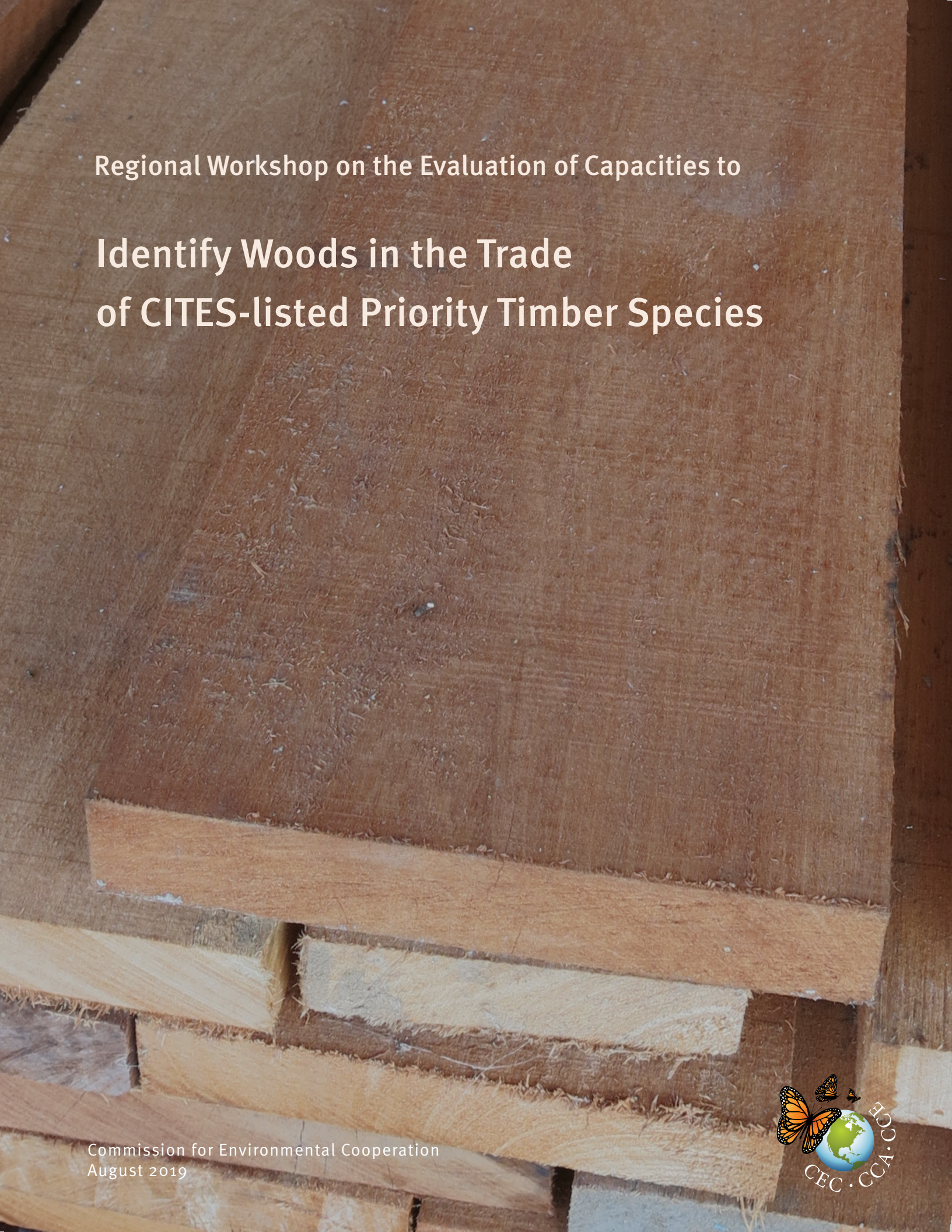

Regional Workshop on the Evaluation of Capacities to

Identify Woods in the Trade of CITES-listed Priority Timber Species

Commission for Environmental Cooperation
August 2019

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Table of Contents

Acronyms and Abbreviations

CBP	United States Customs and Border Protection
CBSA	Canada Border Services Agency
CEC	Commission for Environmental Cooperation
CFS	Canadian Forest Service
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
Conabio	National Commission for the Knowledge and Use of Biodiversity (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*) (Mexico)
Conafor	National Forestry Commission (*Comisión Nacional Forestal*) (Mexico)
Conanp	National Commission for Protected Natural Areas (*Comisión Nacional de Áreas Naturales Protegidas*) (Mexico)
CoP	Conference of Parties (CITES)
CSA	Canadian Standards Association
DART-TOF-MS	Direct Analysis in Real Time (Time of Flight) Mass Spectrometry
DFS	District Forest Services
DGAPII	General Bureau of International Police Affairs and Interpol (*Dirección General de Asuntos Policiales Internacionales e Interpol*) (Mexico)
DGVS	General Bureau of Wildlife (*Dirección General de Vida Silvestre*) (Mexico)
DHS	Department of Homeland Security (United States)
ECCC	Environment and Climate Change Canada
ESA	Endangered Species Act (United States)
FSC	Forest Stewardship Council
GTTN	Global Timber Tracking Network
IAWA	International Association of Wood Anatomists
Interpol	International Criminal Police Organization
IUCN	International Union for the Conservation of Nature
ITTO	International Tropical Timber Organization
LGDFS	General Law on Sustainable Forestry Development (*Ley General de Desarrollo Forestal Sustentable*) (Mexico)
LGEEPA	General Law on Ecological Balance and Environmental Protection (*Ley General de Equilibrio Ecológico y Protección al Ambiente*) (Mexico)
LGVS	General Law on Wildlife (*Ley General de Vida Silvestre*) (Mexico)
m^3	cubic meters
NAAEC	North American Agreement on Environmental Cooperation

NAWEG	North American Wildlife Enforcement Group
NOM-059	Mexican Official Standard NOM-059-Semarnat-2010
NRCan	Natural Resources Canada
PGR	Office of the Federal Attorney General (*Procuraduría General de la República*) (Mexico)
PNIDTF	National Forestry Research and Development Program (*Programa Nacional de Investigación y Desarrollo Tecnológico Forestal*) (Mexico)
PROCER	At-Risk Species Recovery Program (*Programa de Recuperación de Especies en Riesgo*) (Mexico)
Profepa	Office of the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*) (Mexico)
SAT	Tax Administration Service (*Servicio de Administración Tributaria*) (Mexico)
Semarnat	Ministry of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*) (Mexico)
SFI	Sustainable Forestry Initiative
SUMA	National System of Wildlife Management Units (*Sistema Nacional de Unidades de Manejo para la Conservación de la Vida Silvestre*) (Mexico)
UMA	Wildlife Management and Sustainable Use Unit (*Unidad de Manejo y Aprovechamiento Sustentable de Vida Silvestre*) (Mexico)
USDA	United States Department of Agriculture
USDA-APHIS	United States Department of Agriculture – Animal and Plant Health Inspection Service
USFWS	United States Fish and Wildlife Service
WAPPRIITA	Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (Canada)
WAPTR	Wild Animal and Plant Trade Regulations (Canada)
WCMC	United Nations Environment Programme, World Conservation Monitoring Centre
WED	ECCC Wildlife Enforcement Directorate (Canada)

Dalbergia retusa, Forest and Kim Starr, Flickr

Abstract

The Regional Workshop on the Evaluation of Capacities to Identify Woods in the Trade of CITES-listed Priority Timber Species was conducted as part of the Supporting Sustainable Trade of CITES Species project, under the Commission for Environmental Cooperation (CEC) 2017–2018 Operational Plan. The workshop took place in the city of Chetumal, Quintana Roo, Mexico, on 6–8 November 2018. It brought together policymakers, environmental law enforcement officials, and the authorities responsible for enforcing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), along with researchers, producers, nongovernmental organizations, and industry representatives. The objective was to exchange information and experiences, as well as databases, methodologies and tools, on identifying wood from six tree species (*Dalbergia granadillo*, *D. retusa*, *D. stevensonii*, *Swietenia humilis*, *S. macrophylla* and *S. mahagoni*), and thus lead to strengthening the application of CITES and other laws regulating their trade in North America. This was a priority published in the CEC's *Action Plan for North America on the Sustainable Trade in Timber*. Based on the information shared in presentations and plenary discussions during the workshop, information gaps were identified, as well as actions needed to fill them. This report presents recommendations discussed during the workshop that were devised with the intent of continuing activities aimed at supporting and strengthening the sustainable use of priority timber species.

Executive Summary

As part of its Supporting Sustainable Trade of CITES Species project, the Commission for Environmental Coopoeration (CEC) held the Regional Workshop on the Evaluation of Capacities to Identify Woods in the Trade of CITES-listed Priority Timber Species, on 6–8 November 2018, in Chetumal, Quintana Roo, Mexico. This workshop was conducted as part of one of the priority actions identified and published in *Action Plan for North America on the Sustainable Trade in Timber* (CEC 2017), which was developed to strengthen the conservation and use of the timber species listed in CITES Appendix II. This report shows the results of the workshop, describing its objectives, organization and development, as well as the working groups' recommendations.

The workshop's main objective was to bring together enforcement and CITES authorities, researchers, intelligence analysts, producers, and industry representatives to share information on six priority timber species: *Dalbergia granadillo*, *D. retusa*, *D. stevensonii*, *Swietenia humilis*, *S. macrophylla* and *S. mahagoni*.

The attendants reviewed an extensive compilation of the various identification methodologies and tools, the state of knowledge of the species, and the information on trade, law enforcement, and forest certification schemes, from the three countries, as available. The information presented by the experts was reviewed and discussed in presentations and plenary discussions. In addition, the workshop attendants visited a certified mahogany (*Swietenia macrophylla*)–producing *ejido* (community land, with individually farmed parcels), where they exchanged information directly with the producers. Workshop participants defined strategies for sustainable, legal and traceable commercial production of the six priority tree species.

From the analysis of available information and the exchange of information during the workshop, proposals and recommendations for trinational cooperation were developed, including local and regional actions involving all stakeholders (i.e., governments, law enforcement agencies, nongovernmental organizations, academia, producers, industry, civil society and the CEC).

Some of the recommendations generated in the workshop are presented below:

- Share the latest available information on the actual population statuses of the species in Mexico.
- Encourage collaboration among research institutions, to improve available information; share databases and exchange samples and wood identification technologies.

- Review and improve processes and protocols for timber-trade monitoring.
- Develop a digital platform on which all information on trade, traceability, and methodologies can be shared in real time.
- Develop national and international directories of specialists who can support law enforcement agents.
- Involve civil society and industry in responsible consumption practices and raise awareness of the benefits of complying with regulations.

Finally, action guidelines are defined, as part of the strategy to ensure the conservation and sustainable trade of priority timber species, as established in *Action Plan for North America on the Sustainable Trade in Timber*.

Acknowledgements

We appreciate the participation of all the workshop attendants, whose commitment to the conservation of priority timber species contributed to its success. We thank *Ejido Noh Bec* for the resources provided for the field visit, which allowed participants to understand first-hand a certified company that is a paragon of social organization and sustainable management. In particular, we thank Abraham González, Commissariat Chairman, and the ejido workers who welcomed and guided us during the field visit, contributing their knowledge and sharing their valuable opinion and experience with all of us.

Introduction

In 2017, the CEC published the *Action Plan for North America on the Sustainable Trade in Timber*. The Plan includes priority actions identified by government experts and stakeholders in Canada, Mexico and the United States to strengthen the conservation and sustainable use of timber species listed in CITES Appendix II. One of the recommendations of the Plan was to hold a Regional Workshop on the Evaluation of Capacities to Identify Woods in the Trade of CITES-listed Priority Timber Species, focusing on the six species of the *Swietenia* and *Dalbergia* genera. This report compiles all relevant information from the workshop and includes recommendations and steps to strengthen the conservation and sustainable use of priority timber species.

1. Workshop Objectives

The workshop's general objective was to bring together enforcement officials, CITES authorities, researchers, producers and industry representatives to share information and perspectives on:

1. how to improve the sustainability of trade of the six priority timber species: *Dalbergia granadillo, D. retusa, D. stevensonii, Swietenia humilis, S. macrophylla* and *S. mahagoni*;
2. the bases, methodologies and tools for identifying wood in trade; and
3. strengthening the implementation of CITES and the laws that regulate timber trade in North America.

The objectives defined in the work agenda were the following:

- Provide experts and environmental enforcement authorities from Canada, Mexico and the United States with relevant information and resources to identify selected timber species listed in CITES Appendix II (*Dalbergia granadillo, D. retusa, D. stevensonii, Swietenia humilis, S. macrophylla* and *S. mahagoni*).
- Examine the available identification materials (e.g., anatomical, chemical and genetic analyses); evaluate their usefulness; identify gaps and omissions, for future cooperation in this regard; and issue pertinent recommendations to correct the gaps found.
- Analyze the legal and illegal trade of timber species in North America and with other countries, with a special focus on the timber trade between Mexico and Central America.
- Create linkages among the different regional authorities and other stakeholders in order to foster joint actions aimed at preventing and combating illegal trade.
- Study the available certification schemes for supporting the conservation of timber species and the legality and traceability of their trade, and, as well, recommend a course of action to carry out a certification process.
- Define strategies that favor the sustainable, legal and traceable commercial production of the six priority tree species (*Dalbergia granadillo, D. retusa, D. stevensonii, Swietenia humilis, S. macrophylla* and *S. mahagoni)*.

2. Workshop Development

To prepare the workshop, information available in the three countries was compiled, reviewed and shared with the attendants, under the following general topics:

- Conservation status
- Wood identification
- Trade
- Certification
- Implementation of environmental legislation and enforcement of CITES

During the workshop, experts from Canada, Mexico and the United States (see Appendix I) made presentations on topics related to their expertise and exchanged points of view and information.

The workshop attendants visited *Ejido Noh Bec*, to learn *in situ* from tropical-timber producers, certified under the Forest Stewardship Council (FSC) scheme, who harvest one of the CITES Appendix II species (*Swietenia macrophylla*). Thanks to the exchange of information and opinions on certification, some valuable observations were obtained (see section 3.5). Workshop attendants toured the harvesting area, visited the sawmill, the nurseries and the forestry company's offices. The ejido's Commissariat chairman explained the way in which the company operates and the benefits it gets from being certified, such as better company organization, improved production control, and more productivity. He also talked about the obstacles that complying with CITES and the District Forest Services (DFS) represent, since they tend to be perceived as more red tape that adds to the multiple formalities producers must perform.

Discussions and group work were facilitated, during which, gaps and omissions that represent opportunities for future cooperation were identified (see chapter 4). Finally, possible joint actions to support sustainable, legal and traceable trade in timber species were defined (see chapters 5 and 6).

3. Overview

3.1 Distribution and conservation status

The conservation status and distribution of the mahogany species *S. macrophylla*, *S. humilis* and *S. mahagoni* are well known (Appendix III, Table III-1). Due to the overexploitation experienced over the centuries, *Swietenia* populations in all their natural habitats have changed, mainly in their structure and density. On the one hand, there are small populations of large older trees, and on the other, more-abundant populations of small, young specimens. This happens because species of this genus have a very slow growth rate. In addition, mahogany forest management has been focused on production, and the issue of restoration has been neglected. Scientific information about the species' ecology is scarce and more research work is needed to provide elements to improve management and productivity, as well as any attempt to restore natural forests. The three species considered are under risk categories: in the Mexican Standard NOM-059 and in CITES Appendix II since 2003, with Annotation number 6 including logs, sawn wood, veneer sheets and plywood (Conabio 2017; Nolasco 2005; Synnot 2009).

Dalbergia is the genus of rosewoods and other famous and highly prized woods. There are 20 species of the genus *Dalbergia* that are recognized in Mexico, of which 15 are used for timber, six of these being endemic (Appendix III, Table III-2). Information on their natural history, ecology and reproductive biology is scarce. Sometimes, information is obtained indirectly through research on other species. *Dalbergia* species can be evident elements in the landscape of certain regions and limited in those of others. The distribution of populations in their natural habitat is only partially known. Their conservation status is affected due to heavy exploitation for illegal trafficking; on many occasions, trees are extracted by the root, which seriously affects the survival of populations. Other threats include land-use change and deforestation. *Dalbergia* species are slow-growing, low in recruitment, and have high seed-abortion rates, all of which factors cause their recovery to be slow. As a result of the lack of information, there are no restoration plans for *Dalbergia* species, nor action plans for their use, even though their high commercial value and the growing demand for them are recognized. *D. granadillo* and *D. stevensonii* are both listed in Mexican Standard NOM-059 and in CITES Appendix II and are native to Mexico, while *D. retusa* is not naturally distributed in Mexico. The main challenges for a successful implementation of CITES are the lack of basic information for the formulation of non-detriment findings (NDFs) and the difficulty in identifying timber specimens at the species level at the time of export (during exit verifications by Profepa).

Dalbergia granadillo* Pittier / *Dalbergia retusa* Helms *var. retusa

Dalbergia granadillo wood is indistinguishable from that of *D. retusa*. Therefore, when discussing timber from these species, the common names for both are interchangeable. Considered one of the most valuable woods in the market, *Dalbergia* is highly prized due to its qualities and beauty. Because of the difficulty in identifying timber of this genus at a species level, the real logging and trade volumes of each species are unknown. Experts have determined that *D. retusa* is not native to Mexico. The similarity in results from timber identification analysis performed by Espinoza et al. (2015), applying Direct Analysis Real Time (DART), Time-Of-Flight Mass Spectrometry (TOFMS) techniques, suggests that the two species are synonymous. However, taxonomic and evolutionary studies clearly establish a different origin for each species of the genus, leaving no doubt that they are in fact different species (Cervantes et al. 2019).

***Dalbergia stevensonii* Standl**

Highly prized for its acoustic qualities, *Dalbergia stevensonii* is used to make musical instruments and parts of them. It is also used to make fine furniture and art objects. According to the CITES database, trade in this species has increased notably since 2013, especially exports from Central American countries to the United States and European countries. Currently, Mexico's CITES Scientific Authority (Conabio) is coordinating a publication that will aim to update the state of knowledge of the *Dalbergia* genus, identify information gaps, and develop recommendations for decision-making on conservation and sustainable use, since the volume of illegal trade is worrying.

The project Analysis of the Populations and Relevant Aspects of the Pollination of *Dalbergia granadillo* and *D. stevensonii* carried out by Mexico CITES Scientific Authority and the Priority Species and the Mesoamerican Biological Corridor departments at Conabio (SCEP-CITES-CBM) has contributed to updating some information related to the biology of the two *Dalbergia* species in Mexico and suggests that, in the future, a sustainable-use plan to ensure their conservation will be possible (Cervantes et al. 2019; Linares et al. 2007).

3.2 Wood identification

Identification of plant species is generally carried out through specialized identification guides that consider the plants' botanical characteristics and morphological descriptions. For this, it is necessary to have as many parts of the plant as possible, in different stages of development, together with on-site collection data and observations. When dealing with specimens that are lacking in most parts—such as leaves, flowers, bark, etc.—more-detailed identification procedures are needed. Species identification using specimens such as sawn wood, roundwood, logs, parts of logs or other pieces is problematic because the necessary parts in which distinctive macroscopic characteristics can be observed are not readily accessible. To verify the veracity of commercial declarations, such as timber manifests, it is necessary to use more-precise techniques such as anatomical analysis (macro and microscopic; Table 1), mass spectrometry, and analyses of stable isotopes, radiocarbon, or DNA. Most of these techniques allow for identification down to the genus and species levels. However, there are cases in which timber from different species is very similar and its identification is difficult (such as with the *Dalbergia* species), which makes it necessary to use more-sophisticated and more-precise techniques.

Table 1. Wood identification techniques

Technique	Equipment	Description	Advantages	Disadvantages
Macroscopic anatomy	10X Magnifier	Samples of the specimens are taken; visible characteristics are observed (see Table 2)	Relatively simple on-site use, with basic technical knowledge	Invasive and destructive technique
Microscopic anatomy	Optical microscope; cuts and preparations	Samples are cut and dyed to be observed under a microscope to analyze the microscopic characteristics of wood components	In many cases, the precision level may be enough to identify species	Must be carried out under laboratory conditions; more difficult to apply in the field
Chemical analysis Liquid chromatography Mass spectrometry	Chromatograph Spectrometer	The presence or absence of certain chemical compounds is detected	Very high precision	High-cost specialized equipment; requires specialized technical training
Isotope analysis	Mass spectrometer	The presence of stable isotopes, and isotope profiles are identified	The samples' region, area and location of origin can be determined	Can only be done in laboratories; high cost
Genomics	Centrifuges, sequencers, analyzers	DNA-barcode: genetic markers for species identification Population genetics: genographic mapping DNA-fingerprint: identification of individuals	Very precise identification level, down to individual level	Specialized equipment; long processing periods; requires specialized training
Direct Analysis in Real Time–Time of Flight–Mass Spectrometry (DART-TOF-MS)	Mass spectrometer (time of flight)	Compounds or molecule profiles (chemotypes) are identified	Minimal sample destruction; sampling is simple and inexpensive; short response time	Very expensive instrument; requires specialized technical operation

Source: Espinoza et al. 2015; Wiedenhoeft 2011; Chavarria 2018.

During the workshop, wood identification techniques at the macroscopic, microscopic, chemical, and genetic levels were reviewed and the current state of knowledge and implementation capacities in the three countries was discussed. The need to evaluate capacities for identifying CITES-listed timber species in order to ensure that such identification capacities are reliable and efficient as a means to protect biodiversity and facilitate decision-making was acknowledged. Forensic wood-identification techniques were described; the need for capacity-building to make identification faster, on-site, economical and effective was highlighted by workshop participants. As part of the knowledge exchange, online resources

such as the IAWA Index Xylariorum, InsideWood, CITES Wiki Identification Manual, and Thünen Institute databases were shared. It was noted that exchange of information and training of enforcement agents are needed in the three countries, to better support actions that ensure legal and traceable trade.

Table 2. Macroscopic wood identification techniques

Sample preparation	Anatomic features	Wood structure	Non-anatomic features
Tools: handheld lens, blade, identification guides	Large pieces: color, bark appearance, trunk components; bark, sapwood and heartwood features Growth rings, planes of transversal, longitudinal, radial and tangential cuts	Appearance and distribution of anatomical structures: Radia Fibers Vessels	Color Brightness Odor Density Hardness Grain regularity Fluorescence

Source: Wiedenhoeft 2011; Chavarria 2018.

3.3 Guides, catalogs and technical specifications

Different guides and useful catalogs for the identification of plant species are available. There are manuals on wood identification techniques, which describe different methodologies and explain concepts at different levels; an example of such is the online CITES Wiki Identification Manual, which contains data sheets with illustrations, photographs, maps and concise descriptions of various species of fauna and flora. Then there are timber species identification guides and technical specifications, which have been designed to be used in a specific region or country; for example, *Identification of Central American Woods* (Wiedenhoeft 2011) and *Electronic Identification Key of Commercially Representative Amazonian Timber Species* (Forest Products Laboratory, Brazilian Forest Service).

A combination of these resources can be useful in identifying the priority tree species included in the *Action Plan for Sustainable Trade in Timber in North America*. However, extensive work is needed to review information, which is often dispersed or in heterogeneous formats, or refers to species from other regions or countries. Some of the guides and catalogs are included in Appendix IV.

3.4 Trade

3.4.1 Legal trade

Timber species included in CITES Appendix II can only be traded legally through the issuance of harvesting and export permits, which ensure the registration and traceability of transactions.

Information on exports and imports of the six priority timber species shows that *Swietenia macrophylla* is the most traded species in the region. Mexico is both an exporter and importer of mahogany (Table 3).

The United States is the main consumer of *S. macrophylla*; besides mahogany imported from Mexico, it meets its demand with imports from Central and South America and re-exports to European countries (Table 4). Roughly one quarter of Canada's imports of *Swietenia* sawn wood are from Mexico (based on the Industry Canada search tool; results at <ic.gc.ca>), although the exact figure for *Swietenia* imports cannot be determined. This estimate does not include other product types such as veneer or plywood products (Table 5). In the last 10 years no commercial exchanges of *Swietenia humilis* and *S. mahagoni* have been recorded between Canada, the United States and Mexico (CITES Trade Database, <https://trade.cites.org/>, accessed 28 October 2018).

Rosewood is considered precious and is highly prized for its color, durability and hardness. Its market value is very high, even higher than that of mahogany or red cedar. The heartwood (darker in color) is used, the sapwood is discarded. At present, there are no exploitation permits in Mexico; however, Semarnat allows extractions under the Use by Risk Notification (*Formatos para el Aprovechamiento por Notificación de Riesgo*) or Use for Subsistence Purposes (*Aprovechamiento de Subsistencia*) format (Cervantes 2016).

Data on rosewood trade among Canada, Mexico and the United States indicate that Mexican exports are limited to a few cubic meters (m^3) of *D. retusa* to the United States (Table 6), while Canada and the United States do have a continuous, albeit small, exchange of wood-carving pieces of *D. retusa* (Table 7).

Table 3. Mahogany exports and imports: Mexico to/from Canada and the United States

2008–2018	Mexico to/from Canada (m^3)		Mexico to/from United States (m^3)	
Species	Exports	Imports	Exports	Imports
S. humilis	0	0	0	0
S. mahagoni	0	0	0	0
S. macrophylla	403.80	0	34,536.55	1,330

Note: m^3 = cubic meters.
Source: UNEP-WCMC (2008–2018); CITES Trade Database, <https://trade.cites.org/>, consulted 28 October 2018.

Table 4. Mahogany exports and imports: United States to/from Canada and other countries

2008–2018	United States to/from Canada (m^3)		United States to/from other countries (m^3)	
Species	Exports	Imports	Exports	Imports
S. humilis	0	0	653.19	478.19
S. mahagoni	0	0	263.9	477.3
S. macrophylla	1,867	39.04	34,393.51	61,248.152

Note: m^3 = cubic meters.
Source: UNEP-WCMC (2008–2018); CITES Trade Database, <https://trade.cites.org/>, consulted 28 October 2018.

Commercial pressure on the three CITES cited *Dalbergia* species is due mainly to the high demand in Asian countries, especially China, for furniture making and ornamental objects (Cervantes et al. 2019). According to CITES, Mexico exported to China 10,662 m^3 of rosewood from 2009 to 2012, and between 2013 and 2017 the figure rose to 1,215,357 m^3. This shows the contrast between trade in these species in the North American and Asian markets, and the latter's pressure on the species (UNEP-WCMC, consulted in December 2018).

Table 5. Mahogany exports and imports: Canada to/from the United States and other countries

2008–2018	Canada to/from United States (m^3)		Canada to/from other countries (m^3)	
Species	Exports	Imports	Exports	Imports
S. humilis	0	0	0	0
S. mahagoni	0	0	0	0
S. macrophylla	39.04	1,867	53.397	3,279.50

Note: m^3 = cubic meters.
Source: UNEP-WCMC (2008–2018); CITES Trade Database, <https://trade.cites.org/>, consulted 28 October 2018.

Table 6. Rosewood exports and imports: Mexico to/from Canada and the United States

2008–2018	Mexico to/from Canada (m^3)		Mexico to/from United States (m^3)	
Species	Exports	Imports	Exports	Imports
D. granadillo	0	0	(1 specimen)	0
D. retusa	0	0	61 (4 pieces)	0
D. stevensonii	0	0	(1 piece)	(1 piece)

Note: m^3 = cubic meters.
Source: UNEP-WCMC (2008–2018); CITES Trade Database, <https://trade.cites.org/>, consulted 28 October 2018.

Table 7. Rosewood exports and imports: Canada to/from the United States

2008–2018	Canada to/from United States (m^3)	
Species	Exports	Imports
D. granadillo	0	0
D. retusa	2	2
D. stevensonii	0	0

Note: m^3 = cubic meters.
Source: UNEP-WCMC (2008–2018); CITES Trade Database, <https://trade.cites.org/>, consulted 28 October 2018.

3.4.2 *Illegal trade*

Data on seizures of illegal shipments at Mexico's outbound ports show that *Dalbergia* species are at highest risk. However, Mexico has no illegal trade information differentiated by species—only total seizures of tropical woods are reported. Interceptions of irregular export attempts in Mexican ports, airports and borders from 2011 to 2018 involved 85 rosewood containers in the ports of Manzanillo, Lazaro Cardenas, Veracruz and Progreso (Profepa 2018). The growing demand in Asian markets, particularly China, which often pays high prices for this wood, leads to illegal timber extraction, which has decimated the species' populations.

In Mexico, according to Profepa data, the main ports of departure for illegal trade are the ports of Progreso, in the State of Yucatán, and Manzanillo, in the State of Colima, where shipments come from the Yucatán peninsula and the south and west regions of Mexico. Between 2012 and 2018, 8,212 m^3 of *Dalbergia* were seized. During that same period, there was a constant increase in the volume of seizures, which reflects an increase in illegal traffic (Table 8).

Table 8. Seizures and confiscations of tropical timber (including *Swietenia* and *Dalbergia*)

Year	Total (m^3)
2012	622
2013	1,786
2014	1,794
2015	1,234
2016	Not determined
2017	2,492
2018	284

Note: m^3 = cubic meters.
Source: Profepa 2018 (data from 1 January 2012 to 30 September 2018).

3.4.3 *Oversight, inspection and control*

Mexico has available information on Profepa verifications of imports, exports and re-exports of roundwood, sawn wood, logs and parts of logs of CITES-regulated species (*Swietenia*, *Dalbergia*) which includes the countries of origin and destination of shipments (Table 9).

CITES authorities from Canada and the United States agreed that trade information is lacking, especially on sawn and processed wood. Moreover, importers cannot readily identify the origin of the wood, since there are no documents that make the distinction between the shipment's country of origin and the wood's source country. This muddles the chain of custody and hinders traceability. The three countries agreed that regional cooperation in terms of trade data analysis, identification research and strengthening of the chain of custody needs to be improved. A list of agencies and their obligations regarding the legislation and regulation of timber trade in Canada, Mexico and the United States can be found in Appendix V.

Table 9. Profepa inspections of CITES-regulated wood (*Swietenia, Dalbergia*) in Mexico

Swietenia

Year	Imports (m³)	Exports (m³)	Re-exports (m³)	Total (m³)
2009	0	302.556	0	302.556
2010	46.185	1,206.21	0	1,252.395
2011	41.747	657.245	0	698.99
2012	22.56	1,414	0	1,436.56
2013	17.03	1,301	0	1,318.03
2014	29.83	956.75	0	986.58
2015	0	724.447	0	724.447
2016	0	149.15	0	149.15
2017	0	558.404	0	558.404
2018	0	298.3	0	298.3
Total	157.352	7,568.062	0	7,725.412
	Countries of origin: Belize, Bolivia, Fiji, Guatemala, Peru	Destination countries: Germany, Canada, Slovenia, Spain, United States, Italy, Dominican Republic		

Dalbergia

Year	Imports (m³)	Exports (m³)	Re-exports (m³)	Total (m³)
2009	7.05	0	0	7.05
2010	176.127	0	0	176.127
2011	67.629	0	0	67.629
2012	18.28	0	0	18.28
2013	8.53	37.52	0	46.05
2014	7.31	35.63	0	42.94
2015	32.42	158.52	0	190.94
2016	30.79	36.98	0	67.77
2017	4.38	33.653	0	38.033
2018	93.615	39.13	0	132.745
Total	446.131	341.433	0	787.564
	Countries of origin: Bolivia, Brazil, United States, Guatemala, India, Indonesia, Nicaragua, Peru	Destination countries: United States, Cambodia, Taiwan, China		

Note: m^3 = cubic meters.

Tariff fractions: 4403, 4407, 4409, 441. Sawn wood, roundwood, logs and log parts. Only the tariff fractions for roundwood, sawn wood, logs and log parts, and the m^3 measurement unit—which is the most used—are considered. The information is given at a genus level. There is no differentiation at the species level.

Source: Profepa 2018.

3.5 Forest certification

Certification is a useful tool to identify the origin of the wood, since it ensures compliance with sustainable practices, both in forest management and in the supply chain processes of transformation and trade. Forest certification is a voluntary process in which forest managers undergo an evaluation to prove that sustainability criteria are met. This evaluation is carried out by an independent third party—a certification agency—that also meets competence and training requirements. In order to obtain the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI) or Programme for the Endorsement of Forest Certification (PEFC) seal, forest owners must undergo an audit carried out by a team of technicians from an accredited certification body. The FSC, SFI and PEFC Councils develop forest sustainability standards, establish the criteria to accredit verification entities as certifiers, and supervise them to guarantee their independence and professionalism. Currently there are more than twenty entities accredited worldwide under one or all three schemes. Some of them are international and operate in several countries, such as *Société Générale de Surveillance* (SGS), Scientific Certification Services (SCS), Rainforest Alliance (RA) (which runs Smartwood program), Control Union, Bureau Veritas, and Soil Association, among others.

3.5.1 Canada and the United States

Forest managers from Canada and United States can certify their forests under one of three internationally recognized forest certification programs: the Canadian Standards Association (CSA), the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI), which was created specifically for United States and Canada forests (Table 10). Product and chain-of-custody labeling are common features of these programs. Both the CSA and the SFI programs have been endorsed by the Programme for the Endorsement of Forest Certification scheme (PEFC), and the CSA uses the PEFC chain of custody.

3.5.2 Mexico

Worldwide, Mexico is the country with the largest area of certified communal forests, according to the Mexican Civil Council for Sustainable Forestry (*Consejo Civil Mexicano para la Silvicultura Sostenible*) (Conabio-CCMSS 2017). This refers to forest properties that are legally decreed as ejidos, or communal land.

There are three forest certification schemes: Preventive Technical Audit (*Auditoría Técnica Preventiva* [ATP], authorized by Conafor), Certification of Sustainable Management of Forests (*Certificación del Manejo Sustentable de los Bosques*, under the Mexican standard NMX-AA-143-SCFI-2008), established by the Mexican Association for Standardization and Certification (*Asociación Mexicana de Normalización y Certificación, A.C.*—ANCE) and International Certification in Good Forest Management, under the Forest Stewardship Council (FSC) standards (Conafor 2015) (see Table 10).

Table 10. Certification schemes used in North America

Name	Features	Canada	Mexico	United States
CSA (Canadian Standards Association)	Non-profit membership association also accredited as a certification body. Endorsed by Forest Certification (PEFC). International recognition.	X		X
SFI (Sustainably Forestry Initiative)	Nonprofit organization in the United States. International recognition.	X		X
FSC (Forest Stewardship Certification)	International nonprofit organization. International recognition.	X	X	X
ATP (*Auditoría Técnica Preventiva* —Preventive Technical Audit)	Conafor, Mexico. Compliance with best management practices. Recognized in Mexico.		X	
NMX-AA-143-SCFI-2015 (Mexican standard)	Uses the Mexican Association for Standardization and Certification (*Asociación Mexicana de Normalización y Certificación, A.C.* [ANCE]) forest resources chain-of-custody procedure. Recognized in Mexico.		X	

During the workshop, different certification schemes existing in Canada, Mexico and the United States were reviewed and the social, environmental and economic benefits that they entail were discussed, finding the following similarities:

- Environmental: Environmental values promoted by certification programs include the conservation of biodiversity and the protection of habitats for flora and fauna, of biologically important sites and of endangered species; as well as the maintenance of soil and water resources and reforestation activities. All require compliance with applicable laws.
- Social: The social values include logging sustainability, civil society participation, consultation with native communities and respect for their personal and property rights, respect for places of cultural interest, forest ownership and rights of use, protection of workers' health and safety, and mechanisms for conflict resolution.
- Economic: It is expected that, when timber comes from lawful and sustainable logging operations, customers will use their power to choose to make purchases that support these responsible sources, thereby achieving the long-term economic viability of the forest product manufacturing companies and forest communities.

The impact of certification on the traceability and legality of timber trade was discussed, as well as how it can facilitate compliance with CITES regulations. The high standards established by any certification scheme, which ensure proper management of wood, could facilitate compliance with protocols to obtain harvesting permits.

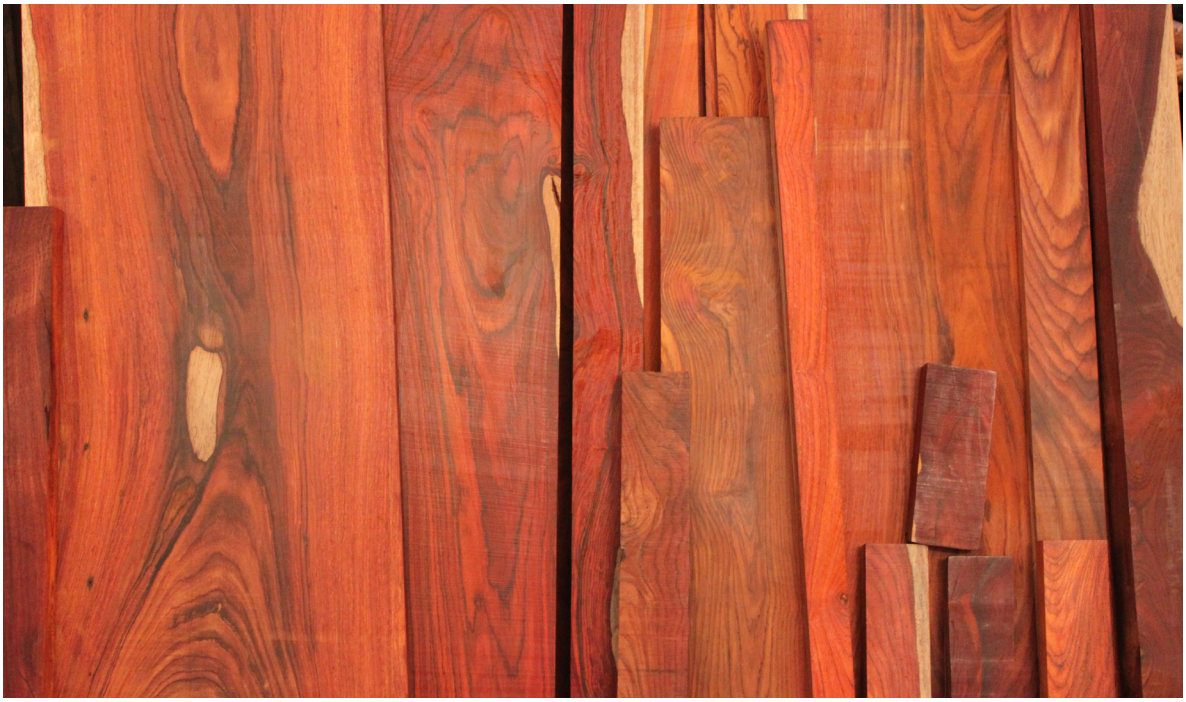
The visit to the Noh Bec ejido provided workshop participants with valuable, first-hand information about how certification contributes to improving the company's competitiveness and ensures the conservation of biodiversity, the permanence of ecosystem services and the sustainable use of timber species. Certification also guarantees the legality and traceability of wood products. It was mentioned in the workshop that compliance with CITES regulations is perceived as a burdensome procedure that adds to the large number of requirements for the use of mahogany, making such use more complicated, and does not provide any sales benefits.


SURTEK

4. Knowledge and Challenges

4.1 Population Status

- There is a consensus on the lack of information about the current status of priority timber species populations, especially *Dalbergia granadillo, D. stevensonii* and *D. retusa* populations.
- There is scarce knowledge about the species' natural history, reproductive biology, demography and distribution of populations.



Dalbergia retusa, Savagewoods

4.2 Wood identification

- The data bases of samples of reference woods "type woods", are scarce and incomplete.
- Enforcement officials need to have non-intrusive, easy-to-apply identification techniques, available documentary references and a list of experts who can be approached to make inspections more effective.
- The number of officers responsible for identifying timber and applying the law is insufficient and they require better training in identification techniques.
- Better multisectoral coordination is required in Mexico's domestic operation, as well as a reinforced chain of custody from extraction sites to points of sale and export.
- There is a need to share information free of charge among countries, researchers and associations.
- Cooperation among the three countries to train inspectors in identification techniques and to generate country-of-origin criteria to produce a well-founded chain of information conducive to enforcement is needed.

4.3 Trade and law enforcement

- Countries do not have a mandate to review the origin of wood species, which might be useful; only product declarations are required.
- Proper identification of wood species is essential to improving trade information, as there is confusion regarding the species that are actually traded among the countries.
- There is a need for training in forensic wood-identification techniques, to be applied to timber inspection and verification, as well as in potential lawsuits arising from these.
- The industry perceives the implementation of CITES as difficult, with the compliance requirement to obtain approvals becoming a time-consuming process that hampers timber sales.
- Regional cooperation needs to be improved, in terms of trade-data analysis, identification research, species sampling, and strengthening of the chain of custody.

4.4 Forest certification

- Certification does not guarantee competitive advantages to producers, as they compete for price with those who are not certified and even with products of illegal origin.
- Certified products are still being sold through intermediaries, which prevents access to better prices.
- Forest certification and following CITES regulations are independent processes and are perceived as a duplication of procedures.
- Having forest certification and CITES authorization should favor, rather than hinder, the marketing process.

Swietenia humilis, Forest and Kim Starr, Flickr

5. Collaboration Proposals

5.1 Population status

- Invest in research into the biology and reproduction of priority species, especially in the species of the genus *Dalbergia*.
- Promote research and improve the dissemination of knowledge about priority timber species.
- Start with *D. granadillo* and *D. stevensonii* mixed plantations, to foster species conservation.
- Share information on best practices and find joint project financing sources for projects.

5.2 Wood identification

- Share identification materials (such as wood sample decks) and consult the Global Timber Tracking Network (GTTN).
- Review and update existing guides and manuals on Mexican species and create a directory of experts.
- Train trainers (personnel competent to replicate training) to identify *Dalbergia* species, so that knowledge can be shared without having to rely on numerous training events.
- Share training methods and expertise on intelligence practices, techniques, etc.
- Foster, at the trinational level, the participation of the CEC and the appropriate agencies in Canada, Mexico and the United States in providing training on wood identification techniques.
- In Mexico, develop a collaboration arrangement between Profepa, *Universidad de Chapingo* and *Universidad Autónoma Metropolitana*, Iztapalapa campus, to standardize sample-taking procedures and thereby strengthen the chain of custody.
- Train Mexican law enforcement personnel (customs inspectors and Attorney General of Mexico (*Procuraduría General de la República*—PGR).
- Improve and promote communication channels among academic institutions conducting work related to dissemination and technology transfer, so they can work together and establish agreements that favor the legality and traceability of trade.

5.3 Trade

- Improve the effectiveness of law enforcement: focus on illegal trade prevention by strengthening legal trade mechanisms.
- Develop a productive model for legal wildlife trade, based on a trinational information platform that includes seasonal trend analysis.
- Develop a trinational platform to share best chain-of-custody practices.
- Define risk-analysis criteria and review the required documentation for mahogany and rosewood species.
- Involve the private sector in investing in research and development, training, and workshops, to foster transparency.

- Increase CITES usefulness, review laws and regulations, support certification of Mexican enterprises, improve communication on the benefits of certified products, ensure certainty of origin for importing countries, and improve communication, to ensure decision making that supports sustainability.
- Consolidate protocols and processes, to improve and share the necessary information for CITES compliance and modify producers' perception of CITES regulations.

5.4 Certification

- Involve the public sector, to promote the certification of producers and generate pressure on the private sector so that it gives preference to the purchase of certified wood.
- Promote public awareness campaigns on the benefits of certification.
- Support certified producers with credits.
- Create certified timber distribution centers.
- Improve information and collaboration among governmental and academic institutions, with respect to certification.

6. Recommendations

Two working groups were established, with the following purposes:

- addressing identified knowledge gaps,
- identifying collaboration opportunities among the region's countries, according to the needs and capacities of each, and
- generating recommendations for the facilitation of law enforcement on the trade of priority timber species, both domestically and trinationally.

One working group consisted of participants from Canada and the United States, the other all the participants from Mexico. Both working groups presented their recommendations, which aim to establish principles that can be followed to promote the sustainable, legal and traceable trade of CITES-listed priority timber species and to facilitate law enforcement.

6.1 Mexico

6.1.1 Trinational level

- Draw on the experience of Canada, the United States and Interpol in new wood-identification technologies, in order to have better traceability tools and not depend solely on documentary traceability.
- Support the use of technologies to identify merchandise derived from CITES-listed priority tree species.
- Exchange information on international trade, specifying volumes and products in the countries of origin and keeping entry records in the importing countries.
- Develop best practices to generate an intelligence system that meets Mexico's needs (what is done in the United States and Canada is not necessarily what Mexico needs to implement).
- Implement theoretical and research training, for sharing existing knowledge; and share existing strategies, methodologies and technologies to improve traceability.

6.1.2 Domestic level

- Develop a national roster of specialists to provide consultations for law enforcement.
- Compile field information, primarily for species in the *Dalbergia* genus.
- Collaborate with academia to improve training content on wood identification.
- Improve dissemination of applied regulations (e.g., NOM-059 and CITES).

6.2 Canada and the United States

6.2.1 General recommendations

- When available, explore the requirements of the new United States–Mexico–Canada Agreement (USMCA) and the North American Agreement on Environmental Cooperation (NAAEC), to learn about the environmental initiatives support policies, with the purpose of curbing illegal activities and encouraging trinational collaboration.
- Develop a NAAEC Bulletin—a catalog of short summaries on achievements, updates, goals, methodologies, upcoming training sessions and other activities—to improve communication between regional and international stakeholders.
- Encourage stakeholders to participate in activities for the establishment and adoption of forest certification standards.
- Fill information gaps, once identified, by working with certification bodies, gather business information, and protect proprietary information.
- Promote, through workshops, the generation of scientific information and the exchange of wood identification techniques, databases and sample collections.
- Examine how public communication has been used to successfully raise awareness on the parallel issues of fisheries and aquatics and apply this knowledge to timber species.
- Promote compliance with the law: examine how large industrial corporations and relevant trade sectors can be involved in promoting legal and sustainable trade.
- Establish virtual working groups, with technical experts (e.g., ID Wood), to review progress reports on regional trends, constantly update information, and focus on inter-institutional collaboration (regional and trinational).

6.2.2 Areas of interest regarding trade information, exchange, and sharing

- Trade routes
- Species in demand
- Transport modes (maritime, land)
- Types of products harvested
- Open data sources that can be accessed
- Instruments to encourage compliance with laws and regulations
- Participation mechanisms for the private sector to support legal trade
- Attention drawn to companies that practice responsible consumption

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Dalbergia granadillo, Chaikom, Shutterstock

Appendix I. Workshop Participants

Canada		
Name	**Title**	**Organization**
Ken Farr	Manager, Science Policy Integration Branch	NRCan-CFS
Marigold Edwards	National Intelligence Analyst	ECCC-WED

United States		
Name	**Title**	**Organization**
Anne St. John (remote participation)	International Affairs	USFWS
Cady Lancaster	Wood Identification Specialist	USFWS
Gabriela Chavarria	Vice-President, Research and Collections	Denver Museum of Natural History
Isabel Camarena (remote participation)	Scientific Officer	CITES
Rocco Saracina	Manager, Conservation Partnerships	SFI
Rosemarie Gnam (remote participation)	CITES Scientific Authority	USFWS

Mexico		
Name	**Title**	**Organization**
Abraham González	Commissariat Chairman	*Ejido Noh Bec*
Alfonso Argüelles	National Representative	FSC Mexico
Angélica Cervantes Maldonado	Deputy Coordinator, Priority Species	Conabio
Angélica Navarro Martínez	Researcher	*El Colegio de la Frontera Sur*
Arturo Rodríguez Abitia	Deputy Attorney, Industrial Inspection	Profepa
Carlozhujrai Alexandrovich Guzmán García	Inspector	Lázaro Cárdenas, Michoacán Customs, Profepa
Carolina Carrillo Páez	Department Head	Profepa
Cintia Irais Núñez Gómez	Clerk	Lázaro Cárdenas, Michoacán Customs
Dania Reyes Medina	International Police Cooperation Specialist	DGAPII
Daniel Roberto Moreno Noriega	Deputy Operations Manager	Manzanillo, Colima Maritime Customs, SAT
Edgar Rodolfo Juárez García	Community Development Coordinator	Rainforest Alliance
Francisco Navarrete Estrada	Director, Wildlife Inspection and Enforcement in Ports, Airports and Borders	Profepa
Hugo Ramírez Maldonado	Researcher	*Universidad Chapingo*
Jaqueline Jeniffer Noguez Lugo	CITES Implementation Specialist	Conabio
Jesús Maximino Espinosa Bazán	Administrator	Progreso, Yucatán Maritime Customs, SAT
Josefa de Regules Ruiz-Funes	Assistant Consultant	
Karla Sofía Gómez Aguilar	CITES Flora Specialist	Conabio
Laura Anahí Ramírez Zaldívar	Inspector	PGR / Profepa / Interpol
Luis Alfonso Lino Muñoz	Administrator	Progreso, Yucatán Maritime Customs, SAT
Mariana Martínez Leal	Public Policy Coordinator	Reforestamos México

Mexico *(continued)*		
Name	**Title**	**Organization**
Maribel Pineda Rivera	Timber Use Department Head	Conafor
Miguel Ángel Cobián Gaviño	Deputy Director, National and International and Other Uses	DGVS-Semarnat
Octavio José Pérez	Inspector	Progreso, Yucatán Maritime Customs, SAT
Palmira Arnaz Durán	Consultant	
Pedro Enrique Pérez Díaz	Secretary	Department of Agriculture, Rural Development and Fisheries, Quintana Roo
Raúl Pérez Palomeque	Community Forestry Development Coordinator	Rainforest Alliance Mexico
Reyna Paloma Chimal Pool	Advisor–Strategic Projects Coordinator	Department of Agriculture, Rural Development and Fisheries, Quintana Roo
Ricardo Hernández López	Department Head, Conservation and Restoration Management Plans	DGVS-Semarnat
Roberto Martínez López	Inspector	Profepa Manzanillo, Colima
Sol Guerrero Ortiz	Deputy Coordinator, CITES Scientific Authority	Conabio
Uma Alfaro Gálvez	Assistant Consultant	
Wagner Américo Pool Cibrián	Deputy Officer	Profepa Mérida
Yolanda Medina Gámez	Department Head, Natural Resources Use and Restoration	Semarnat, Quintana Roo
Yuriria Hernández	General Manager	*Alianza Selva Maya de Quintana Roo*

CEC	
Name	**Title**
David Donaldson	Head of Unit
Georgina O'Farrill	Project Lead, Ecosystems and Green Growth Units
Liliana Paz-Miller	Logistics Coordinator

Appendix II. Workshop Agenda

Travel day	Monday, 5 November 2018

Day 1	Tuesday, 6 November 2018
8:30–09:00	Coffee and registration
9:00–9:45	**Workshop opening and introduction to CEC** *(5 min.)* **David Donaldson**, Head of Unit, Commission for Environmental Cooperation **Welcome remarks** *(10 min.)* **Arturo Ramírez**, Mexico government official (host country) **Project: Supporting Sustainable Trade of CITES Species** *(10 min.)* **Georgina O'Farrill**, CITES Project Lead, Commission for Environmental Cooperation
9:45–10:45	**Introduction and presentation of workshop agenda** *(20 min.)* **Palmira Arnaz**, workshop facilitator **Timber species listed in CITES and their trade** Presentation: **Issues related to timber species** (*10 min.; remote participation*) **Isabel Camarena**, Scientific Support Officer, CITES **Presentation: State of knowledge of the population status and trade of the six priority timber species** *(35 min.)* **Angélica Cervantes Maldonado**, Deputy director for priority species, Conabio Questions *(15 min.)*
10:45–11:00	Coffee break
11:00–13:00	**Presentations: Overview of existing identification techniques** (e.g., anatomic, chemical and genetic analysis) **Cady Lancaster**, Wood Identification Specialist, Analytical Chemist, Forest Service, International Programs Wood ID, US Fish and Wildfire Service forensics (*20 min., including questions*) **Francisco Navarrete**, Director; Wildlife and Phytosanitary Inspection and Enforcement in Ports, Airports and Borders, and **Carolina Carrillo**, Department Head, Profepa (*20 min., including questions*) **Ken Farr**, Manager, Science Integration, Canadian Forest Service, Natural Resources Canada (*20 min., including questions)* **Gabriela Chavarria**, Vice President, Research and Collections, Denver Museum of Natural History (*20 min., including questions*)
13:00–14:30	Lunch
14:30–16:00	**Presentation: Overview of timber species identification resources and tools for experts and enforcement personnel** (*30 min., including questions*) **Palmira Arnaz**, timber specialist and workshop facilitator Discussion (*60 min.*) Discussion points: **Identification of timber species and trade challenges**
16:00–16:15	Coffee break

16:15–17:45	**Facilitated discussion**: **Palmira Arnaz**, workshop facilitator (*1 h. 30 min.*) Evaluation of the usefulness of materials Identification of gaps and omissions for future cooperation Recommendations to fill the information gaps
17:45–18:00	Wrap-up, Day 1 (*15 min*). **Key discussion points and presentation of Day 2 agenda**; **Palmira Arnaz**, workshop facilitator
Day 2	**Wednesday, 7 November 2018**
08:30–12:30	**Visit to Ejido Noh Bec** *Ejido Noh Bec* (communal farm) has a Forest Stewardship Council certification and, due to its more than 20 years of forest management, is considered a model of sustainable production. Different species of tropical wood are exploited, including mahogany (*Swietenia macrophylla*). This field visit will allow workshop participants to observe mahogany wood in its different stages: from seedlings to trees, round wood, sawn timber and processed products. This information will strengthen workshop discussions and will allow participants to exchange information with producers on verification and certification processes and on law enforcement aspects for the trade of this priority species.
12:30	*Departure to Chetumal*
14:00–15:20	**Presentation: Overview of legal and illegal timber trade: perspectives and challenges** (*25 min., including questions*) **Jaqueline Noguez Lugo**, CITES Implementation Specialist, Conabio, and **Francisco Navarrete**, Director, Wildlife and Phytosanitary Inspection and Enforcement in Ports, Airports and Borders, Profepa **Presentation: Local production and trade experiences** (*25 min., including questions*) **Abraham González**, Commissariat Chairman, *Ejido Noh Bec*
15:20–15:40	Coffee break
15:40–17:00	**Presentations: Overview of available certification schemes to support the conservation of timber species, and outlook on the legality and traceability of timber trade** **Marigold Edwards**, National Intelligence Analyst, Wildlife Enforcement Directorate, Environment and Climate Change Canada, and **Ken Farr**, Manager, Science Integration, Canadian Forest Service, Natural Resources Canada (*20 min.*) **Alfonso Argüelles**, National Representative, FSC Mexico (*20 min.*) **Rocco Saracina**, Manager, Conservation Partnerships, Sustainable Forestry Initiative, Inc. (*20 min.*) Questions (*20 min*)
17:00–17:30	**Facilitated discussion**: **Palmira Arnaz**, workshop facilitator (30 min) Discussion objectives: **Recommendations for a course of action to carry out a certification process**
17:30–17:40	**Wrap-up, Day 2** (20 min.) **Key discussion points and presentation of Day 3 agenda**; **Palmira Arnaz**, workshop facilitator
17:30–19:30	**Law enforcement closed meeting** (120 min.)

Day 3	Thursday, 8 November 2018
08:30–09:00	Coffee and breakfast
09:00–10:30	**Facilitated discussion: Role of Canada, Mexico and United States in the trade of timber species**; **Palmira Arnaz**, workshop facilitator (90 min.) Remote participation by USFWS officials
10:30–10:50	Coffee break
10:50–12:50	**Facilitated discussion: Create linkages among the different regional authorities and other stakeholders to foster joint actions to prevent and combat illegal trade**; **Palmira Arnaz**, workshop facilitator (*120 min.*)
13:00–14:30	Lunch
14:30–16:00	**Breakout groups, per country: Define strategies to support sustainable, legal and traceable commercial production of the six priority tree species** (*Dalbergia granadillo, D. retusa, D. stevensonii, Swietenia humilis, S. macrophylla* and *S. mahagoni*) (90 min.) Remote participation by USFWS officials
16:00–16:15	Coffee break
16:15–17:15	**Facilitated discussion: Define strategies to support sustainable, legal and traceable commercial production of the six priority tree species** (*Dalbergia granadillo, D. retusa, D. stevensonii, Swietenia humilis, S. macrophylla* and *S. mahagoni*) (*30 min., including questions*) Remote participation by USFWS officials
17:15–18:00	**Conclusions on implementation of environmental legislation** (*45 min.*) **General presentation by law enforcement officials to the workshop group**
18:00–18:15	**Workshop summary**: **Palmira Arnaz**, workshop facilitator (*15 min.*)
18:00–18:30	**Workshop wrap-up**: **David Donaldson**, Head of Unit, Commission for Environmental Cooperation (*30 min.*)

Appendix III. Priority Timber Species

Genus: *Swietenia*

Common name: **Mahogany**
Division: ***Trachaeophyta***
Class: ***Magnoliopsida***
Order: ***Sapindales***
Family: ***Meliaceae***

Table III- 1. *Swietenia* species

Species	Common name	Distribution	Uses	Protection
***Swietenia macrophylla* King.**	Spanish: Caoba de hoja ancha, caobo, cóbano, mara English: Big leaf (big-leaf or bigleaf) mahogany, large-leaved mahogany, Brazilian mahogany, Honduras mahogany French: Acajou du Honduras, acajou à grandes feuilles	Southern Mexico, Central America and some countries in South America	Fine furniture, artistic carpentry, cabinetry, panels, door and window frames, veneers, moldings, ships	CITES Appendix II IUCN Red List (Vulnerable)
***Swietenia humilis* Zucc.**	Spanish: Caoba, caoba de Honduras, caoba del Pacífico, caobilla, cóbano, gateado, venadillo, zapatón, zopilote English: Honduras mahogany, Mexican mahogany, Pacific Coast mahogany French: Acajou de la Côte Pacifique	Mexico: Durango, along the Pacific coast from Sinaloa; all Central America	Fine furniture, cabinets, carving, joinery	CITES Appendix II IUCN Red list (Vulnerable)
***Swietenia mahagoni* Jacq.**	Spanish: Caoba española, caobilla English: American mahogany, Cuban mahogany, small-leaved mahogany, West Indian mahogany French: Acajou d'Amérique, acajou des Antilles, acajou de Cuba	South Florida, (United States) and the Antilles	Fine furniture, joinery, carving, restoration of antique furniture	CITES Appendix II IUCN Red list (Endangered)

Sources: CEC, 2017; CITES 2016; Conabio 2016; UNEP-WCMC 2018.

Genus: *Dalbergia*

Common name: **Dalbergia**
Division: ***Trachaeophyta***
Class: ***Magnoliopsida***
Order: ***Fabales***
Family: ***Fabaceae***

Table III- 2. *Dalbergia* species

Species	Common name	Distribution	Uses	Protection
Dalbergia granadillo **Pittier**	Spanish: Granadillo mexicano, palo de rosa, cocobolo prieto, cocobolo, granadillo morado English: Cocobolo, rosewood French: Cocobolo, palissandre cocobolo	Endemic to Mexico: Chiapas, Guerrero, Jalisco, Michoacán and Oaxaca	Fine furniture, musical instruments and other artisanal and decorative objects; boatbuilding, boat boards and moldings	CITES Appendix II NOM-059 listed as endangered (DOF 2010)
Dalbergia retusa **Hemsl**	Spanish: Granadillo mexicano, palo de rosa, cocobolo prieto, cocobolo, granadillo morado English: Cocobolo, rosewood French: Cocobolo, palissandre cocobolo	Costa del Pacífico de América Central	Fine furniture, musical instruments and other artisanal and decorative objects; boatbuilding, boat boards and moldings	CITES Appendix II IUCN Red List (vulnerable
Dalbergia stevensonii **Standl.**	Spanish: Palisandro de Honduras, Rosul English: Honduras rosewood, rosewood French: Palissandre du Honduras	Chiapas (México); Guatemala and Belize	Musical instruments, fine furniture, carving	CITES Appendix II

Sources: CEC 2017; CITES 2016; Conabio 2016; UNEP-WCMC 2018.

Appendix IV. Available Resources

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Appendix V. Legislation and Regulation of Timber Trade

Table V- 1. Agencies involved in Canada

Agency	Function	Subordinate Agency	Function	Responsibility to CITES
Provinces and territories	Responsible for the management and conservation of most forests			
Environment and Climate Change Canada (ECCC)	Issues permits, prepares non-detriment findings (NDFs)	Canadian Wildlife Service	Issues permits, prepares non-detriment findings (NDFs) and monitors their application	CITES scientific and administrative authority in Canada. Responsible for implementing CITES
		Wildlife Enforcement Directorate (WED)		Implements CITES at the borders
Natural Resources Canada (NRCan)	Responsible for the domestic development of science and regulations; responsible for policies in energy, minerals and metals, forests and Earth sciences	Canadian Forest Service (CFS)	Provides scientific and political advice to provinces and territories on forest issues, and to ECCC, regarding the implementation of CITES	Provides scientific and political advice to ECCC regarding the implementation of CITES
Canada Border Services Agency (CBSA)	Works in coordination with WED			Implements CITES at the borders

Sources: CEC 2017; agency websites.

Table V- 2. Agencies involved in Mexico

Agency	Function	Subordinate Agency	Function	Responsibility to CITES
Secretaría de Medio Ambiente y Recursos Naturales (Semarnat)	Responsible for protecting, restoring and preserving Mexico's ecosystems, natural resources and assets; promotes sustainable development			Preserve native species and implement CITES
		Dirección General de Vida Silvestre (DGVS)	Responsible, at a federal level, for flora and fauna management, as well as for the enforcement of the General Wildlife Law (LGVS). Responsible for administering the *Sistema Nacional de Unidades de Manejo para la Conservación de la Vida Silvestre* (SUMA), which includes approval of plans for UMAs	CITES administrative authority in Mexico. Responsible for issuing permits, keeping records and liaising with the CITES Secretariat
		Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)	Responsible for promoting, coordinating, supporting and implementing activities aimed at expanding knowledge of biological diversity, promoting its conservation and sustainable use	CITES scientific authority in Mexico. In charge of determining non-detriment findings (NDFs)
		Procuraduría Federal de Protección al Ambiente (Profepa)	Responds to and controls environmental deterioration. Ensures compliance with environmental regulations	Responsible for implementing CITES in Mexico, under the authority conferred by the *Ley General de Vida Silvestre* (LGVS). Responsible for verifying the validity of permits and certificates that cover CITES species in domestic transit and in ports, airports and borders
		Comisión Nacional de Áreas Naturales Protegidas (Conanp)	Responsible for preserving at-risk species; manages federal protected natural areas, national parks, biosphere reserves, flora and fauna protection areas, sanctuaries, natural resources protection areas, and natural monuments	
		Comisión Nacional Forestal (Conafor)	Responsible for implementing the General Law of Sustainable Forestry Development (LGDFS) to guarantee the sustainable development of Mexican forests; coordinates the National Forestry Technological Research and Development Program (PNIDTF); formulates and implements domestic sustainable development policies for forests	
		Dirección General de Gestión Forestal y de Suelos (DGGFS)	Responsible for developing and coordinating the application of environmental criteria for the preservation and sustainable use of forest resources; elaborates technical and legal criteria and guidelines in forestry and soil issues; develops drafts for Mexican Official Standards for forestry and soil	

Sources: CEC 2017; agency websites.

Table V- 3. Agencies involved in the United States

Agency	Function	Subordinate Agency	Function	Responsibility to CITES
United States Fish and Wildlife Service (USFWS)	Issues CITES export and re-export documents for species listed in the CITES Appendices, and permits for species listed under the Endangered Species Act (ESA), as well as import permits for species in CITES Appendix I			CITES scientific and administrative authority in the United States; in charge of implementing CITES regarding trade in species
United States Department of Agriculture (USDA)	Responsible for agriculture, natural resources and rural development	Animal and Plant Health Inspection Service (APHIS)		Ensures the implementation and enforcement of CITES in plant species imports and exports
Department of Homeland Security (DHS)	Guarantees domestic security	Customs and Border Protection (CBP)	Inspects imports	Inspects imports of sawn wood and other non-living products

Sources: CEC 2017; agency websites.

Table V-4. Systems and programs in Mexico

Institution	System/Program	Objectives/Actions
DGVS	*Sistema Nacional de Unidades de Manejo para la Conservación de la Vida Silvestre (SUMA)*	Promotes alternative production schemes compatible with environment care, through the rational, orderly and planned use of natural resources, slowing down or reversing environmental deterioration processes. SUMA complements and converges with the National System of Protected Natural Areas (SINAP) Approves plans for the Management Units for the Conservation of Wildlife (UMA). UMAs aim to restore, protect, maintain, recover, reproduce, repopulate, re-introduce and rehabilitate wildlife; promote its sustainable use, recreational use and exhibition; as well as promote the environmental education of citizens
Conanp	*Programa de Recuperación de Especies en Riesgo* (PROCER)	Contributes to the conservation of at-risk species and their habitats, promoting the collaboration and participation of higher education institutions, research and civil society organizations, ejidos and communities, for sustainable development
Conafor	*Programa Nacional de Investigación y Desarrollo Tecnológico Forestal* (PNIDTF)	Addresses the needs for forestry research and technological development. Its priorities are the increase in forest production and productivity, the strengthening of conservation, restoration and protection of forest ecosystems and the promotion of forest governance and community development
	Programa Nacional Forestal 2014-2018	Encourages sustainable forest production and productivity, promotes the conservation and restoration of forest ecosystems, protects forest ecosystems from threats such as forest fires and illegal logging, promotes and strengthens forest governance, and promotes and fosters an institutional framework to facilitate sustainable forest development

Sources: Institution websites.

Table V- 5. Laws, standards and regulations, by country

Country	Law	Standard	Regulation	Relevance for trade in timber species
Canada	Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA)			Protects species of wild flora and fauna through the implementation of CITES and the regulation of international and interprovincial trade in species, which includes the following proscriptions: • import and export of specimens listed in CITES, unless a license is issued or is permitted by relevant regulations; • import of specimens of fauna or flora obtained in contravention of any foreign law; and • possession of imported specimens in contravention of applicable legislation
			Wild Animal and Plant Trade Regulations (WAPTR)	Provides definitions, interpretations and exceptions necessary to implement WAPPRIITA; compiles (as Appendix I) animal and plant species listed in the CITES appendices; amends Appendix I after any changes made to the CITES appendices so that WAPPRIITA provisions are applicable to said modifications
Mexico	*Ley General de Equilibrio Ecológico y la Protección al Ambiente* (LGEEPA)			Regulates the sustainable use, preservation and, where appropriate, restoration of soil, water and other natural resources, so that obtaining economic benefits and social activities are compatible with the preservation of ecosystems
	Ley General de Vida Silvestre (LGVS)			Regulates the conservation, protection, restoration and management of Mexico's forests
			Reglamento de la Ley General de Vida Silvestre (RLGVS)	Regulates the application of LGVS
	Ley General de Desarrollo Forestal Sustentable (LGDFS)			Regulates and promotes the integral and sustainable management of forest territories, as well as the conservation, protection, restoration, production, management, harvesting and use of the country's forest ecosystems and resources
			Reglamento de la Ley General de Vida Silvestre (RLGVS)	Regulates the application of LGDFS
		NOM-152-SEMARNAT-2006		Guidelines, criteria and specifications for the contents of forest management programs for the use of timber resources in forests, rain forests, and vegetation in dry lands
		NOM-059-SEMARNAT-2010		Environmental protection of Mexico's native species of wild flora and fauna; risk categories and specifications for inclusion, exclusion or change; list of at-risk species

Country	Law	Standard	Regulation	Relevance for trade in timber species
United States	Endangered Species Act (ESA)			Preserves endangered or threatened species throughout their range of distribution (or a considerable part thereof), which includes the conservation of the ecosystems on which such species depend. Prohibits importing or exporting, possessing, selling or transporting (within United States territory or on the high seas) species listed as "endangered." Overall, these same prohibitions and exceptions also apply to species classified as "threatened." However, some "threatened" species may be subject to a special rule that establishes prohibitions and exceptions formulated specifically to meet their particular conservation needs. It should be noted that not all the species in the CITES lists appear in the ESA list, and vice versa.
	Lacey Act			Inspects imports of sawn wood and other non-living products

Sources: CEC 2017; Internet links (embedded above) to laws, standards and regulations.

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