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# Strategies for the sustainable use and management of timber tree species subject to international trade:

## Mesoamerica



2005

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## Table of contents

<b>Welcome .....</b>	<b>4</b>
<b>Acknowledgements .....</b>	<b>6</b>
<b>Summary .....</b>	<b>6</b>
<b>Introduction .....</b>	<b>7</b>
<b>Implementation.....</b>	<b>8</b>
<b>Species recommendations .....</b>	<b>9</b>
Table 1: Mesoamerican timber tree species in international trade of concern .....	9
Table 2: Species in international trade of lower priority for action .....	10
Table 3: Species of concern, not in international trade, identified by workshop participants .....	10
<b>General recommendations.....</b>	<b>11</b>
15 <sup>th</sup> CITES Plants Committee.....	11
<b>Future Action .....</b>	<b>12</b>
<b>Acronyms and weblinks .....</b>	<b>12</b>
<b>Participants .....</b>	<b>13</b>
<b>Annexes.....</b>	<b>16</b>
Annex 1 Workshop comments on timber species .....	16
Table 1: Workshop comments on species presented by UNEP-WCMC.....	17
Table 2: Workshop comments on species proposed by workshop participants .....	29

## Welcome

### Discurso del MARENA

Welcome given on behalf of Señor C. Arturo Harding Lacayo,  
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Les doy la más cordial bienvenida a esta tierra de lagos y volcanes.

Las amenazas a la continuidad de la vida en el planeta son múltiples y diversas, muchas de ellas incluso pasan inadvertidas, sabemos poco todavía sobre la biodiversidad global, las cifras totales de especies son solo aproximaciones y menos aun sobre las sutilezas de los mecanismos que dan lugar a su desaparición.

Como humanidad reaccionamos ante fenómenos de la naturaleza de muy corta duración, que causan daños inmediatos y de enormes consecuencias, pareciera que estos momentos reviven los valores fundamentales, la solidaridad y lo mejor de la naturaleza humana. En cambio ante una catástrofe de una magnitud e importancia mayor, como el paulatino deterioro de las condiciones que hacen posible la vida sobre la tierra no hay una reacción general y concentrada.

El distanciamiento entre el hombre y el mundo natural es hoy evidente, pareciera que olvidamos que somos parte de la naturaleza y que hemos perdido conciencia sobre el origen de los bienes que utilizamos el agua, productos maderables por citar algunos. Por lo tanto se hace necesario desarrollar estrategias para el uso y gestión sostenible de especies maderables utilizadas en la producción de madera para comercio internacional, pues dichas especies son propensas a la sobre explotación.

El objetivo de este taller es promover el debate y desarrollo de estrategias viables, aplicables a nivel local, regional e internacional.

Las especies de árboles que estén o puedan estar sujetas a una explotación insostenible debido al comercio internacional serán identificadas, y los detalles sobre presiones adversas o amenazas a las que se enfrentan y los conocimientos locales relevantes para el uso de cada especie serán cotejados. Mecanismos apropiados para asegurar la explotación sostenible a largo plazo y la protección de estas especies serán considerados, por lo que, como ministro del ambiente y los recursos naturales aplaudo y me uno a esta iniciativa.

Dos acuerdos ambientales multilaterales, el Convenio sobre Diversidad Biológica (CBD) y la Convención sobre el Comercio Internacional de

Especies Amenazadas de Fauna y Flora Silvestres (CITES), son de especial importancia en el contexto actual, proporcionando un marco para la cooperación internacional y el desarrollo de políticas y estrategias para el uso sostenible.

Los bosques son el ecosistema terrestre más diverso biológicamente y proporcionan una enorme colección de bienes y servicios, importantes tanto para la economía local como nacional. Estos bienes y servicios varían desde el suministro de leña, recursos maderables y no maderables hasta el posible papel en la mitigación del cambio climático por su función como sumideros de carbono. Los productos de los bosques son una mercancía de gran importancia en el comercio internacional.

Cerca de 350 millones de las personas mas pobres del mundo dependen casi completamente de los bosques, para satisfacer sus necesidades básicas y 2,000 millones dependen de la madera para cocinar y como combustible. Los países han tratado el asunto de la producción de bosques a través de herramientas como la declaración legal de áreas protegidas (de manera que las perturbaciones sean menores) y la aplicación de legislación que limita las especies y el tamaño de los especímenes que son talados o recolectados.

De cualquier manera, hay evidencias de bajos niveles de cumplimiento en la declaración de áreas protegidas y legislación sobre recolección de madera, y el tráfico internacional de madera procedente de fuentes ilegales es un asunto de gran interés.

Medidas directas para gestionar la manera en que los árboles son explotados incluyen el desarrollo de patrones de certificación y normas que codifiquen prácticas a favor de la explotación maderera sostenible. Dichas medidas son esencialmente voluntarias y todavía no son operacionales en varias regiones tropicales. La extinción en este caso concreto de especies maderables es un asunto que deberá ser tan preocupante para la sociedad como lo son el desempleo o la inflación, no solo porque el tema amerita atención, sino porque como sabemos están relacionados.

Toda economía se sostiene y es capaz de atender demandas y necesidades, cuando dispone de un abasto seguro y abundante de materias primas las cuales transforma en bienes y servicios. Un breve

recuento de los bienes que necesitamos cotidianamente para vivir pone de relieve este hecho: lo que comemos, lo que nos viste, lo que nos guarece, lo que nos mantiene todo proviene finalmente de la naturaleza.

La vida es la fuerza que pone y mantiene al mundo en movimiento, un movimiento cuya continuidad esta en riesgo, la extinción de las especies como punta del iceberg es muestra fehaciente de ello, se han perdido especies de plantas, animales y otros

seres vivos incluso antes de ser conocidas por la ciencia, especies con un gran potencial para resolver problemas de salud y alimentación que desaparecen para siempre, con su desaparición nos privamos de vínculos con nuestro pasado, de un existencia diversa y rica en el presente y de opciones para el futuro.

Que Dios bendica a Nicaragua.

Muchas gracias.

## Acknowledgements

The concept for the workshop in Nicaragua, was based on earlier work undertaken with funding from the government of the Netherlands, and was developed during preparatory discussions, held with representatives from the government of the Netherlands, FFI, TRAFFIC and WWF.

The participants at the workshop, were fundamental to the success of the project, sharing their extensive knowledge and experience before, during and after the workshop. The project benefited from the enthusiastic collaboration of all present. They, and the organisations supporting their attendance at the workshop are thanked for their work. In particular, Jan

de Koning and Patricia Dávila Aranda, who jointly chaired the workshop, were critical to ensuring rapid progress was made and conclusions agreed for each of the 42 species considered.

The project was managed by Harriet Gillett supported by Sarah Ferriss. Javier Purroy provided assistance with translations. Gerardo Fragoso helped guide project development and implementation and was responsible for project supervision.

The workshop was funded by the governments of the Netherlands (Ministry of Agriculture, Nature and Food Quality) and the United Kingdom (Defra).

## Summary

Internationally agreed targets to manage the world's living resources sustainably are recognised by the United Nations (Millennium Development Goal 7), Convention on Biological Diversity (CBD; 2010 target), and CITES (Strategic Plan). Timber producing trees are particularly prone to over-exploitation. For species in international trade, regionally agreed sustainable use and management strategies are needed at the species level if these international targets are to be met.

Mesoamerican timber tree species in international trade, in need of immediate action at the international and national level, were identified at a regional workshop (Nicaragua 16-18 February, 2005) involving participants from various sectors: forestry, protected areas, plant taxonomy, geography, CITES, FAO. Experiences in the management and sustainable trade of critical regional timber species were shared and discussions were held on the development of suitable strategies, appropriate at the local, regional and international level.

Forty two tree species that are or that may be subject to unsustainable harvesting for

international trade were identified and details collated on the adverse pressures or threats they face and the local knowledge relevant to the use of each species.

Appropriate mechanisms were then considered for each species, to ensure their long term sustainable exploitation and protection. Fourteen species were identified as priorities for regional and international action. Four species: *Balmea stormiae*, *Cedrela odorata*, *Dalbergia retusa*, and *D. stevensonii* were recommended for consideration by the CITES Plants Committee.

Reports relating to forest management and practice, with a focus on timber trees in international trade were also provided and discussed.

At their 15<sup>th</sup> meeting, the CITES Plants Committee considered the workshop recommendations. They selected *Balmea stormiae* for the periodic review of plant species included in the CITES Appendices and agreed to consider reviewing the listing of *Cedreda odorata*, *Dalbergia retusa* and *D. stevensonii* at its next meeting.

## Introduction

Forests play a critical role in the lives and well-being of people around the world. Six million indigenous people living in the rain forests of Latin America, Southeast Asia and West Africa depend heavily on forests. A further 350 million people living in, or next to, dense forests rely on them for subsistence or income whilst 1.2 billion people in developing countries use trees on farms to generate food and cash (FAO, 2005<sup>1</sup>).

Forests also play a major role in climate change. According to FAO (2005): they contribute about one-fifth of global carbon emissions when cleared; they react sensitively to a changing climate; when managed sustainably, they produce wood fuels as a benign alternative to fossil fuels; and finally, they have the potential to absorb about one-tenth of projected global carbon emissions into their biomass, soils and products and store them – in principle in perpetuity.

Despite this, the world's natural forests are shrinking. Forest systems worldwide are under threat for a wide range of reasons. These include habitat destruction, and exploitation for use as timber, firewood or for other non-timber forest products which are major commodities in international trade. However, whereas habitat destruction may impact the forest in general, use, and particularly international use, of trees is species specific, depending on the quality of the product used: wood, fruit, sap etc. The very high value of a final product may put great pressure on the species concerned leading to the decline of high value tree species in their natural habitats. However, in general, efforts to ensure the sustainable use of forests have so far focussed on the forest as a whole rather than on particular species that may be subject to specific exploitation.

Countries have addressed the issue of forest protection through tools such as legally gazetting areas in which

disturbance to the ecosystem is then limited, and by passing legislation that limits the species and the size and quantity of specimens that may be felled or harvested. However, there is evidence of low levels of compliance of both protected area and timber harvesting legislation, and international trade in illegally sourced timber is a major source of concern.

Direct measures to manage the way in which trees are exploited include development of certification standards and standards that codify practices for sustainable forestry. These are essentially voluntary and have not yet become operational in various tropical regions including most of Africa.

International initiatives with targets that encompass or necessitate safeguarding the world's forests include:

- UN Millennium Development Goal 1 to eradicate extreme poverty and hunger
- UN Millennium Development Goal 7 to ensure environmental sustainability
- CBD 2010 target, “to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level” and, CBD Global Strategy for Plant Conservation
- CITES strategic plan: *No species of wild flora subject to unsustainable exploitation because of international trade*

Demand for forest information has never been greater or more complex than now, with countries being asked to report regularly in order to fulfil their obligations to the international agreements to which they are party, and as civil society becomes increasingly concerned about the state and trends in forest stocks, goods and services.

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<sup>1</sup> FAO. 2005. FAO website  
[www.fao.org/forestry](http://www.fao.org/forestry)

The current initiative was undertaken in response to the need to ensure that authoritative information at the species level is available to those people responsible for decision making. The objective was to identify, on a regional basis, timber tree species involved in international trade, for which data on use and population size indicate that species specific management plans are needed, and additionally to produce recommendations for these species. By collaborating with organisations at a regional level, synthesising all existing relevant information and making this available in an integrated format, the capacity of countries and organisations to make well-informed decisions is enhanced, particularly for species

occurring in more than one country in the region.

These activities respond directly to issues identified in the WSSD Plan of Implementation and the CBD Workplan:

- *Determine status and conservation needs of endemic or threatened species and the impacts of current forest management practices on them;*
- *Develop initiatives that address the sustainable use of timber and non-timber forest products;*
- *Assist importing countries to prevent the entry of unsustainably harvested forest resources which are not covered by CITES.*

## Implementation

Representatives from countries throughout the region were invited to participate in a regional workshop, held in Nicaragua 16-18 February, 2005. In addition, representatives of UN organisations, other inter governmental organisations, and non-governmental organisations were invited to attend. Participants had diverse backgrounds and experience of the forest sector, protected areas, plant taxonomy, geography and implementation of CITES.

Participants were asked to provide information on the 19 regional timber tree species in international trade, identified by UNEP-WCMC (see “Species Selection” below) and on national actions to manage species subject to the international timber trade.

This information was integrated with other data prepared by UNEP-WCMC, and provided to participants for consideration at the workshop. During the

workshop participants proposed a further 23 species for consideration.

Full copies of the presentations and documentation provided by participants are included in the Annexes.

National presentations outlined current forest legislation, policies and national actions to manage species subject to the international timber trade.

Presentations were also given on: CITES in the context of timber species; FAO’s role in management, conservation and sustainable use of forests; the international trade in timber species in relation to the Global Strategy for Plant Conservation (FFI) and an outline of the evolution of the workshop (UNEP-WCMC).

## Species recommendations

The workshop discussed 42 timber tree species occurring in the region, with a view to identifying species in international trade of conservation concern, and to then form recommendations specific to each. Nineteen of these species had been selected by UNEP-WCMC, from a global survey undertaken previously (WCMC, 1999<sup>2</sup>). Participants also nominated an additional 23 species for consideration. A summary of comments provided by participants on these species is given in Annex 1 Table 1 (species selected from WCMC, 1999) and Annex 1 Table 2 (species nominated by participants).

Of these 42 species, 18 were considered to be in international trade, and of conservation concern (Table 1). Fourteen of these were considered to be in need of further information and regional action, and four species were recommended for consideration by the CITES Plants Committee (PC). Information sheets on each of these species is provided in Annex 2.

**Table 1: Mesoamerican timber tree species in international trade of concern**

FAMILY		SPECIES	CITES	RECOMMENDATION(S) <sup>1</sup>	PC REVIEW NEEDED
1	BOMBACACEAE	<i>Ceiba pentandra</i> <sup>#</sup>		B C	
2	BORAGINACEAE	<i>Cordia dodecandra</i> <sup>\$</sup>		B C	
3	EUPHORBIACEAE	<i>Heronima alchorneoides</i> <sup>#</sup>		B C	
4	HAMAMELIDACEAE	<i>Liquidamber styraciflua</i> <sup>\$</sup>		B C	
5	LEGUMINOSAE	<i>Dalbergia retusa</i> <sup>\$</sup>		B	Yes
6		<i>Dalbergia stevensonii</i> <sup>\$</sup>		B	Yes
7		<i>Dipteryx panamensis</i> <sup>#</sup>	III CR	B C	
8		<i>Hymenaea courbaril</i> <sup>#</sup>		B C	
9		<i>Myroxylon balsamum</i> <sup>#</sup>		B C	
10		<i>Peltogyne purpurea</i> <sup>#</sup>		B C	
11		<i>Platymiscium pleiostachyum</i> <sup>\$</sup>	II	B C	
12		<i>Prosopis juliflora</i> <sup>#</sup>		B	
13		<i>Cedrela odorata</i> <sup>\$</sup>	III PE, CO	B C	Yes
14		<i>Swietenia humilis</i> <sup>#</sup>		B C	
15	PINACEAE	<i>Pinus tecumanii</i> <sup>\$</sup>		B C	
16	RUBIACEAE	<i>Balmea stormiae</i> <sup>\$</sup>	I	B	Yes
17	SAPOTACEAE	<i>Manilkara achras</i> <sup>#</sup>		B C	
18	ZYGOPHYLLACEAE	<i>Guaiacum sanctum</i> <sup>\$</sup>	II	B	

1 B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.

C: Regional collaboration and exchange of information and experience needed.

# Identified by workshop participants

\$ Identified in original trees report

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<sup>2</sup> WCMC. 1999. *Contribution to an evaluation of tree species using the new CITES Listing Criteria*. 440pp.

Eleven species considered to be in international trade but of less immediate concern are listed in Table 2. These included species considered to be appropriately listed in the CITES

Appendices and not currently in need of consideration by the Plants Committee or species considered to be managed satisfactorily at a national or regional level.

**Table 2: Species in international trade of lower priority for action**

	FAMILY	SPECIES	CITES
1	BIGNONIACEAE	<i>Tabebuia impetiginosa</i>	
2	BETULACEAE	<i>Alnus acuminata</i>	
3	BOMBACACEAE	<i>Bombacopsis quinata</i>	
4		<i>Ochroma lagopus</i> #	
5	CARYOCARACEAE	<i>Caryocar costaricense</i>	II
6	JUGLANDACEAE	<i>Oreomunea pterocarpa</i>	II
7	MELIACEAE	<i>Cedrela fissilis</i>	
8	MYRISTICACEAE	<i>Virola surinamensis</i>	
9	OLACACEAE	<i>Minquartzia guianensis</i>	
10	PINACEAE	<i>Abies guatemalensis</i>	I
11	RUTACEAE	<i>Zanthoxylum flavum</i>	

# Identified by workshop participants

Species that were considered to be of conservation concern, but not known to be in international trade are listed in Table 3.

These are candidates for consideration outside the current process.

**Table 3: Species of concern, not in international trade, identified by workshop participants**

	FAMILY	SPECIES
1	BIGNONIACEAE	<i>Tabebuia donnell-smithii</i>
2	CARYOCARACEAE	<i>Anthodiscus chocoensis</i>
3	FAGACEAE	<i>Quercus oocarpa</i>
4	HUMIRIACEAE	<i>Humisrastrum diguense</i>
5		<i>Sacoglottis trychogyma</i>
6	JUGLANDACEAE	<i>Juglans olanchana</i>
7	LEGUMINOSAE	<i>Haematoxylum brasiliense</i>
8		<i>Himenolobium mesoamericanum</i>
9		<i>Platymiscium curuense</i>
10		<i>Tachigali versicolor</i>
11	MORACEAE	<i>Chlorophora tinctoria</i>
12	SAPOTACEAE	<i>Pouteria isabelensis</i>
13	STAPHYLACEAE	<i>Huertea cubensis</i>

## General recommendations

In addition to the species specific recommendations, the workshop agreed five general recommendations relevant to

the conservation and sustainable use of all species in the region:

- CITES authorities and forestry departments within a country should establish closer co-operative links to facilitate communication, enhance the scientific basis of decision making and support the implementation of regulations.
- CITES authorities in the region should work collaboratively to ensure joint decisions are made for each species, ensuring a consistent approach within the region.
- Improved collaboration between all sectors involved in timber tree conservation and sustainable use is urgent in order to attain sustainable utilisation of tree resources.
- Information gathering and management facilities must be improved to ensure that optimal utilisation as well as optimal conservation of the species can be attained.
- Standardised data management methods should be used to facilitate data exchange and effective coordination.
- National training centres are needed to ensure accurate identification of tree species by technical staff.

## 15<sup>th</sup> CITES Plants Committee

A [summary report](#) of the findings of the workshop was presented to the 15<sup>th</sup> meeting of the CITES Plants Committee, 17-21 May 2005 in Geneva. The Plants Committee noted the four species, listed in Table 3, which were recommended for action by the Plants Committee. The Plants Committee selected *Balmea*

*stormiae* for inclusion in the periodic review of plant species included in the CITES Appendices and agreed to consider reviewing the listing of the other three species *Cedrela odorata*, *Dalbergia retusa* and *D. stevensonii*, based on a document provided by the Netherlands.



## **Future Action**

Funding will now be sought to implement further regional workshops in other regions, based on this model established in

the Mesoamerica. Please contact UNEP-WCMC for further details.

## **Acronyms and weblinks**

CBD [Convention on Biological Diversity](#)

CITES [Convention on International Trade in Endangered Species of Fauna and Flora](#)

Defra [Department for Environment, Food and Rural Affairs](#)

FAO [Food And Agriculture Organization Of The United Nations](#)

FFI [Fauna and Flora International](#)

MARENA [Ministerio de Ambiente y Recursos Naturales](#)

TRAFFIC [TRAFFIC International](#)

UN [United Nations](#)

UNEP [United Nations Environment Progamme](#)

UNEP-WCMC [United Nations Environment Progamme World Conservation Monitoring Centre](#)

WWF [World Wide Fund for Nature](#)

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## **Annexes**

**Annex 1 Workshop comments on timber species**

**Table 1: Workshop comments on species presented by UNEP-WCMC**

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
<b><i>Abies guatemalensis</i> PINACEAE</b>								
Range state			X	X	X	X	X	
Legal trade				no	no		no	
Illegal trade								
Form traded								
Threatened by trade								
Subject to extraction								
National red list						N Endangered and nationally protected	Endangered and nationally protected.	
Notes	CITES Appendix I (1/07/75)							
<p>• <b>Guatemala</b> A flagship species associated with high areas in mountains and many indigenous communities. No longer traded internationally. The only legal use is in the form of <i>in vitro</i> cultivation for Christmas trees. Traditions dictate that the species is not used, therefore it is not exploited commercialised nationally or internationally. Convinced that Appendix I has given it its high level of protection.</p> <p>• <b>Honduras</b> Endangered (source: Trees of Honduras)</p> <p>• Mexico Restricted populations. Considered CITES listing has prevented exploitation. Supported consideration of species by Plants Committee.</p> <p>Possibility of referring the species to the Plants Committee was discussed, but it was concluded that the current Appendix I listing was appropriate and therefore the species was not a priority for action.</p>								
Recommendation(s)	A: Not of priority for actino. Should remain on Appendix I.							

<sup>3</sup> No participants from El Salvador attended the workshop. Distribution data for El Salvador is taken from Annex 3

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama								
<b><i>Anus acuminata</i> BETULACEAE</b>																
Range state	x	x	x	x	x	x	x	x								
Legal trade	?	no	no	no	no	no	no	no								
Illegal trade	no	no	no	no	no	no	no	no								
Form traded																
Threatened by trade																
Subject to extraction	yes	yes	no	no	no	no	no	no								
National red list	no	no	no	no	no	no	no	no								
Notes	No indication of international trade.															
Recommendation(s)	A: Not of priority for action.															
<b><i>Balmea stormiae</i> RUBIACEAE</b>																
Range state			x	x	x	x	x	x								
Legal trade			no	no	no	no	no	no								
Illegal trade			no	no	no	no	no	no								
Form traded																
Threatened by trade																
Subject to extraction			no	no	no	no	no	no								
National red list			yes	yes	yes	yes	yes	yes								
Notes	CITES Appendix I (1/07/75)															
Recommendation(s)	<ul style="list-style-type: none"> <li>• <b>Guatemala</b> A poorly known species, with little information available. Some specimens were observed in 1965. A literature survey will be undertaken.</li> <li>• <b>Mexico</b> No information on exploitation. Literature and herbaria surveys needed.</li> </ul>															
B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.																
Guatemala and Mexico should undertake a taxonomic type investigation to include a revision of the bibliography.																
F. Review needed by Plants Committee.																

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
<b><i>Bombacopsis quinata</i> BOMBACACEAE</b>								
Range state	x	?		x		x	x	x
Legal trade		no		no		no	no	no
Illegal trade				no		no	no	no
Form traded								
Threatened by trade								
Subject to extraction	yes	yes	yes	yes	yes	yes	yes	yes
National red list	no	no	no	no	no	no	no	no
Notes	<ul style="list-style-type: none"> <li>• Costa Rica High quality wood similar to <i>Ceiba pentandra</i></li> <li>• Nicaragua The timber “pochote” is recognised as one of the best woods.</li> </ul>							
Recommendation(s)	A: Not a priority for action.							
<b><i>Caryocar costaricense</i> CARYOCARACEAE</b>								
Range state	x	?					x	x
Legal trade		no					no	no
Illegal trade							?	?
Form traded								
Threatened by trade								
Subject to extraction	yes	yes	yes	yes	yes	yes	yes	yes
National red list	no	no	no	no	no	no	vulnerable	vulnerable
Notes	CITES Appendix II (1/07/75) <ul style="list-style-type: none"> <li>• No international trade reported.</li> <li>• Costa Rica Few individuals, therefore vulnerable to any exploitation and in need of protection.</li> <li>• Panama Vulnerable due to habitat loss.</li> </ul>							
Recommendation(s)	A: Not a priority for action.							
<b><i>Cedrela fissilis</i> MELIACEAE</b>								
Range state	x	?					x	x
Legal trade							no	no

		Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
Illegal trade		no							no
Form traded									
Threatened by trade									
Subject to extraction		no							yes
National red list		yes							yes
Notes	No evidence of international trade.								
Recommendation(s)	A: Not a priority for action.								

<i>Cedrela odorata</i> MELIACEAE									
Range state	x	x	x	x	x	x	x	x	x
Legal trade	yes	?	yes	yes	yes	yes	yes	yes	no
Illegal trade	yes	?	?	?	yes	yes	no	no	no
Form traded	Sawn wood boards	sawn wood doors furniture lumber	sawn wood	Veneer "chapas" furniture	sawn lumber				
Threatened by trade	?		?	?			yes	yes	
Subject to extraction	yes	yes	yes	yes	yes	yes	yes	yes	
National red list	no	no	yes	yes	yes	no	yes	yes	

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Range State			Nicaragua	Panama														
					Honduras	Mexico																	
Notes	CITES Appendix III (Populations of Colombia and Peru) [Peru, 12/06/01; Colombia 29/10/01]																						
<ul style="list-style-type: none"> <li><b>Costa Rica</b> Well distributed in low lying areas, with healthy populations still existing. The species is very important and heavily used. However, it is not considered to be cause for concern.</li> <li><b>Nicaragua</b> One of the most highly demanded species in the country. Country studies are needed to evaluate the existing population size, the level of trade, trade patterns and the uses.</li> <li><b>Mexico</b> One of the most important tropical woods. Mexico has identified areas where red cedar is available. There is considerable movement of the wood, so Mexico supports regional collaboration and sharing of information.</li> <li><b>Honduras</b> The species is sometimes exported, mixed with mahogany. Study of use needed, based on maximum added value during different stages. A high quality species, but quality is declining. Considerable illegal trade exists.</li> <li><b>Guatemala</b> Trade is reported. Some problems exist with the plantation areas.</li> </ul>																							
<p>A regionally important, widespread species with a high level of extraction and legal international trade in most countries. Given the species can regenerate well, other species may be of higher priority.</p>																							
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.																						
	C: Regional collaboration and exchange of information and experience needed.																						
	F: Review by Plants Committee																						
<i>Cordia dodecandra</i> BORAGINACEAE																							
Range state	X				X	X	X	X															
Legal trade	yes				yes			yes															
Illegal trade	?				?			?															
Form traded	finished products & handicrafts				sawn lumber, timber, planks, boards.			boards, planks, sawn lumber.															
Threatened by trade	?							no															
Subject to extraction	yes				yes			yes															
National red list	not				yes			no															
Notes	<ul style="list-style-type: none"> <li><b>Belize</b> More information is needed.</li> <li><b>Guatemala</b> Included in forestry incentives plan, 346 hectares reforested. Listed as a Category 3 species in Guatemala. Further information needed, especially about trade.</li> <li><b>Mexico</b> More information is needed. Not sure if there is illegal trade. The species occurs throughout the centre and the south of the country.</li> </ul>																						

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
Recommendation(s)								
B:	Data deficient. Further information should be collected by the range states and UNEP-WCMC.							
C:	Regional collaboration and exchange of information and experience needed.							
<i>Dalbergia retusa</i> LEGUMINOSAE								
Range state	x	x	x	x	?	x	x	x
Legal trade	?			?		no	yes	yes
Illegal trade	?		?	?	?	no	?	no
Form traded				handicrafts			handicrafts and processed products	handicrafts
Threatened by trade							yes	yes
Subject to extraction	yes			yes	yes	no	yes	yes
National red list	no		yes	yes	yes	no	no	yes
Notes	<ul style="list-style-type: none"> <li>• <b>Nicaragua</b> The species is in a critical state, but it is unclear how much data are available. The species is being heavily exploited for legal and illegal international trade. A review is needed by the Plants Committee.</li> <li>• <b>Panama</b> The species is considered to be endangered. Support idea of Plants Committee review.</li> <li>• <b>Guatemala</b> Used for handicrafts with high rate of trade. Support idea of Plants Committee review.</li> </ul>							
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.							
F:	Review by Plants Committee recommended							
<i>Dalbergia stevensonii</i> LEGUMINOSAE								
Range state	x			x			x	
Legal trade	yes			yes			x	
Illegal trade	?			yes				
Form traded	timber blocks			sawn lumber				
Threatened by trade	finished products	?		yes				
Subject to extraction	yes			yes				
National red list	no			yes				

	Range State						Notes	
	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
• <b>Belize</b> The species is confined to the south of the country. No information is available regarding the population size or status of the species, despite the presence of organisations working there. No trade data were available. There is a strong international demand for the species, and a company associated with FFI are proposing plantation trials. More information is needed, including data on the steps taken to establish plantations and the volume of timber left in the wild. Review by the Plants Committee would be useful.								
• <b>Guatemala</b> In 2004, 254 m <sup>3</sup> of lumber was exported to various countries including the Netherlands. In 2004, 54 hectares were reforested in a different zone ("kiche"). Exports not high, but the population is not very dense.								
• <b>Honduras</b> The species does not occur in Honduras despite the proximity with Belize.								
• <b>Mexico</b> The species may be present.								
• <b>Panama</b> Queried the statement that trade is not high when density is not known.								
Recommend(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC. F: Review by Plants Committee recommended.							
<i>Guaiacum sanctum ZYGOPHYLLACEAE</i>								
Range state	X	X	X	X	X	X	X	X
Legal trade	no	no	no	no	yes	yes	no	no
Illegal trade	no	no	no	yes	yes	?	?	no
Form traded				handicrafts	boards			
Threatened by trade					yes			
Subject to extraction	no	no	no	yes	yes	yes	handicrafts	
National red list	no	no	yes	yes	yes	no	yes	

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Range State			Nicaragua	Panama
					Honduras	Mexico	Nicaragua		
Notes	CITES Appendix II (1/07/75)								
<ul style="list-style-type: none"> <li><b>Costa Rica</b> The population is small but a lot of the wood is sold, suggesting it may be imported from Nicaragua. As little of the population remains, further studies should be undertaken on the remaining population, wherever it is being exploited. A good understanding of the market is needed. Export permits should be limited. Exploitation has been banned due to low population size</li> <li><b>Guatemala</b> Considers that the slow growth of the species should be taken in to account, and that the source of all wood sold in Costa Rica as handicraft should be studied.</li> <li><b>Honduras</b> The species may be confused with another species of <i>Guaiacum</i>. It would be helpful to carry our research at airports, as the species is trafficked in many ways. An understanding of the ways in which the wood is moved is needed. The species is also moved via the ports.</li> <li><b>Mexico</b> A system is in place ensuring species identification. The species is protected within Mexico and a study on population density is being carried out, funded by several countries, including Germany and the USA. Mexico recommends that the survey is completed and the results published. Good management rather than a ban is needed.</li> <li><b>Nicaragua</b> The species is in category A of Nicaragua's national classification system. The species is exploited and is scarce. No illegal trade are available, but it is considered possible that there is some illegal trade from Nicaragua into Costa Rica. There is a great demand for the species, with craft items being exported to El Salvador and the USA, and special treatment is needed. Mechanisation is needed to increase the population.</li> <li><b>Panama</b> Extraction is a problem, and the low density of the species may be affected by illegal marketing..</li> </ul>									
<p>Used in many countries in Europe. A slow growing species. This species is the one with the most problems, but distinguishing the species is difficult so any studies or activities should therefore include all the species in the genus, to understand all the trade movements.</p>									
<p>Note: PC15 Doc 23 Progress report on the study on "Abundance distribution and conservation status of <i>Guaiacum sanctum</i> in Mexico."</p>									
<p>Recommendation(s)</p> <p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p> <p>A complete survey of the genus should be undertaken.</p> <p>The survey being undertaken by Mexico should be completed and the results published.</p>									
<p><i>Liquidambar styraciflua</i> HAMAMELIDACEAE</p>									
Range state				X	X	X	X	X	X
Legal trade				no	yes	no	no	no	no
Illegal trade				no	no	essential oils resins	no	no	no
Form traded						no			
Threatened by trade				yes	yes	yes	yes	yes	yes
Subject to extraction									

		Range State							
		Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
National red list				yes		no	no	no	
Notes	<ul style="list-style-type: none"> <li><b>Honduras</b> Resin is exported, much of it to China, France, Germany, Italy, Spain and the USA for use for perfume. Resin extraction, if done properly does not damage the tree, but if not done correctly, then pressure on species could arise. A recommendation on how the resin is managed is needed. Studies on density and population area are needed. It is an asset being used but not replaced in Honduras. Documentation on users is available.</li> <li><b>Nicaragua</b> Used domestically for medical purposes, but also subject to erosion due to loss of habitat to other export crops, such as coffee. Assistance is needed to assess the status of the species</li> </ul>								
	Population studies are needed. A previous study on latex should be extended Consumer countries should be asked to fund a report on the species, and assist with replantation schemes. Ports of entry should provide import data.								
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC. C: Regional collaboration and exchange of information and experience needed.								
<i>Minquartia guianensis</i> OLACACEAE									
Range state		x				x			x
Legal trade		?				?			no
Illegal trade		no				?			no
Form traded									
Threatened by trade									
Subject to extraction		yes				?			no
National red list		no				?			no
Notes	<ul style="list-style-type: none"> <li><b>Honduras</b> Used domestically. Found in the Mosquitia region of Honduras.</li> </ul>								
Recommendation(s)	A: Not a priority for action								
<i>Oreomunnea pterocarpa</i> JUGLANDACEAE									
Range state		x							x
Legal trade		?							no
Illegal trade		?							no
Form traded									
Threatened by trade									
Subject to extraction		yes							no
National red list		no							no

	Belize	Costa Rica	El Salvador <sup>3</sup>	Range State						
				Guatemala	Honduras	Mexico	Nicaragua	Panama		
Notes	CITES Appendix II (Appendix I 1/07/05; Appendix II 11/06/92)									
Recommendation(s)										
	A: Not a priority for action									
<b><i>Pinus tecumanii</i> PINACEAE</b>										
Range state		x	x	x	x	x	x	x		
Legal trade			?	yes	no	no	yes	yes		
Illegal trade			no	yes	no	no	yes	yes		
Form traded				logs						
Threatened by trade				yes						
Subject to extraction			yes	yes	no	yes	yes	no		
National red list		yes	yes	yes	no	no	no	no		
Notes	<ul style="list-style-type: none"> <li><b>Honduras</b> Specific data are not available. An existing inventory of the genus <i>Pinus</i> in Central America indicates the species occurs in every department in Honduras. A population study is needed as the inventory data lacks information on how much is cut and how much is regenerating.</li> <li><b>Nicaragua</b> Floristic composition very important, but inventories need updating. The existing floristic inventory is for all <i>Pinus</i> in central America, but it is not a forest inventory, i.e. qualitative inventory is needed.</li> </ul>									
Recommendation(s)	<p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p> <p>Population survey needed.</p>									
<b><i>Platymiscium pleiostachyum</i> LEGUMINOSAE</b>										
Range state	x	x	x	x	x	x	x	no		
Legal trade	no	no	no	no	?	?	yes	yes		
Illegal trade	no	no	no	?	?	?	no	no		
Form traded							handicrafts furniture			
Threatened by trade							Yes	Yes		
Subject to extraction	no	no	no	?	?	?	Yes	Yes		
National red list	yes	yes	no	No	No	Genus, yes	no	no		

	Notes	Range State				Range State Nicaragua	Range State Panama
		Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala		
CITES Appendix II (Appendix I 1//07/75; Appendix II 18/01/90)							
Recommendation(s)	<ul style="list-style-type: none"> <li>• Costa Rica Important species. Much of the wood is thought to arrive in Costa Rica from Nicaragua, where the species has a closed season.</li> <li>• Nicaragua Very little trade. High value wood. The wood is worked, creating many jobs.</li> </ul> <p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.  C: Regional collaboration and exchange of information and experience needed.</p>						
<i>Tabeaia impetiginosa</i> BIGNONIACEAE							
Range state						x	
Legal trade						no	
Illegal trade						no	
Form traded							
Threatened by trade							
Subject to extraction						no	
National red list						no	
Notes	<ul style="list-style-type: none"> <li>•</li> </ul>						
Recommendation(s)	A Not a priority for action.						
<i>Virola surinamensis</i> MYRISTICACEAE						x	
Range state		x					
Legal trade		?				no	
Illegal trade		internal use					
Form traded		no				no	
Threatened by trade							
Subject to extraction		yes					
National red list		no				no	
Notes							
Recommendation(s)	A Not a priority for action.						
<i>Zanthoxylum flavum</i> RUTACEAE						x	
Range state						?	
Legal trade						?	
Illegal trade						?	

	Belize	Costa Rica	El Salvador <sup>3</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
Form traded								
Threatened by trade								
Subject to extraction								
National red list								
Notes	<ul style="list-style-type: none"> <li>• <b>Honduras</b> Only occurs in Caribbean island (Swan Island).</li> </ul>							
Recommendation(s)	A Not a priority for action.							

**Table 2: Workshop comments on species proposed by workshop participants**

Species	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama								
<i>I Ceiba pentandra</i> BOMBACACEAE																
Range state	x	x		x	x	x	x	x								
Legal trade	?			no		yes	no	no								
Illegal trade	?	?		no		?	no	no								
Form traded	plywood filler			veneer	plywood filler	sawn timber	plywood filler	veneer								
Threatened by trade	?			no		no	no	no								
Subject to extraction	yes			no		yes	yes	no								
National red list	no	no		yes		no	no	no								
Notes	Widespread in the region, red listed only in Guatemala and, therefore may be less of a regional priority.															
<ul style="list-style-type: none"> <li>• <b>Honduras.</b> No information available on regeneration or consumption.</li> <li>• <b>Mexico</b> Concern that large diameter trees are being used for plywood. Difficult to assess volume involved as the species is used for the middle layer of plywood. Used in large quantities, with many countries interested in its use. More precise data are therefore needed, including population and management studies.</li> <li>• <b>Nicaragua</b> Used extensively as filler for plywood and as veneer. Not included in any repopulation programme, or nurseries. Wild populations are disappearing. Action is needed.</li> </ul>																
<p>General note: More caution is needed on how the wood is being used.</p> <p>Recommendation(s)</p> <p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p> <p>Mexico: Population studies and management studies should be undertaken</p>																

<sup>4</sup> No participants from El Salvador attended the workshop.

Species	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
<b>2 <i>Dipteryx panamensis</i> LEGUMINOSAE</b>								
Range state		x				?	x	x
Legal trade		?				?	?	Proximo año
Illegal trade		?				yes	no	
Form traded						sawn timber	sawn timber	
						furniture	parquet flooring	
Threatened by trade						no	yes	
Subject to extraction			no			yes	yes	
National red list						no	yes	
Notes	CITES Appendix III (Costa Rica, 13/02/03)							
	<ul style="list-style-type: none"> <li>• <b>Costa Rica</b> Felling is authorised, providing that habitat for macaws is not reduced. Further regulations may be needed in relation to this. Control mechanisms between countries need to be improved. More information is needed on population size.</li> <li>• <b>Nicaragua</b> More information is needed on population size.</li> <li>• <b>Panama</b> The species forms an important part of the habitat and there is concern over its status. Information on the species is requested as part of the permit process.</li> </ul>							
Recommendation(s)	<p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p>							
<b>3 <i>Hieronima alchoneoides</i> EUPHORBIACEAE</b>								
Range state		x		x	x	x	x	x
Legal trade		?		?	?	no	no	(2006)
Illegal trade		?		?	?	no	no	no
Form traded						furniture		
Threatened by trade						no	yes	
Subject to extraction						yes	yes	
National red list						no	yes	

Species	Range State							
	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
Notes	<ul style="list-style-type: none"> <li>• <b>Costa Rica</b> Plenty of information is available, but this needs to be compiled and made accessible.</li> <li>• <b>Panama</b> There is concern over the status of the species. Information on the species is requested as part of the permit process. A request from and export firm to export material in 2006 has been received. Inventories are currently being reviewed to assess the situation of the species in the country. More basic population information is needed, and support is needed to compile this information.</li> </ul>							
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC. C: Regional collaboration and exchange of information and experience needed.							
4 <i>Hymenaea courbaril</i> LEGUMINOSAE								
Range state		x		x	x	x	x	x
Legal trade		?		?	no	no	yes	no
Illegal trade		?		no	no	no	no	no
Form traded					?			
Threatened by trade				?		no		
Subject to extraction		yes		?	yes	yes	yes	no timber extraction the fruits are eaten.
National red list		no		no		no	no	yes
Notes	<ul style="list-style-type: none"> <li>• <b>Honduras</b> The species may be in international trade. Further information is required.</li> <li>• <b>Costa Rica</b> The species may be in international trade. Further information is required.</li> </ul>							
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC. C: Regional collaboration and exchange of information and experience needed.							
5 <i>Manilkara achras</i> SAPOTACEAE								
Range state		x	x	x	x	x	x	x
Legal trade		Yes		?	yes	yes	yes	no
Illegal trade		?	?	?		no	no	poles (national trade)
Form traded	Posts, flooring  Exported as flooring. c. 8 containers exported in 2004.							
Threatened by trade		?		?		No	No	
Subject to extraction		yes		yes		Yes	yes	

Species	Range State					Mexico	Nicaragua	Panama
	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras			
National red list	protected but not on red list							
Notes	<ul style="list-style-type: none"> <li><b>Belize</b> One company exports sapodilla flooring and small producers export posts to Mexico.</li> <li><b>Guatemala</b> National exploitation</li> <li><b>Honduras</b> No export data available. Lumber is extracted from mountain areas, and exportation is thought to occur, although the species is not processed industrially. Two factories process sapotillo. The wood is exported as flooring.</li> <li><b>Mexico</b> The species is exploited nationally, but there is no evidence of international export. Chicle (gum) is exported and some export data are available.</li> </ul>							
Recommendation(s)	B: Data deficient. Further information should be collected by the range states and UNEP-WCMC. C: Regional collaboration and exchange of information and experience needed.							
6 <i>Myroxylon balsamum</i> LEGUMINOSAE								
Range state	x	x	x	x	x	x	x	x
Legal trade	no			?			no	yes
Illegal trade	?	?	?	?			no	no
Form traded	?						internal handicrafts	furniture
Threatened by trade	?			?			no	yes
Subject to extraction	Lumber			?			no	yes
National red list	no	yes	yes	yes			no	no
Notes	<ul style="list-style-type: none"> <li>A very important species, widely used throughout the region.</li> <li><b>Costa Rica</b> Trade is banned. No legal trade therefore exists and no data are available on illegal trade. Considered possible that illegal trade may exist between Costa Rica and Panama, as Costa Rica has banned the trade, but trade is permitted in Panama.</li> <li><b>Panama</b> The main species exported as parquet and furniture. The density of the species is being analysed, and a management plan is in preparation.</li> <li>Heavily exported in colonial times and in the 1970s and 1980s for wood and other properties. Spain previously imported great quantities of balsam wood. Now only finished products are exported.</li> </ul>							

Species	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras	Mexico	Nicaragua	Panama
Recommendation(s)								
B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.								
C: Regional collaboration and exchange of information and experience needed.								
Detailed data gathering process needed, providing accurate information on density.								
7 <i>Ochroma lagopus</i> BOMBACACEAE								
Range state	x	x	x	x	x	x	x	x
Legal trade		yes			yes			yes
Illegal trade								
Form traded	handicrafts short planks			short planks				handicrafts
Threatened by trade	no			?			no	
Subject to extraction	yes			yes			yes	
National red list	no			no			no	
Notes	<ul style="list-style-type: none"> <li><b>Costa Rica</b> An abundant, pioneering species with good regeneration and unlikely to be at risk of over exploitation. Also grown in plantations. May now only be traded as a finished product. A factory recently located to Costa Rica is now making heavy demands. A high value wood, used for architecture. Not considered to be of concern.</li> <li><b>Nicaragua</b> An easily worked wood (balsa) Frequently used for handicrafts, exported to the USA.</li> <li><b>Panama</b> Huge quantities previously exported to Germany. May now only be exported as finished products. Not considered to be of concern.</li> </ul>							
Recommendation(s)	A: Not a priority for action.							
8 <i>Peltogyne purpurea</i> LEGUMINOSAE								
Range state	x	x	x	x	x	x	x	x
Legal trade	?					yes?	no	2006
Illegal trade	?					no		no
Form traded					no		furniture doors	parquet
Threatened by trade					no		yes	yes
Subject to extraction					no		yes	yes
National red list	no				no		yes	yes

Species	Range State					Panama
	Belize	Costa Rica	El Salvador <sup>4</sup>	Guatemala	Honduras	
Notes	<ul style="list-style-type: none"> <li><b>Panama</b> There is concern over the status of the species. Information on the species is requested as part of the permit process. A large market exists, but insufficient information is available. Applications to export items have been received, and samples of furniture and parquet provided. Population studies are needed, in addition to regional information exchange.</li> <li><b>Costa Rica</b> No trade exists yet, but it is important for the situation to be monitored. The species occurs in Costa Rica, near the border with Panama. It is important that Costa Rica is aware of any trade in the species in Panama.</li> </ul>					
Recommendation(s)	<p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p>					
	<i>9 Prosopis juliflora</i> LEGUMINOSAE					
Range state	x	x	x	x	x	x
Legal trade	?	no	yes	?	no	no
Illegal trade	?	charcoal	yes	no	no	no
Form traded			yes	no	no	yes
Threatened by trade			yes	no	no	no
Subject to extraction			yes	no	no	yes
National red list			no	no	no	no
Notes	<ul style="list-style-type: none"> <li><b>Mexico</b> An important slow growing species in semi arid areas, with a precious wood.. There is concern about alternative species, and how to manage the species to avoid reductions in species density. Export data to the USA are available. 4 m<sup>3</sup> of wood produce 1 tonne of charcoal. Data need to be made available. There is also concern for other species in the genus.</li> <li><b>Nicaragua</b> A very important species, almost extinguished in desert areas due to its use as firewood.</li> </ul>					
Recommendation(s)	<p>B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.</p> <p>C: Regional collaboration and exchange of information and experience needed.</p>					
	<i>10 Swietenia humilis</i> MELIACEAE					
Range state	x	x	x	x	x	x
Legal trade	?	?	?	no	no	no
Illegal trade	?	?	?	no	no	no
Form traded			?	no	sawn timber	
Threatened by trade			?	no	yes	

Species	Belize	Costa Rica	El Salvador <sup>4</sup>	Range State				Panama
				Guatemala	Honduras	Mexico	Nicaragua	
Subject to extraction				yes		yes	yes	no
National red list				yes		no	yes	yes
Notes	CITES Appendix II (01/07/75)							
				• Nicaragua Forest inventory of the species needs updating, including analysis of species density and legal and illegal trade..				
				Note: In 1990 and 1999 three shipments of timber, totalling 441m <sup>3</sup> were exported from Guatemala (CITES Trade Database).				
Recommendation(s)	B			B: Data deficient. Further information should be collected by the range states and UNEP-WCMC.				
	C			C: Regional collaboration and exchange of information and experience needed.				

