Management and Scientific Authorities;
- § control and supervise the fulfilment of *Law 27308* in all the issues related to forest product trade and its primary transformation;
- § issue CITES export permits for wild flora and fauna based on *Law 27308*, *Forest and Wild Fauna Regulation*; and
- § establish conditions, requirements and procedures for CITES export permits.

The National Customs office (Superintendencia Nacional de Aduanas, SUNAD) supports and co-ordinates with INRENA by establishing control mechanisms based on the related legal framework. (Art. 261 *Law Regulation 2001*; C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Procedures

The process for issuing CITES certificates of origin and more recently CITES export permits has been modified several times since 1996. Peru's efforts to improve CITES Appendix III implementation are evident by more recent changes to this process.

CITES certificates of origin have been issued by INRENA since March 1996 using the format of CITES export permits. The first CITES certificates of origin did not have complete and consistent data, nor did they have the CITES logo, they did not register the type of timber exported, did not distinguish between *S. macrophylla* and cedar *Cedrela* shipments, and used varying units (Buitrón *et al.*, in prep.). This resulted in confusion and difficulties for compiling and analysing trade data, one result being that data were not included in the CITES annual reports submitted by Peru from 1997 to 1999 (J. Mecinas, INRENA, pers. comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001; Buitrón *et al.*, in prep.).

In September 2000, INRENA notified the CITES Secretariat of a new format for CITES certificates of origin (letter 637-2000-INRENA-J-DGF), which included the CITES logo (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001; J. Mecinas, INRENA, pers. comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001). As of 12 June 2001, the effective date of Peru's listing of *S. macrophylla* in CITES Appendix III, INRENA began issuing CITES export permits for exports of this species.

Permit applicants are required to provide the following under the Unique Text of Management Procedures (TUPA) (Buitron and Mulliken, 1997; Arce, 1999):

- § a request addressed to the head of IRENA
- § the Flora Merchant Exporter Record (obtained at the corresponding Regional Agrarian Direction)
- § receipt for payment of Forestry Tax and Logging Rights
- § Forest Transport Guide (original document)
- § certificate of Identification of the wood to be exported signed by a certified biologist or forestry engineer
- § Unique Taxpayer Record (RUC)
- § Constitution Act submitted for companies exporting for the first time.

Additionally, the following are required under *Law 27308* and *Urgent Decree 85-2000* (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001):

- § purchase order or transaction receipt
- § final product and exporting product description (size and quantity) and tariff according to the specific format
- § packing list
- § final product catalogue or design given by the importer
- § certificate indicating the wood humidity level issued by a certified forestry engineer
- § visual inspection of the wood to verify its humidity level, which cannot be higher than 16%.

These current requirements are already being requested, following approval of the *Urgent Decree* in September 2000, although this is not yet officially published in the new edition of the Unique Text of Management Procedures (J. Mecinas, INRENA, pers. comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001).

Ministerial *Resolution No. 0623-98-AG* modified the previous payment of 3% for a CITES certificate of origin or export permit to a payment of 9% on the Tax Index, approximately USD77 per permit at current exchange rates (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Export permit issuance takes five days once documentation is provided (A. Morizaqui pers. comm. to A. Quispe, 1997, in Buitron and Mulliken, 2001; C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

CITES certificates of origin and permits are generally valid for six months. However, as of September 2000, CITES certificates of origin for *S. macrophylla* are only valid for two months in accordance with the *Urgent Decree*. This fact was not communicated to the CITES Secretariat until recently, which may have led to confusion among Parties trading with Peru. The US Management Authority has already asked Peru about this modification (J. Mecinas, INRENA, pers. comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001).

Until July 1998, all CITES certificates of origin were processed at the General Wildlife and Conservation Department of INRENA. Since July 1998, permits related to timber have been handled by the General Forestry Direction of INRENA (Arce, 1999).

SUNAD verifies that products to be exported are not on the list of Products Prohibited for Export and requires exporters to present their packing list, list of the species and dimensions, and the CITES export permit at the moment of export. Other non-CITES documents that must accompany *S. macrophylla* exports are a unique exports declaration, unique Customs declaration, bill of lading (original), commercial invoice, delivery invoice, phytosanitary certificate and payments form (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Inspection procedures have been modified in recent years. Until 1999, inspections were mainly carried out randomly in order to verify that timber to be exported was the authorised thickness (Arce, 1999; Buitrón, 2001). At present, all *S. macrophylla* exports are inspected on a regular basis by agents of designated CITES Authorities. CITES representatives must verify CITES documents and mahogany timber humidity level using a 10% sample (J. Mecinas, INRENA, pers.comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001).

No specific ports are assigned for the export of mahogany shipments. Approximately, 90% of the mahogany exported leaves the country from Port El Callao; other exports exit from Iquitos Port, destined mainly for Mexico and the Caribbean region.

Information management

Mahogany trade and harvest data are recorded in the INRENA Forestry General Direction Database. Information recorded includes all data provided on CITES export permits (date of issue, importer, destination, exporting company, purpose, scientific and common name of the species) and FOB price. Data included in the Forestry General Direction Database is compared with information provided to Customs (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Trade data

Trade data provided from the INRENA database, based on CITES certificate of origin and export permit records, show a near-100% increase in export volumes from 1997 to 2000, from approximately 26 000m³ in 1997 to approximately 51 000m³ in 2000 (**Table 8**).

The USA is the main importer of Peruvian mahogany, accounting for 80-85% of exports since 1997, with an increasing trend. The Dominican Republic is the second-largest importer (10%). Main importers in the EU are the UK and Spain, both of them showing decreasing trends. Within Latin American countries, it is interesting to note that some countries decreased/stopped importing from Peru (Argentina, Colombia and Venezuela) while others increased/began trade (Chile and Bolivia) (**Table 8**).

Table 8**Exports of *Swietenia macrophylla* (m³) from Peru (1998-2000)**

Destination	Sawn mahogany				
	1998	1999	2000		
			Certificate of origin	CITES	Total
Afghanistan	64	117	426	0	426
Argentina	333	114	0	0	0
Australia	12	0	0	0	0
Bolivia	0	66	60	236	294
Canada	200	283	0	0	0
Chile	200	206	260	112	371
Colombia	329	0	0	0	0
Denmark	34	0	0	0	0
Dominican Republic	3 698	6 178	4 194	56	4 250
France	0	0	31	0	31
Germany	0	0	1	0	1
Italy	75	98	0	0	0
Japan	19	0	0	0	0
Jordan	0	14	0	0	0
Mexico	0	129	47	57	104
Puerto Rico	203	146	151	0	151
Spain	701	517	295	356	650
Sweden	131	34	0	0	0
Switzerland	0	65	77		77
UK	1 092	1 938	588	89	677
USA	33 506	41 683	31 156	13 006	44 161
Uruguay	0	0	29		29
Venezuela	64	5	0		0
Total	40 661	51 594	37 313	13 911	51 224

Source: C. Salinas, INRENA, *in litt.* to X. Buitrón, TRAFFIC South America, 28 June 2001; C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001.

Exports appear to have increased in relation to internal consumption, with internal consumption declining according to information provided by INRENA for the 1996-1997 period.

The number of export certificates and permits issued since 1998 are as follows: 1998: 284; 1999: 467 and 2000: 312 C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Analysis of CITES certificates of origin and export permits show that Mexico has decreased in importance as re-exporter of Peruvian mahogany, while the Dominican Republic has increased in importance as an importer (Buitron *et al.*, *in prep.*).

Reported exports

Peru did not include records of the export of *S. macrophylla* in their annual reports for 1997 or 1998. The annual report for 1999 had not yet been submitted at the time of this writing. The failure to provide this information reflects an incomplete understanding of CITES Appendix III requirements and subsequent problems with that implementation as well as poor information management in conjunction with the listing (J. Mecinas, INRENA, pers. comm. to S. Cárdenas, TRAFFIC South America, 22 August 2001).

Import volumes from Peru reported by importing Parties were 10 893m³ in 1997; 20 719m³ in 1998 and 35 170m³ in 1999. It appears the countries importing *S. macrophylla* from Peru have improved trade reporting since 1997. Import volumes reported by importing Parties for 1997 were approximately 42% of export volumes recorded in the INRENA database, based on data compiled data from CITES documentation and from other government institutions. The percentages increased to 52% in 1998 and 69% in 1999.

As noted above, some reporting discrepancies may reflect the fact that export permits may be issued in one year but not presented for import until the next. This should be less so in the case of Peru in future, as the validity of *S. macrophylla* export permits was reduced to two months as of December 2000.

There are still differences between Peru's reported exports to the USA and that country's corresponding reported imports, both based on CITES certificates of origin. In 1998, exports to the USA authorised by INRENA were 33 505.5m³ (**Table 1**), while the figure reported by the USA as imported for the same year was 16 187m³. However, according to the US Foreign Agricultural Service, U.S. Department of Commerce and U.S. Treasury, the USA imported 31 033m³ in 1998. Other mahogany shipments from Peru imported into the USA in 1997 and 1998 were reported on non-CITES documents as well (Robbins, 2000).

Discrepancies in export statistics between Peruvian institutions do exist and are significant. SUNAD's records are lower than INRENA's, a fact that can be partly explained by different sources of information used. SUNAD data are based on single permits for several species while INRENA base data on CITES permits, by species, per shipment (Arce, 1999).

One exporting country reported an export of 16m³ to Peru in 1999, a shipment not reported by Peru.

Illegal harvest and trade

In recent years, the Appendix III listing by Brazil and Bolivia (1998) and the temporary ban in Brazil, from January to July 1999, increased pressure on Peruvian populations of mahogany, especially those on borders. It has been frequent to find Brazilian timber producers working near Loreto and Madre de Dios regions (Arce, 1999). Illegal trade, taking place mostly on borders, is confirmed by the CITES authorities, indications of this having been found in villages adjacent to the borders with Brazil and Colombia (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Precise statistical information about illegal trade is not available; however the Forestry Transport Guides are the main means of detecting illegal trade. Timber loads have been found without the required documentation at the control posts. Unfortunately, there are not enough control posts on the borders (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Even though CITES Appendix III does not directly affect harvesting activities, Peru has had cases of significant illegal extraction taking place in areas with a high mahogany density and abundance, for example, Tahuamanu Province, including areas where *S. macrophylla* exploitation was banned, Iberia and Iñapari (Office of Agriculture Information in Buitrón *et al.*, in prep.). The Madre de Dios case involved conflicts of interest between the largest Peruvian forest companies, US importers government officers and small producers. The Government responded to this situation by taking corrective measures under *Presidential Decree 047-99*, which banned mahogany harvest in the Madre de Dios Department in 2000. The new forestry law also introduces mechanisms to eliminate illegal procedures, including the use of chainsaws, which is associated with small producers who frequently operate with little regard to harvest and trade controls.

CITES Appendix III listing impacts

According to CITES Management Authorities in Peru, listing *S. macrophylla* populations in Appendix III was a response to the new legal framework engendered by mahogany overexploitation in some areas, as well as by a lack of information about its population status.

Opinions of Peruvian exporters are mainly negative. CITES export permits constitute one more step among all the procedures required before exporting goods. It is considered a trade impediment because the CITES permit is a requirement in importing countries (C. Salinas, INRENA, *in litt.* to TRAFFIC South America, 17 August 2001).

Conclusions

Appendix III implementation in Peru has been influenced by legislative changes governing *S. macrophylla* harvests and trade. Owing to *Law 27308, Forest and Wild Fauna Resolution* and *Urgent Decree 85-2000*, new requirements were necessary for issuing CITES documents and new conditions applied to these, such as reducing the duration of validity.

The way that CITES certificates of origin were managed in the past precluded the accurate reporting of *S. macrophylla* export data in Peru's CITES annual reports, however current measures should allow annual reporting of trade in this species in future.

Peru's inclusion of its own population of *S. macrophylla* in Appendix III was partly a result of increased law enforcement and awareness regarding overexploitation. Peru has shown advances in monitoring exports, but no improvements with regard to import controls. Forestry Transport Guides were set up to help control intra-regional trade at some control posts. However, the major challenge continues to be the inclusion of adequate mechanisms to confront illegal trade, especially cross-border trade, for which information is largely lacking. Further research will be required to assess the impacts of the newly agreed legislation and regulations, including the limit on exports to value added products, as well as the Appendix III listing.

IMPLEMENTATION IN OTHER RANGE STATES

The following information is based primarily on the responses of CITES Management Authority staff to the TRAFFIC South America questionnaire and range State reports provided to the CITES Secretariat.

BELIZE

Exports account for approximately 80% of the total *Swietenia macrophylla* harvest in Belize. Export of rough *S. macrophylla* timber and logs is banned and minimum levels of processing are required for timber to be exported legally, dimensions for specific thicknesses, lengths and widths having been established (A. Chun, Forest Department, Ministry of Natural Resources, the Environment and Industry, pers. comm. to S. Cárdenas, TRAFFIC South America, 30 August 2001).

Belize's CITES Management Authority, the Forest Department within the Ministry of Natural Resources, the Environment and Industry, began issuing CITES certificates of origin when the Appendix III listing came into effect in 1995. Approval for trade or export is required from the Chief Forest Officer prior to issuance of a CITES certificate of origin, which is valid for three weeks. CITES certificates are issued in one day, and no payment is required. A CITES logo is not included on the certificate, but there is a security stamp (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to

TRAFFIC South America, 28 August 2001; A. Chun, Forest Department, Ministry of Natural Resources, the Environment and Industry, pers. comm. to S. Cárdenas TRAFFIC South America, 30 August 2001). An average of 30 CITES certificates of origin are issued annually. (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001).

S. macrophylla is exported from the ports of Commerce Bight, Big Creek and Belize City, and across the land border at Santa Elena. Customs authorities inspect every mahogany shipment prior to export (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001).

The Forest Department maintains trade data based on copies of certificates of origin, and records trade volumes in terms of board feet and cubic feet, using the following conversion factor: 1 cubic foot = 5.6 board feet (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001). Export data provided by the Forest Department are shown in **Table 9**. These were provided in cubic feet, but volumes in cubic metres were calculated using the following conversion factor: 0.02832 ft³/m³

Exports of 1931m³ of *S. macrophylla* were recorded in Belize's CITES annual report for 1996, but no exports were recorded in annual reports for 1997 and 1998. Other Parties reported total imports of 233m³ and 125m³ from Belize during the latter two years. Belize's 1999 CITES annual report showed the export of 2326m³. It is interesting to note that exports indicated by Forest Department data are lower than those recorded in CITES data for each of the four years for which data are available. The USA and Mexico are the only destinations for exports from Belize recorded for 1997-1999.

According to Robbins (2000), several *S. macrophylla* shipments were exported from Belize to the USA that do not appear to have been accompanied by appropriate CITES documentation.

The Management Authority comments that trade activities are mostly uncontrolled and estimates that approximately 40% of total trade is illegal and, of this, 25% can be considered cross-border illegal trade. There have been cases of trees cut and dragged across to neighbouring countries as well as of timber being confiscated and cutting of undersize trees (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001).

According to the Management Authority, timber constitutes a significant part of Belize's international trade, and therefore that implementing Appendix III has been difficult, especially when exporters see the procedure as time consuming and inconvenient. Technical assistance to develop a feasible control and monitoring strategy in Belize as well as educational programmes are considered the main steps required for effective Appendix III implementation (A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001).

Table 9

Exports of *S. macrophylla* from Belize (1996-1999)

	1996	1997	1998	1999
Cubic feet	263 039	274 564	226 641	156 776
Cubic metres	7 449	7 776	6 418	4 440

Source: A. Chun and J. Pinelo, Forest Department, Ministry of Natural Resources, the Environment and Industry, *in litt.* to TRAFFIC South America, 28 August 2001.

COLOMBIA

Swietenia macrophylla harvests have been banned in Urabá, Risaralda and Santander regions. Since 1976, the export of logs, sawn wood and veneer sheets has been prohibited under *Agreement 29* (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001).

CITES is implemented through three Decrees and Regulatory Resolutions, *Resolution 573* of 26 June/97 in particular establishing CITES export permit procedures. The Ministry of Environment is the CITES Management Authority. The Management Authority works in co-ordination with the Regional Autonomous Corporations (*Corporaciones Autónomas Regionales*), which are in charge of export controls at ports, the Ministry of Foreign Affairs, Customs (DIAN), the Colombian Institute for Agriculture and Livestock (*Instituto Colombiano Agropecuario*, ICA), which is responsible for phytosanitary controls, and the police (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001, A. Rivera, Ministry of Environment-MMA, pers. comm. to S. Cárdenas, TRAFFIC South America, 30 August, 2001).

The following ports of entry and exit for flora are designated under *Decree 1909/2000*: Bogotá, Cali, Medellín, Barranquilla, Cartagena, Santa Marta, Buenaventura, Ipiales, Leticia and Cúcuta. An inspection protocol for all flora and fauna shipments has been adopted (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001).

The Management Authority requested the CITES Secretariat to list Colombia's *S. macrophylla* population in Appendix III on 29 July 2001. The listing will become effective on 29 October 2001 (CITES Notification No. 2001/061). The Management Authority is providing information on CITES Appendix III implementation to government institutions charged with regulation and control in order to secure effective implementation of the listing (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001).

Information on the status and harvest of *S. macrophylla* is included in the Forestry Information System (IDEAM). None of the 100 companies registered with IDEAM has exported mahogany and no CITES certificates of origin were issued for the period analysed (1995-2000), and no trade with Colombia was reported in the CITES annual report data of other Parties. Two shipments of finished mahogany products were imported from the USA in 2001, but these were exempt from Appendix III controls. (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001).

No cases of illegal trade have been reported to CITES Authorities (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001). However, Peru's CITES Management Authority indicated in their report to the CITES Secretariat on *S. macrophylla* that there is illegal cross-border trade with Colombia (Peru CITES Management Authority, *in litt.* to the CITES Secretariat, August 2001). The entry of illegally logged timber from Peru into Colombia to be sold locally as Colombian timber has also been referred to by Arce (1999).

Lack of knowledge of CITES implementation requirements, e.g. the types of permits required for export and import, by enforcement agencies such as Customs and the police as well as a lack of communication among authorities in different countries has hindered implementation of CITES trade controls. Other factors impeding trade controls include lack of a specific export tariff for *S. macrophylla*, the fact that different species may have the same common name, and difficulties in distinguishing between *S. macrophylla* and cedar (A. Rivera, Ministry of Environment-MMA, *in litt.* to TRAFFIC South America, 23 August, 2001; J. Forero, 2001).

COSTA RICA

Costa Rica was the first country to include *Swietenia macrophylla* in CITES Appendix III. *S. macrophylla* harvests were banned by the Ministry of the Environment and Energy (MINAE) in January 1997 under *Decree No. 25700*. No CITES export permits have been issued since that time (Y. Matamorros, Council of Costa Rica



Mahogany planks
"camouflaged" among
banana plants

Credit: Margaret Stern

CITES Authorities, *in litt.* to TRAFFIC South America, 10 August 2001). MINAE, the CITES Management Authority, collaborates with the Ministry of Agriculture and the Ministry of External Commerce in implementing the Appendix III listing. The Tropical Scientific Centre (*Centro Científico Tropical*, CCT) manages information about the biological status of *S. macrophylla* at the regional (Central America) level (CCT, 2000).

MINAE has developed mechanisms and actions to ensure effective CITES implementation. Customs staff have been trained about timber species included in the CITES Appendices and CITES documentation required for trade in these species, and a handbook with this information has been made available for their use. More training is believed to be necessary for Customs staff and more human resources allocated to

management and control activities (Y. Matamorros, Council of Costa Rica CITES Authorities, *in litt.* to TRAFFIC South America, 10 August 2001).

CITES annual report data do not show any imports from Costa Rica. The export of 115m³ of sawn wood to Costa Rica from Nicaragua from 1997-1999 has been reported in Nicaragua's CITES annual reports, however corresponding import data do not appear in the annual reports of Costa Rica.

There is no certainty about illegal trade occurring with bordering countries, however CITES Authorities emphasise the need to identify whether illegal trade exists with Nicaragua and El Salvador. Studies are being carried out to confirm or refute rumours that sawn mahogany wood and finished products have entered into Costa Rica from Nicaragua (Y. Matamorros, MINAE, *in litt.* to TRAFFIC South America, 10 August 2001).

ECUADOR

Swietenia macrophylla exports have been prohibited since 1990 under ministerial *Agreement No. 0678* of 14 December and subsequently under *Law No. 147. RO/901* of 25 March 1992 (*Ley de Facilitación de las Exportaciones y del Transporte Acuático*). *S. macrophylla* is included in a national list of threatened timber species (INEFAN *Resolution No. 031*, 20 July 1995, revised via INEFAN *Resolution No. 046*, 15 August 1996 and ministerial *Agreement No. 0001*, 6 January 1997). INEFAN *Resolution No. 064* (29 November 1996), which banned mahogany harvest for five years at the national level, was modified in 1997 by INEFAN *Resolution No. 033* of 22 July 1997, which excluded the ban from forests of Esmeraldas and Sucumbíos Provinces and timber from plantations, subject to management plans.

The ban was suspended by ministerial *Decree 131* of December 21, 2000. According to Article 36 of the Decree, *S. macrophylla* is considered a species at risk of extinction, and therefore, its exploitation and transport is authorised only if it is subject to a Sustainable Forestry Exploitation Programme approved by the Ministry of the Environment. Among other measures established was the setting of a minimum diameter for cutting mahogany at 60 cm (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001). The status of Ecuadorian *S. macrophylla* populations is not known with certainty, Palacios and Zuleta suggesting in 1995 that the species occurred at low densities. Further information is required to verify the status of *S. macrophylla* in Ecuador.

Information regarding harvests is managed under forestry databases maintained in conjunction with Forestry Management Plans as well as Simplified and/or Sustainable Exploitation Forestry Programmes. Timber volumes are recorded in cubic metres. The system currently does not contain any data specific to *S. macrophylla* (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001; B. Torres, Ministry of Environment, MA, pers. comm. to S. Cárdenas, TRAFFIC South America, 30 August, 2001).

The Ministry of Environment is the CITES Management Authority. No certificates of origin were issued for *S. macrophylla* from 1995-2000 (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001). However, Spain's CITES annual report showed the import of two shipments of *S. macrophylla* from Ecuador in 1999, totalling 77m³. Information compiled by Robbins (2000) based on trade records of the US Foreign Agricultural Services, US Department of Agriculture, US Department of Commerce, and the US Treasury show US mahogany imports from Ecuador in 1992 (89m³), 1995 (50m³) and 1999 (344m³).



Credit: Margaret Stern

Sawn mahogany in the house of a timber dresser in Rio Chapare, Bolivia

Control and inspection mechanisms are implemented for internal trade in timber, but not for imports, exports or re-exports (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001).

The Management Authority considers illegal domestic and international trade in *S. macrophylla* to be a problem in Ecuador (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001). Palacios and Zuleta (1995) reported a significant increase in illegal trade from 1993, noting that it was difficult to control in part because regulatory authorities could not correctly identify the species. Only one case of illegal trade of *S. macrophylla* has been documented, authorities in Venezuela notifying the Government of Ecuador of an illegal shipment in 2000 (B. Torres, Ministry of Environment, MA, *in litt.* to TRAFFIC South America, 20 August, 2001). Venezuelan authorities have referred to the seizure of a shipment of *S. macrophylla* from Ecuador in 2001 which is likely to involve the same incident (O. Ortega, SEFORVEN, *in litt.* to TRAFFIC South America, 21 August, 2001). No details of this case were available from Ecuador's CITES Management Authority, however more details are provided within the section on Venezuela, below. The potential for *S. macrophylla* to be traded illegally to Colombia via San Miguel River in Sucumbíos Province has also been noted by the Management Authority (B. Torres, Ministry of Environment, MA, pers. comm. to X. Buitrón, TRAFFIC South America, 24 August, 2001; B. Torres, Ministry of Environment, MA, pers. comm. to S. Cárdenas, TRAFFIC South America, 30 August, 2000).

EL SALVADOR

CITES is implemented in El Salvador through the *Wildlife Conservation Law*, under which *S. macrophylla* is considered a threatened species. The General Directorate of Phytosanitary Inspection (*Dirección General de Sanidad Vegetal*, DGSVA), within the Ministry of Agriculture and Livestock is the CITES Management Authority.

El Salvador has not exported *S. macrophylla* for several decades owing to the scarcity of the species as a result of overexploitation for domestic consumption during the last century and the high rate of deforestation (CCT, 2000).

Nicaragua reported the export of *S. macrophylla* to El Salvador in each of the years 1995-1997, exports totalling 163m³ during that time, but imports not recorded in El Salvador's CITES annual report. Exports were also reported in 1995 and 1996. Sawn mahogany is said to be imported illegally from bordering countries (E. López, *Dirección General de Patrimonio Natural MARN, in litt.* to TRAFFIC South America, 23 August 2001).

HONDURAS

Decree No. 323 (1998) and *Agreement 1189* (2000) prohibit the export of *Swietenia macrophylla* harvested from broad-leaved forests, with exports limited to finished goods, furniture or other items with added value.

CITES is implemented by the Ministry of Agriculture and Livestock (*Secretaría de Agricultura y Ganadería*) and the Honduran Forestry Development Corporation (*Corporación Hondureña de Desarrollo Forestal, AFE COHDEFOR*). AFE COHDEFOR is also the Forestry Authority. The Export Centre (*Centro de Exportaciones, CENTREX*) and Customs collaborate in Appendix III implementation (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to TRAFFIC South America, 28 August 2001).

CITES certificates of origin are only issued after AFE COHDEFOR has provided an authorisation. AFE COHDEFOR is currently defining new requirements in order to improve procedures for issuing CITES certificates for *S. macrophylla* exports (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to the CITES Secretariat, August 2001).

Exporters currently must provide the following in order to obtain a CITES certificate of origin: a letter requesting authorisation to export *S. macrophylla* furniture or other items, addressed to the Ministry of Agriculture and Livestock, original copies of AFE COHDEFOR invoices, and a copy of the company statements. Issuing time varies from one to two months. CITES certificates of origin are valid from three to six months. CITES certificates of re-export are also issued and are valid for 12 months. CITES certificates do not have a CITES logo or a security stamp. A bank export permit, a CENTREX certificate of origin, Phytosanitary certificate and the bill of landing are also required to accompany *S. macrophylla* shipments on export (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to TRAFFIC South America, 28 August 2001).

Two databases include trade information about *S. macrophylla*: an export database from the Wildlife and Protected Areas Department (DAPVS) within AFE COHDEFOR, which includes data since 2000, and a timber export database maintained by CENTREX within the Honduran National Bank (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to TRAFFIC South America, 28 August 2001). Units used for *S. macrophylla* trade volumes are cubic metres and board feet.

CITES annual report data based on trade reported according to weight or volume indicate that Honduras was the sixth-largest exporter of *S. macrophylla* from 1997 to 1999, with total reported exports of 3077m³. These data may be misleading, however, as prior to 1998, Honduras reported much of its trade in terms of number of timber carvings or pieces. The only destination country for exports reported by Honduras was the USA. CITES-reported import volumes to the USA were much lower than reported exports to that country, however, with imports of only 28m³ reported, in 1998. Import data from US Customs reported in Robbins (2000) show import volumes of 2321m³ of *Swietenia* spp. from Honduras from 1997-1999, indicating that significant volumes of mahogany are being exported from Honduras to the USA. It seems likely that this will have involved *S. macrophylla*, but may have been processed items such as plywood not covered under the current annotation. Given the corresponding export records from Honduras, however, this merits further investigation.

Sweden reported the import of 12m³ of *S. macrophylla* from Honduras in 1999, however, as noted above, this export was not reported by Honduras. Nicaragua reported the export of *S. macrophylla* to Honduras in each of the years 1995-1997, the export figure in 1997 being 143m³. No such imports were reported in Honduran annual reports.

Exports of finished products and items with added value have been increasing in recent years. Cortes Port is main port by which mahogany exports take place. Imports of unprocessed *S. macrophylla* (timber) enter Honduras from Nicaragua through the Customs point known as Las Manos, however, there are several cases of imports from Nicaragua that are not monitored and controlled (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to TRAFFIC South America, 28 August 2001).

Evidence of illegal trade is provided by confiscations at the borders with Nicaragua and El Salvador. AFE COHDEFOR has identified illegal trade routes within the country and the main regions where illegal activities take place, some of them located near nature reserves. Control and inspection posts have been established in order to overcome illegal activities (Mendieta 1999, M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to the CITES Secretariat, August 2001). According to CCT (2000), the volumes of *S. macrophylla* traded illegally are difficult to know with certainty, however they have given an estimate that for each cubic metre transported and traded legally, two cubic metres or more are harvested, transported and traded illegally.

Among the main constraints for Appendix III implementation are a lack of an appropriate management of information systems (e.g. databases) for quantitative monitoring of commercial invoices issued, as well as, a lack of strict export controls and availability of human resources availability. Some exporting companies have not registered with AFE COHDEFOR and sell mahogany to international markets through government Free Trade Zones (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to the CITES Secretariat, August 2001).

Inclusion of Honduras' population of *S. macrophylla* in Appendix III would be likely to have a positive effect on improving trade control mechanisms, however, there is resistance to this by exporting companies, which have objected to higher supervision and new procedures (M. Moreno and L. Marineros, AFE COHDEFOR, *in litt.* to TRAFFIC South America, 28 August 2001).

MEXICO

The Secretariat of the Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*, SEMARNAT) is responsible for authorising the use of forestry resources. The CITES Management Authority is the Wildlife Directorate (*Dirección General de Vida Silvestre*), which is part of the Sub-Secretariat of Environmental Management and Protection (*Subsecretaría de Gestión para la Protección Ambiental*) within SEMARNAT.

Mexico issued CITES certificates of origin for exports of *Swietenia macrophylla* until 29 April 1999, the date their Appendix III listing went into effect, at which time they began issuing CITES export permits.

Ten days are required for permit issuance, at a fee of USD12 (J. Reyes, SEMARNAT, *in litt.* to TRAFFIC South America, 14 August, 2001). Phytosanitary certificates, a commercial invoice and Customs authorisations are also required for the export of *S. macrophylla*.

Applicants for CITES export permits are required to provide a letter of request; documents demonstrating legal acquisition; and a payment receipt. Re-exporters are required to provide documents that certify legal acquisition, a Mexican CITES certificate of Import and Customs authorisation (J. Reyes, SEMARNAT, *in litt.*

to TRAFFIC South America, 14 August, 2001; J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 20 August, 2001).

CITES documentation is reviewed and verified at the time of import/export/re-export by Customs and Legal Observer Authorities (J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 20 August, 2001).

Trade in *S. macrophylla* is normally recorded in cubic metres, and occasionally board feet. The conversion factor used is 1000 board feet = 2.36 cubic metres. Trade information is classified and coded according to specific product tariffs for imports and exports and differentiates between sawn, squared and planed wood. *S. macrophylla* is also included in a database for timber harvest authorisations (J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 14 August, 2001; J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 20 August, 2001).

CITES trade data and data maintained by the CITES Management Authority show that Mexico is a mahogany exporter, importer and re-exporter. The primary export destination was the USA in 1997 and Cuba in 1998 and 1999, the latter country not recording imports from Mexico (or any other country) in their CITES annual reports for those years. A total of 835m³ of *Swietenia* spp. was reported as imported into the USA from Mexico from 1997 to 1999 (Robbins, 2000), a figure slightly higher than combined exports and re-exports to the USA recorded in Mexico's CITES annual report (771m³), over half of which was reported by Mexico as originating in Belize and Bolivia.

Imports into Mexico were recorded from Nicaragua, Peru and Belize, as well as from the USA (involving re-exports of *S. macrophylla* originating in Bolivia and Peru). According to Mexico's CITES Management Authority, no *S. macrophylla* was imported during 1999 and 2000 (J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 20 August, 2001), although CITES trade data show the export/re-export of 113m³ to Mexico from Belize and the USA in 1999.

International illegal trade mainly involves trade with bordering countries. Illegal trade among Mexican States has also been detected through inspection and control activities carried out by the Federal Attorney of Environmental Protection (Procuraduría Federal de Protección al Ambiente, PROFEPA) since 1999. Mahogany shipments from the States of Quintana Roo (70.14m³), Campeche (1255.22m³) and Tabasco (5643bf) have been confiscated (J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 14 August, 2001).

The Management Authority believes that the CITES Appendix III listing has contributed to the detection and reduction of illegal trade through implementation of CITES documentation requirements in ports of entry and exit (J. Reyes, SERMANAT, *in litt.* to TRAFFIC South America, 14 August, 2001).

NICARAGUA

Exports have been restricted in Nicaragua since 1997 according to several resolutions and decrees in response to identification of disorganized and unauthorised harvests. For example, *Decree 30-97* prohibited exports with primary transformation for mahogany, *Decree 35-98* established a ban for mahogany; and *Decree 75-99* imposed a tax and implemented new procedures for *Swietenia macrophylla* harvest, management and export managed by the National Forestry Institute, INAFOR. (L. Chavez, MARENA, *in litt.* to TRAFFIC South America, 29 August 2001). Currently, *S. macrophylla* harvest authorisations are based on forest management plans and managed by INAFOR (S. Tijerino, INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001).

The Ministry of Environment and Natural Resources (MARENA) is the CITES Management Authority. The National Forestry Institute (INAFOR) works together with MARENA to implement Appendix III. The Customs General Directorate (DGA) and Export Procedures Centre (CETREX) also support Appendix III implementation (S. Tijerino, INAFOR, ex CITES Management Authority, *in litt.* to TRAFFIC South America, 23 August, 2001, L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

The Management Authority uses CITES export permit forms as CITES certificates of origin and these are affixed with security stamps and valid for six months. The average processing time is 48 hours, and the fee USD40 per permit (S. Tijerino, INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001; L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

Each individual shipment must be accompanied by its own certificate of origin and other documentation, including a CETREX Export Form and a commercial invoice. Physical inspection of timber to be exported at the time of export is currently limited to cases when there is suspicion that the export may not be in accordance with national regulations, but should be increased, owing to concerns regarding illegal harvests and trade (S. Tijerino, INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001; L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

There are no specific ports assigned for *S. macrophylla* exports, but exports take place *via* Corinto Port at the Pacific Ocean; Cabezas at North Atlantic Region and Bluff Port at South Atlantic Region (L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

INAFOR compiles mahogany trade data in its Forestry Records and Information System, with volumes recorded in cubic metres and board feet (S. Tijerino, INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001; L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

Table 10

Exports of *Swietenia macrophylla* (m³) from Nicaragua, 1995-2000

Year	Exports of sawn wood
1995	2 434
1996	17 106
1997	18 675
1998	5 758
1999	5 598
2000	3 845
Total	53 416

Source: MARENA, *in litt.* to TRAFFIC South America, 2001.

Export volumes from 1995 to 2000 are included in **Table 10**, based on information provided by MARENA. Reported exports according to CITES annual report data for Nicaragua differ slightly from MARENA figures for 1997-1999. According to MARENA, there are 71 *S. macrophylla* export companies registered in Nicaragua (L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

Exports have decreased since 1997, however internal consumption is increasing, reaching 90% of the total harvest volume in 2000 (L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

Fifteen export destinations - Canada; Costa Rica; Cuba; Denmark; Dominican Republic; El Salvador; Honduras; Jamaica; Spain, Taiwan, Province of China; Trinidad and Tobago; and the USA - were recorded in INAFOR data for 1999-2001. Ten of these are within Central America and/or the Caribbean (S. Tijerino, National Forestry Institute INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001; L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

CITES trade data indicate that the Dominican Republic was the major importer of *S. macrophylla* from Nicaragua during each of the years 1997-1999, followed by the USA. Import volumes recorded in US Customs data reported in Robbins (2000) were higher than those recorded in Nicaraguan or US annual report

data for 1997 and 1998; in 1999, US Customs data were slightly lower than US CITES-reported imports and slightly higher than Nicaragua CITES-reported exports. The main destinations for exports from Nicaragua during 1999 and 2000 were the Dominican Republic, the USA and Spain (L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

Demand and prices for *S. macrophylla* from Nicaragua have increased, stimulating illegal harvest and trade. Official harvest statistics were not viewed as reflecting total harvest volumes owing to significant illegal harvest rates. Concerns were noted regarding illegal exports to Costa Rica and Honduras, and problems with species identification. Appendix III was not viewed as contributing to a reduction in illegal trade (S. Tijerino, INAFOR, *in litt.* to TRAFFIC South America, 23 August, 2001). According to CITES Authorities, Appendix III has somewhat contributed to reducing illegal trade, however illegal trade still constitutes a major problem for Nicaragua, with estimates that illegal trade accounts for 60% of the total mahogany trade (L. Chavez, MARENA *in litt.* to TRAFFIC South America, 29 August 2001).

PANAMA

Panama's CITES Management Authority is the National Authority of the Environment (*Autoridad Nacional del Ambiente*, ANAM).

CITES export permit forms are used as CITES certificates of origin for *Swietenia macrophylla* exports. These are issued within three to five days of application and are valid for three months. The certificates have an ANAM security seal in addition to the CITES logo (I. Añino, ANAM, *in litt.* to TRAFFIC South America, 21 August 2001).

There are two designated ports for export of *S. macrophylla*, one on the Atlantic Ocean (Cristóbal) and the other on the Pacific Ocean (Balboa). Inspection is carried out on a regular basis. CITES Authorities maintain information about mahogany exports and reforestation, and record trade volumes in cubic metres (I. Añino, ANAM, *in litt.* to TRAFFIC South America, 21 August 2001).

Panama had not provided CITES annual reports for 1997 and 1998 at the time of this analysis, and did not report any *S. macrophylla* exports in their 1999 annual report. US CITES data show the import from Panama of 71m³ in 1998 and 23m³ in 1999.

The Management Authority believes that CITES Appendix III implementation has contributed to *S. macrophylla* conservation, but considers that more human resources are needed for implementation, as well as methods to make procedures less complex and bureaucratic (I. Añino, ANAM, *in litt.* to TRAFFIC South America, 21 August 2001).

VENEZUELA

Swietenia macrophylla production in Venezuela decreased from an annual average of 18 725m³ per year during the period 1969-1976 to 9344m³ per year during the period 1984-1988 and then to 4416m³ per year during the period 1990-1999. Production reached only 1919m³ in 1999, indicating a decline in the population of the species (Ramirez and Ortegano, MARN, *in litt.* to CITES Secretariat, May, 2001).

S. macrophylla exploitation is subject to forestry management plans (ABRAE Forestales) and zoning systems, and is prohibited in protected areas. Reforestation with *S. macrophylla* is promoted through the *Law of Forestry, Soils and Waters*.

The Ministry of Environment and Natural Renewable Resources (MARN), through the General Directorate of Forestry Resources, is the CITES Management Authority for flora. Information related to *S. macrophylla* is managed under the general Forestry Statistics and Administrative Permissions. Timber volumes are measured in cubic metres.

Venezuela now uses CITES export permit forms as CITES certificates of origin, as communicated to the CITES Secretariat in May 1999. The cost of obtaining a certificate of origin is USD18. All shipments are inspected for compliance with phytosanitary and CITES requirements at the time of export or import by staff from the Ministry of Production and Commerce (O. Ortegano Quevedo, Ministry of Environment and Natural Renewable Resources - MARN, *in litt.* to TRAFFIC South America, 21 August 2001)..

The CITES Management Authority reports that *S. macrophylla* is both exported from and imported into Venezuela (O. Ortegano Quevedo, Ministry of Environment and Natural Renewable Resources - MARN, *in litt.* to TRAFFIC South America, 21 August 2001). However, no trade in *S. macrophylla* reported as originating or re-exported from Venezuela was reported in CITES trade data.

International illegal trade is considered by the Management Authority to be a problem for Venezuela. A case concerning one shipment of *S. macrophylla* arriving from Guayaquil, Ecuador without CITES documents has been reported in 2001. The shipment was seized and the case reported to the CITES Management Authority in Ecuador (O. Ortegano Quevedo, Ministry of Environment and Natural Renewable Resources - MARN, *in litt.* to TRAFFIC South America, 21 August 2001).

IMPLEMENTATION IN MAJOR CONSUMER COUNTRIES

USA

The USA is the world's largest consumer of *Swietenia macrophylla* in international trade, with average annual imports of approximately 100 000m³, and demand appearing to remain steady. Approximately 90% of *S. macrophylla* imported into the USA originated from South American range States, the remaining 10% coming from Mesoamerican countries (Robbins, 2000). US implementation of the *S. macrophylla* Appendix III listing was reviewed in 2000 as part of a wider TRAFFIC North America study of the US market for this species (Robbins, 2000) and therefore was not repeated during the present study. A summary of information provided by Robbins (2000) and additional information from this latest review of CITES data is summarized below.

Improvements in response to the findings of the 1997 TRAFFIC study were noted, including distribution of and periodic updates to guidelines for CITES implementation to inspection personnel at US ports of entry and exit. Robbins (2000) noted that numerous shipments of *S. macrophylla* were cleared for import in 1997 and 1998 without being accompanied by CITES Certificates of Origin or export permits as recommended by *CITES Resolution Conf. 10.2 (Rev.)*. Discrepancies were found between import data compiled by the US Department of Commerce, Bureau of the Census and those compiled and presented in the US CITES annual report, especially for 1998. These discrepancies could reflect the inclusion in Customs data of imports of other *Swietenia* species and/or goods in addition to those covered by the Convention, e.g. finished products, or other factors. Further research is required to determine the source of such inconsistencies.

There appears to be some confusion with regard to CITES reporting of trade involving the US commonwealth territory of Puerto Rico. Puerto Rico, a US commonwealth territory, was reported as the export destination for 1005m³. Although Puerto Rico is covered under the US CITES accession, imports into Puerto Rico are recorded separately within the US annual report from those into the continental USA (C. Hoover, TRAFFIC

North America, *in litt.* to T. Mulliken, TRAFFIC International, 17 August 2001). Such imports should have appeared separately in US CITES data if they were reported by Puerto Rico.

The USA re-exports significant amounts of *S. macrophylla*, with Canada being the main re-export destination. It appears that CITES implementation for re-exports is less comprehensive than implementation with respect to imports. Approximately 90% of the *S. macrophylla* imported into Canada is re-exported from the USA (Gerson, 2000). Canada Customs reported that approximately 30% of the *S. macrophylla* transactions [imports from the USA] reviewed in 1999 lacked accompanying CITES permits. In cases where permits were provided, over half had not been properly validated on export (Canada Customs, 2001).

Among Robbins' conclusions with regard to US Appendix III implementation was the need for more training of Customs brokers with respect to documentation requirements. A further analysis of CITES implementation for re-exports as well as clarification with regard to trade reporting for Puerto Rico would also seem merited.

EUROPEAN UNION

Introduction

The EU (formerly the European Economic Community) is the second-largest importer of *Swietenia macrophylla* in international trade. Reported EU import volumes were approximately one-tenth of those of the main importer, the USA. Reported imports increased during the period 1997 to 1999. Among the Member States, the UK, Spain and the Netherlands were the largest importers, although, as is discussed in more detail below, the Netherlands may be a transit/re-export rather than a final destination country.

Internal border controls between EU Member States were largely eliminated on 1 January 1993, the date of completion of the Single Market. As a result, trade in CITES-listed species between individual Member States is not controlled nor reported, with external border controls therefore taking on increased importance. The following information focuses on trade controls by the main EU countries of import, i.e. the UK, the Netherlands and Spain.

Legislation and responsible authorities

The EU has been seeking accession to CITES as a 'regional economic integration organization' since 1983. However, the amendment allowing such an accession ('Gaborone amendment') has thus far not been ratified. Regulations for the uniform implementation of CITES throughout the EU have been in place since 1 January 1984. There are currently 15 EU Member States, all of which are bound to implement CITES under EU regulations (see below) and all but one, Ireland, are Parties to CITES.

CITES was implemented throughout the EU under *Council Regulation (EEC) No. 3626/82* (3 December 1982) until 1997. Import of CITES Appendix III species required prior grant of an import permit. This regulation was replaced by *Council Regulation (EC) No. 338/97* (9 December 1996), and the advance import permit requirement was replaced by a requirement that importers provide an 'import notification' at the time of import (see below). Annex C of *Council Regulation (EC) No. 338/97*, recently amended by *Commission Regulation (EC) No. 2724/2000* (30 November 2000), mirrors the Appendix III listing, including all populations of *S. macrophylla* in the Americas annotated to include only logs, sawn wood and veneer sheets.

Implementation of the Annex C listing is the responsibility of each individual Member State. CITES Management Authorities are responsible for issuing CITES permits and certificates, providing import notification forms, and administering import notifications. Management Authorities are responsible for communication with the European Commission. Customs staff are responsible for inspecting and verifying the contents of shipments and accompanying documentation. CITES Scientific Authorities provide advice on species identification when requested by either Management Authorities or Customs.

Several steps have been taken to facilitate Appendix III implementation in the EU. CITES Management Authority and Customs staff have access to various information sources on CITES-listed timber species, e.g. timber identification sheets within the CITES Identification Manual and the CITES leaflet “CITES and the Wood Products Trade”. The Dutch Management Authority produced a timber information sheet and distributed it to known timber importers and the national timber association following the inclusion of the Indonesian population of ramin *Gonystylus* spp. in Appendix III. Spain’s CITES Management Authority developed an identification manual for *S. macrophylla* that served as the basis for the CITES identification sheets. They have sent importers a leaflet outlining EU regulations and directing traders to the web-based version of the Identification Manual of CITES-listed Timber Species. The Management Authority has also designed a CD-ROM containing the Identification Manual, which has been sent to the Association of Timber Importers and Exporters.

Import procedures

Under *Council Regulation 338/97*, import into the Community from a country that has included *S. macrophylla* in Appendix III requires presentation of a CITES export permit. Import from any other range State requires presentation of a Certificate of Origin. The regulation further stipulates that importers complete an import notification form obtained from a CITES Management Authority for presentation upon import along with other documentation.

Upon arrival of a shipment at an EU port of entry, relevant documentation, including CITES permits/certificates and the import notification, must be presented to Customs agents, who check their validity and stamp the documents as cleared for import. Customs retain the original copy of the import notification and CITES export document and forward them to the Management Authority. Copies of both documents are given to the importer.

Dutch Customs do not physically inspect shipments as long as all accompanying documentation looks correct (M. Kloppenburg, Dutch Customs, pers. comm to K. Berkhoudt, TRAFFIC Europe, 10 September 2001). UK Customs do not routinely inspect such shipments, prioritising inspection based on an estimation of the risk of illegal trade, and focusing primarily on trade involving Annex A (and then Annex B) species (C. Miller, Policy, Business Services and Taxes, HM Customs and Excise, *in litt.* to S. Pendry, TRAFFIC International, 17 August 2001).

In contrast to the Netherlands and the UK, Spain’s CITES Management Authority has inspectors in Customs ports of entry who inspect both documents and the items to be imported. Spain’s Management Authority noted that CITES Inspectors sometimes have difficulties with identification of timber species, in which case they send samples to experts for identification. Following confirmation of the shipment’s contents, CITES Inspectors issue a “Document of Inspection for Protected Species” for shipments cleared for import. Import notifications are subsequently stamped as cleared for entry by Customs after completion of Custom procedures (M. Núñez, CITES Management Authority of Spain, *in litt.* to K. Berkhoudt, TRAFFIC Europe, 20 August 2001).

In keeping with the conditions of the Single Market, a shipment destined for an EU Member State can be presented for import at any EU port of entry. All shipments must go through official Customs procedures at the first point of entry into the EU, after which they can continue on their journey to their final destination. For example, a shipment of *S. macrophylla* for which CITES export permits or Certificates of Origin indicate the UK as the country of import can enter the EU *via* the Netherlands. There is some confusion regarding accepted procedures and CITES annual reporting in such cases, however.



Credit: Margaret Stern

Planks sawn from young trees, in Cochabamba, Bolivia

According to the Dutch Management Authority, documents received for shipments destined for countries other than the Netherlands according to accompanying export permits are forwarded on to the Dutch Management Authority, who in turn forwards them on to the Management Authority of the final destination country (J. Bos, CITES Bureau LASER Zuidwest, *in litt.* to K. Berkhoudt, TRAFFIC Europe, 15 August 2001). It was their view that the shipment should be recorded in the annual report of the country of import as stated on CITES export permits, i.e. the final destination country. However, it appears that these procedures were not being followed. The UK Management Authority was not aware of having received any documents from the Netherlands or any other EU country with respect to *S. macrophylla* imports destined for the UK (A. Thrift, Wildlife Licensing and Regulation Service, Department for Environment, Food and Rural Affairs, *in litt.* to S. Pendry, TRAFFIC International, 6 September 2001). Furthermore, the Dutch Management Authority provided copies of import notifications for shipments for which export permits showed other destination countries for inclusion in their annual report. UNEP-WCMC staff, who compile Dutch annual report data for *S. macrophylla* based on copies of import notifications provided to them by the Dutch CITES Management Authority for this purpose, have considered the Netherlands to be the country of import in such cases, as reflected in CITES annual report data.

The UK Management Authority was of the understanding that the final destination information is not considered a requirement for reporting on import notifications, the key point being that checks were undertaken at the point of entry. Neither the UK CITES Management Authority nor UK Customs were aware of any shipments being presented for entry into the EU via the UK for which export permits/certificates indicated another EU country as the final destination (A. Thrift, Wildlife Licensing and Registration Service, Department for Environment, Food and Rural Affairs, *in litt.* to S. Pendry, TRAFFIC International, 6 September 2001).

Further clarification was sought from the European Commission, which noted that under the Single Market, the EU should be considered the country of import, however until such time as the EU becomes a CITES Party, that the final destination country as identified on CITES permits should be considered the country of import, and trade reported accordingly (D. Morgan, European Commission, pers. comm. to K. Berkhoudt, TRAFFIC Europe, 10 September 2001).

From a CITES standpoint, EU import procedures as currently implemented could be viewed as a change in the country of import. Such changes are specifically allowed for timber under *Resolution Conf. 10.2 (Rev.)*, with the proviso that all changes of destination are reported to both the CITES Secretariat and the country of export. It is unclear whether this is similarly applicable to Certificates of Origin issued for Appendix III species, but as the three main exporting countries now use CITES export permits and have included their *S. macrophylla* populations in Appendix III, this would seem to be a moot point. The CITES Secretariat reports that they are not aware of any such notifications having been received to date, although they are aware of this situation (G. van Vliet, CITES Secretariat, *in litt.* to T. Mulliken, TRAFFIC International, 15 August 2001).

A review of import notifications for the Netherlands also indicated the issuance of export permits for which the country of import was specified as the Netherlands, but for which the final destination was another country, e.g. Denmark. As will be discussed in more detail below, changes such as these and those noted above complicate CITES trade data analysis and assessment of European consumer markets for *S. macrophylla*.

CITES Appendix III implementation for *S. macrophylla* and other timber species will be discussed during the EU Enforcement Working Group meeting in December 2001.

Re-exports

In keeping with the conditions of the Single Market, re-exports of *S. macrophylla* within the EU are not controlled or monitored, and there is no documentary evidence of this trade. Traders seeking to re-export timber to a country outside the EU must first acquire a CITES re-export certificate and such certificates are only issued following confirmation that the specimens to be re-exported were legally imported into the EU. Re-exporters who were the original importers must present a copy of the import notification. If the re-exporter is not the original importer, the receipt showing proof of purchase has to be presented instead. If the re-exporter bought the specimens in another Member State, the Management Authority of the re-exporting country must contact the Management Authority of the country where the specimens were purchased in order to confirm that the specimens have been imported legally and to obtain the information necessary to issue a re-export certificate.



Credit: Margaret Stern

Sign outside an unofficial carpenter's workshop in Puerto Aurora, Bolivia

Annual reporting

CITES annual report data for *S. macrophylla* are compiled by Management Authorities in several ways. In the UK, information from import notifications is entered into an electronic database known as UNICORN. In Spain, the Management Authority maintains a database with the information on all import notifications presented (M. Núñez, CITES Management Authority of Spain, *in litt.* to K. Berkhoudt, TRAFFIC Europe, 20 August 2001). As noted above, the Netherlands provides copies of import notifications to UNEP-WCMC for entry into the CITES trade database and subsequent inclusion in the Dutch annual report (J. Bos, CITES Bureau LASER Zuidwest *in litt.* to K. Berkhoudt, TRAFFIC Europe, 15 August 2001).

Trade volumes

According to CITES trade data, the UK, the Netherlands and Spain imported over 5000m³ of *S. macrophylla* from 1997-1999 (**Table 11**). Comparison of these data with imports reported by, and exports reported to, individual EU Member States can be found in **Table 2**.

As explained in the methods section, gross trade data are somewhat misleading, as shipments exported in one year but not imported until the next will often be counted twice, as will those for which the country of import is other than that declared on export permits (see below).

Gross trade data indicate that imports into the EU are increasing, the most significant rise being from 1997 to 1998. It is possible that some of this increase represents more comprehensive trade reporting rather than an increase in actual import volumes, including the reporting of export destinations by Brazil, the main source of *S. macrophylla* imported into the EU, beginning in 1998.

Table 11

Gross imports of *Swietenia macrophylla* (m³) into the EU, 1997-1999

Country	1997	1998	1999	Total
UK	1 676	4 167	5 078	10 921
Spain	825	2 392	2 034	5 251
The Netherlands	537	1 685	2 819	5 041
Germany	254	871	522	1 647
Ireland	1 146	310	145	1 601
Denmark	687	207	412	1 306
Belgium	582	361	89	1 032
Sweden	115	18	205	338
Portugal	0	315	2	317
Italy	0	140	129	269
France	201	32	32	265
Finland	0	34	182	216
Austria	0	0	54	54
Total	6 023	10 532	11 703	28 258

Source: CITES annual report data compiled by UNEP-WCMC.

Although it appears that the role of the Netherlands as a consumer country is growing, the review of import data for 1999 provided below indicates that this country serves more as an entry point for *S. macrophylla* destined for elsewhere in the EU. On the other hand, UK imports may be higher than indicated by gross trade data, as numerous shipments exported to the Netherlands are apparently destined for the UK.

Reported exports of *S. macrophylla* to the Netherlands exceeded reported import volumes by that country during 1998 and 1999, possibly indicating that not all shipments are being declared and/or identified upon import, or that permits were issued in range States but not used. UK-reported imports of the species were higher than reported exports of the same to that country during 1998, possibly indicating the import in 1998 of shipments exported during 1997, although this requires further review. The situation is the reverse for 1999. Import volumes reported by Spain closely matched export volumes reported to this country during both 1998 and 1999. Higher gross trade figures for both years indicate reporting discrepancies, however. Neither Austria nor Finland, both reported destinations for relatively small amounts of *S. macrophylla*, recorded any imports from 1996-1999.

As indicated above and explained in more detail below, it is difficult to ascertain the import volumes of individual EU Member States from CITES trade data, owing to the fact that the country of entry into the EU, rather than the final import destination has been recorded in EU Member State annual reports in some cases. To get a clearer idea of trade volumes and routes, export permit data available for trade from Brazil for 1999 were compared with corresponding import permit data provided in the annual reports of Germany and the Netherlands. Permit number information was not included in UK CITES annual reports and therefore this could not be analysed in the same way. Exports from Bolivia to the EU were relatively small, and those from Peru to the EU were not recorded in Peru's CITES annual reports, precluding analysis of trade from these countries.

Reported trade in *S. macrophylla* from Brazil to the EU

A comparison of EU annual report data for 1999 with Brazil's export permit data and information contained on 1999 import certificates provided by the Dutch CITES Management Authority to UNEP-WCMC showed the following:

- Importers for each of the shipments imported into the Netherlands appear to have been based in countries other than the Netherlands, i.e., the importer addresses were not in the Netherlands
- 11 shipments (111m³) reported by Brazil as exported to the UK were imported into the Netherlands, Dutch import certificates indicating they were imported by importers based in the UK
- three shipments (21m³) reported by Brazil as exported to Sweden were imported into the Netherlands
- two shipments (280m³) reported by Brazil as exported to Belgium (in 1998) were imported into the Netherlands in 1999, Dutch import certificates indicating they were imported by importers based in the UK
- two shipments (25m³) reported by Brazil as exported to Germany were reported as imported by Denmark
- one shipment (76m³) reported by Brazil as exported to the Netherlands was reported as imported by Germany
- 12 shipments (1342m³) reported by Brazil as exported to the Netherlands were imported into the Netherlands, Dutch import certificates indicating they were imported by importers based in the UK
- five shipments (176m³) reported by Brazil as exported to the Netherlands were imported into the Netherlands, Dutch import certificates indicating they were imported by importers based in Denmark

Total imports reported by the UK for 1999 amounted to 3638m³. Revised import figures for the UK and the Netherlands were calculated based on the assumption that the final destination for the *S. macrophylla* entering the EU via the Netherlands was the importer address included on import notifications. According to such an assumption, the amount of imports climbs to 5371m³ with the addition of the 1733m³ imported *via* the Netherlands. By contrast, subtracting the volume of *S. macrophylla* imported into the Netherlands but apparently destined for other countries (1909m³) from reported imports by the Netherlands (1909m³) indicates that all of the *S. macrophylla* reported into the Netherlands may have been destined for other countries.

Conclusions

The EU is a significant importer of *S. macrophylla*, although the role of individual Member States is unclear. Available trade data indicate that import reporting into the EU is not comprehensive. Information provided by Management Authorities of the two main countries of import indicating that physical inspection of shipments is not undertaken routinely. A more detailed review of CITES Appendix III implementation and trade within the EU will be required to determine the level of compliance and the size of markets within individual Member States. Issues that might be considered during discussions of EU Appendix III implementation scheduled for December include physical inspection rates, communication among Management Authorities and CITES annual reporting.

DOMINICAN REPUBLIC

The Dominican Republic has only recently assumed a major role in the international trade in *Swietenia macrophylla*. CITES annual report data indicate that the Dominican Republic surpassed the UK as the second-largest importer of *S. macrophylla* in 1997, with the USA currently providing the only larger export market for this species.

Import trends can be analysed based on export data from Brazil, the main source of mahogany imported into the Dominican Republic. According to data provided by the Brazilian Institute for the Environment and Renewable Resources (IBAMA), Brazil's exports to the Dominican Republic increased from 130m³ in 1992 to 10 693m³ in 1996 and 19 818m³ in 1999, a rise of approximately 85% during the four-year period. Brazilian exports to the Dominican Republic declined by approximately 75% in 2000, however, to 5188m³. Exports of *S. macrophylla* to the Dominican Republic to Peru followed a similar trend.

CITES is implemented under *Law 64* (2000), with the Wildlife and Biodiversity Directorate of the Ministry of the Environment and Natural Resources serving as the CITES Management Authority. It was not until 1999 that the Management Authority became aware of *S. macrophylla* imports (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 2 September 2001). As a result, prior to 2000, import controls were limited to those required by port authorities, the Forestry General Directorate and the Department of Phytosanitary Inspection (Sanidad Vegetal), under the Ministry of Agriculture. These agencies were unaware of CITES requirements and did not require presentation of or review of CITES certificates of origin or export permits (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001).

TRAFFIC South America informed the CITES Management Authority that range countries were reporting exports of *S. macrophylla* to the Dominican Republic, and noting that corresponding imports were not appearing in the Dominican Republic's CITES annual reports in 1999 (X. Buitrón, TRAFFIC S.A., *in litt.* to Ramón Oviedo, Ministry of Agriculture, 14 September 1999). CITES authorities subsequently started communicating with port authorities and other institutions responsible for controlling trade in ports, and advising them of document requirements for *S. macrophylla* imports. Communications were also initiated with the Timber Importers Association (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001).

CITES certificates of origin and export permits were first reviewed by the Management Authority in 2000 (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 2 September 2001). Shipments arriving in port are inspected occasionally. Trade volumes are recorded in cubic metres and board feet (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001), and trade data will be included in CITES annual reports as of 2000.

CITES trade data provided by exporting Parties show that 27 440m³ of *S. macrophylla* were exported to the Dominican Republic from 1997 to 1999. However, exports to the Dominican Republic recorded in data provided by Brazil's CITES Management Authority (IBAMA) for the same period reach 46 915m³. The discrepancy may reflect in part the lack of destination information provided in Brazil's CITES annual report for 1997.

Most of the imported mahogany is used for decorating luxurious houses and tourism infrastructure, as well as for carving high-value furniture (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 20 August, 2001). Little information was available regarding re-exports, although there are indications that more highly processed mahogany products are exported. No CITES certificates of re-export have been issued thus far, however these would not be required for mahogany products not covered under the existing listing.

Illegal trade is not considered to constitute a major problem in the Dominican Republic, however, some irregularities have occurred according to CITES Authorities:

- Foreign companies import mahogany directly to Dominican Republic ports without going through their countries
- Large mahogany loads arrive at Dominican Republic ports, only part of them is disembarked and the rest goes to another country
- Shipments have arrived in the Dominican Republic without required CITES documentation; when CITES Authorities request them, companies argue that they were not informed about CITES and its requirements. CITES Authorities have denied imports in these cases.

(B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001; B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 20 August, 2001).

The above is believed to indicate that the Dominican Republic may not be the final destination for some of the shipments reported as exported to this country by countries of export. National and foreign importing and exporting companies are involved in these irregularities (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001; B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 20 August, 2001).

CITES Appendix III has been difficult to implement due to importers resistance to this regulation. For them, Appendix III is considered a trade barrier in terms of time and additional costs. Nevertheless, management aspects have been improving and all sectors involved have been collaborating in this regard. More human resources are required for an effective and permanent trade control in ports (B. Santana, Ministry of the Environment and Natural Resources, *in litt.* to TRAFFIC South America, 16 August, 2001).

IMPLEMENTATION IN ARGENTINA, CHILE AND CUBA

ARGENTINA

While not a range State for *Swietenia macrophylla*, as reported previously in Buitrón and Mulliken (1997), this species is both imported into and re-exported from Argentina, where it is used in furniture manufacture.

Appendix III is implemented by the Secretariat of Sustainable Development and Environmental Policy (*Secretaría de Desarrollo Sustentable y Política Ambiental*), one of Argentina's two CITES Management Authorities, in conjunction with Customs (D. Ramadori, *Secretaría de Desarrollo Sustentable y Política Ambiental*, *in litt.* to TRAFFIC South America, 15 August, 2001).

Trade data for mahogany are included within general import/export statistics, and are recorded in cubic metres. Data for 1998 show the import of 7331 m³ of laminated mahogany from Bolivia and 16.5m³ of wood strips from Brazil (D. Ramadori, *Secretaría de Desarrollo Sustentable y Política Ambiental*, *in litt.* to TRAFFIC South America, 1999). Corresponding CITES export data for 1998 show the export to Argentina. CITES trade data similarly show exports to Argentina during 1997 and 1999 - of 755m³ of sawn wood from Bolivia, and 261m³ of sawn wood plus 16m² of veneer from Brazil. However, no imports were recorded in Argentina's CITES annual reports for these or any other years.

S. macrophylla imports into Argentina, mainly from Bolivia, are not controlled or recorded by the Management Authority. Customs offices are not providing documentation regarding *S. macrophylla* import volumes to the Management Authority. Illegal trade with neighbouring countries is considered a significant problem (D. Ramadori, *Secretaría de Desarrollo Sustentable y Política Ambiental*, *in litt.* to TRAFFIC South America, 15 August, 2001).

CHILE

CITES is implemented under *Decree No. 873, 1975*. The CITES Management Authority is the National Forestry Corporation (*Corporación Nacional Forestal, CONAF*). According to CONAF, there are no records of the import of *Swietenia macrophylla* timber or finished goods into Chile, nor of re-exports (F. Olave, CONAF, *in litt.* to TRAFFIC South America, 17 August 2001). CITES trade data indicate that *S. macrophylla* originating from Bolivia and Brazil was exported to Chile in 1997 (43m³), 1998 (77m³) and 1999 (58m³).

Further research is required with regard to the trade between Chile and neighbouring countries.



Credit: Margaret Stern

Illegally produced mahogany planks in Puerto Villarroel, Bolivia

CUBA

Cuba was one of the top five export destinations for which no imports were reported for 1997 to 1999 according to CITES trade data. Exports to Cuba were reported by Mexico and Nicaragua, with exports of 832m³ (1997), 458m³ (1998) and 225m³(1999), totalling 1515m³ for the period analysed. No imports from Cuba were reported by other Parties.

The National Forestry Service, Servicio Estatal Forestal, within the Ministry of Agriculture, is responsible for managing and controlling *Swietenia macrophylla* harvest and trade. The Centre of Environmental Management and Inspection, *Centro de Gestión e Inspección Ambiental*, at the Ministry of Science, Technology and the Environment, *Ministerio de Ciencia, Tecnología y Medio Ambiente*, Cuba's CITES Management Authority, has not been informed about any *S. macrophylla* imports and there are no trade data available regarding the species (S. Alvarez, Ministry of Science, Technology and the Environment, *in litt.* to TRAFFIC South America, 22 August 2001).

Further research is required to document Cuba's *S. macrophylla* imports, however based on present information, it would appear that CITES Appendix III is not yet being implemented for this species in this country.

CONCLUSIONS AND IDENTIFICATION OF AREAS MERITING FURTHER REVIEW AND/OR ACTION

Big-leafed Mahogany *Swietenia macrophylla* has been included in CITES Appendix III for nearly six years. Much has changed with respect to the harvest and trade of this species and the implementation of the Appendix III listing since Costa Rica first included this species in Appendix III in 1995. Five other countries have joined Costa Rica in specifically listing their *S. macrophylla* populations in Appendix III. This includes the three Parties historically exporting the largest volumes of timber of this species, Bolivia, Brazil and Peru, as well as Colombia and Mexico. Most if not all range States and several consumer countries have also taken specific steps to implement the listing.

The full impact of the CITES Appendix III listing itself is difficult to assess, as changes to legislative structures and control mechanisms governing the harvest and trade of *S. macrophylla* reflect a response to a combination of factors, of which the listing is just one. These include local and national level concerns about the status of this species, and CITES processes other than Appendix III, e.g. government responses to Appendix II listing proposals, meetings of the CITES Timber Working Group and the first meeting of the Mahogany Working Group. Nevertheless, it is possible to draw some general conclusions about implementation of the listing thus far, to note the perceptions of the listing of several range State CITES Management Authorities, and to highlight areas where further research and/or actions might be warranted.

It is clear that the international trade in *S. macrophylla* is both better controlled and monitored in most range and consumer countries than it was prior to the listing of the species in Appendix III. Concerns remain regarding the impact of current trade volumes on remaining wild stocks and illegal harvests in range countries. Control of cross-border trade between range States and from range States to neighbouring countries lacking native stocks of *S. macrophylla* also continues to be problematic.

CHANGES IN REPORTED TRADE VOLUMES

The quality of CITES trade data have improved significantly since the Appendix III listing came into effect in 1995. However, the fact that conflicting information on trade volumes is being compiled by different government agencies within some individual range States and consumer countries calls into question the accuracy of these data. There are also significant gaps in CITES trade data, the most important of which are reports of exports by Peru, now the exporter of the largest quantities of *S. macrophylla* in international trade, and imports by the Dominican Republic.

As a result, CITES data do not allow an accurate analysis of overall trends with respect to global trade volumes. Available information indicates significant declines in exports from Bolivia and Brazil, and increases in exports from Peru. Nicaragua has emerged as the most important exporter of *S. macrophylla* from Central America and the fourth-largest source of this species in trade from 1997 to 1999. Exports from Nicaragua have declined since 1997, however, similar to those of Bolivia and Brazil.

There has similarly been a shift in the position of key consumer countries, and, as noted above the Dominican Republic is now the second-largest reported destination country for *S. macrophylla* after the USA. Although



Credit: Margaret Stern

Workers at a mahogany sawmill

the UK remains the third-most important consumer, the combined imports of the UK and all other EU countries were only slightly higher than those of the Dominican Republic from 1997 to 1999.

IMPLEMENTATION IN RANGE STATES

Each of the three main exporting countries for *S. macrophylla* - Bolivia, Brazil and Peru - has substantively increased harvest and trade controls since the Appendix III listing came into effect in November 1995 and since implementation of this listing was reviewed by Buitrón and Mulliken in 1997. This includes both specific actions directed at the trade in this species and implementation of the Appendix III listing, and more general actions aimed at better forestry management. These actions were prompted by concerns regarding declines in the species' wild populations and significant levels of illegal harvest rather than being a specific response to the Appendix III listing alone. However, CITES processes almost certainly served as a catalyst for increased actions on the part of these and other range States.

Increased harvest and trade controls have corresponded with declining export volumes from Bolivia and Brazil during the late 1990s. Further research is required to determine the extent to which these declines reflect the actions themselves, a decline in wild stocks and/or market shifts. In contrast, exports from Peru increased during the late 1990s, although a new forestry law and related harvest and trade restrictions introduced in 2000 may reverse this trend.

Difficulties with respect to implementation of harvest and trade controls within Bolivia, Brazil and Peru have been noted. Responsibility for controlling harvests, internal trade and exports of *S. macrophylla* is often vested with several different government agencies, as is management of trade information. Cross-agency communication and co-ordination is often limited, reducing the efficiency of trade controls and the potential for collaboration towards meeting mutual objectives. In some cases, resources available are insufficient for effective implementation of harvest and trade controls.

- Further efforts will be required to ensure that staff in the various agencies responsible for controlling mahogany harvests and trade fully understand CITES and related requirements, have the information and resources necessary to implement them, and can co-operate more fully in this regard.

Of the countries studied, only Ecuador appears to have reduced management restrictions for *S. macrophylla*, with a previous nation-wide harvest ban having been lifted in specific areas. An export ban on this species remains in place, however.

Although the majority of attention has focused on exports from South America, it is important to note that relatively small but nevertheless potentially significant quantities of *S. macrophylla* are also exported from Mesoamerica, and specifically Nicaragua. Of these, only Costa Rica, which bans exports, and Mexico have listed their populations in Appendix III.

- Range States for *S. macrophylla* that have not listed their populations in Appendix III should consider whether such a listing would support implementation of domestic harvest and trade controls.

Many Management Authorities responding to the TRAFFIC South America questionnaire (August 2001) cited illegal harvest and trade as an ongoing area of concern, and most believed that the Appendix III listing had helped in the detection and reduction of illegal trade. Information indicating significant illegal harvest, e.g. in the Madre de Dios region of Peru, was also identified during the course of this and previous studies. The volume of illegally harvested timber entering international trade remains unknown. Several instances of illegal

cross-border trade were identified, as were movements of timber harvesters across borders in response to increasing harvest restrictions. Such intra-regional trade seems especially problematic and difficult to identify.

- The allocation of additional resources would assist in reducing illegal harvest and trade, specific attention being needed with regard to unauthorized intra-regional trade.
- Further information is required regarding how those Parties that have listed their populations of *S. macrophylla* in Appendix III are interpreting and applying the Article V requirement that specimens to be exported must not have been “obtained in contravention of the laws of that State for the protection of fauna and flora”.

In contrast to what was the case in 1997, most range States are now using standard CITES documents, e.g. CITES export permits, as CITES certificates of origin. However, numerous shipments were presented for import into the USA lacking such documents in 1998 and 1999. All Parties that have listed their populations in CITES Appendix III are using export permits in accordance with CITES Article V.

- Those Parties that are not yet doing so should be encouraged to follow the recommended format for certificates of origin stipulated in *Resolution Conf. 10.2(Rev.)*.

Although *Resolution Conf. 10.2* recommends that certificates of origin can be valid for up to 12 months, there is no indication that any Party is issuing certificates with a validity exceeding six months, or that the six-month validity is causing difficulties. In fact, several Parties, e.g. Peru, have reduced the validity of export permits to under six months for exports of *S. macrophylla*.

- CITES implementation by importing Parties would be facilitated if those Parties that are issuing permits with other than the standard six-month validity informed the Secretariat accordingly, in order that such information could be made more widely available to the Parties.

Several range States, e.g. Peru, have sought to limit exports of raw timber and require that timber to be exported has undergone further processing. More highly processed products may not be covered by the current listing, which is annotated to cover only logs, sawn timber and veneer sheets.

- The current annotation for *S. macrophylla* would bear reconsidering if there is a significant shift in the international trade to more highly processed products.

Parties such as Brazil and Peru have taken steps to ensure that international trade in *S. macrophylla* is or will be fully documented in CITES annual reports. However, a review of harvest and trade data made available by different government agencies within the same country, e.g. within Brazil and Bolivia documented significant discrepancies in reported trade volumes.

- Further inter-agency co-ordination and information exchange would help ensure that mechanisms to document permitted exports accurately reflect trade volumes.

There is relatively little information on the volume of mahogany in internal trade, however such trade is known to be significant in some countries, e.g. Brazil. Knowledge of the dynamics of the relationship between internal and external markets is also lacking.

- Further research regarding domestic markets for *S. macrophylla* would assist Scientific and Management Authorities with regard to setting and enforcing harvest and trade levels.

IMPLEMENTATION IN CONSUMER COUNTRIES

CITES implementation for imports of *S. macrophylla* in the key importing countries of the USA and several EU Member States appears to be relatively comprehensive. However there are discrepancies in the import records for this species compiled by US Customs and the US CITES Management Authority, and possible confusion regarding the management of trade information for imports into Puerto Rico. There are also indications that CITES implementation for re-exports to Canada, and therefore possibly to other countries, is not comprehensive.

- Further analysis of the trade records for *S. macrophylla* imports into the USA is merited, including the management of information for imports into Puerto Rico.
- A review of US CITES implementation for re-exports should be encouraged, and remedial measures adopted as necessary.

There appears to be some confusion regarding implementation of the listing in the EU, where shipments may be destined for one EU Member State but presented for entry into the EU in another. This appears primarily to affect trade reporting, but further review is required to assess whether there might be other areas of CITES implementation requiring further attention.

- Import procedures for *S. macrophylla* and other Appendix III species should be clarified and communicated to Customs and Management Authority personnel, including with respect to CITES annual reporting.

Unlike the USA and the EU, the Dominican Republic, identified as importing larger quantities of *S. macrophylla* than any country other than the USA, has only recently begun to implement CITES Appendix III for this species.

- Dominican Republic Management and Customs Authorities should be supported in their efforts to implement the CITES listing for *S. macrophylla*, with attention paid to re-exports as well as imports of this species.

The majority of Parties indicated as export destinations in the CITES annual reports of *S. macrophylla* range States have yet to report imports of this species in their CITES annual reports. This includes countries bordering CITES range States and even some range States themselves. This undermines the effectiveness of the listing as a trade monitoring tool. It is also likely to reflect a wider lack of implementation of the Appendix III listing, and the associated potential for illegally exported mahogany to find markets without being detected. The failure of many Parties to provide annual reports on a timely basis similarly undermines the effectiveness of this listing as a tool for trade monitoring.

- CITES Management Authorities of those Parties identified as destination countries for *S. macrophylla* should be encouraged to review and improve CITES implementation for this species.
- As noted above, the related issue of cross-border trade will also require further investigation and resources to ensure effective implementation of harvest and trade controls.

CITES ANNUAL REPORTING

Most Parties are now using CITES-recommended terms and units of measurement for reporting on trade in *S. macrophylla*. The main exceptions involve export reporting by Honduras, which is primarily in terms of numbers of items (243 028 from 1995 to 1997), and US reporting of veneer re-exports, which is primarily in square metres.

- Those Parties not using standard terms and units should be encouraged to do so on CITES documents and in annual reports.
- Where trade is reported in square metres, the option of providing additional information on the thickness of the items (usually veneer) in trade might be considered.

A declining, but continuing problem is the differential use of commas (,) and full stops (.) to indicate either the separation of thousands or a decimal point in the trade quantities reported, with the result that trade volumes provided on CITES permits/certificates and in CITES annual reports can be misinterpreted. For example, the figure 4.000 can be interpreted as either four thousand or four. This is increasingly problematic with the rise in reporting in electronic format, as computer databases automatically interpret full stops in numbers as decimal points.

- Reporting of trade data without using any punctuation to separate thousands, and with full stops used only as decimal points (i.e., any numbers appearing after a full stop being taken to be less than one) would reduce the potential for misinterpretation of CITES trade data by enforcement and other personnel as well as those compiling and reviewing CITES data.

The provision of permit numbers in CITES annual reports increases the ability to undertake detailed analyses of CITES trade data, e.g. a more accurate assessment of trade volumes by eliminating double counting of shipments for which an export permit is issued in one year but not presented until the next.

- Increased provision of information on permit numbers in CITES annual reports should be encouraged, with attention paid to providing permit rather than security stamp numbers.

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APPENDIX

Respondents to the TRAFFIC South America questionnaire on CITES Appendix III implementation for *Swietenia macrophylla*

COUNTRY	CITES MANAGEMENT AUTHORITIES	OTHER INSTITUTION
ARGENTINA	Natural Resources and Human Environment Subsecretary SERNAH - CITES Authority Flora <i>Secretaría del Recursos Naturales y Ambiente Humano, Autoridad CITES Flora</i>	
BELIZE	Ministry of Natural Resources, Environment and Industry - Forestry Director Forestry Department	
BOLIVIA	Ministry of Sustainable Development and Planning <i>Ministerio de Desarrollo Sostenible y Planificación</i> Vice-Ministry of the Environment, Natural Resources and Forestry Development VMARNDF <i>Vice-Ministerio de Medio Ambiente, Recursos Naturales y Desarrollo Forestal</i>	
BRASIL	Brazilian Institute for the Environment and Renewable Resources IBAMA <i>Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis</i>	
COLOMBIA	Ministry of the Environment -MMA Ecosystem Technical Directorate <i>Ministerio del Ambiente</i> <i>Dirección Técnica de Ecosistemas</i>	
COSTA RICA	Ministry of the Environment and Energy (MINAE) Council of Costa Rica CITES Authorities <i>Ministerio del Ambiente y Energía</i> <i>Consejo de Autoridades CITES de Costa Rica</i>	
CHILE	National Forestry Corporation CONAF Forestry Regulations Directorate <i>Corporación Nacional Forestal</i> <i>Dirección de Normativas Forestales</i>	
CUBA	Ministry of Science, Technology and the Environment <i>Ministerio de Ciencia, Tecnología y Medio Ambiente</i>	
DOMINICAN REPUBLIC	Ministry of Agriculture - Wildlife Department <i>Ministerio de Agricultura - Departamento de Vida Silvestre</i>	
ECUADOR	Ministry of the Environment Green Watch Coordination Programme <i>Ministerio del Ambiente</i> <i>Programa de Vigilancia Verde</i>	
EL SALVADOR		Ministry of the Environment and Natural Resources-Natural Capital Directorate <i>Ministerio del Ambiente y Recursos Nat.</i> <i>Dirección de Patrimonio Natural</i>
HONDURAS	Ministry of Agriculture and Cattle Farming <i>Ministerio de Agricultura y Ganadería</i>	Honduran Corporation of Forestry Development AFE COHDEFOR <i>Corporación Hondureña de Desarrollo Forestal AFE-COHDEFOR</i>
MEXICO	Environment and Natural Resources Secretariat Sub-secretariat of Environmental Protection Wildlife Directorate <i>Secretaría de Medio Ambiente y Rec. Naturales</i> <i>Subsecretaría de Protección Ambiental</i> <i>Dirección de Vida Silvestre</i>	
NICARAGUA	Ministry of the Environment and Natural Resources <i>Ministerio del Ambiente y Rec. Naturales MARENA</i>	Forestry National Institute INAFOR <i>Instituto Nacional Forestal INAFOR</i>
PANAMA	National Authority of the Environment ANAM <i>Autoridad Nacional del Ambiente ANAM</i>	
PERU	Ministry of Agriculture INRENA <i>Ministerio de Agricultura INRENA</i>	
VENEZUELA	Ministry of the Environment and Renewable Resources MARNUR <i>Ministerio del Medio Ambiente y los Recursos Renovables MARNUR</i>	

The TRAFFIC network is the world's largest wildlife trade monitoring programme with offices covering most parts of the world. TRAFFIC is a programme of WWF, the conservation organization, and IUCN - The World Conservation Union -, established to help ensure that trade in wild plants and animals is not a threat to the conservation of nature. It 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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