





Centralized National Risk Assessment for Mexico

FSC-CNRA-MX V1-0 EN

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FSC's vision is that the world's forests meet the social, ecological, and economic rights and needs of the present generation without compromising those of future generations.

Contents

Risk assessments that have been finalized for Mexico	4
Risk designations in finalized risk assessments for Mexico	5
Risk assessments	7
Controlled wood category 1: Illegally harvested wood	7
Overview	7
Sources of legal timber in Mexico	12
Risk assessment	13
Controlled wood category 2: Wood harvested in violation of traditionarights	
Risk assessment	134
Recommended control measures	134
Detailed analysis	135
Controlled wood category 3: Wood from forests in which high conservare threatened by management activities	
Overview	205
Risk assessment	211
Recommended control measures	284
Controlled wood category 4: Wood from forests being converted to planen-forest use	
Risk assessment	302
Recommended control measures	310
Controlled wood category 5: Wood from forests in which genetically rare planted	
Risk assessment	311
Recommended control measures	316
Annex 1	317
Undate and Revision History	335

Risk assessments that have been finalized for Mexico

Co	ontrolled Wood categories	Risk assessment completed?
1	Illegally harvested wood	YES
2	Wood harvested in violation of traditional and human rights	YES
3	Wood from forests where high conservation values are threatened by management activities	YES
4	Wood from forests being converted to plantations or non- forest use	YES
5	Wood from forests in which genetically modified trees are planted	YES

Risk designations in finalized risk assessments for Mexico

Indicator	Indicator Risk designation (including functional scale when relevant)		
Controlled wood category 1: Illegally harvested wood			
1.1	Specified risk		
1.2	Low risk for public lands / Private, ejidal and communal lands N/A		
1.3	Specified risk		
1.4	Specified risk		
1.5	N/A		
1.6	Specified risk		
1.7	Specified risk		
1.8	Specified risk		
1.9	Specified risk		
1.10	Specified risk		
1.11	Specified risk		
1.12	Specified risk		
1.13	Specified risk		
1.14	Specified risk		
1.15	Specified risk.		
1.16	Specified risk		
1.17	Specified risk		
1.18	Specified risk		
1.19	Specified risk		
1.20	Specified risk		
1.21	N/A		
Controlled rights	wood category 2: Wood harvested in violation of traditional and human		
2.1	Specified risk		
2.2	Specified risk		
2.3	Specified risk		
	wood category 3: Wood from forests where high conservation values are by management activities		
3.0	Low risk		
3.1	Specified risk: Protected Natural Areas, Biodiversity Hotspots,		
	Wilderness Areas, EBAs, Mesoamerican Biological Corridor, and all		
	natural forest and forest plantations adjacent to all of them.		
	Low risk: The rest of the country.		
3.2	Specified risk: IFLs, Contiguous Protected Natural Areas, major		
	RAMSAR sites, 6 major UNESCO WHS sites (except the Whale		
	Sanctuary of El Vizcaino), major Biodiversity Hotspots and major EBAs		
	Low risk: The risk of the country (including the Whale Sanctuary of El Vizcaino).		

3.3	Specified risk: RAMSAR Sites, Biosphere Reserves, and natural		
	forest and forest plantations adjacent to all of them.		
	Low risk: The rest of the country.		
3.4	Specified risk: RAMSAR sites, cloud forests, eight main regions of		
	landslide in Mexico, and all natural forests and forest plantations		
	adjacent to all of them.		
	Low risk: The rest of the country.		
3.5	Specified risk: Ejidal and Communal lands, eight Hydrological		
	Administrative Regions with pressure on water resources, RAMSAR		
	sites (except Cenotes) and natural forest and forest plantations		
	adjacent to all of them.		
	Low risk. The rest of the security (including Constant)		
Low risk: The rest of the country (including Cenotes).			
3.6	Specified risk: UNESCO WHS natural and mixed sites (except the		
	Whale Sanctuary of El Vizcaino) and the 7 sites with forested		
	ecosystems from the tentative list (as in the assessment) and forest		
	plantations and natural forest adjacent to all of them.		
	Low risk: The rest of the country (including the Whale Sanctuary of El		
	Vizcaino).		
Controlled	wood category 4: Wood from forests being converted to plantations or		
non-forest			
4.1	Specified risk		
Controlled	wood category 5: Wood from forests in which genetically modified trees		
are planted			
5.1	Low risk		

Risk assessments

Controlled wood category 1: Illegally harvested wood

Overview

Mexico has a total area of 197.3 million hectares, approximately one-third of which is covered by forests or rainforests (temperate and/or tropical), mangroves or plantations. However, when areas covered by vegetation in arid and semiarid zones are included as part of the country's forested area, then a little over two-thirds of the land surface (138 million hectares) is covered by vegetation (Murillo., 2014).

A total of 77% of the entire area of the country is considered to have the potential to produce timber and non-timber forest products, and 22% would require some type of restoration (FAO, 2005). There are 3,887 million cubic metres of roundwood in Mexico distributed over 63 million hectares. A plurality of these inventories (32%) are located in areas where coniferous and broadleaf species grow, followed by tall and medium forests (28%); the third largest are coniferous forests with 18% of the total inventory, followed by broadleaf species (12%), and lastly low forests, which have the smallest proportion (10%) of the timber inventory (CONAFOR & SEMARNAT, 2012).

The 52% of the land is Social property (correspond to ejido and community), 38% is private rural property, 4% correspond to federal zones, 4% is national land and 2% is agricultural / livestock areas colonies (CCMSS (2016)).

Based on expert consultation done in 2016, there is no timber harvested from agricultural/livestock areas. Public Lands or State-Owned Forests (National, State, Municipal) for the purpose of forest harvesting do not exist in Mexico (based on expert consultation). Therefore, there are no authorizations for these types of property (public lands or state-owned forests-national, state, municipal).

The existing ownership of the land where forest is harvested is Ejidos, Communities, and private (minimum part). There is no transfer between one property and another, although it is possible that the Communal property can be transferred to Ejidal property (Federal Agrarian Law), but this case has not been presented in the forest areas (expert consultation 2016).

The area certified by FSC in Mexico is 876,919.85 hectares, 98.4 % of which corresponds to natural forest management and 1.6% to plantations (exclusively of exotic species). In addition, 96.08 % of the total certified area is communal property (communities or community-owned forest (ejidos)), and the remaining 3.92% is private property (FSC, 2016). Based on Agrarian Attorney (2008 [translated from Spanish]) communities (*Comunidades*) are the whole of people who live in rural areas and share traditions, customs and habits; is made up of the set of lands, forests and waters. As a general rule in the agricultural field, the community and its assets were recognized based on previous legislation through restitutory, confirmatory or titling actions of their lands. The community has constitutionally with recognition of their legal personality and special protection of their assets and resources; the communal lands are inalienable, imprescriptible and indefeasible, except that they are contributed to civil or commercial companies. The community, by agreement of assembly may change to the ejidal regime. And ejidos are lands subject to a special regime of social ownership in land tenure; constitutionally recognized that personality and its heritage is protected in a special way. The special way means they are organized through their ejidal or communal authorities by mandate of the ejido assembly, for protection against illegal logging, illegal hunting, forest fires, pests, etc. The Supervisory Board visits its forest periodically and informs the Ejidal board of directors (ejido commissioner) to take necessary actions. When required, all ejidatarios are called by the President of the Comisariado to attend any event. All this according to its Ejidal Internal Regulation, based on the Agrarian Law (Agrarian Attorney, 2008 [translated from Spanish]). The Communities (Comunidades) is the land/forest

for all the community and is not possible to rent or sell. This type of properties has been created since the Spanish colonization in some cases. However, the Ejido land came after the revolution, and the owners of the land can rent and sell the lands.

The harvesting of temperate forests is concentrated in coniferous forests, which are dominated by pine species (*Pinus spp.*) and, to a lesser extent, oak (*Quercus spp.*), *Abies spp.*, *Alnus sp, Juniperus sp.*, among others. In the case of tropical rainforests, the harvested species include mahogany (*Swietenia macrophyla*), cedar (*Cedrela odorata*), black poisonwood (*Metopium brownei*), sapodilla (*Manilkara zapota*), granadillo (*Platymiscium yucatanum*), machiche (*Lonchocarpus castilloi*), gregorywood (*Bucida buceras*), katalox (*Swartzia lundelli*) and ziricote (*Cordia dodecandra*), among others (CONAFOR & SEMARNAT, 2012).

The coniferous forests are found in the high plains of the Sierra Madre Occidental and Oriental, as well as in the Trans-Mexican Volcanic Belt in central Mexico. The tropical rainforests are concentrated in the Yucatan Peninsula, in the states of Quintana Roo, Tabasco, Campeche and Yucatan, and to a lesser degree in parts of the Pacific foothills and coast, such as Nayarit, Jalisco, Colima, Michoacan, Guerrero, Oaxaca and Chiapas, as well as the coast of Veracruz (CONAFOR & SEMARNAT, 2012).

Authorisation to harvest forest resources is granted by the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales -SEMARNAT, Spanish acronym-), in accordance with the General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable (LGDFS, Spanish acronym)) and its Regulation.

In tropical rainforests, forest harvesting is authorised through a Forest Management Plan, when tropical rainforests is over 20 ha, difficult-to-regenerate species and protected nature areas, an Environmental Impact Statement must also be submitted and approved, as stipulated by the General Law for Ecological Balance and Environmental Protection (Ley General del Equilibrio Ecológico y la Protección al Ambiente -LGEEPA, Spanish acronym-). For temperate forest this is not applicable.

Before harvesting voluntary¹ forest plantations, a Proof of Plantation Registration (Constancia de Registro de Plantación) must be submitted. If this has not been done, according to Provisional Article 5 of the Regulation pertaining to the General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable, LGDFS), forest plantations that were planted before 26 May 2003 (the date on which the General Law for Sustainable Forest Development entered into force) are permitted to be registered. As a harvesting instrument, the Simplified Forest Plantation Management Plan (Plan de Manejo de Plantación Forestal Simplificado) is submitted to SEMARNAT. The detailed structure of the Forest Management Plan and specific differences between advanced, intermediate and simplified are available in Spanish within the Official Mexican Norm NOM-152-SEMARNAT-2006. According to the information in the previous norm, two of the main differences among them is that the intermediate and the simplified Forest Management Plan do not require to include a classification and quantification of surfaces nor a diagnosis on the general physical and biological traits while the advance must include these; but the advance and the intermediate Forest Management Plan must include general and specific objectives, whicle the simplified does not need to include this. The contents of the FMP as in this NOM explicitly mention a section called: Dasometric study (Estudio dasométrico) where we can find the classification of species quantities and qualities within the FMPs.

In addition, the country has the national norm NOM-059-SEMARNAT-2010, "Environmental Protection-Native Flora and Fauna Wildlife Species of Mexico-Risk Categories and Specification for Inclusion, Exclusion or Change- List of Species at risk" ("Protección Ambiental - Especies Nativas de México de Flora y Fauna

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¹ Voluntary forest plantations: Based on expert consultation in 2016, the concept used in Mexico is PLANTACIÓN VOLUNTARIA (voluntary plantation). There is NO MANDATORY plantation such or equivalent to the voluntary plantation, "voluntary" it's only part of the common term to refer to all forest plantations.

Silvestres - Categorías de Riesgo y Especificaciones para su Inclusión, Exclusión o Cambio-Lista de Especies en Riesgo"), which lists and classifies the different flora and fauna species found in any Risk Category. These categories are: a) Probably Extinct in the Wild (Probablemente Extinta en el Medio Silvestre), b) Endangered (En Peligro de Extinción), c) Threatened (Amenazadas), and d) Subject to Special Protection (Sujetas a Protección Especial). To harvest any of the forest species found in any of the above categories, authorisation is required from an Environmental Management Unit (Unidad para Manejo Ambiental - UMA, Spanish acronym-), according to the guidelines in the General Wildlife Law (Ley General de Vida Silvestre), with the approval from SEMARNAT.

A Forest Permit (Remisión Forestal) issued by SEMARNAT is required to transport harvested forest products that are authorised through Forest Management Plans (Planes de Manejo Forestal), and either a Forest Permit (Remisión Forestal) or Commercial Invoice (Factura Comercial) is required for products that are authorised through the Simplified Forest Plantation Management Plan (Plan de Manejo de Plantaciones Simplificado). For products derived from an UMA, the timber is transported with a Permit (Remisión) (template form) to harvest timber in an UMA, with approval from SEMARNAT. An UMA (Unidad de Manejo Ambiental- Environmental Management Unit) is managed in a different way and requires more studies of population, methods of repopulation, for certain species of flora and fauna - that are in conservation status. The transport documents are issued by the company itself (can use own templates) and are approved by SEMARNAT (there is no fixed format). It is not the same as the Forest Permit (Remisión Forestal)- where there is a fixed format (SEMARNAT, 2019 and Legismex, N.Y.) When transporting chips, the legal instrument used is a Commercial Invoice, since Forest Permits and UMA Permits are not issued for this purpose. No transport document is needed for roundwood, planks or firewood for domestic use (small amounts). The Federal Environmental Protection Agency (Procuraduría Federal de Protección al Ambiente -PROFEPA, Spanish acronym-) is responsible for verifying compliance with the above Laws and Regulations, using the Forest Re-shipment as the shipping document.

The establishment of sawmills, timber warehouses and other types of timber processing facilities requires a "Facility Operating Authorisation for Storage and Raw Forest Material Processing" ("Autorización de Funcionamiento de Centro de Almacenamiento y Transformación de Materias Primas Forestales"), issued by SEMARNAT.

To export species listed in CITES Appendices I and II, a Non-Detriment Extraction Finding (Dictamen de Extracción No Perjudicial) is required, guaranteeing that the exportation is sustainable and does not affect wildlife populations. Having this, a CITES permit is issued.

The legal requirements for harvesting and processing forest resources are specific to the various types of land situation or owners of the land, such as: *ejidos*, communities, indigenous communities, private, federal, state, Mexico City, and municipalities (CCMSS, 2019). They also depend on the different types of forests: coniferous, broadleaf, tall and medium rainforest, low forest, cloud forest, mangrove and other forest types.

The Corruption Perception Index of Mexico is 28/100 (Transparency.org, 2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 -very clean). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). In 2017 (latest available year) Mexico scores 16.35 (for control of corruption) on the percentile rank among all countries (the scores range from 0 (lowest rank) to 100 (highest rank) with higher values corresponding to better outcomes (World Bank Worldwide Governance Indicators, 2017).

List of References for the Overview

a) National Forestry Commission (CONAFOR) & Ministry of the Environment and Natural Resources (SEMARNAT) (2012) 2004-2009 National Forest and Land Inventory Report (Inventario Nacional Forestal y de Suelos Informe 2004-2009). [online]. Available at: http://www.ccmss.org.mx/descargas/Inventario_nacional_forestal_y_de_suelos_informe_2004_-_2009_.pdf

- b) Food and Agriculture Organization of the United Nations (FAO) (2005) Chapter 3 Evolution and Current Situation in the Forest Sector (Evolución y situación actual del sector forestal). Study of trends and perspectives on the Forest Sector in Latin America (Estudio de tendencias y perspectivas del sector forestal en América Latina) Subregional Report for Central America and Mexico (Informe Subregional Centroamerica y México). [online]. Available at: http://www.fao.org/docrep/009/j7354s/j7354s07.htm
- c) Murillo (2014) Making sustainable forest management of forest resources a reality (Haciendo realidad el manejo forestal sustentable de los recursos forestales). [online]. Available at: http://www.conafor.gob.mx/innovacion_forestal/?p=1273
- d) FSC (2016) Welcome to the FSC Public Search. [online]. Available at: https://info.fsc.org and on https://info.fsc.org and on https://mx.fsc.org/es-mx/impacto/datosycifras (Mexico FSC)
- e) Transparency.org (2018) Transparency International's Corruption Perception Index 2018. [online]. Available at: https://www.transparency.org/country/MEX
- f) World Bank Worldwide Governance Indicators (2017) Database Excel. [online]. Available at: http://info.worldbank.org/governance/wgi/index.aspx#home
- g) Agrarian Attorney (Procuraduría Agraria) (2008) Glosary of Agrarian-Legal terms (Glosario de términos jurídico-agrarios). [online]. Available at: https://www.pa.gob.mx/pa/conoce/publicaciones/Glosario%202009/GLOSARIO%20DE%20T%C3%89RMINOS%20JUR%C3%8DDICO-AGRARIOS%202009.pdf
- h) SEMARNAT (2019) Forest permit to prove the legal provenance of forest raw materials (remisión forestal para confirmar la procedencia legal de las materias primas forestales). [online]. Available at: https://www.gob.mx/tramites/ficha/remisiones-forestales-para-acreditar-la-legal-procedencia-de-materias-primas-forestales/SEMARNAT246
- i) Legismex- Center of Environmental Quality (Centro de Calidad Ambiental) (N.Y.) Manual of procedures for authorizations, permits, records, reports and notices related to the conservation, management and sustainable use of wildlife and flora and other biological resources (Manual de procedimientos para autorizaciones, permisos, registros, informes y avisos relacionados con la conservación, manejo y aprovechamiento sustentable de la flora y fauna silvestres y otros recursos biológicos). [online]. Available at: http://legismex.mty.itesm.mx/instruc/man-UMA.pdf
- j) CCMSS (Mexican Civil Council for Sustainable Forestry) (Consejo Civil Mexicano para la Silvicultura Sostenible) (2019) Mexican Forest Legislation: federal laws and regulations (Legislacion forestal Mexicana: leyes y normas federales). [online]. Available at: http://www.ccmss.org.mx/acervo/legislacion-forestal-mexicana-leves-v-normas-federales/
- k) Mexican Civil Council for Sustainable Forestry (Consejo Civil Mexicano para la Silvicultura Sostenible-CCMSS). (2016) Forests and forests in Mexico are socially owned (geostatistical analysis) (Los bosques y selvas en México son de propiedad social (análisis geoestadístico)) [online]. Available at: http://www.ccmss.org.mx/los-bosques-y-selvas-en-mexico-son-de-propiedad-social-analisis-geoestadistico/
- I) General Law of Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) (2018) Available at: http://www.ordeniuridico.gob.mx/leves.php#
- m) Regulation pertaining to the General Law for Sustainable Forest Development (Reglamento de la Ley General de Desarrollo Forestal Sustentable) (2005) Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php#http://www.diputados.gob.mx/LeyesBiblio/regley/Reg LGDFS 311014.pdf
- n) General Law for Ecological Balance and Environmental Protection (Ley General del Equilibrio Ecológico y Protección al Ambiente) (1988) Amendment (2018) Available at: http://www.ordenjuridico.gob.mx/leyes.php

- Official Mexican Norm NOM-059-SEMARNAT-2010. Available at: http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/agenda/DOFsr/DO2454.pdf
- p) General Wildlife Law (Ley General de Vida Silvestre) (2000) Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#

The list of sources provided in FSC-PRO-60-002a, section 3.3.3 was reviewed in terms of its relevance to the assessment of law enforcement in the CNRA for Mexico. The following sources were used:

- a) Chatham House: http://www.illegal-logging.info/;
- b) Government reports and assessments of compliance with related laws and regulations;
- c) Independent reports and assessments of compliance with related laws and regulations, e.g., the Royal Institute of International Affairs: http://www.illegal-logging.org;
- d) Public summaries of FSC forest management certification reports published at info.fsc.org (information on legal areas where non-compliances have been identified during the certification process that are likely to be common for non-certified operations);
- e) Public summaries of other 3rd party forest legality certification/verification systems;
- f) Stakeholder and expert consultation outcomes (in cases where other sources of information were not available, consultations with experts within the area have been conducted in 2016);
- g) Transparency International Corruption Perceptions Index: http://www.transparency.org/policy_research/surveys_indices/cpi;
- h) World Bank Worldwide Governance Indicators: http://data.worldbank.org/data-catalog/worldwide-governance-indicators

Where relevant, these sources have been specifically referenced under "Sources of Information" for each applicable indicator.

The remaining sources were not found to be relevant to the legality risk assessment for Mexico:

- a) ELDIS regional and country profiles. http://www.eldis.org;
- b) Environmental Investigation Agency. http://www.eia-international.org;
- c) EU FLEGT process. http://ec.europa.eu/comm/development/body/theme/forest/initiative/index_en.htm;
- d) Forest Legality Alliance. http://www.forestlegality.org/;
- e) Interpol. http://www.interpol.int/Crime-areas/Environmental-crime/Projects/Project-LEAF;
- f) Justice tribunal records;
- g) Telapak (for Indonesia). http://www.telapak.org;

Note: the present CNRA for Honduras was developed in 2016, and therefore the validity date of the sources is often based on this year.

Sources of legal timber in Mexico

Forest classification type	Permit/license type	Main license requirements (forest management plan, harvest plan or similar?)	Clarification
Temperate forest (pine and oak) with no species in the atrisk category	Authorisation of Forest Harvesting (SEMARNAT). SEMARNAT grants forest permits to transport timber after it has been shown that forest harvesting has been conducted according to the Forest Management Plan.	Simplified, Intermediate or Advanced Level Forest Management Plan Areas <20 ha or groupment of plots (250 ha): Simplified-level Areas between 20 ha and 250 ha: intermediate-level Areas > 250 ha: advanced-level	A large proportion of timber produced in Mexico comes from the <i>Pinus</i> genus (over 45 species), and in lesser amounts from <i>Abies</i> and <i>Quercus</i> . States include Chihuahua, Durango, Oaxaca, Guerrero, Michoacan, Jalisco, Chiapas and portions of Central Mexico.
Temperate forest with at-risk species	UMA Management for Pinus chiapensis, P. jaliscana, etc. authorized by SEMARNAT.	UMA Forest Management Plan	Harvesting is relatively small-scale and can occur in any state in the country. Harvesting has been observed in Jalisco, Michoacan, Oaxaca, Chiapas and in transition zonesfrom tropical rainforests to cloud forests.
Tropical rainforest (tall, medium and low evergreen rainforest)	Authorisation of Forest Harvesting and approval of Environmental Impact Statement (SEMARNAT). SEMARNAT grants forest permits to transport timber after it has been shown that forest harvesting has been conducted according to the Forest Management Plan.	Simplified, Intermediate or Advanced Level Forest Management Plan and approved Environmental Impact Statement (this last one only when tropical rainforest areas > 20 ha) Areas <20 ha or groupment of plots (250 ha): Simplified-level Areas between 20 ha and 250 ha: intermediate-level Areas > 250 ha: advanced-level	Harvesting of tropical rainforests occurs mostly on the Yucatan Peninsula (Quintana Roo, Tabasco, Campeche, Yucatan) and to a lesser extent in portions of the Pacific foothills and coast, including Nayarit, Jalisco, Colima, Michoacan, Guerrero, Oaxaca and Chiapas. Harvesting also occurs on the Atlantic Coast in Veracruz.
Plantations	Proof of Plantation Registration (Constancia de Registro de Plantación)- (SEMARNAT) Authorization of Simplified Forest Plantation Management Plan Plantation harvesting notice (Aviso) Note: plantations < 800ha only require plantation harvesting notice (Aviso) and proof of Plantation Registration	Simplified Forest Plantation Management Plan	Current timber production is for paper chips (states of Oaxaca, Veracruz and Tabasco).

Note: all these legal requirements listed in the table of legal sources of timber apply per type of forest and for all kinds of land tenure.

Risk assessment

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		Legal rights to harvest	
1.1 Land	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
tenure and management rights	 Political Constitution of the United Mexican States, Articles 2, 27 (Constitución Política de los Estados Unidos Mexicanos) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014_constitucion.pdf Agrarian Law, Articles 9, 10, 11, 50, 103, 16, 107, 135 (Ley Agraria) 1992. Available at: http://www.ordenjuridico.gob.mx/leyes.php# Federal Fiscal Code, Articles 32F, 157 (Código Fiscal de la Federación) 1981. Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php# General Law of National Assets (Ley General de Bienes Nacionales) 2007. Available at: 	 gob.mx (N.Y.) Agrarianism in Mexico (Agrarismo en México). [online]. Available at: http://www.gob.mx/presidencia/articulos/museo-virtual-agrario Lopez Barcenas, F. (N.Y.) Indigenous Territories and Agrarian Conflicts in Mexico (Territorios indígenas y conflictos agrarios en México). [online]. 	Overview of Legal Requirements Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) Recognizes and guarantees the right of indigenous peoples and communities to free will and, consequently, autonomy to: V. Conserve and improve the habitat and preserve the integrity of their lands according to the terms established by the Constitution. VI. With respect to the forms and modalities of land ownership and tenure established by this Constitution and the laws on this matter, as well as rights acquired by third parties or by members of the community, to have preferential use and
	https://mexico.justia.com/federales/leyes/ley- general-de-bienes-nacionales/titulo- primero/capitulo-unico/ Legal Authority Ministry of Agrarian, Territorial and Urban Development (Secretaría de Desarrollo Agrario, Territorial y Urbano (SEDATU, Spanish acronym) Agrarian Legal Department (Procuraduría Agraria (PA, Spanish acronym)) National Agrarian Registry (Registro Agrario Nacional (RAN, Spanish acronym)) Public Registry of Properties (Registro Público de	Available at: http://www.pa.gob.mx/p ublica/rev_32/lopez.pdf • pa.gob.mx (N.Y.) PROCEDE Program for Certification of Ejido Rights and Titling of Plots (Programa de Certificación de Derechos Ejidales y Titulación de Solares) Records of PROCEDE (Antecedentes del PROCEDE). [online].	enjoyment of the natural resources on the sites inhabited and occupied by the communities, except those areas corresponding to strategic areas as defined by this Constitution. In this regard the communities shall have freedom of association under the terms of the law. The ownership of land and water located within the borders of the national territory originally belongs to the Nation, which has had and continues to have the right to transfer their domain to private parties, constituting private ownership. The Nation shall at all times have the right to impose on private land the modalities dictated by the public interest, as well as regulate, for the social welfare, the exploitation of the natural
	 la Propiedad (RPP, Spanish acronym)) Ministry of Urban and Ecological Development (Secretaría de Desarrollo Urbano y Ecología) National Commission for the Development of Indigenous Peoples (Comisión Nacional para el 	Available at: http://www.pa.gob.mx/p ublica/pa070113.htm pa.gob.mx (N.Y.a) Statistics on agrarian	elements that can be subject to appropriation, in order to equally distribute the public wealth, conserve it, achieve the balanced development of the country and improve the living conditions of rural and urban populations.

- Desarrollo de los Pueblos Indígenas (CDI, Spanish acronym))
- Treasury and Public Credit Ministry (Secretaría de Hacienda y Crédito Público (SHCP, Spanish acronym))

Legally required documents or records

Any of the following documents:

- Basic File (Carpeta Básica) (presidential decree executed, with the affidavit of possession and final property lines)
- Proof of agrarian rights issued by the National Agrarian Registry (Registro Agrario Nacional)
- Certificate of plot rights
- · Certificate of agrarian rights
- Public registration of title in the Public Registry of Property (Registro Público de la Propiedad)
- Document granting the producer recognition as the legal representative and administrator for the purpose of legal harvesting on the property
- Legal ruling adjudicating inheritance or bequest
- Rental contract
- Certificate of usufruct issued by the municipal or relevant authority
- Proof of granted allowance to exploit the federal maritime-terrestrial zone (supported by the Secretary of Environment)

NOTE: all these listed legally required documents apply similarly to all kinds of property types (Ejidal Property, Communal Property and Private Property).

In Mexico the "Certificate of usufruct" is an authorization to have all the rights over a specific land to take advantage of it according to national laws (for forest activities it would be used the General Law of

- groups (Estadisticas de grupos agrarios).
 [online]. Available at: http://www.pa.gob.mx/publica/rev_42/ESTADIS_TICAS/Estad%C3%AD_sticas_12.pdf
- Rivera Rodriguez, I.
 (N.Y.) Comprehensive
 agrarian law (Derecho
 agrario integral)..
 Theoretical framework
 regarding agrarian
 rights in Mexico (Marco
 teórico sobre los
 derechos agrarios en
 México). [online].
 Available at:
 http://www.pa.gob.mx/publica/pa070206.htm
- transparenciapresupue staria.gob.mx (N.Y.) Evaluation of the budgetary programme of the National Agrarian Registry (Diagnóstico del programa presupuestario del Registro Agrario Nacional). [online]. Available at: http://www.transparenci apresupuestaria.gob.m x/work/models/PTP/Rei ngenieria Gasto/image nes/Ventanas/Ramo 1 5/15U001.pdf

The legal personality of the population groups belonging to *ejidos* and communally-owned land is recognized, and their ownership of the land is protected, for human settlement as well as productive activities.

(source used for this description A. Jimenez (2005); Mexico National Human Rights Commission (Comisión Nacional de los Derechos Humanos México) (2012); Orozco Garibay, P.A. (2010); Madrid L. (2009))

The law, in consideration of respecting and strengthening the community life of the *ejidos* and communities, shall protect the land for human settlement and regulate the exploitation of communal land, forests and water, and take the actions necessary to raise the living standards of the inhabitants.

The law shall protect the integrity of the lands belonging to indigenous groups.

Agrarian Law (Ley Agraria)

Ejidos operate according to internal regulations, with no restrictions on their activities other than those stipulated by law. Their regulations shall be registered with the National Agrarian Registry (Registro Agrario Nacional) and shall contain the general bases, freely adopted, for the economic and social organization of the community, the requirements for accepting new community landholders (ejidatarios), the rules for the exploitation of the community-owned land, and the other regulations contained in this law must be included in the regulation as well as all others that each ejido considers pertinent.

Collective exploitation of community-owned property (propiedad ejidal) can be adopted by a ejido when its assembly decides to do so, prior to which the rules regarding how to organize the work and exploit the natural resources of the ejido shall be established, as well as the mechanisms by which the benefits, capital reserves, social security or services, and the communal funds shall be equally distributed.

Sustainable Forest Development) (applicable for all types of lands).

Non-Government sources

- Jimenez (2005) Impact of land tenure on cultural heritage (Impacto de la tenencia de la tierra en el patrimonio). Extract from: Management of Archaeological Heritage in Mexico. Valuation and proposals. (La gestión del patrimonio arqueológico en México. Valoración y propuestas). [online]. Available at: http://etzakutarakua.col mich.edu.mx/proyectos/ curutaran/publicaciones /Tenencia%20de%20la %20tierra%20v%20patr imonio.pdf
- Mexican Civil Council for Sustainable Forestry (Consejo Civil Mexicano para la Silvicultura Sostenible-CCMSS) (2016) Forests and forests in Mexico are socially owned (geostatistical analysis) (Los bosques y selvas en México son de propiedad social (análisis geoestadístico)) [online]. Available at: http://www.ccmss.org.m

All the internal regulations stipulated in this law for *ejidos* are applicable to communities, as long as they do not contravene what is established by the present law.

Based on the Article 156 of the Agrarian Law, it's mentioned that the Notaries and public property registries, when they authorize or register operations or documents on conversion of ejidal property to full ownership and of this to the ejidal regime, as well as the acquisition of land by mercantile or civil companies, shall give notice to the Agrarian National Registry. Likewise, public notaries shall give notice to the National Agrarian Registry of any transfer of ownership of rural lands of mercantile or civil companies.

Based on the article 79 of the Agrarian Law, the ejidatario can take advantage of his plot directly or grant to other ejidatarios or third parties its use or usufruct, by sharecropping, sharecropping, association, lease or any other legal act not prohibited by law, without the authorization of the assembly or of any authority.

(source used for this description Rivera Rodriguez, I. (N.Y.))

General Law of National Assets (Ley General de Bienes Nacionales)

The federal maritime-terrestrial zone and reclamation ground shall not be subjected to agrarian uses and, consequently, shall not be included in presidential decrees pertaining to grants, expansion or restitution. Neighbouring *ejidos* or communities shall have priority when granting allowance to exploit these properties.

Based on the article 123, when the exploitation of existing materials in the federal maritime land area is governed by special laws, for the competent authority to grant the concession, permit or respective authorization, the favorable opinion of the Secretary of Environment will be previously required. Environment and Natural Resources.

When there is a concession, permit or authorization from the competent authority for the use, exploitationor realization of activities regulated by other laws, including those related to marinas, maritime-port, fishing or aquaculture facilities and when it

- x/los-bosques-y-selvasen-mexico-son-depropiedad-socialanalisis-geoestadistico/
- Mexico National Human Rights Commission (Comisión Nacional de los Derechos Humanos México) (2012) Human Rights of Indigenous Peoples in Mexico (Derechos Humanos de los Pueblos Indígenas en México). [online]. Available at: http://www.cndh.org.mx/sites/all/doc/cartillas/14
 Cartilla DH Pueblos
 Indigenas.pdf
- Orozco Garibay, P.A. (2010) The Nature of Community-Owned Farms (ejido) and Community-Owned Property (ejidal), characteristics and limitations (Naturaleza el ejido de la propiedad ejidal, características y limitaciones). [online]. Available at: https://revistascolaboracion.iuridicas.u nam.mx/index.php/revmexicanaderecho/article/view/14 086/12575
- FSC (2017) Public FSC FM report. [online].
 Available at:

is also required the use of the federal maritime-land zone , the Ministry of Environment and Natural Resources will immediately grant the respective concession, except when preferential rights of neighboring or other concessionaires are affected, without prejudice to compliance with the general regulations for each use, exploitation or activity issued by the previously said authority with respect to the federal maritime land area.

Fiscal Code of the Federation (Código Fiscal de la Federación) This code stipulates that communities and *ejidos* are exempt from seizure.

NOTE: Based on El economista (2017), during the Agrarian Reform of the 20th century, the public land was transformed into private property (ejidal, communal or individual), conceived as a producer of private goods (agricultural products), and not of public goods (biodiversity, landscapes, scenic values, environmental services). However, if required, the legal requirements on harvesting and management planning in public lands are exactly the same for private and communal lands, all need FMP, etc.

Description of risk

The 52% of the land is Social property (correspond to *ejido* and community), 38% is private rural property, 4% correspond to federal zones, 4% is national land and 2% is agricultural / livestock areas (CCMSS (2016)).

Based on expert consultation done in 2016, it is not used to harvest timber from agricultural/livestock areas. Public Lands or State-Owned Forests (National, State, Municipal) for the purpose of forest harvesting do not exist in Mexico, because public property refers mainly to communication routes (roads, highways, railways, electric power lines, etc.) and others as small municipal parks within towns or cities (based on expert consultation). Therefore, it is not likely to have these authorizations for these types of property (public lands or state-owned forests-national, state, municipal).

The existing ownership of the land where forest is harvested is normally Ejidos, Communities, and private (minimum part).

https://info.fsc.org/certificate.php (NOTE: include on the certificate code FM/COC and the country Mexico; example: http://fsc.force.com/servlet/servlet.FileDownload ?file=00P3300000mrbc cEAA

- Madrid L. (2009) Social Forest Property in Mexico (La propiedad social forestal en México) [online]. Available at: http://www.revista.inecc.gob.mx/article/view/75/67
- Quadri, G. (2012)
 Forests: Collective or Private Property"
 (Bosques: Propiedad colectiva o privada)
 [online]. Available at: https://www.eleconomis ta.com.mx/opinion/Bos ques-propiedadcolectiva-o-privada-20120906-0005.html
- Reyes, J. A., D'Acosta (Eds.) (2012) Memories of the Seminar Social Property and Environmental Services (Memorias del Seminario Propiedad Social y Servicios Ambientales) [online].

The social property represents 52% of the total area of the country and is distributed in more than 31 thousand agrarian areas, of which 35% have at least 200 hectares of forests and / or jungles. The northern region of the country concentrates the largest amount of agricultural land with forest area (CCMSS (2016)) Although litigation and lack of clarity regarding property limits exist in Mexico, the level of legal certainty is considered to be sufficient as far as land ownership and the right to exploit the natural resources found on it are concerned. For the authorization of a Forest Management Plan the manager must prove land tenure. which is analyzed by a committee of agrarian authorities and the Legal Department of SEMARNAT. If there is a problem, the committee produces a document stating that there is land tenure dispute. The committees operate in each state of Mexico coordinated by SEMARNAT and State Government. Areas of land that are the subject of ongoing disputes or conflict are typically protected from exploitation and none of the parties laying claim to such areas harvest forest resources or other types of resources existing therein (confirmed by interviews with experts).

Based on local expert consultation, it was mentionend that the SEMARNAT Authorization of the FMPs is for lands with forests that do not have conflicts. The areas with agrarian conflict are segregated from any management plan (this is done in practice) (Interviews: with experts from the public sector). Official data and information on number of cases of conflicts over land tenure and/or management rights in the country was not found during the development of this assessment.

However, based on the article from *Imagen agropecuaria* (2014), it mentions that with the application of the energy laws, nongovernmental organizations and peasants foresee that the conflicts over the land with the indigenous communities will be accentuated, because they consider that they are in violation of the constitution and international treaties signed by Mexico. In Mexico there are 200 conflicts in indigenous territories, many of them related to megaprojects of exploitation of natural resources, whose benefits have not been for these populations. One example is the mining

Available at:

http://www.ccmss.org.m
x/descargas/Memorias
del_seminario_propied
ad_social_y_servicios
ambientales.pdf

- transparency.org
 (2018) Transparency
 International's
 Corruption Perception
 Index 2018. [online].
 Available at:
 https://www.transparency.org/country/MEX
- Imagen agropecuaria
 (2014) Occupation of
 indigenous territories
 will accentuate social
 conflicts (Ocupación de
 territorios indígenas
 acentuará conflictos
 sociales). [online].
 Available at:
 http://imagenagropecuaria.com/2014/ocupacion-de-territorios-indigenas-acentuara-conflictos-sociales/
- USAID (N.Y.) Country
 Profiles: Mexico.
 Available at:
 https://www.land-links.org/country-profile/mexico/#land
- World Bank Worldwide Governance Indicators (2017) Database Excel. [online]. Available at: http://info.worldbank.or

companies, whose profits in the last five years totaled nearly 700 billion pesos, but only 2 percent went into the national coffers.

According to USAID (N.Y.) "15% of all ejidos are affected by problems caused by land invasions and informal settlements. This has given rise to widespread conflicts between new (informal) occupants and ejidatarios, undermining the broader framework of governance in rural areas (Brizzi 2001) "land disputes have been common in Mexico in both rural and urban areas. On ejidos, disputes related to inheritance and parcel boundaries are common."

Meanwhile, the PROCEDE programme (pa.gob.mx (N.Y.)) (Certification Programme for Community-Owned Property (*ejidales*) Rights and Land Titles (Programa de Certificación de Derechos Ejidales y Titulación de Solares), which terminated in December 2006, certified 91.5% of the ownership of community-owned property (ejidales) and/or communally-owned lands. Later, through FANAR (Fund to Support Agrarian Groups without Regularization (Fondo de Apoyo para Núcleos Agrarios sin Regularizar)), and until December 2009, other properties continued to be certified, with 92.07% of all property regularized to that date (pa.gob.mx (N.Y.a)). Although information is not available after December 2009, it can be inferred that the programme has continued to operate and that 95% of ownership is most likely certified (see PROCEDE Records (Antecedentes del PROCEDE)).

Regarding private property, unless there is a situation of conflict with another property, in this type of tenure, the certainty of ownership is clearer and there are documents that prove it (based on consultations in 2016 with FSC auditors in the country and reviewing public reports from FSC authorities). At the national level, this type of property represents 35% (Quadri G., 2012). Based on Reyes, J. A., D'Acosta (Eds) (2012), the renewal of the pattern (cadastre) of ejidales and communities has had an effect on the ejidos and communities, and despite the great effort that was made in the country to regularize land tenure, it is no longer known who owns the land. The regularization changed the sense of conflicts and territorial disputes of the area: from 75% to 80% of the main disputes over the territory and natural resources from 1993 to 2007 have to do with individual rights, successions, sales,

- g/governance/wgi/index .aspx#home
- El economista (2017)
 Mexico, a landless
 state (México, un
 estado sin tierra).
 Available at:
 https://www.eleconomista.com.mx/opinion/Mexico-un-estado-sin-tierra-20170309-0008.html

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with legal rights of land ownership and the use of resources.

Also, consultation in 2016 with FSC auditors in the country was conducted.

invasions of plots, etc. The problem with these conflicts is that they have a social impact, and the main problems (around 50%) have to do with land boundaries with ejidos, communities and small owners; 21.7% for the use, harvesting, access and conservation of areas, and 9.3% for the restitution of lands, forests and waters.

Based on expert consultation (included the experience on FSC management areas) it is noted, that in Mexico the land tenure can be: ejidal, communal, private, national, state and municipal. The last three are very rare, however timber can be harvested there, following the same legal requirements as described above on the table of sources of legal timber. However, for the rest (ejidal, communal and private), the only way to harvest is having a Forest management Plan and the harvesting is done in a collective way (collective organization of the harvest activity). Harvest in private forests is done by the owner, hiring workers from the administration, forest technicians, to field workers. Expenses and incomes are the responsibility of the owner.

The collective way of Forest harvest, it is carried out by the ejidal or communal authority as the people in charge of the work in the forest and the work force is in charge of the ejidatarios, or comuneros of preference, otherwise it can be contracted to nearby settlers or neighbors (no ejidatarios or comuneros). All control from the FMP to its operation is carried out by ejidal or community agreements in assemblies. Expenses and incomes are the responsibility of the Ejido or Community through its ejidal or communal authorities. In the assemblies, accounts of income and expenses are presented.

Based on Lopez Barcenas, F. (N.Y.), The agrarian conflicts existing in Mexico show how complex is the ownership of land among indigenous peoples and the relationship they have with their territories. This complexity is due to multiple factors, among which we can mention the symbolic relationship of indigenous communities with the lands that occupy, the way land was titled to its owners after the Mexican Revolution, the insufficiency of the legislation to recognize indigenous territorial rights, the interests of third parties on those lands and the lack of application of the right to make respect the rights of those who have them.

			Based on transparenciapresupuestaria.gob.mx (N.Y.), legal uncertainty in the possession of ejidal and communal land that causes conflicts of possession, as well as territorial disorder in areas regularized, which difficult the promotion of integral development, productivity, as well as orderly occupation and sustainable use. The Corruption Perception Index of Mexico is 28/100 (2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 -very clean) (transparency.org, 2018). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). In 2017 (latest available year) Mexico scores 16.35 (for control of corruption) on the percentile rank among all countries (the scores range from 0 (lowest rank) to 100 (highest rank) with higher values corresponding to better outcomes (World Bank Worldwide Governance Indicators, 2017). Based on lack of more evidence supporting the elements of the threshold for low risk, and due to the high level of corruption reported for the country (CPI less than 50), a precautionary approach is considered.
	Applicable laws and regulations	Covernment	Risk conclusion Following the precautionary approach this indicator has been evaluated as specified risk. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.2 Concession licenses	 Applicable laws and regulations Political Constitution of the United Mexican States, Article 27 (Constitución Política de los Estados Unidos Mexicanos) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014_c onstitucion.pdf General Law of National Assets (Ley General de Bienes Nacionales) 2007. Available at: https://mexico.justia.com/federales/leyes/ley- 	General Law of Sustainable Forest Development, Articles 54 (Ley General de Desarrollo Forestal Sustentable) (2018) Available at:	[subsections with translations from Spanish] Overview of Legal Requirements After an exhaustive search on the current legislation (e.g. Forest Law 1986, Forest Law 1992, General Law of Sustainable Forest Development 2006, General Law of Sustainable Forest Development 2018), it was not found legal requirements nor explicit prohibitions for forest concessions in Mexico. Nevertheless, the

- general-de-bienes-nacionales/tituloprimero/capitulo-unico/
- Forest Law (Ley Forestal) (1986). Available at: http://extwprlegs1.fao.org/docs/pdf/mex7995.pdf
- Forest Law (Ley Forestal) (1992). Available at: http://www.fao.org/faolex/results/details/en/c/LEX-FAOC007996
- General Law of Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) (2006). Available at: https://www.ecolex.org/es/details/legislation/ley-general-de-desarrollo-forestal-sustentable-lex-faoc036056/
- General Law of Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) (2018). Available at: http://www.ordenjuridico.gob.mx/leyes.php#

Legal Authority

- Treasury and Public Credit Ministry (Secretaría de Hacienda y Crédito Público (SHCP, Spanish acronym))
- Relevant (public) property management agencies
- Ministry of the Environment and Natural Resources (Secretaría del Medio Ambiental y Recursos Naturales (SEMARNAT))

Legally required documents or records

 Official document where the federal concession is granted by the relevant authorities (in public lands)

- http://www.ordenjuridic o.gob.mx/leyes.php#
- Forest Law (Ley Forestal) (1986) Available at: http://www.ccmss.org.m
 x/descargas/ley_1986.p
 df

Non-Government sources

- FAO (2005)
 Characterization of the Forest Sector (Caracterización del sector forestal).
 [online]. Available at: http://www.fao.org/docrep/006/j2215s/j2215s06
- FAO (N.Y.) Summary of the current state of forest management and management in mexico. Available at: http://www.fao.org/3/j2628s/J2628S13.htm
- Merino (2018) Forest communities in Mexico, ways of life, governance and conservation (Comunidades forestales en México. Formas de vida, gobernanza y conservación). [online]. Available at:

Political Constitution of the United Mexican States and the General Law of National Assets have relevant contents applicable to public lands related to this indicator.

In Mexico the "Certificate of usufruct" is an authorization to have all the rights over a specific land to take advantage of it according to national laws (for forest activities it would be used the General Law of Sustainable Forest Development) and the term is applicable for all types of land ownership. The certificates of usufruct issued in private property are not considered a concession because it is private land. For the case of the communal lands, these lands are common property plots, to which each ejido-comunero can have access to their land. Usufruct is only given according to the access rules established internally by the community (in the case that such rules exist) (FAO, 2005). Therefore, these requirements are identified as not direct legal requirements and are not stated in the legislation.

Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos)

Paragraph VI of article 27 mentions that "The States and the Federal District, as well as municipalities throughout the Republic, will have full capacity to acquire and own all the real estate necessary for the public services.

The laws of the Federation and of the States in their respective jurisdictions will determine the cases in which it is useful public occupation of private property, and in accordance with said laws the administrative authority will make the declaration correspondent. The price that will be set as compensation to the expropriated asset will be based on the amount that as fiscal value it is included in the cadastral or collection offices, either that this value has been expressed by the owner or simply accepted by him in a tacit way for having paid your contributions with this base. Excess value or demerit that has had the particular property for the improvements or deteriorations occurred after the date of the assignment of the fiscal value, will be the only thing that should be subject to judgment expert and judicial resolution. The same will be observed when deal with objects whose value is not fixed in the

- http://www.scielo.org.m x/pdf/rms/v80n4/0188-2503-rms-80-04-909.pdf
- Royal Spanish
 Academy (Real
 Academia Española)
 (N.Y.) Definition of
 "rentista" Available at:
 https://dle.rae.es/?id=VyPLCud

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with concessions.

offices rentísticas. The exercise of the actions that correspond to the Nation, by under the provisions of this article, shall be effective by the judicial procedure; but within this procedure and by order of the corresponding courts, which will be issued in the maximum period of one month, the administrative authorities will proceed, of course, to the occupation, administration, auction or sale of the lands or waters in question and all their accessions, but in no case can what has been done be revoked the same authorities before an enforceable judgment is issued [translated from Spanish]"

General Law of National Assets (Ley General de Bienes Nacionales)

Article 16 clarifies that "Concessions, permits and authorizations on goods subject to the regime of Public domain of the Federation does not create real rights; simply give in front of the administration and without prejudice of third parties, the right to carry out the uses, exploitation or exploitation, in accordance with the rules and conditions established by law and the title of the concession, permission or corresponding authorization. [translated from Spanish]"

Also, in article 17, it states that "The concessions on assets of direct domain of the Nation whose granting authorizes the sixth paragraph of article 27 of the Political Constitution of the United Mexican States, shall be governed by the provisions of the respective regulatory laws. [translated from Spanish]"

Moreover, article 28 designates the Treasury and Public Credit Ministry (Secretaría de Hacienda y Crédito Público (SHCP, Spanish acronym)) and the other property management agencies will have in the scope of their respective competencies, the powers that relate to among others, the control and verification of the use and explotations of the federal properties and to issue the concessions or in its case, the permits or authorizations to the use and exploitation of the federal properties.

Article 30 and 31 refer to federal properties for which concessions are not applicable, which are zones with archaeological monuments

(article 30) and properties outside the country that have been acquired by the federal government (article 31) which in this last case these would be subject to the international treaties that
The section third is entirely about the Concessions. Article 27 explicitly states that "The property management agencies may
grant to individuals rights of use or exploitation over federal real estate, through concession, for the carrying out economic, social or cultural activities, without prejudice to specific laws that regulate the granting of concessions, permits or authorizations on federal real
estate. For the granting of concessions, the property management agencies must attend the following: I That the applicant complies with the requirements established in
the specific laws that regulate federal real estate; II Avoid the hoarding or concentration of concessions in a single person; III That it is not possible or convenient for the Federation to
undertake the direct exploitation of the real estate in question; IV They may not grant them in favor of public servants who in any way intervene in the procedure of the concessions, neither of their spouses or consanguineous relatives and by affinity until the fourth
degree or civilians, or third parties with whom these servers have private or business links. The concessions that are granted in contravention of the provisions of this section shall be cause for responsibilities and nullity;
V That the public interest is not affected; VI The information relating to the properties that will be the object of the concession will be published with two months in advance of the beginning of the validity of the respective concession, in a
vii In the case of concessions of spaces over federal buildings that occupy the dependencies property managers, that the activity
to be developed by the concessionaire is compatible and not interfere with the activities of those dependencies, subject to the provisions that the they issue for that purpose. The property management agencies, within the scope of their
respective attributions, according to the conditions referred to in the following article, they will issue the guidelines for the granting or
FSC-CNRA-MX V1-0

extension of concessions on federal real estate of its competence. without prejudice of the applicable legal provisions. They will also submit an annual report to the Chamber of Deputies of the H. Congress of the Union on the concessions granted in the corresponding period. [translated from Spanish]" Art. 73 is about the period of time for the consession to be active (50 years maximum, if there are no specific exemptions in other laws). Art. 74 about the reasons for legal termination of the concessions. Art. 75 cause of expiration of concessions. Art. 76 about reasons for which concessions on the public land can be revogued. Art. 77 about kinds of authorizations to the concessionaires given by the authorities that issue the concessions Description of risk The model of forest concessions granted by the Mexican State to private and parastatal companies from 1950 to 1980 represents a "privatization" or "nationalization" of social property. The reform of the Forestry Law of 1940 allowed a new mechanism of forest exploitation: forest concessions through private companies called Forest Exploitation Units (UIEF). They were impelled by the Mexican government to cover the internal demands in the matter of cellulose under the premise that the peasant communities were not capable of such an encomienda. Confrontations that marked the history of the Mexican forest forestry, in which communities from different states of the republic were involved. The Forest Law of 1986 (no longer in force), overrode the system of forest concessions in all kinds of land, recognized the right of communities to take direct advantage of their forests and proscribed "rentismo" (meaning: Obtaining benefits or advantages of public finances- source Royal Spanish Academy (N.Y.)"). This law also established the obligation to develop plans for integral forest use and opened the possibility for communities to hold technical forestry services (FAO (N.Y.) and Merino (2018).

			The last forest concessions were completed in 1982. Forestry concessions in the past were granted to private or parastatal companies (private and state capital), where a company carried out its forest harvest according to its planning regardless of the owners of the lands with forest (Ejidos and Communities). Based on expert consultation in 2016 and after an exhaustive search no evidences on current issue or existence of forest concessions was found, therefore it is highly unlikely to have risk related to situations where organizations are obtaining concession licenses via ilegal means or where organizations or entities that are not eligigle to hold such rights do so via ilegal means. The concessions of mines continue occurring in Mexico and create problems, when the towns do not allow the entry of workers to the mines (based on expert consultation in 2016). Based on expert consultation in 2016, so far, no problems of deforestation have been seen by this type of mines in forests with forest use authorized by SEMARNAT. The mines are operating in places without arboreal vegetation and in some cases deforested vegetation in arid zones.
			Risk conclusion For public lands, this indicator has been evaluated as 'low risk'. Threshold (1) is met: (1) Identified laws are upheld. Cases where law/regulations are violated are efficiently followed up via preventive actions taken by the authorities and/or by the relevant entities.
			For private, ejidal and communal lands this indicator is N/A.
1.3	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
Management and	General Law of Sustainable Forest Development,	• PROFEPA (2015)	Overview of Legal Requirements
harvesting	Articles 73-82 (Ley General de Desarrollo Forestal	Annual Report (Informe	2 - 2 2 2 2 2
planning	Sustentable) 2018. Available at:	Annual). [online].	To develop the Forest Management Plan (the management
	http://www.ordenjuridico.gob.mx/leyes.php#	Available at:	instrument for the harvesting of forest resources in an area for the
	Regulation pertaining to the General Law for	https://www.gob.mx/cm	subsequent felling cycle) a forest inventory must be performed to
	Sustainable Forest Development, Articles 28, 37 –	s/uploads/attachment/fil	identify the volumetric inventory, timber stand structures and
	52, 93 – 110 (Reglamento de la Ley General de	e/125063/Informe_Anu	distribution for forest management plan.

- Desarrollo Forestal Sustentable) 2005. Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- Official Mexican Norm NOM-152-SEMARNAT-2006. Available at: http://www.ccmss.org.mx/wp-content/uploads/2014/10/Norma_oficial_mexicana_programas_de_manejo_forestal.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría del Medio Ambiental y Recursos Naturales (SEMARNAT))
- General Department of Wildlife (Dirección General de Vida Silvestre)
- Legal Department of the Federal Environmental Protection Agency (Procuraduría General de Protección al Ambiente (PROFEPA))
- National Commission for Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO))
- Municipal authorities

Legally required documents or records

- Forest Management Plan (Plan de Manejo Forestal) (Simplified -for plantations-, Intermediate or Advance -for temperate and tropical rainforests-)(example: https://www.academia.edu/26101020/PROGRAMA_DE_MANEJO_DE_PLAN_TACI%C3%93N_FORESTAL_SIMPLIFICADO)
- Forest Management Plan Authorisation (Autorización del Plan de Manejo Forestal)
- Authorisation for extractive harvesting of specimens, parts or derivatives, modality B for specimens of at-risk wildlife species (official format here: http://dsiappsdev.semarnat.gob.mx/formatos/DGV

al_de_Actividades_PR OFEPA_2015.pdf

PROFEPA (2017)
 Annual Report (Informe Annual). [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/311596/Informe_de_actividades_profepa_2017.pdf

Non-Government sources

- FAO (2005)
 Characterization of the Forest Sector (Caracterización del sector forestal).
 [online]. Availabel at: httm
- FAO (2005) Study of Trends and Perspectives in the Forest Sector in Latin America. (Estudio de tendencias y perspectivas del sector forestal en América Latina). [online]. Available at: httm
- ITTO (2012)
 Diagnóstico del potencial, productividad

In addition, several instruments are used for the planning of the authorisation of the Forest Managements Plan. The main differences between those documents pertain to the size of the property. Plantations, on the other hand, are regulated by another, far simpler management instrument compared to the one that is used to request authorisation for natural forest management.

The main difference between temperate forest and tropical rainforest harvesting is that the latter also requires an Environmental Impact Statement.

General Law of Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable)

This law establishes that authorisation is required from SEMARNAT to harvest timber forest resources on forest land or potential forest land. This authorisation shall include the authorisation of the Forest Management Plan.

In addition, the law stipulates that all legal documents (ex. property land, presidential resolution from the ejido, etc.) must be included in the Forest Management Plan when requesting authorisation.

An Environmental Impact Statement must be presented to SEMARNAT as the agency responsible when rainforests over 20 ha, difficult-to-regenerate forest species and protection areas are involved.

To obtain authorisation to harvest timber forest resources in areas under or equal to 20 ha, the corresponding Forest Management Plan shall be consolidated into a plot not larger than 20 hectares or into a set of plots that together are no larger than 250 hectares in total.

When harvesting timber forest resources in areas over 20 hectares and under 250 hectares, the interested party must present an intermediate-level Forest Management Plan.

S/FF-SEMARNAT-015%20SEMARNAT-08-023-B.pdf)

- Plantation harvesting notice (Aviso)
- Proof of Plantation Registration (Constancia de Registro de Plantación)

y manejo de especies nativas maderables tropicales con alto potencial comercial (Diagnostic of Tropical Species with High Commercial Potential). [online] Available at: http://www.itto.int/files/it to project db input/25 96/Technical/Capitulo% 202%20Diagnóstico%2 0del%20potencial.%20 productividad%20y%20 manejo%20de%20espe cies%20nativas%20ma derables.pdf

El economista (2017)
 Mexico, a landless
 state (México, un
 estado sin tierra).
 Available at:
 https://www.eleconomista.com.mx/opinion/Mexico-un-estado-sin-tierra-20170309-0008.html

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with planning and management of harvesting.

When harvesting timber forest resources in areas over 250 hectares, the interested party must present an advanced-level Forest Management Plan.

The contents and requirements of these plan levels shall be determined by the Regulation pertaining to this Law, and actions to foster natural regeneration, or, when applicable, reforestation options with native species, shall always be considered.

Based on the article 90, the use and harvest of forest resources for domestic and research purpose, in areas that are the habitat of species that are in some category of risk, should be done in a way that does not alter the conditions for survival, development and permanence of said species. A specific authorization should be fulfilled: Authorisation for extractive harvesting of specimens, parts or derivatives, modality B for specimens of at-risk wildlife species.

Regulation pertaining to the General Law for Sustainable Forest Development (Reglamento de la Ley General de Desarrollo Forestal Sustentable)

The Ministry shall process requests for authorisation to harvest forest resources according to the stipulations in the Law and the Regulation.

The different elements that shall be contained in the Forest Management Plan shall be considered.

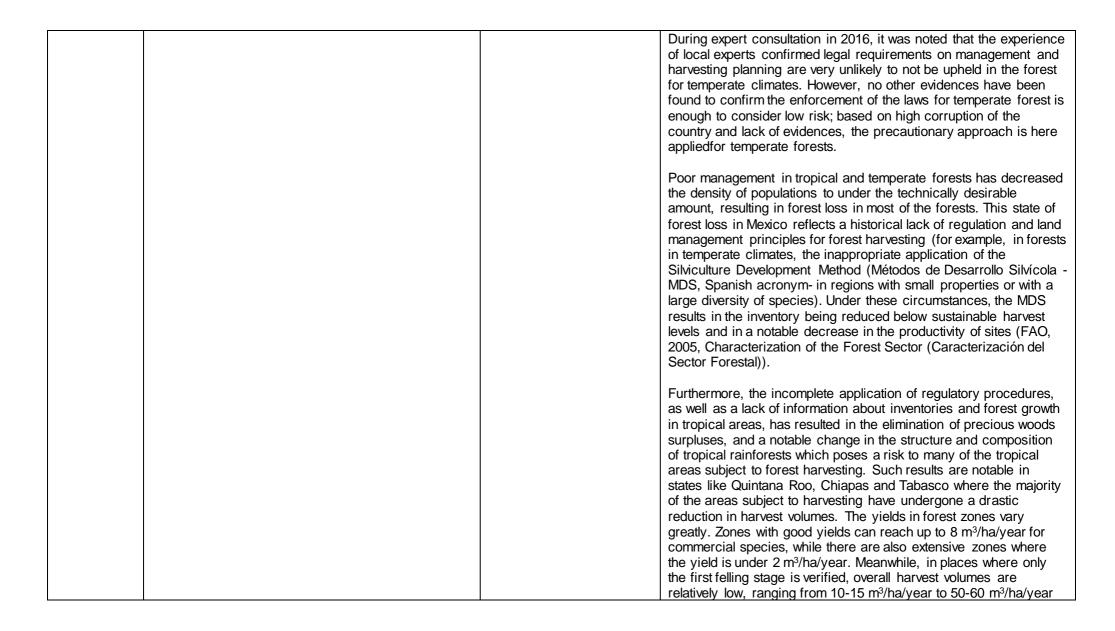
In the case of commercial forest plantations on forest land or plots with areas under or equal to 800 hectares, only written notice (plantation harvesting notice - Aviso) from the interested party to the Ministry is required.

In addition, SEMARNAT shall register in the National Forest Registry (Registro Forestal Nacional) all commercial forest plantations established prior to the coming into effect of the General Law for Sustainable Forest Development and for which there is no corresponding registry.

The article 37 of this regulation establish the legal requirements of
the existence of a Forest Technical Service Provider (Prestador de Servicios Técnicos Forestales) that would be duly registered as
responsible for developing and implementing the Forest
Management Plan.
Official Mexican Norm NOM-152-SEMARNAT-2006
This norm establishes guidelines, criteria and specifications as to
the content of the Forest Management Plan regarding the
harvesting of timber forest resources in forests and rainforests, and
vegetation in arid zones.
The most important parts of the norm are the sections:
5. Criteria and specifications of the contents of the management
plans 6. Timber and non-timber harvesting
7. Structure for presentation of management plan
Procedure for conformity assessment
9. Degree of compliance with international standards and
recommendations
10. Compliance with the Norm 152-SEMARNAT-2006
One important point in the norm is its classification of land:
Conservation and Restricted Harvesting Areas: areas with
forest vegetation which, because of their physical and
biological characteristics, are subject to protection, with
restricted harvesting that does not place the land, water quality or biodiversity at risk. This includes:
a) Protection Areas;
b) Areas to conserve and protect existing habitat for at-risk
species and subspecies of flora and fauna that are
indicated in the applicable regulation;
c) Protected buffer strips for riverside vegetation according to
the official Mexican norms and other applicable
regulations; d) Areas with slopes greater than 100% or 45 degrees;
e) Areas more than 3,000 metres above sea level; and
oj rusus mere alam s, see menes above sea level, and

f) Areas with mangrove or cloud forest vegetation.
 Production Areas: areas in which forest resources can be sustainably harvested due to their vegetation, climate and land conditions; Restoration areas: areas where the forest vegetation and productivity of the land have been significantly altered and require rehabilitation actions; Forest Protection Areas as declared by the Ministry; and Areas used for other purposes.
On NOM-152-SEMARNAT-2006, for harvesting timber and non-timber products, a main aspect has been noted: - when it's requested an authorization for harvesting timber and non-timber forest product should be included in the forest management plan. Based on local expert consultation done in 2016, it was mentioned that the processes of authorization of the Forest Management Plans have costs (costs related with the preparation of the FMP according to the Official Mexican Standard: NOM-152-SEMARNAT-2006 and for remission and transport) and this is part of the legal requirements to harvest, but that these are not seen as harvesting fees since they are not directly linked to harvesting areas or volumes. NOTE: Based on El economista (2017), during the Agrarian Reform of the 20th century, the land was transformed into private property (ejidal, communal or individual), conceived as a producer of private goods (agricultural products), and not of public goods (biodiversity, landscapes, scenic values, environmental services). However, if required, the legal requirements on harvesting and management planning in public lands are exactly the same for private and communal lands, all need FMP, etc. Description of risk
Description of risk
In the rainforests in Mexico, few regions exist which are designated solely for forestry activity, such as permanent forest areas. In most cases, extraction is performed selectively in forest fallows

management systems for target species (typically red cedar and mahogany). Since these systems define the felling cycle, silviculture treatment and harvesting system according to the target species, the impact of these activities on other species is difficult to measure. The management problem is further affected by the low yield of target species (under 1.5 m³/ha/25-year cycle), scarce regeneration (Negreros et al., 2000, cited by FAO, 2005, Characterization of the Forest Sector (Caracterización del sector forestal)) and title potential for stable markets for other species that grow in the tropical rainforest. For the purposes of the management system, the harvested volume is estimated based on the volume of inventoried tree with a diameter over 55 cm for precious species and over 35 cm for common tropical species (FAO, 2005, Characterization of the Forest Sector (Caracterización del sector forestal)). The felling cycle does not have a consistent technical basis and is not consistent with silviculturals inceds. Since felling is regulated according to volume without controlling the residual structure, the estimated harvest volume is often larger than the sustainable volume. Nevertheless, the planning of felling based on the land area is adequate for the site, but because of a lack of stratification of sites by productivity, those with low productivity tend to be over-exploited, and those with high productivity under-exploited (Torres et al., 2003 cited by FAO, 2005, Characterization of the Forest Sector (Caracterización del sector forestal)). Harvesting in rainforests is based on the assumption of an annual increase of 0.5 cm for hard woods and decorative woods, 0.7 cm for precious woods, and 1.0 cm for soft woods. In addition, an intensity of 80% is harvested. Nevertheless, future harvest



del Sector Forestal)). In zones with small yields and low density, forest management plans are commonly modified in order to permit advanced or accumulated annuities (in order to make the harvest more profitable), resulting in an increase in the environmental impact on the harvested area. The application of management systems to specific conditions is not regulated or monitored by the authority responsible for granting harvesting permits, and therefore the application of management systems that are completely incompatible with the relevant environment is common. In addition, the harvesting system is greatly deficient, which further decreases the already low productivity. There are several species and sizes (diameter classes) that are not used or the use of which is greatly below their potential. This is due to technological limitations or to a lack of forest management that ensures enough product quality and quantity to maintain a share of the market (FAO, 2005, Characterization of the Forest Sector (Caracterización del Sector Forestal)). Based on expert consultation (included the experience on FSC management areas) it's noted, that in Mexico the land tenure can be: ejidal, communal, private, national, state and municipal. The last three are very rare, however timber can be harvested there, following the same legal requirements as described above on the table of sources of legal timber. In most of the states of the country, the ability to transform raw forestry materials exceeds the productive capacity of the forest land, therefore the volumes authorized would seem insufficient to meet the demand of the installed forest industry (PROFEPA, 2017). Due to this, the main ilicit activities that affect the forest ecosystems in the country are according to PROFEPA (2015; 2017) (this statement includes all ecosystems, including tropical and temperate forests): Change of land use on forest lands, without authorization. Extraction of healthy wood (without plagues or diseases) under sanitation notifications. "Woodwashing" given by the use of forest remissions and shipments to cover more than one trip.

(FAO, 2005, Characterization of the Forest Sector (Caracterización

			 Ilegal logging. Overexploitation of the resource, with respect to the authorized volumes, in the plans of management of the properties under forest use. Risk conclusion Following the precautionary approach this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.4	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
Harvesting permits	 General Law for Sustainable Forest Development, Articles: 58 section II, 62, 73 – 106, 113 – 115 (Ley General de Desarrollo Forestal Sustentable) 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php# Regulation pertaining to the General Law for Sustainable Forest Development, Articles 57, 71, 	PROFEPA (2015) Annual Report (Informe Annual). [online]. Available at: https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anu	Overview of Legal Requirements General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) Stipulates the legal documents that must be included in the Forest Management Plan when requesting authorization to harvest.
	provisional art 5. (Reglamento de la Ley General de Desarrollo Forestal Sustentable) 2005. Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php#	al de Actividades PR OFEPA 2015.pdf PROFEPA (2017) Annual Report (Informe	The authorization to harvest is a document that includes volume to harvest each year, protection and restoration activities as protection of water, biodiversity, rivers, springs, conservation areas.
	 General Wildlife Law, Articles 40, 82, 83, 84, 87 (Ley General de Vida Silvestre) 2000. Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php# 	Annual). [online]. Available at: https://www.gob.mx/cm s/uploads/attachment/fil	Indicates that SEMARNAT is the agency responsible for authorisations to harvest timber on forest land or on potential forest land. The law includes a chapter describing the distribution of competences within forest matters (chapter II-responsabilities and
	 Regulation pertaining to the General Wildlife Law, Articles 33, 51 (Reglamento General de la Ley de Vida Silvestre) 2006. Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php# 	e/311596/Informe_de_a ctividades_profepa_201 7.pdf	competences between "federations" (section 1)- "state and federal district" (section 2)- "municipalities" (section 3)). Also, a description of the responsabilities from the SEMARNAT are included on chapter III- section 1. An Environmental Impact Statement is
	 Organic Law of the Federal Public Administration, Article 32 BIS (Ley Orgánica de la Administración Pública Federal) 1976. Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php# 	Non-Government sources Azteca Noticias (2015) Illegal logging and contraband of wood in	required for tropical rainforests over 20 ha, difficult-to-regenerate forest species and protected nature areas. To obtain authorisation to harvest timber forest resources in areas under or equal to 20 ha, the corresponding Forest Management Plan shall be consolidated into a plot or set of plots together, no
	Internal Regulation of the Ministry of the Environment and Natural Resources, Article 40,	Mexico News. (Tala clandestina y	larger than 250 hectares in total.

- section IX. (Reglamento Interior de la Secretaría de Medio Ambiente y Recursos Naturales) 2013. Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- General Law for Ecological Balance and Environmental Protection, Articles 5, 79, 80 section I, 82 (Ley General del Equilibrio Ecológico y Protección al Ambiente) 1988. Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- Official Mexican Norm NOM-152-SEMARNAT-(stipulates the requirements for developing Forest Management Plan (Plan de Manejo Forestal) 2006. Available at: http://www.profepa.gob.mx/innovaportal/file/3363/1/nom-152-semarnat-2006.pdf
- Solicitud de Autorización de aprovechamiento forestal. Available at: http://dsiappsdev.semarnat.gob.mx/formatos/DGGFS/FF-SEMARNAT-077%20SEMARNAT-03-056%20A%20y%20B%20editable.pdf
- Official Mexican Norm NOM-152-SEMARNAT-2006. Available at: http://www.ccmss.org.mx/wp-content/uploads/2014/10/Norma_oficial_mexicana_programas_de_manejo_forestal.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría del Medio Ambiental y Recursos Naturales (SEMARNAT, Spanish acronym))
- Legal Department of the Federal Environmental Protection Agency (Procuraduría General de Protección al Ambiente (PROFEPA, Spanish acronym))

Legally required documents or records

- contrabando de madera en México | Noticias). [online]. News video. Available at: https://www.youtube.co m/watch?v=EBil-StCEDc
- Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). México, Consejo Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m x/wpcontent/uploads/2018/1 0/Empresas Sociales Forestales CCMSS 20 102018.pdf
- FAO (2005) Study of Trends and Perspectives in the Forest Sector in Latin America. (Estudio de tendencias y perspectivas del sector forestal en América Latina) [online]. Available at: httm

When harvesting timber forest resources in areas over 20 hectares and under 250 hectares, the interested party must submit an intermediate-level Forest Management Plan.

When harvesting timber forest resources in areas over 250 hectares the interested party must submit an advanced-level Forest Management Plan.

The contents and requirements of these plan levels shall be determined by the Regulation pertaining to this Law, and actions to foster natural regeneration, or, when applicable, reforestation options with native species, shall always be considered.

Specifically, Article 81 says that the Ministry shall respond to requests for authorisation to harvest timber forest resources within 30 working days of the date the request is submitted. In case of lack of technical information, the Ministry shall have up to 60 working days to respond to requests for harvest authorisation as indicated by Article 76 of the present law.

Exception: this period may be increased by up to 60 additional calendar days depending on the characteristics of the project, according to the conditions and terms established by the Regulation.

In the event that incomplete information or documentation is presented, the Ministry shall require that the applicants provide the substantiation (proofs backed up with facts) and motivation in writing, but only once, so that it can be incorporated within a maximum of 15 working days; during this time, the deadline for the procedure is suspended. After submission of the additional documentation and information to the Ministry, the legal time periods to rule on the request will again take effect. If the required documentation and information is not submitted within 15 working days, the Ministry shall reject the request in question.

The harvest of the forest requires:

1) Forest Management Program: authorized by SEMARNAT for the shift of 40, 50 or 60 years. In northern Mexico, the shift is longer.

- Authorisation of the Forest Management Plan (Simplified -for plantations-, Intermediate or Advance -for temperate and tropical rainforests-)
- Authorisation of the extractive harvesting of species, parts or derivatives, modality B of specimens of at-risk wildlife species
- Plantation harvesting notice (Aviso)
- Proof of Plantation Registration (Constancia de Registro de Plantación)
- Illegal Logging Portal
 (N.Y.) [online].
 Available at:
 http://www.illegal-logging.info/regions/mexico
- We Reforest Mexico (Reforestamos México) (2016) [online]. The Current Situation with the Legality of Timber Forest Products in Mexican Forests and Rainforests. 2013-2014 Diagnostic (Situación actual de la legalidad de productos forestales maderables en bosques y selvas mexicanos.. Diagnóstico 2013-2014). Available at: https://issuu.com/leticia salasrelacionespublicas /docs/informe anual re forestamos m xico /
- transparency.org
 (2018) Transparency
 International's
 Corruption Perception
 Index 2018. [online].
 Available at:
 https://www.transparency.org/country/MEX
- UICN (2014) Current Situation with the Legality of Timber Forest Products in Mexican Forests and Rainforests, 2013-2014

- 2) The authorization of the cutting plan is annual for the 10-year or 12-year cycle. Every year at the end of the harvest the landowner of the forest informs SEMARNAT about harvested volumes, protection activities carried out, plantations, etc. SEMARNAT approves report if this is in line with the granted permit and releases next annuity.
- Each authorized annuity on the harvesting plan describes the treatment to follow up, for example thinning, release, short of regeneration or Individual or group selection among other combinations.
- 4) Compliance with the conditions or restrictions of the authorization of SEMARNAT is sanctioned by PROFEPA.
- 5) If the PROFEPA in the forest finds that the use does not agree with the authorized, it suspends the use temporarily or undefined (it depends on the seriousness of the fault).
- 6) Each cutting cycle (10 year or 12 years) a forest inventory is carried out to authorize the next cutting cycle.

The Intersecretarial Commission, in the terms of article 13 of the *General Law for Sustainable Forest Development*, will consider the proposals of the organizations that attend the activities of the sector and the Mexican Council, in order to incorporate them into the Special Concurrent Program. Likewise, it will incorporate the commitments that according to the respective agreements assume the governments of the states and municipalities, as well as establish the norms and mechanisms for evaluation and monitoring of its application.

The State Forestry Council is created, as a consultative and advisory body, in the matters indicated in this *General Law for Sustainable Forest Development* and in which it requests its opinion. In addition, it shall act as an advisory, supervisory, monitoring, evaluation and monitoring body in the application of the forestry policy criteria and the forestry policy instruments provided for in this Law. Invariably, it shall request its opinion on forestry planning, regulations and norms.

Article 58. The State Forestry Council must issue the opinions requested in accordance with this Law and its Regulations within a period of no more than twenty business days, counted from the

Diagnostic. Not available online, access to the complete study was obtained through the expert consultation process in 2016.

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with harvesting permits.

date of receipt of the request, except in cases in which some other term is established in the applicable provisions. Once this period has elapsed without the Council issuing its opinion, it will be understood that it has no objection with respect to the matter of the consultation.

Article 74. The Secretariat shall request from the State Forestry Council in question, opinions and technical observations regarding applications for authorization to use timber resources, prior to their being resolved. The corresponding Council will have ten business days to issue its opinion. Once said term has elapsed, it shall be understood that there is no objection to issue or deny the authorization.

Regulation pertaining to the General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable)

The Ministry shall process requests for authorisation to harvest forest resources according to the stipulations in the Law and its Regulation.

In the case of commercial forest plantations on forest land or plots with areas under or equal to 800 hectares, only written notice (plantation harvesting notice - Aviso) from the interested party to the Ministry is required.

In addition, SEMARNAT shall register in the National Forest Registry (Registro Forestal Nacional) all commercial forest plantations established prior to the coming into effect of the General Law for Sustainable Forest Development and for which there is no corresponding registry. Area and species to be planted shall also be registered by SEMARNAT.

Furthermore, authorisation shall not be required to harvest forest resources and raw material for domestic use, except in cases specified by the official Mexican norms and other applicable regulations, and this shall be the responsibility of the owner or landholder of the property in question.

found in Article 84, paragraph 2 of the Law, after verification of the legal record of the interested party, within 5 working days of the date the request is received. The applicant shall be considered to have an unremarkable legal record when: I. The holder of the harvesting permit in question has not violated the Law or the present Regulation with respect to any of the properties that he or she possesses or owns during the two years immediately prior to the date of the request for automatic authorisation, or II. The property for which the automatic authorisation is requested has the certification cited in Articles 113 and 114 of the Law. The interested party shall comply with the requirements established by the Law and the present Regulation and, when applicable, annex to the request one copy of the certificate cited in section II of this article. The article 37 of this regulation establish the legal requirements of the existence of a Forest Technical Service Provider (Prestador de Servicios Técnicos Forestales) that would be duly registered as responsible for developing and implementing the Forest Management Plan. General Wildlife Law This law describes the elements to be included in the Forest Management Plan (Plan de Manejo) in order to register a property as a Wildlife Conservation Management Unit (Unidad de Manejo para la Conservación de Vida Silvestre, (UMA, Spanish acronym)). This applies to the harvesting of certain species designated by official Mexican norm NOM-059-SEMARNAT-2010 and difficult-toregenerate species. The law states that the extractive harvesting of wildlife specimens

The Ministry shall grant automatic authorisation for stipulations

parts and products (e.g. latex) requires prior authorisation from

	SEMARNAT, in which the rate and duration of the harvest shall be established.
	Regulation pertaining to the General Wildlife Law (Reglamento General de la Ley de Vida Silvestre)
	Indicates the time periods in which the Ministry shall determine the authorisation of the UMA, as well as matters concerning harvesting performed on federal property. The general procedure for any person/company that would like to start an activity related with habitat, species and need licenses or permits/authorisations form the Secretary should follow the chapter 1 from title 3. In order to create forest management plans for the UMA, the company should follow the section 3-chapter 4.
	Some important information from the regulation is noted below:
	"Article 23. The SUMA (National System of Management Units for the Conservation of Wildlife, Sistema Nacional de Unidades de Manejo para la Conservación de la Vida Silvestre), in accordance with what is established in the Law and in these Regulations, will be composed of:
	II. The predios "plot of land" or areas for carrying out conservation activities and sustainable use that are registered as UMA;
	IV. The properties owned by the governments of the states and municipalities over those that carry out activities of conservation or sustainable use.
	Article 28. The Secretariat may develop and promote regional management projects for species of wildlife, with strategies that promote and facilitate the management, permanent monitoring and, where appropriate, the sustainable use is carried out jointly by the owners or legitimate owners of properties integrated to SUMA. In any case, it will be promoted that the management and permanent follow-up are carried out jointly between the owners of the UMA and the persons authorized to take advantage of land

of the federal or municipal entities when dealing with species and groups of species migratory and predatory, or species of great territory and mobility. Article 30. To obtain the registration of UMA in those units that carry out activities of sustainable use, the interested parties will indicate in their request the type of management that pretends carried out,and they will attach the following documentation: I. Copy of the documents that prove the property rights or legitimate possession of the land or predios "plots of lands"; II. The Forest Management Plan or letter of adhesion to the type Forest Management Plans established by the Secretariat; III. Description of the physical and biological characteristics of the property. IV. In case of intensive management, the inventory of accompanied specimens must be presented of the documentation that proves their legal origin. V. When it comes to the management of free wildlife life, the study of population of the species that are to be exploited, in accordance with the terms of reference referred to in Article 30 Bis of this Regulation. Article 38 In case there are specific objectives of harvesting, the forest management plan should foresee the techniques and methods best suited to the type of ecosystem and the biological characteristics of species of interest. Article 50. Those responsible for the UMA will present the reports provided for in the Law and in this Regulation, in accordance with the following: I. The annual activity report, in the months of April to June of each year, which shall point out the following information: b) Result of the exercise of the activities carried out according to
year, which shall point out the following information:
II. The report of contingencies or emergencies that put wildlife at risk, its natural habitat or the health of the human population, within three working days after that these occur, through the format established by the Secretariat."

Organic Law of the Federal Public Administration (Ley Orgánica de la Administración Pública Federal) Indicates that SEMARNAT shall manage and regulate the use and promote the sustainable harvesting of natural resources corresponding to the Federation, except for hydrocarbons and radioactive minerals. Internal Regulation pertaining to the Ministry of the Environment and Natural Resources (Reglamento Interior de la Secretaría de Medio Ambiente y Recursos Naturales) Indicates that each state delegation of the SEMARNAT (each office per federal entity of the country) has the power to grant permits, licenses, authorisations and their respective modifications, suspensions, cancelations, revocations or expirations, in accordance with applicable legal regulations, and with internal technical and administrative guidelines and those corresponding to systems and procedures established by the Ministry's central administrative units. General Law for Ecological Balance and Environmental Protection (Ley General del Equilibrio Ecológico y Protección al Ambiente) This law stipulates the powers of the federation, including, among others, the Environmental Impact Statement of work or activities requiring it, as well as regulation for the sustainable use, protection and preservation of national waters, biodiversity and fauna, and other natural resources falling under its jurisdiction. This law also stipulates the criteria that must be considered for the preservation and sustainable use of wild flora and fauna. This includes, among others: granting of licenses, permits, and in general, any type of authorisation for the use, possession, administration, conservation, repopulation, propagation and development of flora and fauna. These regulations are applicable to exportation. Official Mexican Norm NOM-152-SEMARNAT-2006

management plan. communal lands, all need FMP, etc. **Description of risk**

On NOM-152-SEMARNAT-2006, For harvesting timber and non timber products, a main aspect has been noted:

when it's requested an authorization for harvesting timber and non-timber forest products jointly, a specific section for nontimber forest product should be included in the forest

NOTE: Based on El economista (2017), during the Agrarian Reform of the 20th century, the land was transformed into private property (ejidal, communal or individual), conceived as a producer of private goods (agricultural products), and not of public goods (biodiversity, landscapes, scenic values, environmental services). However, if required, the legal requirements on harvesting and management planning in public lands are exactly the same for private and

A broad legal framework exists for the regulation of the harvesting of forest resources in Mexico. in production areas, conservation areas or under conditions related to species belonging to an at-risk protected category or difficult-to-regenerate species. Despite this, the main ilicit activities that affect the forest ecosystems in the country are related to illegal harvesting to some extent. According to PROFEPA (2015; 2017) these are:

- Change of land use on forest lands, without authorization.
- Extraction of healthy wood (without plagues or diseases) under sanitation notifications.
- "Woodwashing" given by the use of forest remissions and shipments to cover more than one trip.
- Ilegal logging.
- Overexploitation of the resource, with respect to the authorized volumes, in the plans of management of the properties under forest use.

Experts consulted in 2016 confirmed that illegal logging can increase when FMP authorization takes a long time. And this happens in Mexico. The consulted experts also indicated the existence of over-regulation in general in Mexico. As an example, the experts consulted in 2016 indicated that roughly 50 Forest

Management Plans authorisations had been delayed by SEMARNAT in the state of Oaxaca, on the basis that the requested information was not part of the Mexican norms for the development of the Management Plans (Planes de Manejo). It is also necessary to add that the demand for timber had not decreased by 2016, and the properties in this state in 2016 did not have FMP authorisations (PROFEPA, 2015 and 2017). Based on expert consultation (included the experience on FSC management areas) it is noted, that in Mexico the land tenure can be: ejidal, communal, private, national, state and municipal. The last three are very rare, however timber can be harvested there, following the same legal requirements as described above on the table of sources of legal timber.
In relation to this issue, on May 25 2016, We Reforest Mexico (2016) (Reforestamos México) published a study, through their Twitter account (see information source), discussing the amount of time that can be taken to authorize extractions of timber, as well as the issue of illegality. Although it is not available online, access to the complete study from IUCN (2014) on the current situation with the legality of timber forest products in Mexican forests and rainforests was obtained through the expert consultation process in 2016. The study indicates that 1,344 producers were interviewed (652 with harvesting permits and 692 without permits) from 12 states in the country, with properties classified as large, medium and small, from which information was obtained regarding authorisation times of Forest Management Plans (Planes de Manejo Forestal) and other variables related to the processing of these authorisations.
The results show that for large properties, 59% of those surveyed indicated that the process took more than 4 months. For medium and small properties, 71% stated that it took more than 4 months. There were extreme cases in Veracruz, Campeche, Quintana Roo and Yucatan; all of those surveyed in Yucatan said the process took more than 4 months. The study also shows 85 properties for which the average authorisation time was 15 months. The survey revealed the following reasons for extracting timber without permission or participating in illegal logging:

	 The cost of a forest technical service provider is very high - 17%; A lack of employment/poverty - 32%; The response time for granting a Forest Management Plan is excessive - 9%.
	 In addition, the following was revealed regarding the perception of the advantages of illegal production: 41% stated that they save on the cost of going through the bureaucratic process; 26% did not know or did not respond; 18% participated in illegal production because of higher profits, and; 10% participated in illegal production to save time.
	 Those surveyed also gave their opinion about which factors in the request for Forest Management Plan authorisations should be changed: 48% wanted reduced processing time; 15% wanted the cost of the process reduced; 15% wanted more service centres, which are very centralized, and the offices are sometimes very far away, and; 22% indicated other factors. The survey made in 12 states (out of the 32 that the country hasthat the 50% of the states have forest uses and productive forests) provides information that evidence that illegal harvest is a reality in the country and that seems to be a common practice, due to, among other reasons, the bureocratic process of acquisition of the harvesting permits, which can take even more than one year in some cases.
	According to the study cited in We Reforest Mexico (2016) Illegal logging occurs in many parts of Mexico and is carried out by organized groups, which operate with different groups of short that go by truck, in which it takes 4 to 5 people armed and have communication radios. The wood is sold to legal sawmills and illegal. The illegal timber makes it legal because they get documents from other areas or the legal sawmills sell the transport

The bureaucratic process is very complicated - 24%; Not all *ejidos* meet the requirements - 18%;

Moreover, PROFEPA (2017) reports that at national level, the forestry-related public claims were the most common with a total of 2. 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report. (PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171 surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of 74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances. Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions and in the contrast between the wood seized. of the order of 18 thousand cubic meters per year (PROFEPA, 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017] ... are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has

documentation to transport the illegal timber. Truckers do not stop them, as authorities on the roads bribe them with money and allow

the wood to be transported.

failed in its regulatory role by generating a series of heavy. onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations. which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27) The Corruption Perception Index of Mexico is 28/100 (transparency.org, 2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 very clean). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). The risk is not accentuated in the acquisition of harvest permits through illegal means (e.g. bribery), but the risk here is related to situations where required harvesting is carried out without valid permits or with valid permits that are misused in practice (e.g. sanitation notifications, forest remissions) or not complying with authorized harvesting volumes or usingharvesting permits from sites other than the actual harvesting sites (false proof of legality with the harvested material). Risk conclusion This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.

		Taxes and fees	
1.5 Payment	Mexico desn't have specific legislation related to	Interviews with experts:	N/A
of royalties	royalties or harvesting fees to be paid directly linked to	Conversations with various	
and	harvesting areas or volumes harvested.	experts from public sector	
harvesting fees	Deced on lead amont consultation done in 2010 it	(here in anonymity) during March and April 2016	
1662	Based on local expert consultation done in 2016, it was mentioned that the processes of authorization of	helped the authors of this	
	the Forest Management Plans have costs and this is	report to better understand	
	part of the legal requirements to harvest, but that	the applicable legislation	
	these are not seen as harvesting fees but instead as	and the risks associated	
	fees for the process of authorization of Forest	with payment of royalties	
	Management Plans in general (costs related with the	and harvesting fees.	
	preparation of the FMP according to the Official		
	Mexican Standard: NOM-152-SEMARNAT-2006 and		
	for remission and transport)		
	Applicable laws and regulations		
	N/A		
	Legal Authority		
	N/A		
	Legally required documents or records		
	N/A		
	1471		
1.6 Value	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
added taxes	Value Added Toul out out als O coeffee A (coeffee	Nama farmal	Overview of Legal Requirements
and other sales taxes	 Value-Added Tax Law, article 2, section A (applies a 0% rate) (Ley del Impuesto al Valor Agregado) 	None found	Overview of Legal Requirements
Sales laves	1978. Amendment 2016. Available at:	Non-Government sources	Article 2, section A of the Value-Added Tax Law (Ley del Impuesto
	http://www.ordenjuridico.gob.mx/leves.php#		al Valor Agregado) applies a 0% rate and stipulates that IVA does
	General Import and Export Tax Law, Chapter 44	FSC (2017) Public FSC	not apply to non-processed products, including roundwood.
	Timber, charcoal and timber manufacturers (Ley	FM report. [online].	
	de los Impuestos Generales de Importación y	Available at:	Article 7 from the Value-Added Tax Law: The restitution of the
	Exportación) 2007. Amended 2018. Available at:	https://info.fsc.org/certif	corresponding tax must be recorded in a document that expressly
	http://www.ordenjuridico.gob.mx/leyes.php#	icate.php (NOTE:	and separately contains the consideration and the value added tax

 Customs Law, Articles 2, 36 A (Ley Aduanera)
 1995. Amended 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#

Legal Authority

 Internal Revenue Service (Servicio de Administración Tributaria (SAT, Spanish acronym))

Legally required documents or records

- Monthly Return of Value-Added Tax (IVA) (Declaraciones mensuales de IVA)
- Proof of Payment of Value-Added Tax (IVA) (Declaraciones mensuales de IVA)
- Proof of Payment of applicable customs duties (Comprobantes de pago de aranceles aplicables)
- Sales invoices (including VAT)
- Tax Identification Number (Cédula de Identificación Fiscal).
- Confirmation of payment of taxes for export

include on the certificate code FM/COC and the country Mexico; example:

http://fsc.force.com/ser vet/servlet.FileDownlo ad?file=00P3300000mr bccEAA)

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with value-added tax.
Also, consultation in 2016 with FSC auditors in the country was conducted.

transferred that had been restored, as well as the identification data of the tax receipt of the original transaction (tax identification number).

General Import and Export Tax Law, Chapter 44: timber, charcoal, and manufactured timber addresses the various customs duties paid for importing and exporting timber, charcoal and manufactured timber (hardboard, particle board, chips, etc.).

The Internal Revenue Service (Servicio de Administración Tributaria (SAT, Spanish acronym)) regulates the *ejidos*, communities and private property owners through the authorisation of the Forest Management Plan, who issue an invoice and pay the respective taxes. The producers of raw material (referred to as "proveedores de materia prima") must issue an invoice for the sale of standing timber or roundwood, to which the IVA is not applied. For exportation, all timber must include a sales invoice. In addition, the corresponding customs duties must be paid. These duties are regulated by the SAT.

The Federal Register of Taxpayers (RFC) (Registro Federal de Contribuyentes) is a legal requirement mandatory for any transaction related with purchase/sell. The RFC identifies as taxpayers to individuals or corporations in Mexico to control the payment of taxes against the SAT, the Tax Administration Service. Any person who performs an economic activity that must pay taxes must register in the RFC of the SAT.

Description of risk

The IVA does not apply to sales invoices for standing timber or roundwood, and it is a common situation in Mexico (according to comments from interested stakeholders in FSC's property auditing processes, FSC auditors and consultation with experts in April 2016) that producers of raw materials, such as standing timber and roundwood, do not issue sales invoices for these products. Since the tax is not applied, it would not affect the net income tax (ISR) owed. Nevertheless, this is a chain process in which, subsequently, the buyer also does not issue an invoice when the processed

			timber is sold. At this point, the second sale, the value-added tax must be applied, and failure to do so is illegal. In addition, it is worth mentioning that an invoice is never issued for sales of timber harvested outside an authorised Forest Management Plan. Based on expert consultation in 2016, the lack of issued invoices could be systematic to avoid payment of VAT in some sawmills. The round wood is exempted from VAT. The tax SAT system is currently highly complex, and some improvements have been done recently in order to control the payments of each operator/sawnmill, however, the lack of compliance is still important and so, included as a risk in this section. The Corruption Perception Index of Mexico is 28/100 (2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 -very clean). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score).
			Risk conclusion
			Following the precautionary approach, this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.7 Income	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
and profit taxes	Income Tax Law (Ley del Impuesto sobre la Panta) (determined according to company profits)	PROFEPA Report (Informe de Profepa)	Overview of Legal Requirements
	Renta) (determined according to company profits), Article 74. Provisional Regulation. Article 2, clauses I, XVII 2013. Amended 2016. Available at: http://www.ordenjuidico.gob.mx/leyes.php#	(2015) Available at: https://www.gob.mx/cm s/uploads/attachment/fil	Income Tax Law (Ley del Impuesto sobre la Renta) This law stipulates the requirements for agricultural, livestock, silviculture and fishing activities. It establishes that taxpayers are
	 Customs Law, Articles 2, 36 A (Ley Aduanera) 1995. Amended 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php# 	e/125063/Informe Anu al de Actividades PR OFEPA 2015.pdf • PROFEPA Report	those who exclusively engage in agricultural, livestock, silviculture and fishing activities and whose income from these activities represents at least 90% of their total income, not including income from transfer of ownership of fixed assets, land or property if used
	Legal Authority	(Informe de Profepa) (2016) Available at:	for the activity.
	Internal Revenue Service (Servicio de Administración Tributaria (SAT)	https://www.gob.mx/cm s/uploads/attachment/fil	According to the Article 74, from the income tax law, individual legal persons exclusively dedicated to agricultural, livestock, silviculture

Legally required documents or records

- Partial income tax return (ISR)
- Annual proof of income tax payments (ISR)

e/196266/Informe_de_a ctividades_2016.pdf

Non-Government sources

- Fariza, I. (2018) Mexico stops collecting 28,000 million dollars each year for tax evasion (México deja de recaudar 28.000 millones de dólares cada año por la evasión fiscal). [online]. News article. Available at: https://elpais.com/economia/2018/04/09/actualidad/1523288667_0804
 19.html
- Benet, R. (2016) From the Amazons to Tampico: Laundering, Evasion and Trafficking of Illegal Timber (Del Amazonas a Tampico: Lavado, evasión v tráfico de madera ilegal). [online]. News article. Available at: http://m.aristequinoticia s.com/2406/mexico/delamazonas-a-tampicolavado-evasion-ytrafico-de-maderailegal-articulo-de-raulbenet/
- FSC (2017) Public FSC FM report. [online].
 Available at:

and fishing activities will not pay income taxes if their individual annual income does not exceed the amount of 20 times the minimum wage corresponding to the geographic area of the taxpayer.

If the legal person is in a partnership or associated to others, all together (the associates or the ones in partnership) are not to pay income taxes if their annual income (from all together) is not exceeding the limit of 200 times the minimum salary corresponding to the Mexico City geographic area. The limit of 200 times the minimum salary shall not apply to *ejidos* and communities. In the case of natural persons, they shall not pay income tax (ISR) for income from these activities until reaching, over the course of the fiscal year, 40 times the minimum salary corresponding to the geographic area of the taxpayer, annualized. Legal persons to which this paragraph applies may add the profit corresponding to their exempt income to the balance of their net profit for the fiscal year in question. To determine said profit, the exempt income for the taxpayer is multiplied by the profit coefficient for the fiscal year, calculated according to Article 14 of this law.

Producers of raw and secondary material with Forest Management Plan authorisation issue a timber sales invoice, which is taxable for the purposes of calculating their income tax (ISR) when the total exceeds 200 times the minimum salary for communities and *ejidos* and 40 times the minimum salary for natural persons. For those who exceed these amounts, the income tax is applicable.

The Federal Register of Taxpayers (RFC) (Registro Federal de Contribuyentes) is a legal requirement mandatory for any transaction related with purchase/sell. The RFC identifies as taxpayers to individuals or corporations in Mexico to control the payment of taxes against the SAT, the Tax Administration Service. Any person who performs an economic activity that must pay taxes must register in the RFC of the SAT.

Description of risk

Based on consultation FSC auditors in 2016 and on public reports published in FSC website, as well as interviews with experts in April

https://info.fsc.org/certificate.php (NOTE: include on the certificate code FM/COC and the country Mexico; example:

http://fsc.force.com/serv let/servlet.FileDownload ?file=00P3300000mrbc cEAA)

Interviews with experts: Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the payment of income taxes (ISR) and benefits. Also, consultation in 2016 with FSC auditors in the country was conducted.

2016, a common situation in Mexico has been identified in which producers of raw material do not issue an invoice for the sale of standing timber or roundwood. Wherever sales tax (IVA) is not applied, this affects the amount of income tax (ISR) owed. Given this situation, companies report less revenue from transactions involving the sale of timber, and the taxable amount applicable to the calculation of revenue or income tax (ISR) is smaller.

In addition, no invoice is issued and no revenue or income tax (ISR) is paid for sales of timber harvested outside an authorised Forest Management Plan, because it would be ilegal to harvest outside an authorized Forest Management Programme. Based on consultation with experts, and reports from PROFEPA (2015: 2016), this situation (timber harvested outside an authorised Forest Management Plan) is still present in Mexico and affect to the enforcement of the laws related with incomes and profit taxes.

Although there is no precise data on some value of compliance by forest lands, in terms of regulations for forest extraction, PROFEPA indicates in its Activity Report 2015 that among the main illegal activities that affect the forest ecosystems of Mexico there are:

- "Woodwashing" given by the use of forest remissions and shipments to cover more than one trip.
- Ilegal logging

Media research indicates that companies in Peru, Mexico and the United States that provide timber to the Mexican government maintain a network of timber trafficking and money laundering, and participate in tax evasion (Benet, 2016).

A study from the Las Americas University Puebla, calculated that Mexico stops collecting 28.000 millions of USD (which is around 2.6% from the GDP and 16% of the total public collection) each year for tax evasion (Fariza for El Pais, 2018). "The majority of the tax evasion in Mexico is concentrated in two main items: the Income Tax (ISR, which encompasses the taxation of individuals and legal entities and which accounts for 58% of the total evaded) and the Value Added Tax (VAT, which taxes consumption and which accounts for 37% of fraud). In both cases, the highest levels

of fraud were recorded during and immediately after the global financial crisis of 2008 and decreased, according to the UDLAP technicians, after the implementation of the 2013 tax reform. The remaining 5% is divided among the evasion of taxes on imports and exports (IGIE, 4%) and production (IEPS, which taxes products whose consumption should be reduced -from alcohol and tobacco to gambling through sugary drinks or pesticides- and which supposes the 1% of total fraud). In all cases, despite the increase in absolute numbers, the evasion rate has fallen in the last ten years. This period ends in 2016 - the last year for which there is data available." (Fariza for El Pais, 2018) Risk conclusion Following the precautionary approach, this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities. Timber harvesting activities 1.8 Timber Applicable laws and regulations **Government sources** Isubsections with translations from Spanishl harvesting **Overview of Legal Requirements** regulations Regulation pertaining to the General Sustainable PROFEPA Report Forest Development Law (Ley General de (Informe de Profepa) Desarrollo Forestal Sustentable), Articles 16, 31, (2015) Available at: General Law on Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) 93 – 110 2005. Amendment 2014. Available at: https://www.gob.mx/cm s/uploads/attachment/fil http://www.ordenjuridico.gob.mx/leyes.php# General Law for Ecological Balance and e/125063/Informe Anu This law establishes the requirement that the harvesting of timber Environmental Protection, Articles 161-169 (Lev al de Actividades PR forest resources on forest land or potential forest land be General del Equilibrio Ecológico y Protección al OFEPA 2015.pdf authorised by SEMARNAT. This authorisation shall comprise the Ambiente) 1988. Amended 2018. Available at: PROFEPA (2017) Forest Management Plan. http://www.ordenjuridico.gob.mx/leyes.php# Annual Report (Informe Mexican official Norm NOM-005-RECNAT-1997. Annual). [online]. In addition, this law stipulates all the legal documents that must be Available at: Available at: included in the Forest Management Plan to request authorisation. http://www.ordenjuridico.gob.mx/Documentos/Fed https://www.gob.mx/cm eral/wo68741.pdf s/uploads/attachment/fil Regulation pertaining to the General Law for Sustainable Official Mexican Norm NOM-152-SEMARNATe/311596/Informe de a Development (Ley General de Desarrollo Forestal Sustentable) ctividades profepa 201 2006. Available at: http://www.ccmss.org.mx/wpcontent/uploads/2014/10/Norma oficial mexicana 7.pdf programas de maneio forestal.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría del Medio Ambiental y Recursos Naturales (SEMARNAT))
- General Department of Wildlife (Dirección General de Vida Silvestre)
- Legal Department of the Federal Environmental Protection Agency (Procuraduría General de Protección al Ambiente (PROFEPA))
- National Commission for Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO))
- Municipal authorities

Legally required documents or records

- Forest Management Plan (Plan de Manejo Forestal)
- Forest Management Plan Authorisation (Autorización de Plan de Manejo Forestal)
- Authorisation for extractive harvesting of specimens, parts or derivatives, B modality for specimens from at-risk wildlife species authorized by SEMARNAT
- Plantation harvesting notice (Aviso)
- Proof of Plantation Registry (Constancia de Registro de Plantación)
- Technical Audit Prevention report based on NOM-005-RECNAT-1997 (done by the SEMARNAT)

Non-Government sources

- Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). México, Consejo Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m x/wpcontent/uploads/2018/1 0/Empresas Sociales Forestales CCMSS 20 102018.pdf
- CCMSS (2012) Approach to combatting illegal timber logging and trade in Mexico (Enfoque para combatir la tala y el comercio de madera ilegal en México). [online]. Available at: http://www.ccmss.org.m x/wpcontent/uploads/2014/1 0/NOTA INFO 33.Un nuevo enfoque para c ombatir la tala v el c omercio de madera il egal en Mexico.pdf
- El economista (2017) Mexico, a landless

The Ministry shall process requests for authorisation to harvest forest resources according to the stipulations in the Law and the Regulation therein.

This law also stipulates the conditions for suspending authorisation of forest harvesting and mandates the registration of Forest Technical Service Providers (Prestador de Servicios Técnicos Forestales) in the National Forest Registry (Registro Nacional Forestal). It indicates that the Legal Department of the Federal Environment Protection Agency (Procuraduría Federal de Protección al Ambiente (PROFEPA, Spanish acronym)) is the institution responsible for inspecting and monitoring compliance with the Laws, Regulations and Norms applicable to forest harvesting, and shall be responsible for administrative proceedings and for imposing the corresponding penalties.

PROFEPA shall notify SEMARNAT of administrative findings that have led to final rulings resulting in as an administrative penalty, the temporary, total or partial suspension of the authorisation of forest harvesting. The Ministry shall record said suspension in the Registry within 5 working days after notification. The same terms and conditions shall be observed for recording subsequent lifting of said suspension in the Registry.

The procedure described in the preceding paragraph shall be applied when an administrative inspection or monitoring procedure has ordered as a security measure, the temporary, total or partial suspension of a forest harvesting authorisation.

In accordance with Article 168 of the Law, PROFEPA may request from Federal Public Administration (Administración Pública Federal) entities and agencies that, within a period of 30 working days of notification, they suspend, modify, revoke or cancel concessions, permits, licenses, authorisations and, in general, any administrative acts that may have been issued, as needed to prevent damage to the forest ecosystem.

When concessions, permits, licenses, authorisations and, in general, any administrative acts have been issued by authorities representing federal or municipal entities, PROFEPA may, in turn,

state (México, un estado sin tierra). Available at: https://www.eleconomista.com.mx/opinion/Mexico-un-estado-sin-tierra-20170309-0008.html

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the timber harvesting regulations.

demand that the local authority responsible for forestry matters request the corresponding suspension, modification, revocation or cancelation.

The article 37 of this regulation establish the legal requirements of the existence of a Forest Technical Service Provider (Prestador de Servicios Técnicos Forestales) that would be duly registered as responsible for developing and implementing the Forest Management Plan.

Mexican official Norm NOM-005-RECNAT

Mexican official norm NOM-005-RECNAT-1997 establishes the procedures, criteria and specifications for the harvesting, transporting and storing of bark, stems or stalks and complete plants from forest vegetation. These procedures, criteria and specifications are subject to review by PROFEPA.

According with the Art- 7.3 its mentioned that the SEMARNAT, through the Federal Procurator for Environmental Protection, will carry out the inspection visits and technical audits that are required to monitor compliance with the provisions included on the NOM 005. A technical Audit Prevention report will be developed.

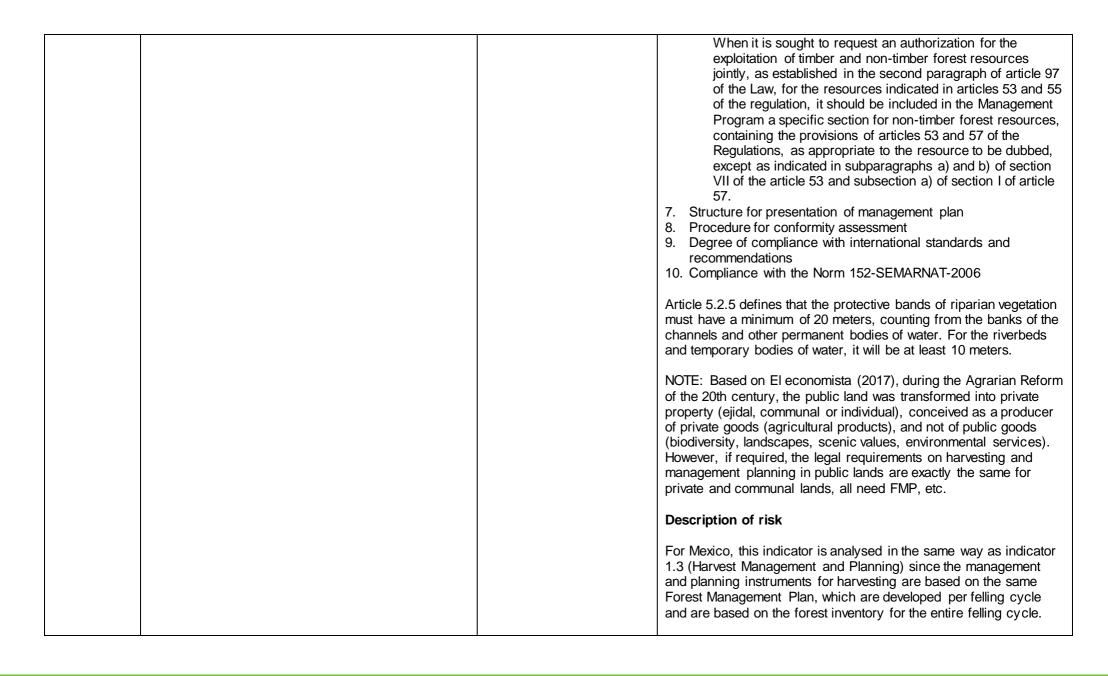
There is no legal requirement for different techniques for harvesting activities. Each owner operates and does the harvesting as possible.

Official Mexican Norm NOM-152-SEMARNAT-2006

This norm establishes guidelines, criteria and specifications as to the content of the Forest Management Plan regarding the harvesting of timber forest resources in forests and rainforests, and vegetation in arid zones.

The most important parts of the norm are the sections:

- 5. Criteria and specifications of the contents of the management plans
- 6. Timber and non-timber harvesting



managing and planning the harvest. Based on expert consultation (included the experience on FSC management areas) I's noted, that in Mexico the land tenure can be: ejidal, communal, private, national, state and municipal. The last three are very rare, however timber can be harvested there. following the same legal requirements as described above on the table of sources of legal timber. In addition, PROFEPA does not regularly and/or systematically monitor the implementation of Forest Management Plans (expert consultation in 2016). Although there is no precise data on some value of compliance by forest lands, in terms of regulations for forest extraction, PROFEPA indicates in its Activity Report from 2015 and 2017 the main illegal activities that affect the forest ecosystems of Mexico are: Change of land use on forest lands, without authorization. Extraction of healthy wood (without plagues or diseases) under sanitation notifications. "Woodwashing" given by the use of forest remissions and shipments to cover more than one trip. Illegal logging On the utilization of the resource, with respect to the authorized volumes, in the plans of management of the estates under forest use. Taking into account the latter activity, it is considered that there is a breach of the law, due to the failure to observe the regulations in the harvest operations. Moreover, PROFEPA (2017) reports that at national level, the forestry-related public claims were the most common with a total of 2, 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report.

Approval of this Forest Management Plan includes approval of proposals related to cutting method, cutting area, dragging system, road construction, timber transport, minimum cutting diameter, etc.

Therefore, the norm for harvesting covers these aspects of

	(PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171
	surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of
	74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances.
	Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions and in the contrast between the wood seized, of the order of 18 thousand cubic meters per year (PROFEPA, 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017]are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has failed in its regulatory role by generating a series of heavy, onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest
	procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated
	procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the

			various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2012)." (Chapela, 2018 p. 27)
			Risk conclusion
			This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.9 Protected	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
sites and	Consend Law for Containable Forcet Development	7 D (0000)	Overview of Legal Requirements
species	 General Law for Sustainable Forest Development, Articles: 28 and 72. (Ley General de Desarrollo 	 Zamorano, P. (2009) Flora and Fauna 	Overview of Legal Requirements
	Forestal Sustentable) 2018. Available at:	Wildlife in Mexico and	General Law for Sustainable Forest Development (Ley General de
	http://www.ordenjuridico.gob.mx/leyes.php#	its Regulation (La Flora	Desarrollo Forestal Sustentable)
	General Law for Ecological Balance and	y Fauna Silvestre en	
	Environmental Protection, Article 5, section VIII,	México y su	This law includes the factors to be considered in the quantification
	29. (Ley General del Equilibrio Ecológico y Protección al Ambiente) 1988. Amended 2018.	Regulación) [online]. Available at:	of areas in the Forest Management Plan, including conservation areas and restricted harvesting areas.
	Available at:	http://www.pa.gob.mx/p	areas and restricted harvesting areas.
	http://www.ordenjuridico.gob.mx/leyes.php#	ublica/rev_40/notas/pab	It also includes considerations related to harvesting raw forest
	 Regulation pertaining to the General Law for 	lo%20zamorano%20de	materials for domestic use in protection areas.
	Ecological Balance and Environmental Protection	%20haro.pdf	
	in respect of Environmental Impact Statement,	• PROFEPA (2012)	General Law for Ecological Balance and Environmental Protection
	Article 50, section N (Reglamento de la Ley General del Equilibrio Ecológico y Protección al	Annual Report (Informe Annual) [online].	(Ley General del Equilibrio Ecológico y Protección al Ambiente)
	Ambiente en Materia de Evaluación del Impacto	Available at:	This law indicates that the powers to establish, regulate, manage
	Ambiental) 2000. Amendment 2014. Available at:	http://www.profepa.gob.	and monitor national protection areas belong to the Federation,
	http://www.ordenjuridico.gob.mx/leyes.php#	mx/innovaportal/file/532	including: biosphere reserves, national parks, natural monuments,
	• General Wildlife Law, Articles 39, 40, 83, 84, 87	2/1/iap_2012_260813.p	protection areas for natural resources, protection areas for flora and
	(Ley General de Vida Silvestre) 2000. Amendment	<u>df</u>	fauna and sanctuaries. In addition, three categories are recognized
	2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#	 PROFEPA (2015) Annual Report (Informe 	are not in the federal sphere: state protected areas, municipal
	General Regulation pertaining to the General	Annual Report (miorme Annual) [online].	ecological conservation areas and areas voluntarily destined to
	Wildlife Law, Article 50 (Reglamento General de la	Available at:	conservation by citizens or non-governmental organizations (DOF, 2013 in Íñiguez et al., 2014). "Private properties, whether private,
	Ley de Vida Silvestre) 2006. Amendment 2014.	https://www.gob.mx/cm	ejido or communal, can be voluntarily destined for conservation
	,		- Page 5. 53 in indicating said 55 forminally designed for solidor validit

Available at:

http://www.ordenjuridico.gob.mx/leyes.php#

 Official Mexican Norm NOM-059-SEMARNAT-2010. Available at: http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/agenda/DOFsr/DO2454.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT, Spanish acronym)
- National Commission of Natural Protected Areas (Comisión Nacional de Áreas Naturales Protegidas) (CONANP, Spanish acronym)
- General Wildlife Department (Dirección General de Vida Silvestre (DGVS, Spanish acronym)
- National Commission for Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO))

Legally required documents or records

- Forest Management Plan authorized by SEMARNAT
- Forest Management Plan Authorisation (which includes requirements regarding protected species and spaces), authorized by SEMARNAT
- Authorisation of extractive harvesting of specimens, parts or derivatives, modality B of specimens of at-risk wildlife species, authorized by SEMARNAT
- UMA Management authorized by SEMARNAT
- UMA Forest Management Plan authorized by SEMARNAT

- s/uploads/attachment/fil e/125063/Informe_Anu al_de_Actividades_PR OFEPA_2015.pdf
- PROFEPA (2017)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/311596/Informe_de_actividades_profepa_2017.pdf

Non-Government sources

- Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). México, Consejo Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m -qw/x content/uploads/2018/1 0/Empresas Sociales Forestales CCMSS 20 102018.pdf
- De la Torre, A. (2014)
 These are the Nature
 Reserves in Mexico.
 How to protect them?
 (Estas son las reservas

when they meet the characteristics of any of the conservation categories at the federal level or provide environmental services. These will be considered as productive areas with a public interest function and will be certified as such (Article 55 Bis) (DOF, 2013)." (Íñiguez et al., 2014, p. 69).

It establishes the criteria for the preservation and sustainable harvesting of wild flora and fauna, taking into account endemic, threatened and endangered species, and that subject to special protection.

"For the proper management of the national protected areas it has been established a zoning scheme, in which each type of zone and sub-area has different management objectives, which allows that within a national protected area there can be made different activities compatible with physical factors, biological, social and economic aspects of the area (art.47 bis) (DOF, 2013). The category of the national protected area determines which zones and subzones apply in it. The zones are categorized into two main types: core zones and buffer zones: in each ANP zones are defined in the declaration of its creation (Article 47 bis 1) (DOF, 2013). In the case of subzones, these are determined in its forest management plan. If in the declaration no zoning was established, sub-zones can be stablished in the buffer zone of buffer, taking into account what the management category allows. Core zones are defined as areas of strict protection, which are aimed at the long-term preservation of ecosystems (art. 47 bis) (DOF, 2013). The authorized activities in these zones are those

(DOF, 2013). The authorized activities in these zones are those related to the conservation, research and environmental education. In some cases, some uses may be authorized, made under strict control. Pollution, destruction and destruction activities are expressly prohibited habitat modification, resource extraction and introduction of exotic species or genetically modified (art. 49) (DOF, 2013).

The core zones can in turn include two types of subzones: protection and restricted use. The protection subzones are located in the most preserved areas and ecosystems fragile or relevant that require special care for their conservation. The subzones of restricted use are to maintain or improve current ecosystem

naturales de México; ¿cómo protegerlas?) [online]. Available at: http://ecoosfera.com/20 14/08/estas-son-lasreservas-naturales-demexico-comoprotegerlas/

- Rodríguez, E. (2015)
 The Disarming of
 CONANP (Interview
 with Luis Fueyo Mac
 Donald) (El desarme de
 la CONANP (Entrevista
 a Luis Fueyo Mac
 Donald)) [online].
 Available at:
 http://ecoosfera.com/20
 15/10/conanp-cronicade-una-caida-no-anunciada-entrevista-a-luis-fueyo-mac-donald/
- Perea, E. (2016)
 Seventy% of timber
 sold in Mexico is Illegal
 (Ilegal 70% de la
 madera que se vende
 en México). [online].
 News article. Available
 at:
 http://imagenagropecuaria.com/2016/ilegal-70-la-madera-se-vende-en-mexico/
- Íñiguez et al. (2014)
 Categories of protected natural areas in Mexico and a proposal for the evaluation of their effectiveness

conditions, allowing the recovery of sites that have processes of degradation. There it can be authorized the construction of some facilities to support the research and environmental monitoring, in a limited way (Barzetti, 1993).

The buffer zones have the function of regulating the performance of activities oriented towards sustainable development. That is, the natural resources of protected areas can be used and exploited. as long as they do not get lost or degraded. In the buffer zones there can be up to eight different types of subzones (DOF, 2013). The preservation subzones are very similar to those of restricted use in the core zones; protect fragile ecosystems or conditions biological processes that are sought to be preserved despite the management activities, which should be under constant supervision. The subzones of traditional use are those that have been subject to use in a traditional way without receiving important impacts on the ecosystem; its main focus is to satisfy selfconsumption using traditional methods. The subzones of sustainable use of natural resources can be used within schemes of sustainability that allow its long-term viability term; the benefit must be mainly for the local inhabitants (Carabias et al., 1994). In the subzones of sustainable use of ecosystems there are agricultural and livestock uses of low intensity; There may be agroforestry and silvopastoral activities related to the objectives of conservation, erosion control and reduction of agrochemicals and external inputs (DOF, 2013).

The sub-areas of special use are sites of reduced extension, where it can be carried out infrastructure or exploitation works of natural resources that generate public benefits, subject to strict regulations for their construction and development; examples of these could be water wells or relay stations of telecommunications (Barzetti, 1993). Subzones for public use have natural attractions for recreation; the number of visitors must be calculated and authorized depending on the respective load capacity (MacKinnon et al, 1990). The subzones of human settlements are those where there were population centers prior to the establishment of the protected area; It should be remembered that in the ANP decreed does not authorize the creation of new population centers (DOF, 2013). Finally, the Recovery subzones are those that have been severely

(Categorías de las áreas naturales protegidas en México y una propuesta para la evaluación de su efectividad). Investigación y Ciencia de la Universidad Autónoma de Aguascalientes) [online]. Available at: http://132.248.9.34/hevi la/Investigacionvciencia Universidadautonomad eaguascalientes/2014/n o60/7.pdf

- Andrade, F. (2016)
 Seventy% of Timber
 Calculated to be Illegal
 (Calculan sea ilegal
 70% de Madera)
 [online]. News article.
 Available at:
 http://www.reforma.com/aplicacioneslibre/articulo/default.aspx?id=8739
 86&md5=059f99cfe332
 d5335ce9d152c4a7ae6
 7&ta=0dfdbac1176522
 6904c16cb9ad1b2efe&
- Roldán (2016)
 Semarnat forgets care plans for 74 protected areas (Semarnat olvida planes de cuidado de 74 áreas protegidas) [online]. News article. Available at: https://www.animalpoliti

po=4

affected by the activities human beings, for which they will be the object of recovery or rehabilitation." (Íñiguez et al., 2014, p. 66-68)

Regulation pertaining to the General Law for Ecological Balance and Environmental Protection (Reglamento de la Ley General del Equilibrio Ecológico y Protección al Ambiente)

With respect to environmental impact, the Regulation states that authorisation from SEMARNAT is required to harvest species that are subject to protection and those that are difficult-to-regenerate. Authorisation is also required to harvest in protection areas.

General Wildlife Law (Ley General de Vida Silvestre)

This law describes the requirements for registering properties as Wildlife Conservation Management Units (Unidades de Manejo para la Conservación de Vida Silvestre).

General Regulation pertaining to the Wildlife Law (Reglamento General de la Ley de Vida Silvestre)

Those responsible for the UMA shall present the reports required under the present Regulation.

Official Mexican Norm NOM-059-SEMARNAT-2010

This norm establishes the categories and specifications of environmental protection of native wild flora and fauna and lists the species in each category (Zamorano, P. (2009)).

Mexico has 176 Protected Natural Areas (Áreas Naturales Protegidas (ANP, Spanish acronym)) administered by the National Commission for Protected Natural Areas (Comisión Nacional de Áreas Naturales Protegidas), totalling 25,394,779 hectares and representing 12.93% of the area of the country. Of the 161 ANPs, 121 are located in land ecosystems and 61 have international designations or recognition (De la Torre, 2014). Protected Natural Areas in Mexico are divided into three categories: federal, state and municipal. This causes severe problems; their

co.com/2016/04/areasnaturales-protegidaspero-solo-en-papel-74no-tienen-planes-decuidado/

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the regulation of protected sites and species.

management is subject to the decision of multiple stakeholders, many of whom (such as at the municipal level) have terms of 3 years (De la Torre, 2014).

Note, that there are no sub-national legal requirements for protected sites and species.

"The governments of the states, including the Federal District, as well as municipalities, can decree protected areas according to the local legislation, with the restriction that can establish on federal areas previously decreed. The only exception is in the category of resource protection areas natural It should be noted that this restriction does not applied in the reverse direction; that is, a federal area if it can be decreed where an area already exists state, municipal or voluntary. In fact, art. 56 allows state authorities to promote federal recognition of areas established at the other levels." (Íñiguez et al., 2014, p. 69)

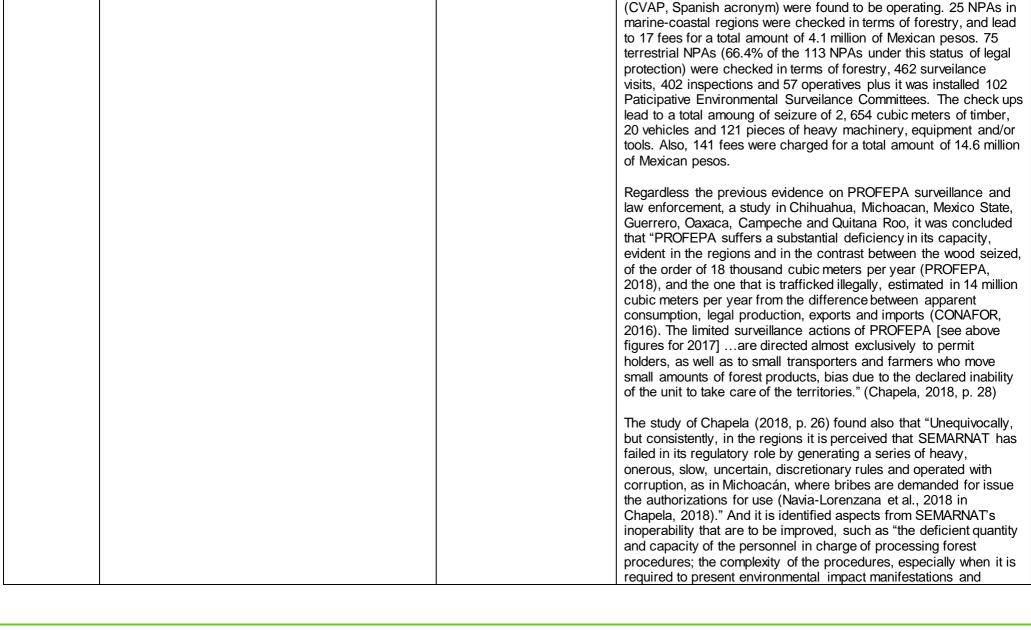
The CONABIO is the National Commission for the Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad). The main functions of CONABIO are to implement and operate the National System of Information on Biodiversity (SNIB), to provide data, information and advising various users, as well as implementing national and global biodiversity information networks; to comply with those international commitments on biodiversity acquired by Mexico that are assigned to it, and to carry out actions aimed at the conservation and sustainable use of Mexico's biodiversity.

The CONANP is the National Commission of Natural Protected Areas (Comisión Nacional de Áreas Naturales Protegidas). The CONANP is a decentralized body of the Secretariat of Environment and Natural Resources (SEMARNAT), which started activities on June 5, 2000 and is in charge of the administration of protected natural areas.

- The SEMARNAT is responsible to issue the following required documents:
- Forest Management Plan

Protected Natural Areas (ANPs, Spanish acronym) are currently threatened by permits for land use changes, which lead to deforestation. (De la Torre, 2014). In PNA, timber can be harvested in the buffer zones but not in the core zone, except in cases of natural plague or disaster. In this way, the main threats to the PNAs are overexploitation of resources, pollution, invasive species, climate change, narcotra (which degrade soil and deforest, as well as threaten environmentalists), politician's corruption. Another major threat the PNA care is that many are privately owned. This makes the can these areas involve many actors whose interests are not always the same line as protection (De la Torre, 2014). The budget of the National Commission for Protected Natural A was reduced by 26% from 2015 to 2016. Rodriguez, E. (2015) indicates that park rangers a key human factor in the conservation and management of PNAs lack authority, receive indignantly low pay and are mostly temporary workers (with no employment security), as are a significant segment of technicians and officer the National Commission for Protected Natural Areas. This situation, corroborated by different experts consulted in 2016, confirm that the reduction on the number of rangers in PNAs increment the risk of non-compliance of legal requirements on the position of the policy for the plant of rangers in PNAs increment the risk of non-compliance of legal requirements on the policy for the plant of the policy for the policy	requirements • Authorisation	gement Plan Authorisation (which includes regarding protected species and spaces) of extractive harvesting of specimens, parts or modality B of specimens of at-risk wildlife species
threatened by permits for land use changes, which lead to deforestation. (De la Torre, 2014). In PNA, timber can be harvested in the buffer zones but not in a core zone, except in cases of natural plague or disaster. In this way, the main threats to the PNAs are overexploitation of resources, pollution, invasive species, climate change, narcotra (which degrade soil and deforest, as well as threaten environmentalists), politician's corruption. Another major threat PNA care is that many are privately owned. This makes the can these areas involve many actors whose interests are not always the same line as protection (De la Torre, 2014) The budget of the National Commission for Protected Natural A was reduced by 26% from 2015 to 2016. Rodríguez, E. (2015) indicates that park rangers a key human factor in the conservati and management of PNAs lack authority, receive indignantly low pay and are mostly temporary workers (with no employment security), as are a significant segment of technicians and officer the National Commission for Protected Natural Areas. This situation, corroborated by different experts consulted in 2016, confirm that the reduction on the number of rangers in PNAs increment the risk of non-compliance of legal requirements on the increment the risk of non-compliance of legal requirements on the conservation.	Description of r	isk
core zone, except in cases of natural plague or disaster. In this way, the main threats to the PNAs are overexploitation of resources, pollution, invasive species, climate change, narcotra (which degrade soil and deforest, as well as threaten environmentalists), politician's corruption. Another major threat PNA care is that many are privately owned. This makes the care these areas involve many actors whose interests are not always the same line as protection (De la Torre, 2014) The budget of the National Commission for Protected Natural A was reduced by 26% from 2015 to 2016. Rodríguez, E. (2015) indicates that park rangers a key human factor in the conservati and management of PNAs lack authority, receive indignantly low pay and are mostly temporary workers (with no employment security), as are a significant segment of technicians and officer the National Commission for Protected Natural Areas. This situation, corroborated by different experts consulted in 2016, confirm that the reduction on the number of rangers in PNAs increment the risk of non-compliance of legal requirements on the number of rangers in PNAs increment the risk of non-compliance of legal requirements on the number of rangers in PNAs increments.	threatened by pe	rmits for land use changes, which lead to
Considering that 70% of the timber that reaches the Mexican market is from illegal sources (Andrade, 2016; Perea 2016), as as the vulnerability of protection areas in Mexico, it can be inferithat much of the illegal timber comes from PNAs (based on expections).	core zone, excep In this way, the m resources, pollutin (which degrade is environmentalists PNA care is that these areas invol the same line as The budget of the was reduced by 2 indicates that par and management pay and are most security), as are at the National Com situation, corrobo confirm that the r increment the ris protected sites ar field and implement Considering that market is from ille as the vulnerabilit that much of the	t in cases of natural plague or disaster. nain threats to the PNAs are overexploitation of on, invasive species, climate change, narcotrafic soil and deforest, as well as threaten a), politician's corruption. Another major threat to many are privately owned. This makes the care of over many actors whose interests are not always in protection (De la Torre, 2014) as National Commission for Protected Natural Areas 26% from 2015 to 2016. Rodríguez, E. (2015) as k rangers a key human factor in the conservation of PNAs lack authority, receive indignantly low the temporary workers (with no employment as a significant segment of technicians and officers in a mission for Protected Natural Areas. This prated by different experts consulted in 2016, eduction on the number of rangers in PNAs k of non-compliance of legal requirements on this and species, because of the lack of control on the centation of the requirements. 70% of the timber that reaches the Mexican egal sources (Andrade, 2016; Perea 2016), as well by of protection areas in Mexico, it can be inferred illegal timber comes from PNAs (based on experts).

In 2016 it was reported (Roldán, 2016) that from the 177 PNAs, the SEMARNAT had not published nor updated the forest management plans of 74 of them, which is leaving them in danger of land use change. The National Commission on Human rights concluded against the SEMARNAT and the CONANP (National Commission for PNAs) that they lack action programs to secure ecosystem's conservation. The lack of Management Programs has led to changes in land use, expansion of extensive livestock, soil erosion, urban development, illegal extraction of species and pollution of water and soil. A clear example of the omission is Punta Nizuc, in Quintana Roo, a protected natural area in which the forest management plan is not updated and during the process there have been irregularities, from the sale of land, issuance of municipal building permits granted without the Semarnat endorsement to the falsification of information in the first Environmental Impact Statement (MIA, Spanish acronym) presented by the entrepreneurs. (Roldán, 2016) At the same time PROFEPA, in its 2012 annual report, it reported that 33,23% of the inspections (based on complaints) have occurred on protected areas (the percept is from the total amount of field inspections done by the PROFEPA) had occurred in forests. This shows the need for control and monitoring actions in PNAs (PROFEPA, 2012). In the PROFEPA (2015) annual report, it's mentioned that there were 198 surveillance tours, 78 inspections and 81 operations in the field of wildlife, attending a total of 63 ANP. In lands (forest), 99 (56%) from the 177 PNAs were subject of check ups, which consisted in 705 surveillances visits. 645 inspections and verifications and 110 operatives. The check ups lead to a total amound of seizure of 3.953.6 cubic meters of timber. 30 vehicles and 84 pieces of heavy machinery, equipment and/or tools. Also, 186 fees were charged for a total amount of 9.2 million of Mexican pesos. In the PROFEPA (2017) annual report, 143 (78.6%) from the 182 PNAs were subject of check ups, which consisted in 1,050 surveilance visits, 939 inspections and verifications, 415 operatives,



and 331 Participative Environmental Surveillance Committees

			establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27)
			Regardless the progress since 2012 as stated in PROFEPA (2017), the lack of PNAs' management plans nor updates to these, the remaining partial surveillance of NPAs and the frequent cases of non-compliance found during the check ups of the relevant authorities added to the information obtained from the experts consultation, both evidence a remaining considerable level of non-compliance with the legal requirements and a lack of capacity from the relevant authorities to efficiently follow up via preventive actions when there are cases of violations to the laws in PNAs.
			Risk conclusion
			This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.10 Environment	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
al requirements	 Regulation pertaining to the General Law for Ecological Balance and Environmental Protection in respect of Environmental Impact Statement (Ley General del Equilibrio Ecológico y Protección al Ambiente en Materia de Evaluación del Impacto Ambiental), Chapter II, work or activity that require authorisation of environmental impact and exceptions. 2000. Amendment 2014. Available at: http://www.ordenjuridico.gob.mx/leyes.php# General Law for Sustainable Forest Development, Article 76 (Ley General de Desarrollo Forestal 	PROFEPA (2012) Annual Report (Informe Annual) [online]. Available at: http://www.profepa.gob.mx/innovaportal/file/5322/1/iap_2012_260813.pdf PROFEPA (2014) Annual Report (Informe Annual) [online]. Available at:	Overview of Legal Requirements Regulation pertaining to the General Law for Ecological Balance and Environmental Protection (Ley General del Equilibrio Ecológico y Protección al Ambiente) and the General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) This regulation indicates the activities that require an Environmental Impact Statement, among which are the harvesting of rainforests of

- Sustentable) 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- Regulation pertaining to the General Law for Sustainable Forest Development, Articles: 37, 45, 49 (Reglamento de la Ley General de Desarrollo Forestal Sustentable) 2005. Amendment 2014. Available at:
 - http://www.ordenjuridico.gob.mx/leyes.php#
- National Waters Law and its Regulation. Articles 55 – 57, 85 (Ley de Aguas Nacionales y su Reglamento) 1992. Amendment 2016. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- Mexican official Norm NOM-005-RECNAT-1997. Available at: http://www.ordenjuridico.gob.mx/Documentos/Federal/wo68741.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría de Medio Ambientes y Recursos Naturales (SEMARNAT, Spanish acronym))
- Federal Environmental Protection Agency (Procuraduría Federal de Protección al Ambiente (PROFEPA, Spanish acronym)

Legally required documents or records

- Authorisation of Forest Management Plan by SEMARNAT
- Authorisation of extractive harvesting of specimens, parts or derivatives, modality B of specimens of at-risk wildlife authorized by SEMARNAT
- Authorisation of Environmental Impact Statement by SEMARNAT
- Technical Audit Prevention report based on NOM-005-RECNAT-1997 (done by the SEMARNAT)

- https://www.gob.mx/cm s/uploads/attachment/fil e/106592/Informe_Anu al_de_Actividades_PR OFEPA_2014.pd
- PROFEPA (2015)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anual_de_Actividades_PROFEPA_2015.pdf
- PROFEPA (2016)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/196266/Informe_de_actividades_2016.pdf
- PROFEPA (2017)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cm
 s/uploads/attachment/file/311596/Informe_de_a
 ctividades_profepa_201
 7.pdf

Non-Government sources

 Chapela, Gonzalo (editor) (2018). Social forestry companies in Mexico. Claroscuros over 20 hectares, properties with species in any of the at-risk categories, and harvesting in Protection Areas.

On the Article 12.- The Environmental Impact Statement must contain the following information:

- I. General data of the project, the promoter and the person responsible for the environmental impact study;
- II. Project description;
- III. Linkage with applicable legal systems in environmental matters and, where applicable, with regulations on land use;
- IV. Description of the environmental system and identification of the environmental problems detected in the area of influence of the project;
- V. Identification, description and evaluation of environmental impacts;
- VI. Preventive measures and mitigation of environmental impacts;
- VII. Environmental forecasts and, where appropriate, evaluation of alternatives, and
- VIII. Identification of the methodological instruments and technical elements that support the information indicated in the previous sections.

Chapter II: activities that requires authorisations in term of environmental impact: N) Forest harvetsing of tropical rainforest and species with difficult regeneration:

- I. Harvesting of species subject to protection;
- II. Harvesting of any timber and non-timber forest resource in tropical forests, with the exception of that made by communities settled in these ecosystems, provided that protected species are not used and their purpose is family self-consumption, and
- III. Any persistent harvesting of species with difficult to regenerate, and
- IV. Forest harvesting in protected natural areas, in accordance with the provisions of article 76, section III of the General Law of Sustainable Forestry Development.

and learnings (Las empresas sociales forestales en México. Claroscuros y aprendizajes). México, Consejo Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m/x/wp-content/uploads/2018/1
<a href="http://wp-content/uploads

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the environmental regulations.

Regulation pertaining to the General Sustainable Development Law (Ley General de Desarrollo Forestal Sustentable)

This regulation indicatess the elements that should be included in the Forest Management Plan. These include:

- When natural forests will be harvested, a description and plan of the measures that will be taken to prevent and mitigate environmental impacts during the different management phases, as well as measures to be taken during fallow periods or when the authorisation expires.
- When at-risk flora and fauna wildlife species are present, the measures that will be taken to conserve and protect their habitat.
- Actions to rehabilitate areas requiring restoration and the schedule for those actions.
- In the case of commercial forest plantations, a cost-benefit analysis of the project, including possible impacts on biodiversity. Based on the article 90, the use and harvest of forest resources for domestic and research purpose, in areas that are the habitat of species that are in some category of risk, should be done in a way that does not alter the conditions for survival, development and permanence of said species. A specific authorization should be fulfilled: Authorisation for extractive harvesting of specimens, parts or derivatives, modality B for specimens of at-risk wildlife species.

The authority who is in charge to authorize the following required documents is the SEMARNAT:

- Authorisation of Forest Management Plan
- Authorisation of extractive harvesting of specimens, parts or derivatives, modality B of specimens of at-risk wildlife
- Authorisation of Environmental Impact Statement

National Water Law and its Regulation (Ley de Aguas Nacionales y su Reglamento)

This law and its regulation indicate the water use rights of communities and *ejidos*. The requirements relating to water

pollution is also relevant to this in environmental requirements relate On article 15, it's mentioned that the integrated management of we conservation of natural resources environment. This article defines and evaluation of water planning levels. In the case of forest management describe the permanent and nonmaps. Also, per plot or set of progreguired to describe the following and basin (indicating names and permanent and intermittent strear and bodies of water in m2. In add mitigate the environmental impact be described and programmed, in restoration areas, the actions to be this case for the conservation of services of the rights of exploitation or use defines that the use and exploitation free for domestic use in accordant channel or there is an alteration in decrease in its flow, in the terms of This law defines "River of Federa" This law defines "River of Federa Federal" as the strips of fer on mete the currents or to the glass of nationally from the water level or inverbank or federal zone will be fixed the meters. **Mexican official Norm NOM-005-Revision of Mexican official norm NOM-005-Revision of the case of the case of the meters. **Mexican official norm NOM-005-Revision of the case of the c
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According with the Art- 7.3 its mentionend that the SEMARNAT, through the Federal Procurator for Environmental Protection, will carry out the inspection visits and technical audits that are required to monitor compliance with the provisions included on the NOM 005. A technical Audit Prevention report will be developt. Description of risk
Regarding tropical rainforests in Mexico, many forest operations primarily communities and <i>ejidos</i> sell standing timber because of a lack of business investment and vision. In such cases the buyer is responsible for felling, dragging, selection of material to be extracted and transportation out of the forest, resulting in a complete lack of control of the environmental impact; this is in spite of an Environmental Impact Statement having been submitted and approved in order to obtain authorisation for harvesting. In areas with low yield and low density, Forest Management Plans are commonly modified in order to receive an advance on annuities or their accumulation (making harvesting more profitable), which also leads to increased environmental impact. The application of management systems adapted to specific conditions is not regulated or monitored by the institutions (FAO, 2005).
Normally the temperate forest plantation is carried out in lands without vegetation or after the final cycle of growth. As mentioned above, the low implementation of environmental requirements is a national trend, for plantation as well as for tropical rainforest (expert consultation 2016). In addition, inspection and monitoring actions were performed in order to mitigate and contain illicit activities that affect Mexico's forest ecosystems. Based on the PROFEPA 2012, report, these main illicit activities include: a) unauthorised changes in land use for forest land, b) over-exploitation of resources compared to the volumes authorised in Management Plans for properties on which forest harvesting is conducted, c) extraction of healthy timber (without infestation or disease) under the cover of false health notifications that describes an issue which is not in fact present, d) laundering of timber by using permits, re-shipment waybills for more than one trip, e) sale of permits and waybills and f) illegal

	felling. The PROFEPA 2012 report does not describe levels of compliance with environmental impact regulations, such as: directional felling, maintenance of protection buffer strips, erosion, maintenance and opening of roads, etc. During the assessment, and expert consultation, it was often mentioned that the control and monitoring done by the PROFEPA lack employees and the controls cover differents aspects. Based on the annual reports from PROFEPA (2012, 2014, 2015, 2016 and 2017), it was not founnd exact data about environmental faults. Nevertheless, PROFEPA (2017) reports that at national level, the forestry-related public claims were the most common with a total of 2, 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report. (PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171 surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of 74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances.
	Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study by Chapela (2018) in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions and in the contrast between the wood seized, of the order of 18 thousand cubic meters per year (PROFEPA, 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017]are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to

			the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has failed in its regulatory role by generating a series of heavy, onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27)
			Following the precautionary approach, this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.11 Health	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
and safety	Official Mexican Norm NOM-008-STPS-2013. Available at:	None found	Overview of Legal Requirements
	http://dof.gob.mx/nota_detalle.php?codigo=53202	Non-Government sources	The Official Mexican Norm NOM-008-STPS-2013 stipulates health
	71&fecha=31/10/2013 - Agrarian Law, Articles 10, 11 (Ley Agraria) 1992.	FSC (2017) Public FSC	and safety guidelines for work activities that primarily involve timber forest harvesting, as well as for storage and processing facilities.
	Available at:	FM report. [online].	3, 3, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
	http://www.ordenjuridico.gob.mx/leyes.php#	Available at:	To correctly interpret this norm, it should be read in conjunction with

Legal Authority

 Ministry of Labour and Social Welfare (Secretaría de Trabajo y Previsión Social (STPS, Spanish acronym))

Legally required documents or records

- Internal regulations of communities or ejidos
- Internal work regulations for private properties
- Proof of worker registration in the IMSS
- Proof of registration in Public Insurance (Seguro Popular)
- Contracts with private clinics for medical care

include on the certificate code FM/COC and the country Mexico; example:

http://fsc.force.com/serv let/servlet.FileDownload ?file=00P3300000mrbc cEAA)

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with health and social security regulations.

Also, consultation in 2016 with FSC auditors in the country was conducted.

- NOM-001-STPS-2008, Buildings, shops, facilities and workplaces areas Safety conditions.
- NOM-002-STPS-2010, Conditions for safety-prevention and protection against fires in workplaces.
- NOM-004-STPS-1999, Protection systems and safety devices for machinery and equipment used in workplaces.
- NOM-005-STPS-1998, Related to workplace safety and hygiene conditions for managing, transporting and storing hazardous chemical substances.
- NOM-011-STPS-2001, Safety and hygiene conditions for workplaces that generate noise.
- NOM-017-STPS-2008, Personal protection equipment selection, use and handling in workplaces.
- NOM-018-STPS-2000, System to identify and communicate hazards and risks from hazardous chemical substances in workplaces.
- NOM-019-STPS-2011, Creation, membership, organization and functioning of safety and hygiene commissions.
- NOM-020-STPS-2011, Pressurized and cryogenic containers and vapor generators or boilers – functioning and safety conditions.
- NOM-021-STPS-1993, Related to requirements and characteristics for reports of work risks that occur, to incorporate the statistics.
- NOM-022-STPS-2008, Electric shocks in workplaces safety conditions.
- NOM-024-STPS-2001, Vibrations Safety and hygiene conditions in workplaces.
- NOM-025-STPS-2008, Lighting conditions in workplaces.
- NOM-026-STPS-2008, Safety and hygiene colours and signage, and identification of risks from fluids in piping.
- NOM-027-STPS-2008, Welding and cutting activities Safety and hygiene activities.
- NOM-029-STPS-2011, Maintenance of the electrical installations in workplaces safety conditions.
- NOM-030-STPS-2009, Safety and health prevention services in the workplace functions and activities.

- 73 of 335 -

The Agrarian Law recognizes that <i>ejidos</i> operate in accordance with their internal regulations with no limitations on their activities other than those stipulated by law. The previous paragraph also applies to health and safety matters, in general, internal regulations of <i>ejidos</i> must comply with the legal requirements relared to health and safety as stated in these NOMs
Description of risk
Approximately 55% of Mexico's forest land is in the possession of <i>ejidos</i> or communities, where the majority of the workers are members of these groups or of neighbouring Management Units or other similar social structures. These communities or <i>ejidos</i> function according to their Internal Regulations. Although there are no official statistics about safety conditions in the forests, experiences on <i>ejidos</i> or in communities, indicate that protective equipment is not normally used for forestry activities, except on certain properties that have some type of forest verification or certification scheme. Most communities and <i>ejidos</i> were found to be unaware of NOM-008-STPS-2013. Meanwhile, on private properties there are stricter requirements for the use of protective equipment for private operations, and mechanisms exist for their use. Nevertheless, workers have also been observed to perform field operations without the use of protective equipment in cases where the use of this equipment is not part of the procedures of their employing companies.
Note: the previous information in this sub-section of "Description of risk" is summarizing the knowledge on a national trend withnessed by experts and FSC auditors with practical and current experience in the mexican forest sector.
Risk conclusion
Following the precautionary approach, this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.

1.12 Legal employment

Applicable laws and regulations

Federal Labor Law, Articles 20, 21, 35, 42, 46, 53, 69, 82, 90, 132, 153, 175, 176, 279-284 (Ley Federal del Trabajo) 1970. Amendment 2018. Available at:

http://www.ordenjuridico.gob.mx/leyes.php#

Legal Authority

- Ministry of Labor and Social Welfare (Secretaría de Trabajo y Previsión Social (STPS, Spanish acronym))
- Labor Legal Department (Procuraduría del Trabajo)
- Federal Legal Department for Workers Rights (Procuraduría Federal de la Defensa del Trabajo)

Legally required documents or records

- Payroll records
- Proof of enrollment in the IMSS
- Employment contracts

Government sources

None found

Non-Government sources

- López, M. (2006) The Child Workforce in Mexico (La fuerza del trabajo infantil en México). [online]. Available at: http://www.uam.mx/cdi/pdf/iii_chw/lopezlimon_mx.pdf
- Zapata, E. et al. (2013)
 Scenarios of Child
 Labor (Escenarios del
 trabajo infantil). [online]
 Available at:
 http://www.uaim.mx/Documentos/EscenarioInfantilDraEmma.pdf
- Arredondo V. (2017)
 Narcotala, Organized
 Crime Displaced
 (Narcotala,
 Desplazados del
 crimen organizado).
 [online]. News article.
 Available at:
 http://interactivo.eluniversal.com.mx/2017/bosque-del-narco/
- FSC (2017) Public FSC FM report. [online]. Available at: https://info.fsc.org/certificate.php (NOTE:

[subsections with translations from Spanish]

Overview of Legal Requirements

Two types of hiring systems exist for field workers in Mexico that are specific to silviculture jobs. One is established in the *ejidos* and communities (regardless of whether they are an indigenous population), in which the workers are also members of the communal company. In both the communities and *ejidos*, workers are governed by stipulations set forth in the Internal Regulations or decisions by the General Assemblies of community landholders (ejidatarios) and communal landowners (comuneros). The other type of hiring is for forest sector work on private properties.

The following aspects of the Federal Labor Law, among others, are of general and universal applicability:

- Silviculture work is a high-risk activity, and therefore workers under the age of 18 are not accepted.
- Women have the same rights as men, and the protection of maternity is of fundamental concern.
- Employment conditions must be in writing even when there are no applicable collective bargaining contracts.
- Labour relations.
- Causes for obligations to undertake work or to pay salaries to be suspended, with no liability for the employee or the employer.
- · Performance reviews and termination of work relationships.
- Work shifts/hours.
- Days off.
- Salaries.
- · Rights and obligations of employees and employers.
- Productivity, education and training of workers.
- Field workers (permanent, temporary or seasonal).
- Labour unions, federations and confederations.
- Strike procedures.
- Work Risks.

Description of risk

include on the certificate code FM/COC and the country Mexico; example:

http://fsc.force.com/serv let/servlet.FileDownload ?file=00P3300000mrbc cEAA)

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the existing labour laws.

Also, consultation in 2016 with FSC auditors in the country was conducted.

Different types of hiring exist within the ejidos and communities and involve community landholders (ejidatarios) or communal landowners (comuneros) who have rights to participate in the assemblies but who no longer work; therefore, their children, who are members of the same population centre, or external personnel are hired. In both cases, workers do not receive any of the benefits indicated in the Federal Labor Law except for wages that are above the minimum wage. It was not possible to assess the hiring of children under 18 years of age in the field, but literature exists on the hiring of agriculture workers (López, 2006; Zapata, 2013) that shows that minors are commonly employed in harvesting activities. Both kinds of worker, children of former workers and personnel hired from elsewhere, have accepted the conditions, which are based on decisions by the General Assemblies.

According to FSC Audit reports and consultation with FSC auditors in the country and interviews with experts in April 2016, the hiring of workers in the forestry sector for work on private property does not comply with labor laws. Workers are not given vacations or bonuses, or benefits corresponding to time on the job, and the hiring of minors is common. In addition, there are no mechanisms to safeguard freedom of association for workers, among other concerns.

Furthermore, Arredondo (2017) has reported forced labour for indigenous peoples in the forests. "Crime groups in the country have arrived to the forest. EL UNIVERSAL visited the affected zones in Chihuahua, where their local inhabitants are affected by threats, kidnapping and murders.

Timber production in Ejidos has been stopped by the crime groups and the ejidatarios have been forced to sell the wood to these groups, presumably to do money laundering. Some local inhabitants have reacted to this in order to demand their rights on the land, and these conflicts have resulted in murders in most of the time. "...Some carry weapons and on the way shoot into the air. So they go into the mountains, the paths that the indigenous people have made for hundreds of years.... They [the indigenous people] are forced to work with them and pay between 1,000 and 2,000 pesos. No complaint because they believe that they are committing the crime. Simply nobody says anything..." ([translated from Spanish] Arrendondo, 2017 webpage).

			In northern states, such as Durango and Chihuahua, the enrolment of workers in social security is more common, although still not consistent. In the rest of the states, workers are not enrolled in the Mexican Social Security Institute (Instituto Mexicano del Seguro Social (IMSS, Spanish acronym)) and therefore, in some cases, workers choose to enrol in Public Insurance (Seguro Popular) instead. Public insurance, however, does not provide all the benefits, nor entail all the obligations, associated with the IMSS (source: FSC Audit reports and consultation with FSC auditors and interviews with experts in 2016). Assessment of indicator 2.2 "Labor rights are upheld including rights as specified in ILO Fundamental Principles and Rights at Work" of this CNRA concludes there is substantial evidence of widespread violation of key provisions of the ILO Fundamental Principles and Rights at work. Based on lack of national evidence supporting the elements of the threshold for low risk, and due to the high level of corruption reported for the country (CPI less than 50), a precautionary approach is considered. Risk conclusion
			Following the precautionary approach, this indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
		Third parties' rights	
1.13	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
Customary rights	 Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) Articles 2, 27. The Rights of Indigenous Peoples (Derechos de los pueblos indígenas) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014_c	None found Non-Government sources International Convention on the Elimination of All Forms	Overview of Legal Requirements Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) The recognition of peoples and indigenous communities will be made in the constitutions and laws of the states, which must take into account, in addition to the general principles, ethnolinguistic criteria and physical settlement. In terms of management of natural

- para el Desarrollo de los Pueblos Indígenas) 2003. Amendment 2012. Available at: http://www.cdi.gob.mx/normateca/dmdocuments/le v-de-la-cdi.pdf
- Agrarian Law. Article 152 (Ley Agraria) 1992.
 Available at:
 - http://www.ordenjuridico.gob.mx/leyes.php
- General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- United Nations Declaration on the Rights of Indigenous Peoples. 2008. Available at: http://www.un.org/esa/socdev/unpfii/documents/D
 RIPS en.pdf
- Indigenous and Tribal Peoples Convention 169, 1989. Available at:
 https://www.senado.gob.mx/comisiones/desarrollo_social/docs/marco/Convenio_169_Pl.pdf

Legal Authority

- Ministry of Agrarian, Territorial and Urban Development (Secretaría de Desarrollo Agrario, Territorial y Urbano (SEDATU, Spanish acronym))
- Agrarian Legal Department (Procuraduría Agraria (PA, Spanish acronym))
- National Agrarian Registry (Registro Agrario Nacional (RAN, Spanish acronym))
- National Commission for the Development of Indigenous Peoples (Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI, Spanish acronym))

Legally required documents or records

of Racial Discrimination (Convención Internacional sobre la Eliminación de todas las Formas de Discriminación Racial)-Concludina observations of the Committee on the Elimination of Racial Discrimination (2012) [online]. Available at: http://tbinternet.ohchr.or g/ layouts/treatybodyex ternal/Download.aspx? symbolno=CERD%2fC %2fMEX%2fCO%2f16-17&Lang=en

Non-Government sources

- González, J. (N.Y.)
 Indigenous Customary
 Rights in Mexico (El
 derecho
 consuetudinario
 indígena en México).
 [online]. Available at:
 <u>https://archivos.juridicas.unam.mx/www/bjv/libros/1/195/10.pdf</u>
- Gallardo, M. (2009)
 Indigenous Peoples and Customary Rights (Pueblos Indígenas y derecho consuetudinario).

 [online]. Available at:

resources and forestry, the Constitution recognizes and guarantees the right of peoples and indigenous communities to self-determination and, consequently, to autonomy for:

- Conserving and improve the habitat and preserve the integrity of their lands in the terms established in the Constitution.
- Accessing, with respect to the forms and modalities of property and land tenure established in this Constitution and to the laws of the matter, as well as to the rights acquired by third parties or by members of the community, to use and preferential enjoyment of the natural resources of the places they inhabit and occupy the communities, except those that correspond to the strategic areas, in terms of the Constitution.

Article 27: The law will provide protection to the integrity of lands of indigenous groups and will also protect the land for human settlement, regulating the use of common lands, forests and water.

Agrarian Law (Ley Agraria)

Customary Rights in Mexico in the use of natural resources (common use) are regulated by the property rights of each Community or Ejido. Where each ejidatario, comunero can use medicinal plants, mushrooms, water, etc. and are not denied by any authority if it is for self-consumption. In the community statutes or ejido regulations (local law based on the Agrarian Law) restrictions are given for the use of timber for the home of their communities. When something is not regulated and is not customary use it is resolved by the assembly of commoners or assembly of ejidatarios.

According to Mexico's agrarian legislation, ejidos and indigenous and non-indigenous communities have the same rights of access to forest resources. Decision-making rights within ejidos are also the same; being a member of the community or ejido is more of a determinant than whether the person is indigenous or non-indigenous.

Article 10.- The ejidos operate in accordance with their internal regulations, with no limitations in their activities other than those provided by law. Its regulations will be registered in the National Agrarian Registry, and must contain the general bases for the

- Basic File (Carpeta Básica) (Executed presidential decree with an affidavit of possession and final property lines)
- Proof of agrarian rights issued by the National Agrarian Registry (Registro Agrario Nacional)
- http://www.redalyc.org/ articulo.oa?id=1591191 3002
- Cultural Survival (2018)
 Observations on the
 State of Indigenous
 Human Rights in
 Mexico. Prepared for:
 the 31st Session of
 Universal Periodic
 Review Working Group
 of the United Nations
 Human Rights Council.
 [online]. Available at:
 https://www.culturalsurv
 ival.org/sites/default/file
 s/Mexico%20UPR%202
 018.pdf
- Stavenhagen, R. (N.Y.) Indigenous Peoples and their Rights (Los Pueblos Indígenas y sus derechos). [online]. Available at: http://www.museo-

economic and social organization of the ejido that are freely adopted, the requirements for admitting new ejidatarios, the rules for the use of the lands of common use, as well as the other provisions that according to this law should be included in the regulation and the others that each ejido considers pertinent.

Basic file (Carpeta Básica) is a set of core documents registered, which establishes the creation, constitution and recognition of ejidos and communities. It is integrated by the presidential resolution or judgment of the Agrarian Courts, certificate of possession (article 48), demarcation and definitive plan (article 66 and 160).

National Commission Law for the Development of Indigenous Peoples (Ley de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas)

The National Commission Law for the Development of Indigenous Peoples (Ley de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas) provide the competences of the National Commission for the Development of Indigenous Peoples, that its purpose is to guide, coordinate, promote, support, encourage, monitoring and evaluating public programs, projects, strategies and actions for development, integral and sustainable development of indigenous peoples and communities in accordance with Article 2 of the Political Constitution of the United Mexican States.

On the article 14, the commission will promote sustainable development for the rational use of the regions' natural resources indigenous peoples without risking the heritage of future generations.

General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) 2018

The General Law for Sustainable Forest Development includes on the article 5 that the ownership of forest resources included within the national territory corresponds to ejidos, communities, indigenous peoples and communities, natural persons or moral, the

- etnografico.com/pdf/pu ntodefuga/170111stave nhagen.pdf
- Bárcenas F. (2010)
 Legislation and
 Indigenous Rights in
 Mexico (Legislación y
 Derechos Indígenas en
 México). Available at:
 https://site.inali.gob.mx/pdf/Legislacion_Derechos_Indigenas_Mexico.pdf

 df
- Carrillo (2018) New
 Forestry Law, a window
 of opportunity for our
 forests (Nueva Ley
 Forestal, una ventana
 de oportunidad para
 nuestros bosques)
 [online]. Available at:
 https://mexico.correspo
 nsables.com/actualidad
 /nuevley-forestalventana-oportunidadnuestros-bosques

Interviews with experts:

Federation, the States, the Federal District and the Municipalities that own the land where they are located. The procedures established by this Law shall not alter the property regime of said lands.

Article 72. The Secretariat will establish the necessary procedures and mechanisms, so that the titles or documents that contain the authorizations, are translated into the languages of the Applicants or holders of forest land belonging to peoples and communities indigenous peoples, or to ensure that their content is interpreted. When an authorization may affect the habitat of an indigenous community, the authority must seek the opinion of the representatives of said community. The Secretariat, in coordination with the dependencies and entities of the Federal Public Administration competent authorities, will verify that the harvesting of forest resources is carried out by guaranteeing rights that the Law recognizes to the indigenous communities.

Article 105, the Commission should promote and support the traditional biological knowledge of indigenous peoples and communities and ejidos, as well as the promotion and sustainable management of trees, shrubs and herbs for self-sufficiency and for the market, of the products of the useful species, including medicines, food, construction materials, fuel wood, fodder for use domestic, fibers, oils, gums, stimulants, flavorings, dyes, insecticides, ornamental, aromatic, artisanal and honey.

Article 110 mentions that ejidos, communities, indigenous communities, small societies owners or other moral persons related to forest management, may create freely, respecting its uses and customs, a committee or auxiliary technical body in the management and forestry and commercial forest plantations, as well as in the execution and evaluation of the respective forest management plans

United Nations Declaration on the Rights of Indigenous Peoples

Article 9 Indigenous peoples and individuals have the right to belong to an indigenous community or nation, in accordance with

Conversations with various experts from civil associations, academy and riaht. private and public sector (here in anonymity) during Article 11 mentions: 1. Indigenous peoples have the right to practise and revitalize their March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the existing customary and literature. laws. customs. concerned.

the traditions and customs of the community or nation concerned. No discrimination of any kind may arise from the exercise of such a

- cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts
- 2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and

Article 26, on point 3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples

Article 27 States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples' laws, traditions, customs and land tenure systems, to recognize and adjudicate the rights of indigenous peoples pertaining to their lands, territories and resources, including those which were traditionally owned or otherwise occupied or used. Indigenous peoples shall have the right to participate in this process.

Indigenous and Tribal Peoples Convention 169

Mexico ratified the Indigenous and Tribal Peoples Convention 169, on 05 Sep 1990. It's mentioned the following: Article 2, governments should assume the responsibility of developing, with the participation of the peoples concerned, a

rights of these peoples and ensuring respect for their integrity. Article 3, indigenous and tribal peoples must fully enjoy human rights and fundamental freedoms, without obstacles or discrimination. The provisions of this Convention shall apply without discrimination to the men and women of those peoples. Article 8, when applying the national legislation to the peoples concerned, their customs or customary law should be duly taken into consideration. These peoples must have the right to preserve their own customs and institutions, provided that they are not incompatible with the fundamental rights defined by the national legal system or with internationally recognized human rights. Whenever necessary, procedures should be established to resolve conflicts that may arise in the application of this principle. It was used the source: Bárcenas F. (2010), Carrillo (2018) for the legal description.
Description of risk
"Mexico has a population of 124,574,795 people. The National Population Council (CONAPO), and the Economic Commission for Latin America (ECLAC) estimate the Indigenous population to be 16,933,283 people, representing 15% of Mexico. Sixty-eight Indigenous languages and 364 dialect variations are spoken.1 The most spoken language groups include the Nahuatl, Maya, Zapoteco, Mixteco, Otomí, Totonaco, Tzotzil, and Tzeltal." (Cultural Survival, 2018 p.1). The existance of many examples (see conclusion on indicator 2.3 of this assessment) mention that there are hundreds of cases of systematic grabbing of the land and resources of Mexico's indigenous peoples. As shown most of the related problems are related with the exploitation of mineral.
As example of the national trend, through consultations with experts in 2016, information did come to light about conflicts concerning customary rights between private property owners and Wixarrika or Huicholes communities in northern Jalisco. Experts in these indigenous communities were consulted, and they suggested

communities' customary rights of access to forest resources. In addition, during the consultation process, two experts mentioned that there were conflicts in Sierra Tarahumara de Chihuahua due to the granting of Forest Management Plan authorisations to ejido. when the indigenous Rarámuris claimed their customary rights over the land. Mexico voted in favour of the UN Declaration on the Rights of Indigenous Peoples in 2007. But in the observations on the state of indigenous human rights in Mexico of Cultural Survival (2018, p.1), it was stated that "Mexico faces security problems that disproportionately impact Indigenous communities. Drug violence, arbitrary arrests, and torture, and extrajudicial execution have all occurred numerous times throughout the country in the last year. According to Amnesty International, in 2017, 42,583 homicides occurred. Police are sometimes complacent in these crimes or do not report them. While legislation and reform have been enacted to address these problems, social injustice and inequality of access to justice still remain. Twenty recommendations were made specifically mentioning Indigenous Peoples...concerning combatting discrimination, violence against Indigenous women, administering justice, improving education and economic welfare, ensuring prior consultation, remain not implemented." Based on the study done by Hernandez Aguilar (2017), the phenomenon of corruption in Mexico is reversed and systematized, when organizations acquire such empowerment, that they subject institutions to obtain benefits, affecting higher legal rights, such as public order, social peace and national security. Assessment of indicator 2.3 "The rights of indigenous and traditional peoples are upheld" of this CNRA supports a generalized national trend on violation of rights of the local communities. Risk conclusion This indicator has been evaluated as "specified risk.' Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.

1.14 Free prior and informed consent

Applicable laws and regulations

- Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) Articles 2, 27. The Rights of Indigenous Peoples (Derechos de los pueblos indígenas) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014_constitucion.pdf
- Indigenous and Tribal Peoples Convention 169, 1989. Available at:
 http://www.senado.gob.mx/comisiones/desarrollosocial/docs/marco/Convenio_169_PI.pdf
- United Nations Declaration on the Rights of Indigenous Peoples. 2008. Aviailable at: http://www.un.org/esa/socdev/unpfii/documents/D
 RIPS en.pdf
- Decree 397 (2015) Law of indigenous consultation for the State and Municipalities of Durango (Ley de consulta indígena para el Estado y Municipios de Durango). Available at: http://www.ordenjuridico.gob.mx/Documentos/Est atal/Durango/wo106555.pdf
- Decree 208 (2012) Law of indigenous consultation for the State and Municipalities of San Luis Potosi (Ley de consulta indígena para el Estado y Municipios de San Luis Potosi). Available at: http://sanluis.gob.mx/wp-content/uploads/2015/12/Ley-de-Consulta-Indigena-para-el-Estado-y-Municipios-de-San-Luis-Potosi.pdf

Legal Authority

 the powers of the State, the municipalities, and the institutions, dependencies, entities or

Government sources

 Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) Articles 2, 27. The Rights of Indigenous Peoples (Derechos de los pueblos indígenas) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014
 Constitucion.pdf

Non-Government sources

- CNDH México (2016) Prior, free, informed. good faith and culturally appropriate consultation: indigenous peoples, human rights and the role of companies (La consulta previa, libre, informada, de Buena fe v culturakmente adecuada: pueblos indígenas, derechos humanos y el papel de las empresas). Available at: http://informe.cndh.org. mx/uploads/menu/1006 4/Laconsultaprevia.pdf
- REDHES (2017) The right to the indigenous

[subsections with translations from Spanish]

Overview of Legal Requirements

There is not a federal law specific on Free, Prior and Informed Consent in Mexico regarding timber harvesting or harvesting, or in general.—However, Mexico has ratified the ILO Convention 169 on Indigenous and Tribal Peoples and released a promulgating decree on this that adheres to the national law. Mexico has also adopted the United Nations Declaration on the Rights of Indigenous Peoples. At the moment of development of this assessment, it was identified two specific state-level decrees on FPIC for two administrative States in Mexico. The Political Constitution of the United Mexican States has also FPIC considerations.

Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos)

The Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) considers communities of indigenous peoples to be those that form a social, economic and cultural unit, are settled in a territory and that recognise their own authority in accordance with their purposes and customs.

The recognition of peoples and indigenous communities will be made in the constitutions and laws of the states, which must take into account, in addition to the general principles, ethnolinguistic criteria and physical settlement. In terms of management of natural resources and forestry, the Constitution recognizes and guarantees the right of peoples and indigenous communities to self-determination and, consequently, to autonomy for:

- -Conserving and improve the habitat and preserve the integrity of their lands in the terms established in the Constitution.
- Accessing, with respect to the forms and modalities of property and land tenure established in this Constitution and to the laws of the matter, as well as to the rights acquired by third parties or by members of the community, to use and preferential enjoyment of the natural resources of the places they inhabit and occupy the communities, except those that correspond to the

organizations thereof, that are forced to carry out consultations with indigenous communities.

Legally required documents or records

- Register of indigenous communities: it is the list or list that is made of the communities indigenous peoples, to know their names, number of population, authorities and organization, as well as its uses and customs;
- Registration of indigenous communities: it is the inscription recorded in the government book, carried out by the State Executive, through the State Coordination for the Attention of Indigenous Peoples, whose purpose is to gather information related to its structure, organization and culture, and
- Indigenous Peoples: those that descend from populations that inhabited the current territory
- of the country at the beginning of colonization, and that they preserve their own social institutions, economic, cultural and political or part of them

- consultation in San Luis Potosí, the dispute for its recognition (El derecho a la consulta indígena en San Luis Potosí, la disputa por su reconocimiento). Available at: http://www.derecho.uaslp.mx/Documents/Revista%20REDHES/N%C3%BAmero%2017/Redhes17-08.pdf
- Hernandez Aguilar

 (2017) Corruption and
 power groups in Mexico
 (La corrupción y los
 grupos de poder en
 Mexico). Available at:

 https://revistainternacio
 naltransparencia.org/w
 content/uploads/2017/0
 8/10.-SalvadorHernandez.-.pdf

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the existing Free Prior

strategic areas, in terms of the Constitution.

Article 27: The law will provide protection to the integrity of lands of indigenous groups and will also protect the land for human settlement, regulating the use of common lands, forests and water.

Indigenous and Tribal Peoples Convention 169

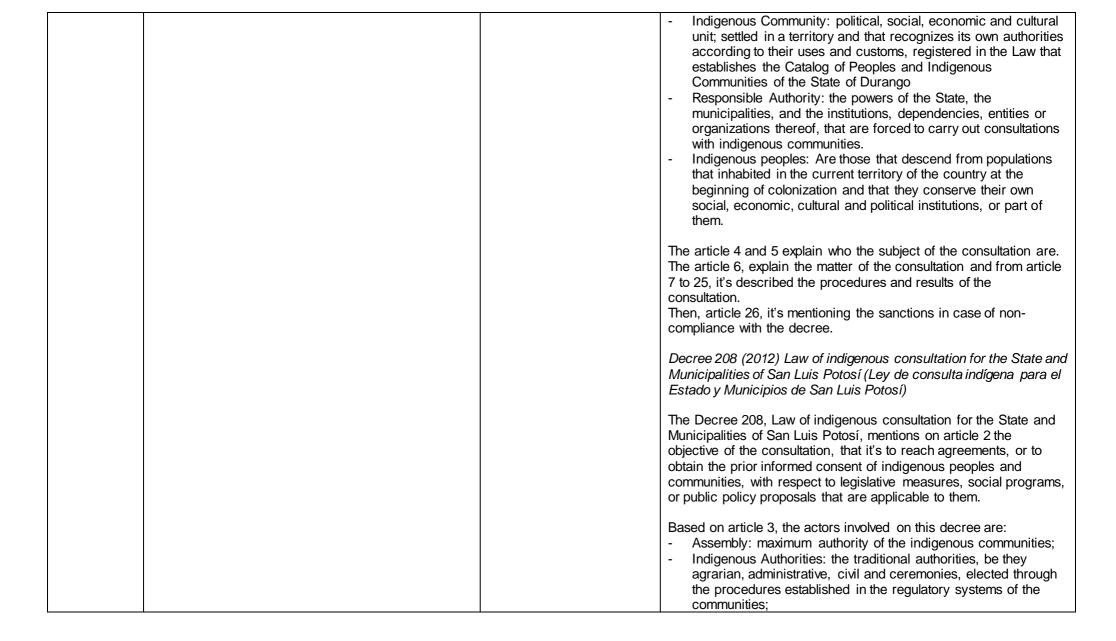
Convention on Indigenous and Tribal Peoples, 1989 "an instrument of ratification of Convention 169, on September 25, 1990, which was published on January 24, 1991 in the Official Gazette of the Mexican Federation.

Art. 6

- 1. In applying the provisions of this Convention, governments shall: a) consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever legislative or administrative measures are contemplated that may directly affect them; b) establish the means through which the interested peoples can participate freely, at least to the same extent as other sectors of the population, and at all levels in decision-making in elective institutions and administrative and other bodies responsible for policies and programs that concern them; c) establish the means for the full development of the institutions and initiatives of these peoples, and in appropriate cases provide the necessary resources for this purpose.
- 2. The consultations carried out in application of this Agreement must be carried out in good faith and in a manner appropriate to the circumstances, in order to reach an agreement or obtain consent on the proposed measures.
- Article 7. 1. The peoples concerned shall have the right to decide their own priorities regarding the development process, insofar as this affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or use. in some way, and to control, as far as possible, their own economic, social and cultural development. In addition, these peoples must participate in the formulation, application and evaluation of national and regional development plans and programs that may affect them directly. 2. The improvement of living and working conditions and the level of health and education of the peoples concerned, with their participation and cooperation, should be a priority in the global

and Informed Consent laws.	economic development plans of the regions where they live. Special development projects for these regions should also be developed in a way that promotes such improvement. 3. Governments should ensure that, wherever appropriate, studies are carried out, in cooperation with the peoples concerned, in order to assess the social, spiritual and cultural impact on the environment that the planned development activities may have on those peoples. The results of these studies should be considered as fundamental criteria for the execution of the aforementioned activities. 4. Governments must take measures, in cooperation with
	the peoples concerned, to protect and preserve the environment of the territories they inhabit. United Nations Declaration on the Rights of Indigenous Peoples
	2008
	Article 10: Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.
	Article 1: 1. Indigenous peoples have the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature. 2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and
	informed consent or in violation of their laws, traditions and customs. Article 19: States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before

adopting and implementing legislative or administrative measures that may affect them. Article 28: 1. Indigenous peoples have the right to redress, by means that can include restitution or, when this is not possible, just, fair and equitable compensation, for the lands, territories and resources which they have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent. Article 29: 1. Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination. 2. States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.
Decree 397 (2015)- Law of indigenous consultation for the State and Municipalities of Durango (Ley de consulta indígena para el Estado y Municipios de Durango)
The Decree 397 of Law of indigenous consultation for the State and Municipalities of Durango, mentions on the article 2- paragraph III the objective of the consultation that it's to reach agreements, or to obtain the free, prior and informed consent of indigenous peoples and communities, with respect to legislative measures, social programs, or public policy proposals that are applicable to them, in the terms of this law, as appropriate.
 Based on article 3, the actors involved on this decree are: Indigenous authorities: Those elected and recognized by the peoples and indigenous communities in accordance with their internal normative systems. National Commission for the Development of Indigenous Peoples (Comisión Nacional para el Desarrollo de los Pueblos Indígenas, spanish acronym CDI).



CDI: National Commission for the Development of Indigenous Peoples; CEAPI: State Coordination for the Attention of Indigenous Peoples; Indigenous Community: political, social, economic and outural unity; settled in a territory and that they recognize their own authorities according to their habits and customs. These communities may correspond to any of the forms of land tenure, that is, ejidal, communal, or private; Consultant: the powers of the State, the municipalities, and the institutions, dependencies, entities or bodies thereof, which are obliged to carry out consultations with the indigenous communities: Interinstitutional coordination: public policy strategy that consists of articulating and coordinate the efforts of the State and municipal powers, aimed at rationalizing and make public resources more efficient, with the purpose of addressing social backwardness and building broad consensus among peoples and communities; The articles 9, 7 and 8 explain who the subject of the consultation and from article 11 to 29, it's described the procedures and results of the consultation. Then, articles 30 and 31, it's mentioning the sanctions in case of non-compliance with the decree. Description of the risk The report CNDH México (2016) mentions the following five builet prints and leaves clear there is still much to be done in Mexico to really respect and protect the right to prior consultation: There is not yet a federal law and the inclusion of this right in most of the states of the Republic (except for to San Luis Podos and Durangon), which requises and the inclusion of lagislative or administrative measures for prior consultation, considering	·		
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169 of the International Labor Organization of 1989, signed and ratified for Mexico." (REDHES, 2017, [translated from Spanish]) " the recognition of the right to consultation, finally reflected in article 2, subsection B, section IX of the Political Constitution of United Mexican States. Although the Constitutional reform carrie out in Mexico in 2001 was insufficient and limited with respect to the general recognition that we find in Convention 169, which is specific in terms of the procedure to carry out the indigenous consultation" (REDHES, 2017, [translated from Spanish]).

	The comuneros, ejidatarios (including also indigenous people) own their forests, water lands, etc. So, they do not have to inform others or receive any authorization to harvest timber, because they own, manage and do it themselves, for the collective benefit of the community (jobs, improvements to health centers, streets, roads, schools, parks, etc.) (based on expert consultation in 2016). Currently the mining concessions are Federal and want to extract minerals on the communal and ejidal lands (this is outside the scope of the assessment). The communities and ejidos have spoken out against these mining concessions and do not let the mining company enter, if nobody has informed them and asked for their consent (based on expert consultation in 2016). There is not yet a federal law and the inclusion of this right in most of the states of the Republic (except San Luis Potosi and Durango that is most related with mining activities instead of forest harvesting), which regulates the exercise and the claim of prior consultation is still lacking. Based on the study done by Hernandez Aguilar (2017), the phenomenon of corruption in Mexico is reversed and systematized, when organizations acquire such empowerment, that they subject institutions to obtain benefits, affecting higher legal rights, such as public order, social peace and national security. Assessment of indicator 2.3 "The rights of indigenous and traditional peoples are upheld" of this CNRA supports a generalized national trend on violation of rights of the local communities. Risk conclusion This indicator has been evaluated as "specified risk". Threshold (2) is met. (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.

1.15 Indigenous peoples rights

Applicable laws and regulations

- Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) Articles 2, 27. The Rights of Indigenous Peoples (Derechos de los pueblos indígenas) 2014. Available at: http://www.dof.gob.mx/constitucion/marzo_2014_c onstitucion.pdf
- National Commission Law for the Development of Indigenous Peoples (Ley de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas)
 2003. Amendment 2012. Available at: http://www.cdi.gob.mx/normateca/dmdocuments/ley-de-la-cdi.pdf
- Agrarian Law. Article 152 (Ley Agraria) 1992.
 Available at:

 http://www.ordenjuridico.gob.mx/leyes.php
 General Law for Sustainable Forest
 Development (Ley General de Desarrollo Forestal Sustentable) 2018. Available at:
- United Nations Declaration on the Rights of Indigenous Peoples. 2008. Avialable at: http://www.un.org/esa/socdev/unpfii/documents/D
 RIPS en.pdf

http://www.ordenjuridico.gob.mx/leyes.php#

Indigenous and Tribal Peoples Convention 169, 1989. Available at:
 https://www.senado.gob.mx/comisiones/desarrollosocial/docs/marco/Convenio_169_Pl.pdf

Legal Authority

 Ministry of Agrarian, Territorial and Urban Development (Secretaría de Desarrollo Agrario, Territorial y Urbano (SEDATU, Spanish acronym))

Government sources

None found

Non-Government sources

International Convention on the Elimination of All Forms of Racial Discrimination (Convención Internacional sobre la Eliminación de todas las Formas de Discriminación Racial)-Concluding observations of the Committee on the Elimination of Racial Discrimination (2012) [online]. Available at: http://tbinternet.ohchr.or q/ lavouts/treatvbodvex ternal/Download.aspx? symbolno=CERD%2fC %2fMEX%2fCO%2f16-17&Lang=en

Non-Government sources

González, J. (N.Y.)
 Indigenous Customary
 Rights in Mexico (El
 derecho
 consuetudinario
 indígena en México).
 [online]. Available at:
 https://archivos.juridica

[subsections with translations from Spanish]

Overview of Legal Requirements

Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) [Section with translations from Spanish]

The Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos) considers communities of indigenous peoples to be those that form a social, economic and cultural unit, are settled in a territory and that recognise their own authority in accordance with their purposes and customs.

The recognition of peoples and indigenous communities will be made in the constitutions and laws of the states, which must take into account, in addition to the general principles, ethnolinguistic criteria and physical settlement. In terms of management of natural resources and forestry, the Constitution recognizes and guarantees the right of peoples and indigenous communities to self-determination and, consequently, to autonomy for:

-Conserving and improve the habitat and preserve the integrity of

-Conserving and improve the habitat and preserve the integrity of their lands in the terms established in the Constitution.

- Accessing, with respect to the forms and modalities of property and land tenure established in this Constitution and to the laws of the matter, as well as to the rights acquired by third parties or by members of the community, to use and preferential enjoyment of the natural resources of the places they inhabit and occupy the communities, except those that correspond to the strategic areas, in terms of the Constitution.

Article 27: The law will provide protection to the integrity of lands of indigenous groups and will also protect the land for human settlement, regulating the use of common lands, forests and water.

Agrarian Law (Ley Agraria)

Customary Rights in Mexico in the use of natural resources (common use) are regulated by the property rights of each comunidad or ejido. In the community (comunidad) statutes or ejido

- Agrarian Legal Department (Procuraduría Agraria (PA, Spanish acronym))
- National Agrarian Registry (Registro Agrario Nacional (RAN, Spanish acronym))
- National Commission for the Development of Indigenous Peoples (Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI, Spanish acronym))

Legally required documents or records

- Basic File (Carpeta Básica) (Executed presidential decree with an affidavit of possession and final property lines)
- Proof of agrarian rights issued by the National Agrarian Registry (Registro Agrario Nacional)

- s.unam.mx/www/bjv/libr os/1/195/10.pdf
- Gallardo, M. (2009)
 Indigenous Peoples and Customary Rights (Pueblos Indígenas y derecho consuetudinario).
 [online]. Available at: http://www.redalyc.org/articulo.oa?id=1591191
- Chacón, D. (2015)
 Contributions to the
 Projection and Basis of
 the Concept:
 Indigenous Customary
 Rights (Contribuciones
 a la proyección y
 fundamentación del
 concepto: derecho
 consuetudinario
 indígena). [online].
 Available at:
 http://azc.uam.mx/publicaciones/alegatos/pdfs/82/89-04.pdf
- Cultural Survival (2018)
 Observations on the
 State of Indigenous
 Human Rights in
 Mexico. Prepared for:
 the 31st Session of
 Universal Periodic
 Review Working Group
 of the United Nations
 Human Rights Council.
 [online]. Available at:
 https://www.culturalsurvival.org/sites/default/file

regulations (local law based on the Agrarian Law) restrictions are given for the use of timber for self-consumption by the communities.

According to Mexico's agrarian legislation, *ejidos* and indigenous and non-indigenous communities have the same rights of access to forest resources. Decision-making rights within *ejidos* are also the same; being a member of the community or *ejido* is more of a determinant than whether the person is indigenous or non-indigenous.

Article 10.- The ejidos operate in accordance with their internal regulations, with no limitations in their activities other than those provided by law. Its regulations will be registered in the National Agrarian Registry, and must contain the general bases for the economic and social organization of the ejido that are freely adopted, the requirements for admitting new ejidatarios, the rules for the use of the lands of common use, as well as the other provisions that according to this law should be included in the regulation and the others that each ejido considers pertinent.

Basic file (carpeta blanca) is a set of core documents registered, which establishes the creation, constitution and recognition of ejidos and communities.

It is integrated by the presidential resolution or judgment of the Agrarian Courts, certificate of possession (article 48), demarcation and definitive plan (article 66 and 160).

National Commission Law for the Development of Indigenous Peoples (Ley de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas)

The National Commission Law for the Development of Indigenous Peoples (Ley de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas) provide the competences of the National Commission for the Development of Indigenous Peoples, that its purpose is to guide, coordinate, promote, support, encourage, monitoring and evaluating public programs, projects, strategies and actions for development, integral and sustainable development of

- <u>s/Mexico%20UPR%202</u> 018.pdf
- Stavenhagen, R. (N.Y.)
 Indigenous Peoples
 and their Rights (Los
 Pueblos Indígenas y
 sus derechos). [online].
 Available at:
 http://www.museo-etnografico.com/pdf/pu
 ntodefuga/170111stave
 nhagen.pdf
- Bárcenas F. (2010)
 Legislation and
 Indigenous Rights in
 Mexico (Legislación y
 Derechos Indígenas en
 México). Available at:
 https://site.inali.gob.mx/pdf/Legislacion_Derechos_Indigenas_Mexico.p
 df
- Carrillo (2018) New
 Forestry Law, a window
 of opportunity for our
 forests (Nueva Ley
 Forestal, una ventana
 de oportunidad para
 nuestros bosques)
 [online]. Available at:
 https://mexico.correspo
 nsables.com/actualidad
 /nuevley-forestalventana-oportunidadnuestros-bosques
- Hernandez Aguilar
 (2017) Corruption and power groups in Mexico
 (La corrupción y los grupos de poder en

indigenous peoples and communities in accordance with Article 2 of the Political Constitution of the United Mexican States.

On the article 14, the commission will promote sustainable development for the rational use of the regions' natural resources indigenous peoples without risking the heritage of future generations.

General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) 2018

The General Law for Sustainable Forest Development includes on the article 5 that the ownership of forest resources included within the national territory corresponds to ejidos, communities, indigenous peoples and communities, natural persons or moral, the Federation, the States, the Federal District and the Municipalities that own the land where they are located. The procedures established by this Law shall not alter the property regime of said lands.

Article 32 from the General Law for Sustainable Forest Development mentions that the following is mandatory criteria for forestry policy of a social nature:

I. Respect of the knowledge of the nature, culture and traditions of peoples and communities indigenous peoples and their direct participation in the elaboration and execution of forestry programs of the areas in which they live, in accordance with the Law of Sustainable Rural Development and others regulations. Article 33, thefollowing criteria is mandatory for forestry policy of an environmental and forestry nature:

X. The conservation of the biodiversity of forest ecosystems, as well as the prevention and combat theft and illegal extraction of those, especially in indigenous communities.

Article 72. The Secretariat will establish the necessary procedures and mechanisms, so that the titles or documents that contain the authorizations, are translated into the languages of the Applicants or holders of forest land belonging to peoples and communities indigenous peoples, or to ensure that their content is interpreted. When an authorization may affect the habitat of an indigenous community, the authority must seek the opinion of the

Mexico). Available at: https://revistainternacionaltransparencia.org/wp-content/uploads/2017/08/10.-Salvador-Hernandez.-.pdf

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the rights of traditional or indigenous peoples.

representatives of said community. The Secretariat, in coordination with the dependencies and entities of the Federal Public Administration competent authorities, will verify that the harvesting of forest resources is carried out by guaranteeing rights that the Law recognizes to the indigenous communities. Article 102, the harvetsing and uses for commercial or scientific purposes of biological forest resources must recognize the rights of indigenous communities to property, knowledge and use of local varieties.

Article 105, the Commission should promote and support the traditional biological knowledge of indigenous peoples and communities and ejidos, as well as the promotion and sustainable management of trees, shrubs and herbs for self-sufficiency and for the market, of the products of the useful species, including medicines, food, construction materials, fuel wood, fodder for use domestic, fibers, oils, gums, stimulants, flavorings, dyes, insecticides, ornamental, aromatic, artisanal and honey.

Article 110 mentions that ejidos, communities, indigenous communities, small societies owners or other moral persons related to forest management, may create freely, respecting its uses and customs, a committee or auxiliary technical body in the management and forestry and commercial forest plantations, as well as in the execution and evaluation of the respective forest management plans.

Indigenous and Tribal Peoples Convention 169

Mexico ratified the Indigenous and Tribal Peoples Convention 169, on 05 Sep 1990. It's mentioned the following:
Article 2: Governments should assume the responsibility of developing, with the participation of the peoples concerned, a coordinated and systematic action with a view to protecting the rights of these peoples and ensuring respect for their integrity.
Article 3: Indigenous and tribal peoples must fully enjoy human rights and fundamental freedoms, without obstacles or discrimination. The provisions of this Convention shall apply without discrimination to the men and women of those peoples.
Article 8: When applying the national legislation to the peoples concerned, their customs or customary law should be duly taken

	into consideration. These peoples must have the right to preserve their own customs and institutions, provided that they are not incompatible with the fundamental rights defined by the national legal system or with internationally recognized human rights. Whenever necessary, procedures should be established to resolve conflicts that may arise in the application of this principle.
	Description of risk
	"Mexico has a population of 124,574,795 people. The National Population Council (CONAPO), and the Economic Commission for Latin America (ECLAC) estimate the Indigenous population to be 16,933,283 people, representing 15% of Mexico. Sixty-eight Indigenous languages and 364 dialect variations are spoken.1 The most spoken language groups include the Nahuatl, Maya, Zapoteco, Mixteco, Otomí, Totonaco, Tzotzil, and Tzeltal." (Cultural Survival, 2018 p.1) The existence of many examples (see conclusion on indicator 2 of this CNRA) mention that there are an outstanding number of cases of systematic grabbing of the land and resources of Mexico's indigenous peoples. As shown most of the reported problems are related with the exploitation of mineral. As example of the national trend, through consultations with experts I 2016, information did come to light about conflicts concerning customary rights between private property owners and Wixarrika or Huicholes communities in northern Jalisco. Experts in these indigenous communities were consulted, and they suggested that these conflicts exist due to a lack of respect for indigenous communities' customary rights of access to forest resources. In addition, during the consultation process, two experts mentioned that there were conflicts in Sierra Tarahumara de Chihuahua due to the granting of Forest Management Plan authorisations to ejido, when the indigenous Rarámuris claimed their customary rights over
	the land.
	Mexico voted in favour of the UN Declaration on the Rights of Indigenous Peoples in 2007. But in the observations on the state of indigenous human rights in Mexico of Cultural Survival (2018, p.1), it was stated that "Mexico faces security problems that

disproportionately impact Indigenous communities. Drug violence, arbitrary arrests, and torture, and extrajudicial execution have all occurred numerous times throughout the country in the last year. According to Amnesty International, in 2017, 42,583 homicides occurred. Police are sometimes complacent in these crimes or do not report them. While legislation and reform have been enacted to address these problems, social injustice and inequality of access to justice still remain. Twenty recommendations were made specifically mentioning Indigenous Peoples concerning combatting discrimination, violence against Indigenous women, administering justice, improving education and economic welfare, ensuring prior consultation, remain not implemented." Assessment of indicator 2.3 "The rights of indigenous and traditional peoples are upheld" of this CNRA concludes there is substantial evidence of widespread violation of IP/TP rights exists in the country and there is evidence of conflict(s) of substantial magnitude pertaining to the rights of IP and/or TP. Risk conclusion This indicator has been evaluated as "specified risk.' Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities. **Trade and transport** 1.16 Applicable laws and regulations [subsections with translations from Spanish] Government sources Classification of species, Regulation pertaining to the General Law for conafor.gob.mx (N.Y.) **Overview of Legal Requirements** quantities. Sustainable Forest Development Law, Articles 93 Catalogue of Timber Regulation pertaining to the General Law for Sustainable Forest qualities - 110 (Reglamento de la Ley General de and Non-Timber Forest Development (Ley General de Desarrollo Forestal Sustentable) Desarrollo Forestal Sustentable) 2005. Resources (Catálogo Amendment 2014. Available at: de recursos forestales http://www.ordenjuridico.gob.mx/leyes.php# maderables y no This regulation establishes that the legal source for purposes of Official Mexican Norm NOM-059-SEMARNATmaderables) [online]. transporting raw forest material, products and derivatives, including sawtimber or square timber, from natural forests or plantations shall Available at: 2010. Available at: be determined on the basis of the following documents: http://dof.gob.mx/nota_detalle_popup.php?codigo http://www.conafor.gob .mx/biblioteca/Catalogo • Forest permits, when material is transported from the harvest =5173091 Official Mexican Norm NOM-152-SEMARNATde recursos forestale site to a storage facility, processing centre or other destination; s M v N.pdf 2006. Available at:

- http://www.profepa.gob.mx/innovaportal/file/435/1/NOM_059_SEMARNAT_2010.pdf
- Agreement establishing the specifications, procedures, technical and control guidelines for the use, transportation, storage and transformation that identify the legal origin of forest raw materials 2002 SEMARNAT((Acuerdo por el que se establecen las especificaciones, procedimientos, lineamientos tecnicos y de control para el aprovechamiento, transporte, almacenamiento y transformacion que identifiquen el origen legal de las materias primas forestales.) DOF. 24/12/2002. Available at: http://dof.gob.mx/nota_detalle.php?codigo=71645
 3&fecha=24/12/2002
- NOM-005-RECNAT-1997 That establishes the procedures, criteria and specifications for making use, transport and storage of bark, stems and complete plants of forest vegetation (Que establece los procedimientos, criterios y especificaciones para realizar el aprovechamiento, transporte y almacenamiento de corteza, tallos y plantas completas de vegetación forestal). Available at: http://www.ordenjuridico.gob.mx/Documentos/Federal/wo68741.pdf

Legal Authority

- Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT, Spanish acronym))
- Federal Environmental Protection Agency (Procuraduría Federal de Protección al Ambiente (PROFEPA, Spanish acronym))

Legally required documents or records

- PROFEPA Report
 (Informe de Profepa)
 (2015) Available at:
 https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anual_de_Actividades_PROFEPA_2015.pdf
- PROFEPA (2017)
 Annual Report (Informe Annual) [online].

 Available at:
 https://www.gob.mx/cm s/uploads/attachment/fil e/311596/Informe de a ctividades profepa 201 7.pdf

Non-Government sources

Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). México, Conseio Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m x/wpcontent/uploads/2018/1 0/Empresas Sociales Forestales CCMSS 20 102018.pdf

- Forest re-shipment waybills, when material is transported from a storage or processing facility to any other destination;
- Customs bills, when material (including Christmas trees) is imported or transported from a bonded warehouse to a storage or processing facility or any other destination; or
- Financial documents indicating the identification code, as stipulated by the present Regulation.

In terms of classification the law establishes:

On the Forest Managemnet Plan, the estimated volumes of harvesting will be to be included (including dates, species, turns) - more details see article 46.

For plantation, it will be required to present a report with the summary of the activities for one-year period (January-december), including among other aspects: volumes obtained/area, species - more details see article 52.

The harvesting authorisations will need to include among other information the description of the forest resource to be harvested, indicating type, quantity and volume, as well as scientific name and common species--more details see article 66.

For public entites, the notification of harvesting will include among other information the description of the forest resource to be harvested, indicating type, quantity and volume, as well as scientific name and common species -more details see article 67.

The holders of the harvesting authorisations, will need to present to the Secretary (within 30 days after the validity of the authorization) a report with the results including among other information:

- I. Number of the authorization
- II. Forest resource harvested, indicating type, quantity and volume, as well as the scientific and common name from species. Where it is not possible to specify the species, indicate gender and family III. Georeferenced sites where the harvesting has been done, indicating a federative entity, Municipality and locality. -more details see article 70.

For obtaining forest permits (remisiones), it will be required to indicate the quantity per type of forest material, product or subporducts transported-more details see article 96

Official Mexican Norm NOM-005-RECNAT-1997

- Forest permits
- Forest Management Plans (indicating scientific name of the species to be harvested, as well as aspects related with volume, following the Official Mexican Norm NOM-152-SEMARNAT-2006)
- Permits for harvesting timber in a UMA (for species included in Official Mexican Norm NOM-059-SEMARNAT-2010)
- Forest re-shipment waybill (including species, classification and quantity based on Official Mexican Norm NOM-005-RECNAT-1997)
- Customs bill
- Financial documents (invoices)

- oem.com (2015)
 PROFEPA presents 2
 before the MPF for
 illegal transport of
 ziricote in Quintana
 Roo (Presenta Profepa
 a 2 ante MPF por
 transporte ilegal de
 madera de ciricote en
 Quintana Roo). [online].
 News Article. Available
 at:
 - https://www.oem.com. mx/oem/
- FSC (2017) Public FSC FM report. [online]. Available at:
 https://info.fsc.org/certificate.php (NOTE: include on the certificate code FM/COC and the country Mexico; example:
 http://fsc.force.com/servlet/servlet.FileDownload
 ?file=00P3300000mrbc
- transparency.org
 (2018) Transparency
 International's
 Corruption Perception
 Index 2018. [online].
 Available at:
 https://www.transparency.org/country/MEX

cEAA)

Interviews with experts: Conversations with various experts from civil Mexican official norm NOM-005-RECNAT-1997 establishes the procedures, criteria and specifications for the harvesting, transporting and storing of bark, stems or stalks and complete plants from forest vegetation. These procedures, criteria and specifications are subject to review by PROFEPA.

According with the Art- 7.3 its mentionend that the SEMARNAT, through the Federal Procurator for Environmental Protection, will carry out the inspection visits and technical audits that are required to monitor compliance with the provisions included on the NOM 005.

On article 4 it's defined the Procedures, criteria and specifications for the exploitation, transport and storage of bark, stems and whole plants, including species, classification and quantity.

Official Mexican Norm NOM-152-SEMARNAT-2006

Based on the indicator classification of species, quantities, qualities; this norm establishes the criteria and specifications for Forest Management Plans, indicating that the scientific name of the species to be harvested must be presented in order to conduct harvesting, as well as aspects related with volume and other criteria related with the development of a forest management plan (see indicator 1.3 Management and harvesting planning).

On the structure of the Forest Management Plan, differences exist between advanced, intermediate and simplified forest management plans. Should be noted that intermedium and simplified FMP are not required to contain a general diagnosis of the physical and biological characteristics, and in general the contents of the FMP as in the NOM explicitly mention a section called: Dasometric study (Estudio dasométrico) where we can find the classification of species quantities and qualities within the FMPs.

Agreement establishing the specifications, procedures, technical and control guidelines for the use, transportation, storage and transformation that identify the legal origin of forest raw materials

associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the classification of timber species and their quality and quantity.

Also, consultation in 2016, with FSC auditors in the country were conducted.

2002 SEMARNAT (Acuerdo por el que se establecen las especificaciones, procedimientos, lineamientos tecnicos y de control para el aprovechamiento, transporte, almacenamiento y transformacion que identifiquen el origen legal de las materias primas forestales)

Indicates that Regional Technical Forestry Advisory Councils (Consejos Técnicos Consultivos Regionales Forestales), in coordination with state governments, shall agree on a same procedure to reproduce the unique forms (used for the identification of origin in different documents through the harvesting activity, transportation, storage and transformation of the timber) established by the present Agreement. The forms shall be reproduced with the instructions for each printed on their reverse side. The Regional Technical Forestry Advisory Councils (Consejos Técnicos Consultivos Regionales Forestales) participate on the agreement to develop procedures and forms, but they are not the legal authority to supervise the correct enforcement of the laws.

Based on consultations with experts in 2016, they mention that roundwood is transported with the following specifications: long dimensions, short dimensions, firewood, palisade timber and sawtimber.

Also, expert consulted in 2016 confirmed that the criteria for forest products transport are not uniform throughout the country, since each state has different criteria for the specification of species or groups of species. For example, in the state of Hidalgo, forest permits to transport roundwood contain species-level description, and therefore more than one forest permit can be issued for a single truck, each permit covering the transportation of a particular species. In the state of Puebla, on the other hand, forest permits to transport timber are filled out on the genus level (*Pinus spp.* and *Quercus spp.*), a situation which is prevalent in the country. Nevertheless, the future trend is to issue permits at the species level.

In the states mentioned above, in Hidalgo SEMARNAT issues permits based on the estimates of products given in the Forest Management Plan and of what was harvested (one permit is given

		Norm NOM-059-SEMARNAT-2010
		Define the Environmental protection-Native species of Mexico from Wild flora and fauna-Risk categories and specifications for inclusion, exclusion or change-List of species at risk. This Official Mexican Standard aims to identify the species or populations of wild flora and fauna at risk in the Mexican Republic, by integrating the corresponding lists, as well as establishing the criteria for inclusion, exclusion or change of risk category for the species or populations, through a method of assessing their extinction risk and is mandatory in the entire National Territory, for individuals or corporations that promote the inclusion, exclusion or change of wild species or populations in any of the categories of risk, established by this Standard.
		Description of risk
		The Corruption Perception Index of Mexico is 28/100 (2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 -very clean) (transparency.org (2018)). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). Corruption can directly relate to the risk of having wrong data (species, volumes) on transport documentation. According to the legal requirements, Forest Management Plans must specify the the complete scientific name of harvested species, regardless of that risk level or whether any of the species listed in the NOM-059-SEMARNAT-2010 are to be extracted. Experience based on the review of Forest Management Plans in temperate as well as tropical rainforests has shown that this requirement is fulfilled as stipulated in the law (based on consultations in 2016 with FSC auditors in the country and reviewing public reports from FSC authorities). In addition, harvesting authorisations are issued according to species. However, in the case of temperate forests, species-level information is no longer included when Forest Management Plans are modified and SEMARNAT issues
	FSC-CNRA-MX V1-0	

for long dimensions and another for short dimensions), whereas in the state of Puebla, the same permit can be used for long or short

dimensions.

authorisation for that modification (e. g. in case of plagues, impact of cyclones). Rather, only genus-level classifications are included for pine (<i>Pinus spp.</i>), oak (<i>Quercus spp.</i>), fir (<i>Abies sp.</i>) and other leafy species (<i>Alnus sp.</i> , <i>Arbutus sp.</i>). Although this does not amount to a particular risk of illegality, it suggests that harvesting may not be performed according to the volume determined during the inventory of each species. In addition, categorising the various species by group or genus poses a risk that species in an at-risk category contained in the NOM-059-SEMARNAT-2010 may be included in the harvest. Further, one case was reported by the Mexican Editorial Organization (Organización Editorial Mexicana) in 2015, in which a ciricote species (<i>Cordia dodecandra</i>) was transported with documentation for pine (<i>Pinus</i> sp.). Other similar situations were also mentioned by the consulted experts that allow to conclude there is a national trend of incorrect classification of species, quantities and qualities, of the harvested material.
Althought, based on the PROFEPA annual reports (2015 and 2017) it was mentionned the main illegal activity related with this section was: harvest more volumes of timber than the ones included on the forest management plan and so, the misclassification on the documents, for example the xtraction of healthy timber (without plagues or diseases) under sanitation notification (misclassifications on official documents).
Moreover, PROFEPA (2017) reports that at national level, the forestry-related public claims were the most common with a total of 2, 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report. (PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171 surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of 74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the

environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances. Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity. evident in the regions and in the contrast between the wood seized. of the order of 18 thousand cubic meters per year (PROFEPA, 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017] ... are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has failed in its regulatory role by generating a series of heavy, onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27)

Risk conclusion This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities. [subsections with translations from Spanish] 1.17 Trade Applicable laws and regulations **Government sources** and transport **Overview of Legal Requirements** Regulation pertaining to the General Law for PROFEPA (2012) Sustainable Forest Development Law. Articles 93 Annual Report (Informe - 110 (Reglamento de la Ley General de Annual) [online]. Regulation pertaining to the General Sustainable Forest Desarrollo Forestal Sustentable) 2005. Available at: Development Law (Reglamento de la Ley General de Desarrollo Amendment 2014. Available at: http://www.profepa.gob. Forestal Sustentable) http://www.ordeniuridico.gob.mx/leves.php# mx/innovaportal/file/532 Agreement establishing the specifications, 2/1/iap 2012 260813.p Transporters, responsible parties and owners of storage and procedures, technical and control guidelines for processing facilities, as well as those in possession of raw forest cmic.org (2015) materials and products and derivatives, including sawn or square the use, transportation, storage and transformation that identify the legal origin of timber, shall demonstrate the legal source when required by the Documentation to forest raw materials 2002 SEMARNAT ((Acuerdo demonstrate the legal competent authority. por el que se establecen las especificaciones. source of raw forest procedimientos, lineamientos tecnicos y de materials, products and Raw forest materials, products and derivatives whose legal source derivatives. [online]. control para el aprovechamiento, transporte, shall be demonstrated include: Branchwood, stumps, chips, roots and charcoal; almacenamiento y transformacion que Available at: identifiquen el origen legal de las materias primas Manually squared, sawtimber, worked, rough or planed, http://www.cmic.org/ forestales) DOF. 24/12/2002. Available at: profepa.gob.mx (2015) beams, stakes, trunks, ties, posts, planks, boards, square http://dof.gob.mx/nota_detalle.php?codigo=71645 Vigila profepa el panels and blocks: 3&fecha=24/12/2002 cumplimiento de la lev Pallets and packaging boxes and wrapping; Sap, glues, waxes and latex, as well as other natural exudate; Customs Law, Articles 2, 36 A (Ley Aduanera) en la importacion y 1995. Amendment 2018. Available at: Complete plants, bark, leaves, shoots, rhizomes, stems, forest exportacion de madera http://www.ordeniuridico.gob.mx/leves.php# soils, leaf mould, mushrooms, stalks; and en puerto progreso, Yucatan. [online]. News Flowers, fruits, seeds and fibres from forest vegetation. Report. Available at: Legal Authority http://www.profepa.gob. For purposes of transporting raw forest material, and products and mx/innovaportal/v/7805/ derivatives, including sawtimber or square timber, from natural Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y 1/mx/vigila profepa el forests or plantations, the legal source of the timber shall be cumplimiento de la le recognized on the basis of the following documents: Recursos Naturales (SEMARNAT, Spanish

acronym)

v en la importacion v

exportacion de made

• Forest re-shipment waybills, when transported from a storage

or processing facility to any other destination:

 Federal Environmental Protection Agency (Procuraduría Federal de Protección al Ambiente (PROFEPA, Spanish acronym)

Legally required documents or records

- Forest permits
- Permit to harvest timber in a UMA (for species contained in NOM-059-SEMARNAT-2010)
- Forest re-shipment waybill (based on specification of the DOF 2002)
- Customs bill
- Financial documents (invoices)

- <u>ra_en_puerto_progreso_</u> <u>yucatan.html</u>
- profepa.gob.mx (2010)
 Topics addressed by
 PROFEPA (Temas que
 atiende PROFEPA)
 [online]. Available at:
 http://www.profepa.gob.
 mx/innovaportal/v/52/1/
 mx.wap/principales_te
 mas_que_atiende.html
- PROFEPA (2010)
 PROFEPA Impounds
 Timber through StateLevel Operations
 (Asegura Profepa
 madera en operativos
 estatales). [online].
 Available at:
 http://www.profepa.gob.
 mx/innovaportal/v/5406/
 1/mx.wap/asegura_prof
 epa_51741_m3_de_ma
 dera_en_operativos_es
 tatales.html
- PROFEPA (2015)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anual_de_Actividades_PROFEPA_2015.pdf
- PROFEPA (2016)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/fil

- Customs bills, when imported and transported from a bonded warehouse to a storage or processing facility or any other destination (includes Christmas trees); or
- Financial documents indicating the identification code, as stipulated by the present Regulation.

Owners of forest land and commercial forest plantations interested in obtaining forest permits shall request them from the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales).

The timber may be transported only with the required transport documents specified in the Regulation pertaining to the General Law for Sustainable Development (Ley General de Desarrollo Forestal Sustentable). These documents can be inspected only by PROFEPA inspectors. The same legal requirements for trade and transport apply for all types of forests and plantations in all types of ownership.

PROFEPA, Procuraduría federal de protección al ambiente (Federal Attorney for Environmental Protection) role is to do inspections on forest, centers of transformation, highways (check trucks) to validate the compliance with law. Then the reports made by PROFEPA are sent to SEMARNAP.

Customs Law

Article 2: define the authorities and definitions included on the law. Article 36A: For the purposes of article 36, in relation to article 6o. of this Law, and other applicable legal provisions, the customs agent, the customs agency and those who introduce or extract goods from the national territory to be assigned to a customs regime, are obliged to transmit in electronic or digital document as annexes to the motion, except as provided in the applicable legal provisions, the information that is described below, which must contain the acknowledgment generated by the electronic customs system, according to which it will be transmitted and presented:

I. On import:

- e/196266/Informe_de_a ctividades_2016.pdf
- PROFEPA (2017)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/311596/Informe_de_actividades_profepa_2017.pdf

Non-Government sources

- Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico, Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). México, Consejo Civil Mexicano para la Silvicultura Sostenible, AC. http://www.ccmss.org.m x/wpcontent/uploads/2018/1 0/Empresas Sociales Forestales CCMSS 20 102018.pdf
- Hernández, A. (2013)
 Increases carbon contraband in Yucatan (graph). (Aumenta contraband de carbon en Yucatan (grafico)).
 [online]. Available at:

- a. The relative to the value and other data related to the marketing of the merchandise, contained in the digital tax receipt or equivalent document, when the customs value of the same is determined according to the transaction value, declaring the corresponding acknowledgment that is foreseen in article 59-A of this Law.
- b. That contained in the bill of lading, packing list, guide or other transport documents, and required by the Tax Administration Service by means of rules, declaring the acknowledgment provided in article 20, section VII of this Law or the corresponding transport document number.
- c. The one that verifies compliance with the regulations and non-tariff restrictions on imports, which have been issued in accordance with the Foreign Trade Law, provided that they are published in the Official Gazette of the Federation and are identified in terms of the tariff fraction and the nomenclature that corresponds to them according to the Tariff of the Law of the General Taxes of Importation and of Exportation.
- d. The one that determines the origin and origin of the goods for the purposes of the application of tariff preferences, countervailing duties, quotas, country of origin marking and other measures established for that purpose, in accordance with the applicable provisions.
- e. The digital document that shows the guarantee made in the customs account of guarantee referred to in article 84-A of this Law, when the declared value is lower than the estimated price established by the Secretariat.
- f. The opinion issued by the legal entities authorized in accordance with article 16-C, second paragraph, section I of this Law, which endorses the weight, volume or other characteristics inherent to the goods or, where appropriate, the current certificate that endorses that the measurement mechanisms with which the importer counts are duly calibrated in the terms of the second paragraph, section II of said article.

The information referred to in this subsection shall only be applicable in the case of the clearance of goods established by the Tax Administration Service through rules, which by their nature require specialized equipment, systems or instruments in terms of article 16-C of this Law.

- http://sipse.com/milenio/aumenta-el-trafico-ilegal-de-carbon-vegetal-en-yucatan-48334.html
- Delgado, W. (2015)
 Increases wood
 depredation (Aumenta
 depredacion de
 maderas). [online].
 Available at:
 http://expresocampeche.com/notas/estado/20
 15/06/18/aumentadepredacion-demaderas/
- FSC (2017) Public FSC FM report. [online]. Available at:

 https://info.fsc.org/certificate.php (NOTE: include on the certificate code FM/COC and the country Mexico; example:

 http://fsc.force.com/servlet/servlet.FileDownload?file=00P3300000mrbccEAA)
- Ministry of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales) (2016) Statistical Yearbook of Forestry Production 2015. Available at: https://www.gob.mx/cm

In the case of goods that can be identified individually, the information regarding the serial numbers, part, brand, model or, failing that, the technical or commercial specifications necessary to identify the goods and distinguish them from similar ones, when said data exist This information must be included in the information transmitted regarding the value and other marketing data of the merchandise. Notwithstanding the foregoing, companies with export programs authorized by the Ministry of Economy will not be obliged to identify the goods when they make temporary imports, provided that the imported products are components, supplies and semi-finished products, provided for in the corresponding program; When these companies choose to change to the definitive import regime, they must comply with the obligation to transmit the serial numbers of the goods that they temporarily imported.

In the case of re-expeditions, the provisions of article 39 of this Law shall apply.

II. In export:

- a. The relative to the value and other data related to the commercialization of the merchandise, contained in the digital tax receipt or equivalent document, declaring the acknowledgment provided in article 59-A of this Law.
- b. The one that verifies compliance with the non-tariff export regulations and restrictions, which have been issued in accordance with the Foreign Trade Law, provided that they are published in the Official Gazette of the Federation and are identified in terms of the tariff fraction and the nomenclature that corresponds to them according to the Tariff of the Law of the General Taxes of Importation and of Exportation.

In the case of other customs regimes, the annexes to the petition shall be those provided for by the applicable provisions, according to which the information shall be transmitted and presented in electronic or digital document, in accordance with the provisions of this article and 6th, of this Law.

For the purposes of sections I and II of this article, the Tax Administration Service may require that the request or consolidated

- s/uploads/attachment/file/282928/2015.pdf
- transparency.org
 (2018) Transparency
 International's
 Corruption Perception
 Index 2018. [online].
 Available at:
 https://www.transparency.org/country/MEX

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with trade and transportation regulations.

Also, consultation in 2016 with FSC auditors in the country was conducted.

notice, in the case of consolidated petitions, be accompanied by the information required in accordance with international agreements signed by Mexico, even in electronic or digital message or document.

In the case of export of goods that have been imported under the terms of Article 86 of this Law, as well as of the goods that have been temporarily imported and that return in the same state, which can be identified individually, the relative information must be indicated to the serial numbers, part, brand, model or, failing that, the technical or commercial specifications necessary to identify the goods and distinguish them from similar ones, when such data exist. This information must be entered in the information transmitted electronically relative to the commercial value.

The electronic transmission of information regarding the value and other marketing data of the merchandise in the imports and exports, made by embassies, consulates or members of the foreign diplomatic and consular staff, as well as in the case of household goods, shall not be required.

It must be printed in the order, the bar code or use other means of control, with the characteristics established by the Tax Administration Service through rules.

In the case of compliance with regulations and non-tariff restrictions on animal and plant health, it must be verified in the fiscal or supervised precinct of the customs designated by the Tax Administration Service by means of rules.

NOTE: the description of laws for customs specification, related with transport. The documents listed on the custom laws will help the company to have the custom bill (listed on the documents legally required for this indicator)

The Agreement DOF 2002, it's an agreement develop by SEMARNAT in 2002 establishing the specifications, procedures, technical and control guidelines for the use, transportation, storage and transformation that identify the legal origin of forest raw materials. This norm is related with the Forest re-shipment waybill.

Description of risk It is worth mentioning at this point the process of "blanqueado" or timber laundering. Various documents (official reports from PROFEPA 2015, 2016 and 2017) and interviews with experts corroborate the finding of laundered timber on the market. For example, timber is illegally harvested to produce charcoal and this material is transported with documentation for transporting timber. This occurs in Yucatan, which transports all the charcoal it produces in this way to the northern states. The material reaches the markets even though the distances travelled are very large. In many cases. PROFEPA has intervened when called (Hernández. 2013). Based on the Ministry of Environment and Natural Resources (2016), there is information on the production of firewood and Charcoal of 721,000 m3 (11.8% of total production). but it's not included the data on how much is handled illegally. An interesting fact is that 520,388 m3 of wood / charcoal was exported in the country. PROFEPA inspectors must have enough knowledge to be able to distinguish between species of timber according to the information on the transport document, and in some cases this task is difficult. The same botanical genus covers different species that may or may not be included in NOM-059-SEMARNAT-2010, and difficult to be differenciated when the logs are in the truck, and almost impossible to distinguish, just by sight, when it is sawn timber. Certain pine species in Mexico are a good example of this (consultation with experts, FSC auditors and FSC Audit reports). In June 2015, PROFEPA indicated that the seizure of illegal timber in the state of Campeche had increased during that year. According to Delgado (2015), however, one of the problems with these seizures is that timber is confiscated from people who have permits but permits which were issued in other states (Delgado, 2015). On the article from Delgado, 2015 is reported that a trailer carrying granadillo (Platymiscium vucatanum) timber which was seized due

to inconsistencies in the documentation; the permit was issued in Chiapas, but the timber being transported had been cut in several communities in Campeche. Moreover, at national level PROFEPA (2017) reports that the forestry-related public claims were the most common with a total of 2. 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report. (PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171 surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of 74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances. Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study from Chapela (2018) in Chihuahua. Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions and in the contrast between the wood seized, of the order of 18 thousand cubic meters per year (PROFEPA, 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017] ... are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has

			failed in its regulatory role by generating a series of heavy, onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27) The Corruption Perception Index of Mexico is 28/100 (2018) (the score indicates the perceived level of public sector corruption on a scale from 0-highly corrupt to 100 -very clean) (transparency.org (2018)). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). Risk conclusion This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.18 Offshore	Applicable laws and regulations	Government Sources	[subsections with translations from Spanish]
trading and transfer	Income Tax Law (Ley del Impuesto sobre la	Not found	Overview of Legal Requirements
pricing	Renta) (determined according to company profits),		·
	Articles 76 (section XII) and 179, 180. Amended 2016. Available at:	Non-Government Sources	Income Tax Law
	http://www.diputados.gob.mx/LeyesBiblio/pdf/LIS R_301116.pdf	OECD (2017) Transfer Pricing Mexico. Available at:	Based on the Income Tax Law, the article 76 mention [translated from Spanish, p.81]:

 Federal Fiscal Code (Código Fiscal de la Federación), Articles 32-D, 76, 81 (section XVII and XL), 82 (section XVII and XXXVII), 83 (section XV), 84 (section XIII). Available at: https://www.oas.org/juridico/spanish/mesicic3_mex_anexo6.pdf

Legal Authority

 Internal Revenue Service (Servicio de Administración Tributaria (SAT)

Legally required documents or records

- Master file consistent with Annex I to Chapter V of the TPG (Transfer Pricing Guides- [Guías de Transferencia de Precios])
- Local file consistent with Annex II to Chapter V of the TPG (Transfer Pricing Guides- [Guías de Transferencia de Precios])
- Country-by-country report consistent with Annex III to Chapter V of the TPG (Transfer Pricing Guides- [Guías de Transferencia de Precios])
- Specific transfer pricing returns (separate or annexed to the tax return)

- http://www.oecd.org/tax/transferpricing/transfer-pricingcountry-profilemexico.pdf
- transparency.org
 (2018) Transparency
 International's
 Corruption Perception
 Index 2018. [online].
 Available at:
 https://www.transparency.org/country/MEX
- World Bank Worldwide Governance Indicators (2017) Database Excel. [online]. Available at: http://info.worldbank.org/governance/wgi/index _aspx#home

- "... Obtain and keep the supporting documentation, in the case of taxpayers who enter into transactions with related parties residing abroad, with which they demonstrate that the amount of their income and deductions were made according to the prices or amounts of consideration that independent parties had used in comparable operations, which must contain the following data:
- a. The name, denomination or business name, domicile and fiscal residence of the persons related to which operations are carried out, as well as the documentation that demonstrates the direct and indirect participation between the related parties.
- b. Information related to the functions or activities, assets used and risks assumed by the taxpayer for each type of operation.
- c. Information and documentation on transactions with related parties and their amounts, for each related party and for each type of operation according to the classification and with the data established in article 179 of this Law.
- d. The method applied in accordance with article 180 of this Law, including information and documentation on operations or comparable companies for each type of operation.

Taxpayers who carry out business activities whose income in the previous fiscal year has not exceeded \$ 13,000,000.00, as well as taxpayers whose income derived from the rendering of professional services had not exceeded \$ 3'000,000.00 in that year will not be required to comply with the obligation established in this section, except those that are in the case referred to in the penultimate paragraph of article 179 of this Law and those that have the character of contractors or assignees in terms of the Hydrocarbons Revenue Law."

And the Art 179 mention [translated from Spanish, p.202]: "The taxpayers of Title II of this Law, who enter into transactions with related parties residing abroad, are obliged, for purposes of this Act, to determine their cumulative income and authorized deductions, considering for such operations the prices and amounts of consideration they would have used with or between independent parties in comparable operations."

In the opposite case, the tax authorities may determine the cumulative income and authorized deductions of the taxpayers, by

- 112 of 335 -

determining the price or amount of the consideration in transactions between related parties, considering for these operations the prices and amounts of consideration they would have used independent parties in comparable operations, whether they are with legal persons, residents in the country or abroad, natural persons and permanent establishments in the country of residents abroad, as well as in the case of activities carried out through trusts. For the purposes of this Law, it is understood that the operations or the companies are comparable, when there are no differences between them that significantly affect the price or amount of the consideration or the profit margin referred to by the methods established in Article 180. of this Act, and when such differences exist, these are eliminated by reasonable adjustments. Two or more persons are considered to be related parties when one of them participates, directly or indirectly, in the administration, control or equity of the other, or when a person or group of persons participates, directly or indirectly, in the administration, control, or equity of said persons. Members of partnerships are considered to be related, as are the persons who in accordance with this paragraph are considered related parties of said members. Similarly, the head office or other permanent establishments thereof are considered related parties of a permanent establishment, as are the persons indicated in the preceding paragraph and the permanent establishments thereof. Unless proven otherwise, it is presumed that transactions between residents in Mexico and companies or entities subject to preferential tax regimes are between related parties in which the prices and amounts of the considerations are not agreed in accordance with those that would have used independent parties in comparable operations. Art 180 mentions [translated from Spanish, p.203]: the domestic legislation provides for transfer pricing methods to be used in respect of transactions between related parties: CUP, Resale Price, Cost Plus, TNMM, Profit Split. This article states that taxpayers must first apply the method set forth in (I) of such Article and may only use the methods indicated

	in (II), (III), (IV), (V) and (VI) thereof when the method set forth in (I) is inappropriate for determining if the transactions were conducted at market prices. Mexico's approach to method hierarchy is not in conflict with "the most appropriate method" approach of the TPG (Transfer Pricing Guides)- [Guías de Transferencia de Precios], given that it considers applying the guidance in paragraph 2.2 of the TPG, which inherently implies making an applicability test for each method taking into account several factors, among other tests. Regarding timber, no specific guidance is contained in the domestic legislation.
	No specific guidance is contained on the domestic legislation or regulations provide guidance specific to intra-group services transactions.
	Federal Fiscal Code, Articles 32-D, 76, 81 (section XVII and XL), 82 (section XVII and XXXVII), 83 (section XV), 84 (section XIII)
	Article 32-D (IV) [translated from Spanish, p.48]- The public sector will not contract with taxpayers that failed to submit a tax return. This section is applicable to Article 76-A of the MITL.
	Article 76 [translated from Spanish, p.85]- Penalty on omitted tax whenever it is unveiled by the tax authority and as long as the taxpayer has TP documentation that supports its determination of taxable income: 27.5% or 37.5% of the omitted amount. In the case of losses: 15% - 20% of the excess of the reported over the real losses. However, if there is no TP documentation that supports the determination of taxable income the penalty will be 55% or 75% of the omitted amount, and 30% or 40% of the excess of the reported over the real losses, respectively. Articles 81-XVII and 82-XVII [translated from Spanish, p.88 and 90]- Whenever the taxpayer fails to inform about its transactions executed with related parties as set forth in Article 76 of Income Tax Law, a penalty of MXN \$68,590 to MXN \$137,190 is imposed. Articles 81-XL and 82 XXXVII [translated from Spanish, p.88 and 90]- Whenever the taxpayer fails to submit the related parties informative returns as set forth in Article 76-A of Income Tax Law, a penalty of MXN \$140,540 to MXN \$200,090 is imposed.

scale from 0-highly corrupt to 100 -very clean) (transparency.org). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). In 2017 (latest available year) Mexico scores 16.35 (for control of corruption) on the percentile rank among all countries (the scores range from 0 (lowest rank) to 100 (highest rank) with higher values corresponding to better outcomes (World Bank Worldwide Governance Indicators, 2017). Based on lack of evidence supporting the elements of the threshold for low risk, and due to the high level of corruption reported for the country (CPI less than 50), a precautionary approach is considered. Risk conclusion Following the precautionary approach, this indicator has been evaluated as specified risk Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.	Articles 83-XV and 84-XIII [translated from Spanish, p.93 and 94] - Whenever the taxpayer fails to identify transactions executed with related parties residing abroad and report them accordingly to Article 76 of Income Tax Law in its accounting records, a penalty of MXN \$1,550 to MXN \$4,670 is imposed for each transaction. Description of risk Reviewing information from OECD, it was noted that legal instruments and governmental institutions guarantee compliance with transfer pricing and that those who wish to conduct trade transactions overseas must comply with the applicable regulations. However, no information has been found about the enforcement of the existing laws related with Transfer pricing. Should be noted, that no evidences were found related to forestry industry. The Corruption Perception Index of Mexico is 28/100 (2018) (the score indicates the perceived level of public sector corruption on a
for low risk, and due to the high level of corruption reported for the country (CPI less than 50), a precautionary approach is considered. Risk conclusion Following the precautionary approach, this indicator has been evaluated as specified risk Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored,	scale from 0-highly corrupt to 100 -very clean) (transparency.org). Mexico is positioned as the number 138 out of 180 countries (the country in the 1st position has the highest score). In 2017 (latest available year) Mexico scores 16.35 (for control of corruption) on the percentile rank among all countries (the scores range from 0 (lowest rank) to 100 (highest rank) with higher values corresponding to better outcomes (World Bank Worldwide
Following the precautionary approach, this indicator has been evaluated as specified risk Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored,	for low risk, and due to the high level of corruption reported for the
evaluated as specified risk Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored,	Risk conclusion
	evaluated as specified risk Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored,

1.19 Custom regulations

Applicable laws and regulations

- Customs Law, Articles 2, 36A (Ley Aduanera)
 1995. Amendment 2018. Available at: http://www.ordenjuridico.gob.mx/leyes.php#
- Regulation pertaining to the Customs Law.
 (Reglamento de la Ley Aduanera) 2015. Available at: http://www.ordenjuridico.gob.mx/leyes.php#

Legal Authority

 Ministry of the Treasury and Public Credit (Secretaría de Hacienda y Crédito Público (SHCP, Spanish acronym))

Legally required documents or records

- Commercial invoice
- Customs "entrusting letter" (Encargo conferido) (authorising the customs broker to process the documents on behalf of the exporter)
- Instructional letter to the customs broker (specific and detailed information about the operation, delivered directly to the customs broker)
- Import/export licence (pedimento de importación/exportación)
- Packing list
- · Certificate of origin
- Phytosanitary certificate
- Transport document
- Documents that evaluate compliance with nonduty regulations and restrictions, such as: health certificates, quality certificates, permits, etc.

Government sources

- Official Web site from the SHCP (Secretaria de hacienda y Crédito Público) -SAT (Servicio de Administratión Tributaria) - Customs Operation Manual (Manual de Operación Aduanera) with all information for custom users:
 - http://omawww.sat.gob. mx/moa/Paginas/defaul t.htm
- PROFEPA (2015)
 Annual Report (Informe Annual) [online].
 Available at:
 https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anual_de_Actividades_PR

 OFEPA 2015.pdf
- PROFEPA, (2010)
 IMPIDE PROFEPA
 EXPORTACIÓN
 ILEGAL DE MADERA
 DE GRANADILLO
 [online]. Available at:
 http://www.profepa.gob.
 mx/innovaportal/v/5392/
 1/mx.wap/impide_profe
 pa_exportacion_ilegal_de_madera_de_granadi
 llo.html
- CONAFOR (2014) Estimation of the

[subsections with translations from Spanish]

Overview of Legal Requirements

Customs Law and its Regulation (Ley y Reglamento de la Ley Aduanera)

This law and regulation deal with the entry and exit into national territory of merchandise and the means used to transport it, the customs agency and its activities or events stemming therefrom, or from said entrance and exit of merchandise.

It will be required (based on the article 6), when presenting information to the customs authorities, to use the customs electronic system through an electronic or digital document, as required, using advanced electronic signature or digital stamp. For more information on how to address this electronic notification see Chapter II from the *Custom Law and its regulations*. In term of taxes, see article 95 to 101 (for import) and from article 102 to 103 (for export).

In order to export timber, the following need to be followed:

- Register on the Federal Register of Taxpayers (Registro Federal de Contribuyentes) (more details on: https://www.mi-rfc.com.mx/)
- Identified the custom tariff classification for the product to be exported and pay the taxes for export based on the regulations from Mexico and the country to be exported the timber.
- Documentation required:

Commercial invoice

Customs "entrusting letter" (Encargo conferido) (authorising the customs broker to process the documents on behalf of the exporter)

Instructional letter to the customs broker (specific and detailed information about the operation, delivered directly to the customs broker)

Packing list

Certificate of origin

Phytosanitary certificate

Transport document

Commercial Trade Balance for Sawtimber (Balanza comercial madera aserrada estimación) [online]. Available at: http://www.google.com. mx/url?sa=t&rct=i&q=& esrc=s&source=web&c d=3&ved=0ahUKEwiU3 0kMLNAhXL3YMKHdh 6A7wQFaqoMAI&url=ht tp%3A%2F%2Fwww.cn f.gob.mx%3A8090%2F snif%2Fportal%2Fcomp onent%2Fphocadownlo ad%2Fcategory%2F25estadistica-forestalnacional%3Fdownload %3D1229%3Ainformaci on-estadistica-de-laproduccion-forestalnacional-2015&usg=AFQiCNEp TZrI7BkYG5vlc0G0lax1 **BLVrxA**

Non-Government sources

 Benet, R. (2016) From the Amazons to Tampico: Laundering, Evasion and Trafficking of Illegal Timber (Del Amazonas a Tampico: Lavado, evasión y tráfico de madera ilegal) [online]. Documents that evaluate compliance with non-duty regulations and restrictions, such as: health certificates, quality certificates, permits, etc

Export goods of plant origin to other countries, it is necessary to consult the requirements established by the country of destination, once these requirements are met is necessary to request the International Phytosanitary Certificate (CFI) to the entity: National Service for Agrifood Health, Safety and Quality (Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria).

Regulation Customs Law (Art. 34, 64, 65, 66, 67): The import/export licence (pedimento de importación/exportación) is the official document that guarantees the entry and exit of goods in the country, this document stipulates all the details and characteristics of the process of importing products. In the Import Procedure the declaration of the goods is made, without this document it is not possible to carry out the management of it.

(Art 73) The verification of an Import/export licence is done by the Customs Agent, since it is the person legally authorized to carry out said process. In the Import/export licence, the data included is: weight, volume, characteristics, date of entry, who is responsible.

On the Official Web site from the SHCP-(Secretaria de hacienda y Crédito Público) -SAT (Servicio de Administratión Tributaria)- it's updated the Customs Operation Manual that will help any company in order to import/export timber from Mexico.

Description of risk

Although a legal and regulatory framework exists for the harvesting of timber, seizures have occurred in Mexican ports of timber intended to be illegally exported to China (stbdeacero.com, 2014; Quadratin, 2015).

Based on News Tabasco hoy (2013), in July 2013, PROFEPA seized more than 90 cubic meters of different types of tropical wood, as part of inspection devices in the country.

- 117 of 335 -

Available at:
http://m.aristeguinoticia
http://m.aristeguinoticia
http://m.aristeguinoticia
http://m.aristeguinoticia
http://m.aristeguinoticia
http://m.aristeguinoticia
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http://m.aristeguinoticia
http://m.aristeguinoticia
http://m.aristeguinoticia
<a href="s.

- stbdeacero.com (2014)
 Exportaciones ilegales
 de madera de mexico a
 china. [online]. Blog
 STB De Acero.
 Available at:
 http://stbdeacero.com/2
 014/07/17/exportacione
 s-ilegales-de-maderade-mexico-a-china/
- Quadratin, (2015) They insure timber that they intended to export illegally to China (Aseguran madera que pretendian exporter de manera illegal a China). [online]. Available at: https://mexico.quadratin.com.mx/Aseguran-madera-que-pretendian-exportar-de-manera-ilegal-a-China%C2%A0/
- Tabasco hoy (2013)
 They illegally import wood imported into Mexico (Decomisan madera importada a México ilegalmente).
 [online] Available at:

PROFEPA released a report on the "Operation of International Traffic Monitoring of Protected Species", which was carried out at seven seaports, and detailed that a pest was detected in a batch of rattan from China and a package without phytosanitary treatment. The ports reviewed were Altamira, Tamaulipas; Ensenada, Baja California; Lázaro Cárdenas, Michoacán; Manzanillo, Colima; Mazatlán, Sinaloa; Progreso, Yucatan and Veracruz (News Tabasco hoy, 2013).

Media research indicates that companies in Peru, Mexico and the United States that provide timber to the Mexican government maintain a network of timber trafficking and money laundering, and participate in tax evasion (Benet, 2016).

In Mexico, the importation of timber from the Peruvian Amazon is receiving attention due to repeated and proven accusations that a large proportion of the resources entering the country are from illegal sources. Additionally, this timber comes from Amazon forest reserves without harvesting permits and then taken out of Peru under false documentation (Benet, 2016).

In February 2016, for example, a load of timber from Peru was temporarily held in Tampico, Mexico, which contained over 154,668 m³ of tropical timber (Benet, 2016). Even though evidence demonstrated the illegal source of the timber, Mexican importers were able to bring that timber into the country because importation of timber into Mexico needs only a phytosanitary certificate, which the timber had. Mexican law says nothing about the source of the timber; that is, its legal origin does not have to be proven (Benet, 2016).

In the case of temperate forests where Pinus spp. and Quercus spp. are harvested, evidences on illegal export activities were not found during the development of this assessment. In addition, these species are not the main focus of exportation but rather are for domestic consumption. In general terms, Mexico imports more timber than it exports (CONAFOR 2014).

Based on the different sources reviewed, the main risks related to this indicatorare:

		http://www.tabascohoy.com/nota/137849 Interviews with experts: Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with customs regulations.	Export timber without the corresponding import/export licence (pedimento de importación/exportación) or using a fake licence. Export timber without any declaration (including on containers). This could be for timber traffic and money laundering (using regular exports of goods to include illegal timber and use a as traffic for laundering money) and for tax evasion (not declaring all volumes on the containers on the official documents) Risk conclusion This indicator has been evaluated as 'specified risk' Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
1.20 CITES	Applicable laws and regulations	Government sources	[subsections with translations from Spanish]
	 SEMARNAT-08-053 Procedure. Notice of Importation, Exportation or Re-Exportation Subject to CITES Permits or Certificates. Available at: https://www.gob.mx/semarnat/documentos/tramite -semarnat-08-053 Regulation pertaining to the General Wildlife Law, Articles 56, 62, 64, 66 and 67 (Reglamento de la Ley General de Vida Silvestre)2006. Amendment 2014. Available at:	biodiversidad.gob.mx (2016) CITES Structure in Mexico (Estructura CITES en México). [online]. Available at: http://www.biodiversida d.gob.mx/planeta/cites/ estructura_mexico.html SEMARNAT (N.Y.) Registry CITES. [online]. Available at: http://www.semarnat.go b.mx/sites/default/files/ documentos/document os/tramites/ff/FF- SEMARNAT-008.pdf PROFEPA (2010) PROFEPA prevents illegal export of granadillo wood (Impide PROFEPA exportación	Overview of Legal Requirements Description of responsibilities establish for CITES in Mexico: General Wildlife Department (Dirección General de Vida Silvestre, DGVS), of the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales-SEMARNAT) is the Administrative authority- This department publishes the guidelines on importing, exporting and re-exporting biological material from species included in the CITES appendices. Its functions include, among others: -issuance and review of permits and certificates -registration and monitoring of Wildlife Conservation Management Units (Unidades de Manejo para la Conservación de Vida Silvestre (UMA, Spanish acronym), scientific samples, circus, importers, and exporters, including those that relate to CITES -development and analysis of statistics on the importation, exportation and re-exportation of CITES species of interest to Mexico

Legal Authority

- General Wildlife Department (Dirección General de Vida Silvestre (DGVS, Spanish acronym)), of the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT, Spanish acronym)) – Mexico's administrative authority for CITES in consultation with the National Comission for the Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO, Spanish acronym))
- National Commission for the Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad) – Scientific authority for CITES
- Federal Environmental Protection Agency (Procuraduría Federal de Protección al Ambiente) PROFEPA – Authority over adherence and application of the Law

Legally required documents or records

- Commercial invoice
- Customs "entrusting letter" (Encargo conferido) (authorissing the customs broker to process the documents in the name of the exporter)
- Instructional letter to the customs broker (specific and detailed information about the operation, delivered directly to the customs broker)
- Packing list
- · Certificate of origin
- Phytosanitary certificate
- Transport document
- Documents that evaluate compliance with nonduty regulations and restrictions, such as: health certificates, quality certificates, permits, etc.

- ilegal de madera de granadillo) [online]. Available at: http://www.profepa.gob.mx/innovaportal/v/5392/1/mx.wap/impide_profepa_exportacion_ilegal_de_madera_de_granadillo.html
- Camarena, I. (2014) CITES in Mexico and the Mexican Strategy for the Conservation of Vegetation, 2012-2030 (CITES en Mexico y la Estrategia Mexicana para la Conservacion Vegetal, 2010-2030). [online]. Available at: http://snics.sagarpa.gob .mx/Documents/Presen taciones FIRA 2014/1 3 CITES en Mexico y la Estrategia Mexica na para la Conservaci on Vegetal 2012-2030 Isabel Camaren a Osorno.pdf
- PROFEPA (2010a)
 Crimes against
 biodiversity (Delitos
 contra la biodiversidad).
 [online] Available at:
- http://www.profepa.gob. mx/innovaportal/v/6585/ 1/mx.wap/delitos_contr a_la_biodiversidad.html
- PROFEPA (2017)
 Annual Report (Informe Annual). [online].

-preparation of the participation guidelines for Mexico and attendance of CITES forums.

The Federal Procurator for Environmental Protection (PROFEPA) is in charge of inspection and surveillance activities- **Authority of Application of the Law** (biodiversidad.gob.mx, 2016):

- Monitor the adequate compliance with the legislation established by CITES on wildlife matters through the supervision of airports, ports and borders, trade centers and illegal trafficking networks identified.
- Inspect marketing centers, controlled reproduction centers for flora and fauna and exhibition centers.
- Inspect and monitor the hunting activity (sport hunting).

CONABIO is the Scientific Authority of Mexico, with the following functions:

- Advise the CITES Authority of Mexico from a technicalscientific point of view.
- Issue non-detriment findings for applications for export, import and introduction from the sea for species contained in the CITES Appendices.
- Promote and coordinate population studies and seek funding sources, among other things, to generate useful information for Non-Detriment Findings (NDF), periodic review of appendices, amendment proposals.
- Follow up on the Convention through participation in meetings and Working Groups.
- Prepare guidelines for the participation of the Delegamex for meetings of the Scientific Committees (Flora and Fauna) and for the Conference of the Parties in coordination with the Intersecretarial Committee for the Follow-up of CITES in Mexico.
- Prepare and review working documents, proposals for amendments to the Appendices, Resolutions and Decisions related to technical and scientific aspects, as well as contribute to regional reports.
- Answer requests from the general public.
- Systematize information on CITES species.
- Promote and organize meetings, workshops and training courses, dissemination programs and identification manuals.

 CITES certificate (following the SEMARNAT-08-053 Procedure)- depending on the type of appendix the species is included; specific certificates will be required. See table on legal requirements description column 4) Available at:
https://www.gob.mx/cm
s/uploads/attachment/fil
e/311596/Informe_de_a
ctividades_profepa_201
7.pdf

Non-Government sources

- Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros v aprendizajes). [online]. Available at: http://www.ccmss.org.m x/wpcontent/uploads/2018/1 0/Empresas Sociales Forestales_CCMSS_20 102018.pdf
- stbdeacero.com (2014)
 Illegal exports of wood
 from Mexico to China
 (Exportaciones ilegales
 de madera de Mexico a
 China). [online]. News
 article. Available at:
 http://stbdeacero.com/2
 014/07/17/exportacione
 s-ilegales-de-madera de-mexico-a-china/
- CITES (2018) CITES Trade Database.

Establish collaboration with Scientific Authorities of other Parties that share species with Mexico or that present similar problems (Latin America, megadiverse countries) and synergy with other organisms (e.g. CBD, FAO, NABCI).

Federal Penal Code 1931

Article 420: mention that the following illicit activities: traffic, capture, own, transport, collate, enter the country, remove from the country, of the species of flora, fauna, terrestrial or aquatic in closed, considered endemic, threatened, in danger of extinction, subject to special protection (NOM-059-SEMARNAT-2010 and PROFEPA, 2010a), or regulated by an international treaty of which Mexico is part (CITES); will have a penalty from one to nine years in prison and for the equivalent of three hundred to three thousand days fine. And (ingravescent case), additional penalty of up to three more years of imprisonment and up to a thousand days additional fine, when the conducts described in this article are carried out in or affect a protected natural area, or when they are carried out for commercial purposes.

Customs Law and Regulation (Ley y Reglamento de la Ley Aduanera)

This law and regulation deal with the entry and exit into national territory of merchandise and the means used to transport it, the customs agency and its activities or events stemming therefrom, or from said entrance and exit of merchandise.

In order to export timber, the following need to be followed:

- Register on the Federal Register of Taxpayers (Registro Federal de Contribuyentes) (more details on: https://www.mirfc.com.mx/
- Identified the custom tariff classification for the product to be exported and pay the taxes for export based on the regulations from Mexico and the country to be exported the timber.
- Documentation required:
 Commercial invoice

- 121 of 335 -

Customs "entrusting letter" (Encargo conferido) (authorising the [online]. Available at: https://trade.cites.org/ customs broker to process the documents on behalf of the CITES & CMS & UN exporter) Environment & Instructional letter to the customs broker (specific and detailed European Union (N.Y.) information about the operation, delivered directly to the Species +. [online]. customs broker) Available at: Packing list https://speciesplus.net/ Certificate of origin CITES (N.Y.) Text from Phytosanitary certificate CITES: Art. IX. [online]. Transport document Available at: Documents that evaluate compliance with non-duty regulations https://cites.org/eng/dis and restrictions, such as: health certificates, quality certificates, c/text.php#IX permits, etc. CITES (2003) Second Export goods of plant origin to other countries, it is necessary to Meeting of the Working consult the requirements established by the country of destination, Group Mahagony once these requirements are met is necessary to request the International Phytosanitary Certificate (CFI) to the entity: National (Swietenia Service for Agrifood Health, Safety and Quality (Servicio Nacional macrophylla) Working group (Segunda de Sanidad, Inocuidad y Calidad Agroalimentaria). reunión del grupo de Trabajo sobre caoba Regulation Customs Law (Art. 34, 64, 65, 66, 67): The (Swietenia import/export licence (pedimento de importación/exportación) is the macrophylla)) [online]. official document that guarantees the entry and exit of goods in the Available at: country, this document stipulates all the details and characteristics https://cites.org/commo of the process of importing products. In the Import Procedure the n/prog/mwg/MWG2/Sdeclaration of the goods is made, without this document it is not MWG2-09-02-MX.pdf possible to carry out the management of it. CITES (2014) Biannual (Art 73) The verification of an Import/export licence is done by the Report CITES Customs Agent, since it is the person legally authorized to carry out Authority- 2013-2014 said process. In the Import/export licence, the data included is: weight, volume, characteristics, date of entry, who is responsible. [online]. Available at: https://cites.org/sites/de fault/files/reports/13-CITES Permits and Certificates

Within the framework of CITES, there are different types of permits and certificates (biodiversidad.gob.mx, 2016 and SEMARNAT, (N.Y.):

Permits: Export | Import

- 122 of 335 -

14Mexico.pdf (from official source

from CITES:

reports)

https://cites.org/eng/cm

s/index.php/component/cp/country/MX/national-

Quadratin (2015) They secure timber that they intended to export illegally to China (Aseguran madera que pretendian exportar de manera illegal a China). [online]. News article. Available at:
 https://mexico.quadratin.com.mx/Aseguran-madera-que-pretendian-exportar-de-manera-ilegal-a-China%C2%A0/

Interviews with experts:
Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with the marketing of CITES species.

Certificates: Re-export

Introduction from the Sea: supports international trade in CITES species taken from the wild in international waters.

Origin: they endorse international trade in Appendix III species and are issued by countries that did not include it in that appendix.

Breeding in Captivity or Artificial Reproduction: endorses that the specimens comply with these definitions in accordance with the Convention and the respective Resolutions.

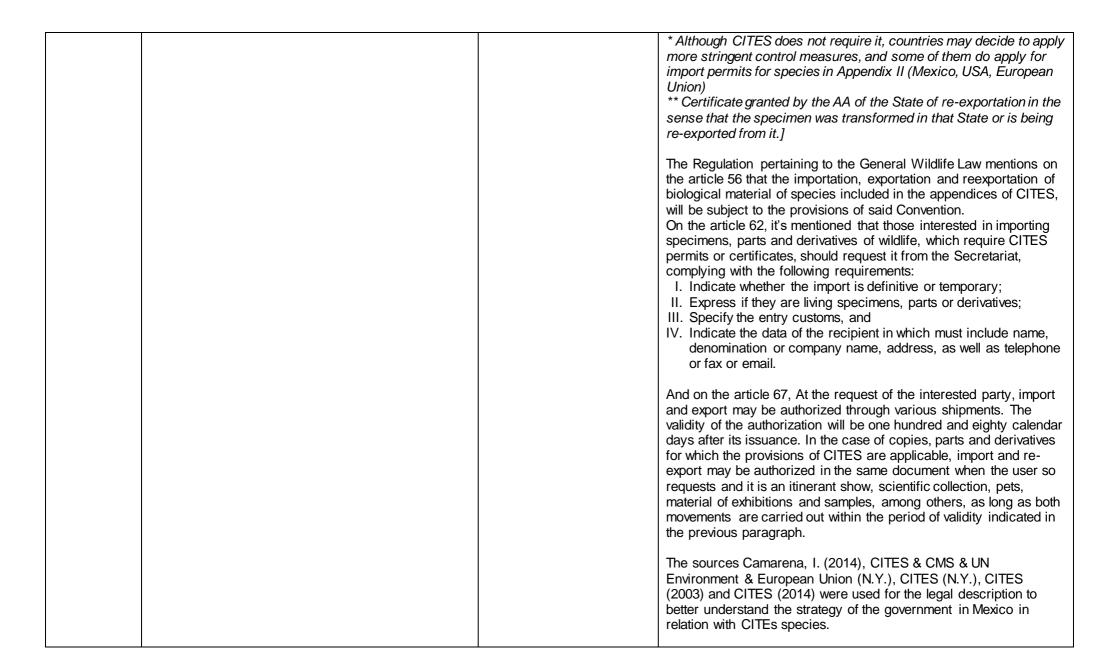
Traveling exhibition: It is required for the transboundary movement of each copy of a CITES species that belongs to the exhibit.

Pre-convention: endorses that the specimen was acquired before it was included in the appendices and that it is therefore not subject to the provisions of CITES.

Likewise, there are different codes that allow to identify in the permits and certificates the origin of the specimens and the purpose of their international trade: origin code (left table, stating codes for different origins, e.g. collected in the wild, grown in farms, artificially reproduced, etc.) and purpose code (right table, stating codes for specific purposes, e.g. commercial, scientific, personal item, educational, etc.).

Código de Origen Código de Propósito
Especímenes recolectados del medio T Comercial
W silvestre Z Parque Zoológico
R Especímenes criados en granjas (rancheo) G Jardín Botánico
Cría en cautividad o reproducción artificial Q Circo y exhibición itinerante
de especies del Apéndice I con fines S Científico
comerciales en establecimientos registrados H Trofeo de caza
ante la Secretaría CITES P Objeto personal
A Reproducción artificial M Médico (incluso investigación biomédica)
C Cría en cautividad (p.e. segunda generación E Educativo
o posteriores) Reintroducción o introducción en el medio
Nacido en cautividad (p.e. primera silvestre
B Challen Cautividad o reproducción artificial
U Origen desconocido Especímenes confiscados o decomisados L Aplicación de la ley/judicial/forense
(ilegal)
O Pre-convención
The permits and certificates must contain specific information whi is verified in the customs before exporting or importing the specimens of CITES species. The Convention uses a standardize format to ensure that the basic information to regulate international trade according to its provisions is included in the permits and certificates. Additionally, there are exemptions and special provisions for certal specimens in international trade. Requirements for Trade: The table below shows the types of permits and requirements needed depending the Appendix from CITEs the species is listed on.

Permiso de exportación
Permiso de importación
Certificado de
reexportación NDF (AC)
egal Procedencia (AA)
Transporte adecuado (A
cimen expor
imen impor
AC: Autoridad Cient
Autoridad Admi
la CITES n
algunos de
e II (México,
ficado conce
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SEMARNAT-08-053 Procedure
The SEMARNAT-08-053 Procedure (based on the article 64 and 66 from the Regulation pertaining to the General Wildlife Law) establish the procedure and additional information when the import, export or re-export is done subject to the permit or certificate of the International Convention on Trade in Endangered Species of Flora and Fauna (CITES).
Description of risk
During the assessment done in 2016 and reviewed in 2018, the forest tree species listed in CITES (2018) are in Appendix I: Abies guatemalensis and Balmea stormiae; and on Appendix II: Dalbergia spp, Guaiacum spp, Swietenia humilis and Swietenia macrophylla. Although a legal and regulatory framework exists for the harvesting of timber, seizures have occurred in Mexican ports of timber intended to be illegally exported to China (stbdeacero.com, 2014; Quadratin, 2015). Official customs data from China indicate that, in 2012, Mexico was the third largest exporter of Dalbergia retusa or Dalbergia granadillo, with 10,662 m³ according to customs data from China cited in the document Examination of Proposals to Amend CITES Appendices I and II (Examen de las propuestas de enmienda a los apéndices I y II de CITES) (PROFEPA, 2010). As mentioned (PROFEPA, 2010), PROFEPA did a precautionary secure, in the Interior Port of Manzanillo, Colima, five containers with 93 cubic meters of granadillo wood (Dalbergia sp), thereby avoiding the illegal export that was intended to be made of such forest raw material to Taiwan and the People's Republic of China. PROFEPA staff imposed a security measure on those containers inspected for not presenting the official documentation that reliably protected the granadillo wood in possession, such as: forest remissions, re-embargos or fiscal codes that contain the forest identification, as well as the phytosanitary status of the same. In addition, granadillo wood, also commonly known as sangualica, is listed in Appendix II of CITES. In addition, it appears in the NOM-059-SEMARNAT-2010, under the category of Danger of Extinction. (PROFEPA 2010).

Therefore, within the framework of the fight against trafficking and illegal export of this protected species, inspectors of PROFEPA carried out two actions: the first action secured two containers a total of 38 m3 of granadillo wood from the Port of Lázaro Cárdenas, Michoacán, bound for Taiwan (PROFEPA 2010). The second action was the securing of 55 m3 of three containers from Puerto Progreso, Yucatán, and to the People's Republic of China (PROFEPA 2010). The relevance to include this source from 2010, is because is an official report done by a control department and because during consultation in 2016 the information provided was corroborated with local expert. Based on the biannual report done by CITES (2014) authorities in Mexico, during 2012 and 2013, they confiscated 758 cubic meters of tropical timber in two seaports that led to actions in National territory with confiscation of 1,356 cubic meters of timber, 27 tons of charcoal, 9 cargo vehicles, decommissioning of three sawmills, suspension of 6 lots under forest use authorized by the misuse of the documentation and the establishment of 66 administrative procedures (sanctions). Organised gangs participate in the illegal rosewood or granadillo (Dalbergia granadillo) listed in CITES, precious timber, market which has grown over recent years because of its use in China in traditional furniture-making. Loads destined to be exported to that country have been seized over the past two years in Mexico. Loggers are interested in this tree because of its commercial value: inspections and seizure operations have been conducted in Yucatan, Quintana Roo, Tabasco, Campeche and Chiapas (Blog STB De Acero, 2014). Finally, at national level, PROFEPA (2017) reports that the forestryrelated public claims were the most common with a total of 2, 091 claims for 2017, which accounts for 38% of the total affected resource for that year. From the total of claims received, 68 % were declared addressed and concluded by the PROFEPA and around 32% were still in process of addressing by the time of the report. (PROFEPA, 2017) In general, in regard of forestry resources at national level, PROFEPA (2017) registers a total of 3, 417 inspections, 1,171

surveillance visits and 226 operatives. Those lead to the precautionary securement of 18, 338 cubic meters of timber, 294 tons of vegetal coal and 255 vehicles, and the decommissioning of 74 sawmills. Additionally, 55 people were channelized to the relevant authorities accused with charges of crimes against the environment (PROFEPA, 2017). There is no information on the specific reasons for the non-compliances. Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions and in the contrast between the wood seized, of the order of 18 thousand cubic meters per year (PROFEPA. 2018), and the one that is trafficked illegally, estimated in 14 million cubic meters per year from the difference between apparent consumption, legal production, exports and imports (CONAFOR, 2016). The limited surveillance actions of PROFEPA [see above figures for 2017] ... are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28) The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has failed in its regulatory role by generating a series of heaw. onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)," And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations. which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the

			governmental apparatus. These difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27) Risk conclusion This indicator has been evaluated as 'specified risk'. Threshold (2) is met: (2) Identified laws are not upheld consistently by all entities and/or are often ignored, and/or are not enforced by relevant authorities.
	Di	ligence/due care procedures	
1.21 Legislation requiring due diligence/due care procedures	There is no legislation on due diligence/due care procedures in Mexico. Applicable laws and regulations N/A Legal Authority N/A Legally required documents or records N/A	N/A	N/A

Recommended control measures

The recommended control measures here are only indicative in nature, and are not mandatory. Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable.

Indicator	Recommended control measures
1.1 Land tenure and management rights	Land registry shall confirm ownership and validity of property deed.
	Tax authorities shall confirm valid tax registration.
	The business register shall confirm valid business licenses to operate within the jurisdiction.
	In areas with land ownership conflicts, consultation with neighbours, local communities and others shall confirm that land tenure rights are clear.
	Stakeholder consultation shall confirm that registration of FME has been granted following legally prescribed processes
	Stakeholder consultation shall confirm that legal status of the operation or rights for conducting the established activities are not subject to court orders or other legally established decisions to cease operations.
	The management contract or other agreements with the owner shall indicate clear management rights.

Indicator	Recommended control measures
	Valid business registration documents shall exist.
	The issuance of legal rights and registration shall be subject to public disclosure prior to commencement of any activities within FMUs.
	• Inspections of harvesting site shall confirm that harvesting takes place within property limits (including felling, transport and log landings).
1.2 Concession licenses	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.
1.3 Management and harvesting planning	• Verify the existence of a Forest Management Plan (Plan de Manejo Forestal), the harvest extraction rate of the species in the UMA or the
	plantation harvesting notice (Aviso) for commercial plantations, approved by SEMARNAT.
	Verify the existence of a Forest Technical Service Provider (Prestador de Servicios Técnicos Forestales) duly registered as responsible for
	developing and implementing the Forest Management Plan.
	Undertake a review of documentation that reflects the process for authorisation of the Forest Management Plan (Plan de Manejo Forestal)
	and/or the Environmental Impact Statement, including harvesting reports as well as complementary information such as maps showing
	management areas and neighbouring areas.
	Undertake a review of the commitment to reforestation or commitments established in the Forest Management Plan (Plan de Manejo
	Forestal).
	Have a silviculture and environmental monitoring system.
1.4 Harvesting permits	Maps showing harvesting areas (in compliance with the harvesting plan).
	Verify the existence of a Forest Management Plan (Plan de Manejo Forestal), the harvest extraction rate of the species in the UMA or the
	plantation harvesting notice (Aviso) for commercial plantations, approved by SEMARNAT.
	Verify that the Forest Management Plan (Plan de Manejo Forestal) has been authorised, and that authorisation has been given for the
	extractive harvesting of specimens, parts or derivatives, modality B for specimens of at-risk wildlife species (Management of a UMA) or
	Proof of Plantation Registration (Constancia de Registro de Plantación)
	Verify through field inspection that the Forest Permit (Remisiones Forestales for natural forests) or Forest Re-shipment (reembarque)
	forestal para plantaciones) have have been obtained and issued
	Undertake field review of volumes, species and location of forest harvesting in accordance with the authorisation.
1.5 Payment of royalties and harvesting fees	N/A
1.6 Value added taxes and other sales taxes	There shall be consultation with financial authorities to verify that all required income and profit taxes have been paid
	Verify the existence of a Tax Identification Number (Cédula de Identificación Fiscal).
	Verify issuance of invoices by the timber providers.
	Verify that species, volumes, and prices of timber are in accordance with the description on the invoice.
	Cross-check between invoices issued with permits and/or forest shipments.
	Review monthly value-added tax returns.
	Submit annual tax returns.
1.7 Income and profit taxes	Verify the issuance of invoices by timber providers.
	Verify that the species, volumes and prices of timber are in accordance with the description on the invoice.
	Cross-check between invoices issued with permits and/or forest shipments.
	Review monthly value-added tax returns.
10 7: 1	Submit payment of annual return.
1.8 Timber harvesting regulations	Harvesting must be duly authorised by SEMARNAT.
	Harvesting must be implemented within the borders of the property and directed at the authorised species. Waiting the field the degree to this in the forest property and directed at the authorised species.
	Verify in the field the degree to which the forest management plan is implemented and respected, especially with regard to minimum cutting
	diameter, species, volumes, maintenance of the residual timber stand, respect of at-risk conservation species, and maintenance of
	protection areas.
	Verify the existence of the Technical Audit Prevention report with the FMU (Forest Management Unit) (UMF- Unidad de Manejo Forestal).

Indicator	Recommended control measures
	Verify forest permits and annual harvesting reports.
	Regardless of whether the actions by the Forest Technical Service Providers fall within the framework of the law in terms of their
	responsibilities, their performance should be verified by SEMARNAT, as should their management history of other properties the Provider
	has managed.
	Consult with management units or neighbouring plantations to obtain their opinions about the management actions implemented.
	Put in place a silviculture and environmental monitoring system.
1.9 Protected sites and species	Verify through the UMA that harvesting authorisation for species in at-risk categories or authorisation of the Forest Management. Plan within
·	the Protection Area or communally-owned reserves has been granted.
	• Verify, in the field, the location of harvesting and its relationship with any of the eligible management categories in the protection area.
	Verify authorisation on properties with harvesting of species in at-risk categories with SEMARNAT
1.10 Environmental requirements	Review PROFEPA district reports to identify the degree of compliance with environmental protection measures. In addition, obtain
'	information about administrative procedures.
	Review annual reports presented to SEMARNAT with respect to the impact of harvesting and to compliance with Forest Management
	Plans.
	In the field, verify the implementation of the preventive or mitigation measures proposed in the Forest Management Plan.
	Verify the existence of Technical Audit Prevention report with the FMU (Forest Management Unit) (UMF- Unidad de Manejo Forestal).
	• In the field, verify protective measures for water sources and soil erosion, use of chemical products, transport during suitable periods and
	other environmental measures as needed.
1.11 Health and safety	Verify worker training in the areas of health and safety and that regulations are implemented.
_	Ensure that technical and operations personnel implement measures for personal protection and use of safety equipment compatible with
	the work they perform.
	Ensure that all persons involved in forest harvesting and/or transportation work are aware of measures in place to protect their health and
	safety on the job.
	In the field, verify monitoring and implementation of the use of personal protection equipment and of measures to prevent workplace
	accidents.
	Prove enrolment of workers in the IMSS (Instituto Mexicano del Seguro Social).
	Prove enrolment of workers in public insurance (Seguro Popular).
	Ensure that contracts exist with private clinics for the provision of medical care.
1.12 Legal employment	Verify that there are labour contracts between employer and employee, and that these contracts comply with the norms legally established
	by law.
	Verify that workers' enrolments in public insurance (Seguro Social) or contracts with private insurance comply with legal norms.
	Verify that workers have the freedom to legally organise and exercise their rights.
	 In the field, conduct interviews to identify salary ranges of workers and verify that these correspond to legislated minimum salary.
	Verify acts of ejidales and community assemblies.
1.13 Customary rights	Verify the source of the timber through the forest permit.
	Request assembly minutes documenting the agreement of the indigenous community in question to harvest the forests, if the community
	owns the property.
	Request assembly minutes documenting the indigenous community's granting of free access to the resources in accordance with
	customary rights.
4445	Consultation with external organizations working with these communities.
1.14 Free prior and informed consent	Where applicable a proof that a Free, Prior and Informed consent have been made with stakeholders. The prior and the proof that a Free, Prior and Informed consent have been made with stakeholders.
4.45 15	Interviews with all stakeholders to verify that there has been agreement between the management and all applicable stakeholders
1.15 Indigenous peoples rights	Verify the source of the timber through the forest permit.

Indicator	Recommended control measures
	Request assembly minutes documenting the agreement of the indigenous community in question to harvest the forests, if the community
	owns the property.
	Request assembly minutes documenting the indigenous community's granting of free access to the resources in accordance with
	customary rights.
	Consultation with external organizations working with these communities.
1.16 Classification of species, quantities,	Evidence of these classifications shall be provided upon request (photographs of labelling).
qualities	Physical control shall be established to verify that the material present equals what has been invoiced and marked.
	Verify annual reports presented to SEMARNAT.
	Correctly classify products (species, quantities, qualities, etc.) on local and/or export sales documents.
	Verify that the material transported is what is indicated by transport documents.
	Consult with PROFEPA district offices to verify the performance of the properties and whether there are reports of inspections of sawmills.
1.17 Trade and transport	Verify existence of timber sale-purchase agreements in which the volumes and species included are specified.
	Maintain bookkeeping of income and transactions which clearly shows the data (provider, document number, date, species, quality, etc.)
	from the documents concerning material entering and leaving the country. In the case of processing companies, review matters relating to
	conversion of land.
	Verify that the material transported is what is indicated on the transport documents.
1.18 ffshore trading and transfer pricing	If illegal in the country of the supplier or sub-supplier, the products shall not have been traded through countries known as "tax havens".
	There shall be no illegal manipulation in relation to the transfer pricing
1.19 Custom regulations	Verify exportation documents and compliance with legal requirements.
	Verify tax payments and payments of fees for exportation procedures.
1.20 CITES	Verify that export documents comply with legal requirements.
	Verify the payment of taxes and fees for exportation procedures.
	Verify CITES certificates and that they match the species indicated.
1.21 Legislation requiring due diligence/due	N/A
care procedures	

Controlled wood category 2: Wood harvested in violation of traditional and human rights

Risk assessment

Indicator	Sources of Information	Functional scale	Risk designation and determination
2.1. The forest sector is not associated with violent armed conflict, including that which threatens national or regional	See detailed anlysis below.	Country	Specified risk
security and/or linked to military control.			Justification:
			'Specified risk' thresholds (6) and (7) apply.
2.2. Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at	See detailed anlysis below.	Country	Specified risk
work.			Justification: 'Specified risk' thresholds (13), (14) amd (15) apply.
2.3. The rights of Indigenous and Traditional Peoples are upheld.	See detailed anlysis below.	Country (Territories - ejidos and	Specified risk
		communidades- of	Justification:
		indigenous	'Specified risk' thresholds (23), (24) and (26) apply.
		communities)	

Note: The present category 2 for the CNRA of Mexico was developed in 2016, and therefore the validity date of the sources is often based on this year.

Recommended control measures

The recommended control measures here are only indicative in nature, and are not mandatory. Recommended control measures might not have been provided for all the risks that have been identified in this risk assessment. Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable.

Indicator	Recommended control measures
2.1	Clear evidence that ensure legal origin of the timber.
2.2	Clear evidence that the Organization has policies in place that guarantee core labour rights.
	Clear evidence that a forest operation is not taking place in a territory claimed by IP. Or
	Clear evidence that the FMU is managed by the governance structures of Indigenous Peoples. Or
	Clear evidence that the involved indigenous peoples have freely ceded their territorial and/or use rights in an agreement or settlement with the government. Or
	An FPIC agreement with the IPs with rights in the FMU after a fair, transparent, cultural appropriate and inclusive procedure.

Detailed analysis

Sources of information	Evidence	Scale of risk assessment	Risk indication ²
Context (the following are indicators that help to contextualize the inform. Searching for data on: level of corruption, governance, by or in the country, etc.	ation from other sources) lawlessness, fragility of the State, freedom of journalism, freedom of speech, peace, human rig	ghts, armed or vio	lent conflicts
World Bank: Worldwide Governance Indicators - the WGIs report aggregate and individual governance indicators for 215 countries (most recently for 2004–2014), for six dimensions of governance: Voice and Accountability; Political Stability and Absence of Violence; Government Effectiveness; Regulatory Quality; Rule of Law; Control of Corruption. http://info.worldbank.org/governance/wgi/index.aspx#home	http://info.worldbank.org/governance/wgi/index.aspx#reports (click on table view tab and select Country) In 2017 (latest available year) Mexico scores between 16 (for Control of Corruption) and 62 (for Regulatory. Quality) on the percentile rank among all countries for all six dimensions (the scores range from 0 (lowest rank) to 100 (highest rank) with higher values corresponding to better outcomes).	Country	
World Bank Harmonized List of Fragile Situations: http://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations	http://siteresources.worldbank.org/EXTLICUS/Resources/511777- 1269623894864/FY15FragileSituationList.pdf Mexico does not feature on this list.	Country	
Committee to Protect Journalists: Impunity Index CPJ's Impunity Index calculates the number of unsolved journalist murders as a percentage of each country's population. For this index, CPJ examined journalist murders that occurred between January 1, 2005, and December 31, 2015, and that remain unsolved. Only those nations with five or more unsolved cases are included on this index. https://cpj.org	https://cpi.org/reports/2015/10/impunity-index-getting-away-with-murder.php Impunity Index Mexico ranks nr. 8 out of 14 countries where at least five journalists have been murdered without a single perpetrator being convicted. The index covers murders that took place between September 1, 2005, and August 31, 2015. "Mexico's impunity rating has more than doubled since it first appeared on the index in 2008. Nineteen journalists covering crime and corruption were murdered with complete impunity over the last decade. In 2013, Mexico introduced legislation to enable federal authorities in Mexico to prosecute crimes against journalists, but the measure has failed to yield prosecutions, disappointing journalists and freedom of expression advocates. Since its passage, six more journalists have been murdered with impunity. In a chilling development this July, Mexican photographer Rubén Espinosa was tortured and murdered in Mexico City, previously considered a safe haven for journalists facing threats in Veracruz and other cartel-dominated states. Following the murder, more than 700 writers signed a letter to President Enrique Peña Nieto calling for the full investigation into crimes against journalists. "Organized crime, corrupt government officials, and a justice system incapable of prosecuting criminals all contribute to reporters' extreme vulnerability," read the letter, which CPJ supported. Impunity Index Rating: 0.152 unsolved journalist murders per million inhabitants Last year: Ranked 7th with a rating of 0.132.	Country	

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² A risk indication is provided for each source analyzed, except in the first part that addresses the general country context as that is not a risk indicator. A cumulative risk assessment for each risk indicator is provided in the row with the conclusion on each risk indicator, based on all the sources analyzed and evidence found.

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	[] more than half the countries on the index are democracies with functioning law enforcement and judicial institutions, including the Philippines, Russia, Brazil, Mexico, and India, which together have let the killers of at least 96 journalists go unpunished over the past decade. The numbers show that the political will needed to prosecute those who silence journalists, many of whom investigate corruption or report critically on local leadership, is absent."		
Carleton University: Country Indicators for Foreign Policy: the	https://carleton.ca/cifp/failed-fragile-states/country-ranking-table/	Country	
Failed and Fragile States project of Carleton University examines state fragility using a combination of structural data and current event monitoring. In general, a high score - 6.5 or higher - indicates that a country is performing poorly relative to other states. Such a score may be indicative of an arbitrary and autocratic government, a history of non-transparent government, the presence of significant barriers to political participation, the absence of a consistently enforced legal framework, or a poor human rights record. A low score - in the range of 1 to 3.5 - indicates that a country is performing well relative to others, or that a country's structural conditions present little cause for concern. Values in the moderate 3.5 to 6.5 range indicate performance approaching the global mean. http://www4.carleton.ca/cifp/ffs.htm (Select Country Ranking Table)	Country Ranking Table 2012 (preliminary data) Mexico scores 4.39 on the Fragility Index 2012 (preliminary data) with 2.23 being the best score for Switserland and 7.81 being the worst score for Somalia.		
Human Rights Watch: http://www.hrw.org	https://www.hrw.org/sites/default/files/world_report_download/wr2016_web.pdf	Country	
Tidinan regins wateri. http://www.niw.org	Human Rights Watch World Report 2016 "During the administration of President Enrique Peña Nieto, Mexican security forces have been implicated in repeated, serious human rights violations—in- cluding extrajudicial killings, enforced disappearances, and torture—in the course of efforts to combat organized crime. The government has made little progress in prosecuting those responsible for recent abuses, let alone the large number of abuses committed by soldiers and police since former President Fe- lipe Calderón (2006-2012) initiated Mexico's "war on drugs." In September 2015, an expert group established through an agreement between the Mexican government and the Inter-American Commission on Human Rights (IACHR) exposed serious flaws in the government's investigation into the enforced disappearance of 43 students from Ayotzinapa, Guerrero, refuted key conclusions made by the Attorney General's Office, and called on authorities to pursue fresh lines of investigation. The government subsequently agreed to extend the group's mandate to monitor the investigation for an additional six months. At time of writing, more than a year after the disappearances, the whereabouts of at least 41 of students remain unknown. Other continuing problems include restrictions on press freedom and limits on access to reproductive rights and health care.	Country	

	In August 2014, the government publicly acknowledged that the whereabouts of over 22,000 people who had gone missing since 2006 remained unknown. That number has increased to more than 25,500, according to the National Registry of Disappeared or Missing Persons, which was established by law in 2012. (p. 400) [] Unlawful killings of civilians by Mexican security forces "take place at an alarmingly high rate" amid an atmosphere of "systematic and endemic impunity," according to the United Nations special rapporteur on extrajudicial, summary, or arbitrary executions in 2014. (p. 401) [] Mexico has relied heavily on the military to fight drug-related violence and or-ganized crime, leading to widespread human rights violations by military person-nel. Since 2006, the National Human Rights Commission (CNDH) has received about 9,000 complaints of abuse by the army—including more than 1,700 during the current administration—and issued reports in over 100 cases in which it found that army personnel had committed serious human rights violations. (p. 402) [] Torture is widely practiced in Mexico to obtain forced confessions and extract information. It is most frequently applied in the period between when victims are arbitrarily detained and when they are handed over to civilian prosecutors, a period in which they are often held incommunicado at military bases or illegal detention sites. Common orture techniques include beatings, waterboarding, electric shocks, and sexual abuse. In 2014, the Federal Attorney General's Office received more than 2,400 complaints of torture, more than double the number (1,165) received in 2013. Despite a constitutional prohibition on using evidence obtained through torture, some judges continue to disregard torture complaints and accept allegedly coerced confessions. (p. 402-403). [] The criminal justice system routinely fails to provide justice to victims of violent crimes and human rights violations. Causes of this failure include corruption, inadequate training and resources		
US AID: www.usaid.gov (Search on website for [country] + 'human rights')	https://www.usaid.gov/mexico/human-rights "Since 2009, the United Nations and the Organization of American States have issued numerous international human rights recommendations to Mexico on torture, disappeared persons, aggression against human rights defenders and journalists, and violence against women. The Government of Mexico has addressed these concerns by elevating Mexico's obligations under international treaties to the level of its constitution, developing a National Protection Mechanism for Human Rights Defenders and Journalists, and empowering federal authorities to investigate and prosecute human rights violators."	Country	

Global Witness: www.globalwitness.org	https://www.usaid.gov/sites/default/files/documents/1862/November%202015%20DO3%20 fact%20sheet.pdf "It is estimated that 151,233 people in Mexico were killed between December 2006 and August 2015. According to the UN High Commissioner for Human Rights, at least 26,000 persons have gone missing since 2007, many as a result of forced disappearances. The United Nations' and the Organization of American States' human rights protection bodies have repeatedly cited the high prevalence of impunity for human rights violations in Mexico. Mexico is considered one of the most dangerous countries in the world to be a journalist. Since 2000, 88 journalists have been killed." No information that indicates a 'specified risk' found after searching Mexico + 'human	Country	
(Search on website for [country] + 'human rights')	rights'		
WWF: http://wwf.panda.org/about_our_earth/about_forests/deforestat ion/forest_illegal_logging/	http://wwf.panda.org/about_our_earth/deforestation/deforestation_causes/illegal_logging/ Mexico not mentioned on this web page. http://wwf.panda.org/_core/general.cfc?method=getOriginalImage&uImgID=%26%2AR%5 C%27%21%3EW5%0A Illegal logging Map Mexico does not appear on the Illegal logging map with countries with higher rates of illegal logging.	Country	
Chatham House Illegal Logging Indicators Country Report Card: http://www.illegal-logging.info	http://www.illegal-logging.info/regions/mexico "Mexico There is widespread illegal logging in the country and much of the illegal timber trade is thought to be controlled by criminal syndicates." http://www.illegal-logging.info/content/mexican-indigenous-environmental-activist-named-prisoner-conscience Mexican indigenous environmental activist named prisoner of conscience — 9 May 2016 A Mexican man unfairly imprisoned in what appears to be a punishment for his peaceful activism against illegal logging must be released immediately and unconditionally, Amnesty International said as it named him a "prisoner of conscience." Ildefonso Zamora Baldomero was arrested in November 2015 in the Indigenous Tlahuica community of San Juan Atzingo, 80km south-west of Mexico City. He is accused of participating in a burglary in July 2012. "Ildefonso Zamora is being punished for speaking out against the damage being done to his community's territory and environment. He should have never been imprisoned in the first place and must be released immediately and unconditionally. Protecting the environment and defending human rights are not crimes," said Erika Guevara-Rosas, Americas Director at Amnesty International. The burglary charges against Zamora are based on a series of fabricated testimonies. The	Country	

	exact same words as if reading them from a script, the crime scene was not preserved, and the evidence was not properly handled. His arrest is part of a series of threats and harassment in relation to his anti-logging campaigns. In 2007, his son Aldo was murdered and his son Misael was injured in an attack which hasn't yet been fully investigated. Speaking from his prison cell, Zamora said: "I work to stop illegal logging, and that has cost me dearly: my son's life and my freedom. I want to continue working for my community because illegal logging is destroying large parts of the planet earth." http://indicators.chathamhouse.org/sites/files/reports/Tackling%20Illegal%20Logging%20and%20Related%20Trade_0.pdf		
	Tackling Illegal Logging and the Related Trade - What Progress and Where Next? Chatham House Report – July 2015		
	Mexico is not mentioned in this report.		
Transparency International Corruption Perceptions Index: Based on expert opinion, the Corruption Perceptions Index measures the perceived levels of public sector corruption worldwide. http://www.transparency.org/	https://www.transparency.org/country/MEX Mexico scores 29 points on the Corruption Perceptions Index 2017 on a scale from 0 (highly corrupt) to 100 (very clean). Mexico ranks 135 out of 180.	Country	
Amnesty International Annual Report: The state of the world's human rights -information on key human rights issues, including: freedom of expression; international justice; corporate accountability; the death penalty; and reproductive rights. https://www.amnesty.org	https://www.amnesty.org/en/documents/pol10/2552/2016/en/ State of the Human Rights Report 2015/16 "Mexico Impunity persisted for grave human rights violations including torture and other ill- treatment, enforced disappearances and extrajudicial executions. More than 27,000 people remained missing or disappeared. Human rights defenders and journalists continued to be threatened, harassed or killed. The number of detentions, deportations and complaints of abuse of irregular migrants by the authorities increased significantly. Violence against women continued to be widespread. Large-scale development and resource exploitation projects were carried out without a legal framework regarding the free, prior and informed consent of Indigenous communities they affected. The Supreme Court upheld same-sex couples' rights to marry and adopt children. [] Human rights violations at the hands of armed forces and police remained common, especially in the states of Tamaulipas, Michoacán and Guerrero, where major security operations were carried out. [] Perpetrators of extrajudicial executions continued to enjoy almost absolute impunity. (p. 249) [] Torture and other ill-treatment remained widespread among law enforcement and investigative officials and little progress was made to eradicate it. Authorities denied the magnitude of the problem, while torture complaints at both federal and state levels persisted. [] Enforced disappearances with the involvement of the state and disappearances committed by non-state actors continued to be widespread. By the end of the year, the government reported that 27,638 people (20,203 men and 7,435 women) were missing but did not specify how many were subjected to enforced disappearance. The few criminal	Country	

investigations that took place into these cases were generally flawed, with authorities failing to search for the victims. Impunity for these crimes remained almost absolute. (p. 250)

- [...] Human rights defenders and journalists continued to be threatened, harassed, attacked or killed. Those defending the environment and land rights continued to be at particular risk.
- [...] The Supreme Court continued to analyze a legal challenge to Mexico City's 2014 Law on Mobility. The law threatens freedom of peaceful assembly, including through a prior authorization regime for demonstrations, a lack of provisions on spontaneous demonstrations and government powers to ban protests in specific places.
- [...] Violence against women and girls remained endemic, including killings, abductions and sexual violence. (p. 251)
- [...] Migrants and asylum-seekers passing through Mexico continued to be subjected to mass abductions, extortion, disappearances and other abuses committed by organized crime groups, often working in collusion with state agents. A majority of reported abductions took place in the state of Tamaulipas. [...] As of November, 178,254 irregular migrants had been apprehended and detained by the National Institute of Migration, compared with 127,149 in 2014; however, this was not reflected by a commensurate increase in the number of asylum claims granted.

[...] INDIGENOUS PEOPLES' RIGHTS

The country still lacked a legal framework on the right of Indigenous Peoples to free, prior and informed consent regarding development projects affecting their lands and traditional way of life. Two Indigenous Yaqui leaders who had been imprisoned for protesting against the construction of an aqueduct were released because of a lack of evidence against them. The aqueduct's operation, however, continued even after a national anthropology authority found that it threatened the survival of the Indigenous community." (p. 252)

[...] For the first time since 1996, the Inter-American Commission on Human Rights visited Mexico in September to assess the human rights situation. In its preliminary observations the Commission highlighted, among others, the issues of torture, enforced disappearances, violence against women and extrajudicial executions, and expressed concern about the impunity for such crimes. The UN High Commissioner for Human Rights visited the country for a similar purpose and stated that "there is broad consensus nationally, regionally and internationally on the gravity of the human rights situation in Mexico today." (p. 252-253)

https://www.amnesty.org/download/Documents/POL1067002018ENGLISH.PDF State of the Human Rights Report 2017/18

VIOLENCE AND IMPUNITY IN MEXICO

"Mexico's human rights crisis continued, exacerbated by increases in violence and homicides, including a record number of killings of journalists. Arbitrary arrests and detentions remained widespread – often leading to further human rights violations, most of which were not properly investigated...Congress also finally passed a new general law on torture. More concerning was the enactment of a law on interior security that would enable

	the prolonged presence of the armed forces in regular policing functions, a strategy that has been linked to an increase in human rights violations." (p. 29)		
	KILLINGS AND HARASSMENT IN MEXICO "In Mexico, human rights defenders were threatened, attacked and killed, with digital attacks and surveillance especially commonIt became apparent that a network of people was using the internet to harass and threaten journalists throughout Mexico. Evidence also emerged of surveillance against journalists and human rights defenders, using software that the government was known to have purchased." (p. 33)		
	MEXICO "Violence increased throughout Mexico. The armed forces continued to undertake regular policing functions. Human rights defenders and journalists were threatened, attacked and killed; digital attacks and surveillance were particularly common. Widespread arbitrary detentions continued to lead to torture and other ill-treatment, enforced disappearances and extrajudicial executions. Impunity persisted for human rights violations and crimes under international lawViolence against women remained a major concern; new data showed that two thirds of women had experienced gender-based violence during their lives." (p. 256-257)		
Freedom House:	https://freedomhouse.org/report/freedom-world/freedom-world-2018	Country	
http://www.freedomhouse.org/	The status of Mexico on the Freedom in the World 2018 index is 'partly free'.]	
<u></u>	https://freedomhouse.org/report/freedom-net/freedom-net-2018/mapThe status of Mexico		
	on the Freedom on the Net 2018 index is 'partly free'.		
	https://freedomhouse.org/report/freedom-press/freedom-press-2017		
	The status of Mexico on the Freedom of the Press 2017 index is 'not free'.		
Reporters without Borders: Press Freedom Index	https://rsf.org/en/ranking	Country	
Rank nr. 1 has the best press freedom.	2018 World Press Freedom Index		
https://index.rsf.org/#!/	Mexico is ranked #147 out of 180 in the 2018 World Press Freedom Index with a score of		
Fund for Doors - Funding Otaton Indian the Fund for D	48.91.	Carreter	
Fund for Peace - Fragile States Index: the Fund for Peace is a US-based non-profit research and educational organization	http://fundforpeace.org/fsi/2016/06/27/fragile-states-index-2016-annual-report/ Fragile States Index 2016	Country	
that works to prevent violent conflict and promote security. The	Mexico is ranked 107 out of 178 countries on the Fragile States Index. (nr 1 being the most		
Fragile States Index is an annual ranking, first published in	failed state). This ranks Mexico in the category 'Elevated Warning' (in between "Warning"		
2005 with the name Failed States Index, of 177 nations based	and "High Warning").		
on their levels of stability and capacity.			
http://fsi.fundforpeace.org/	http://fundforpeace.org/fsi/country-data/		
	Fragile States Index 2018		
	Mexico is ranked 94 out of 178 countries on the Fragile States Index. (nr 1 being the most		
	failed state). Mexico has shown improvement this year since 2006.		
The Global Peace Index: Published by the Institute for	http://visionofhumanity.org/app/uploads/2018/06/Global-Peace-Index-2018-2.pdf	Country	
Economics & Peace, This index is the world's leading measure	2018 Global Peace Index		
of national peacefulness. It ranks 162 nations according to	The state of Peace in Mexico is labelled 'Low' with Mexico ranking number 140 out of 163		
their absence of violence. It's made up of 23 indicators,	countries.		
ranging from a nation's level of military expenditure to its		ĺ	

relations with neighbouring countries and the level of respect for human rights. Source: The Guardian: http://economicsandpeace.org/research/iep-indices-data/global-peace-index			
Additional sources of information (These sources were partly found by Googling the terms '[country]', 'timber', 'conflict', 'illegal logging')	Evidence	Scale of risk assessment	Risk indication
Cornict, megar logging)	"The management of Mexico's forests differs greatly between the pine and oak forests in the temperate zone, the forests in subtropical regions and the moist tropical forests in the south. The rate of deforestation has apparently slowed but is still high. Over-harvesting and illegal harvesting of forest resources is widespread (although less so in the tropics than in the temperate zone); they exceed sustainable levels in many areas. [] About 8,500 ejidos and local communities own an estimated 80% of Mexico's forests. About 15% is owned privately and 5% is national land. [] Continuing conflicts over land-use are apparently inhibiting SFM in some areas." http://www.businessinsider.com/now-mexican-drug-cartels-are-illegally-logging-ancient-forests-2011-7?IR=T Now Mexican Drug Cartels Are Shooting Villagers For Timber — July 6, 2011 "As Mexico's powerful drug cartels diversify operations beyond the illegal drug trade, the organized crime syndicates have found another lucrative line of work: The large scale theft of Mexico's natural resources. The Washington Post reports today that illegal loggers, guarded by gunmen with automatic weapons have strong-armed their way into the ancient forests in Mexico's western mountains. In Cheran, a timber-rich village in Mexico's Michaocan state, locals told the WaPo that the criminals have cut down thousands of acres of old-growth forests, shooting villagers who oppose them and kidnapping men from indigenous communities. While illegal logging has long been a problem in Mexico, security experts say the trade now appears to be controlled by the cartels, who either coordinate the logging or provide security and then take a cut. Mexican officials have acknowledged that organized crime is likely responsible for many timber thefts in Michoacan, but they have made only two minor arrests."	Country Mexico's western mountains Michoacan state	
	http://www.latimes.com/world/drug-war/la-fg-mexico-under-siege-20160309-storygallery.html Mexico Under Siege — March 9, 2016 "Since June 2008, Times reporters and photographers have chronicled, from both sides of the border, the savage struggle among Mexican drug cartels for control over the lucrative drug trade to the U.S. The conflict has left thousands dead, paralyzed cities with fear, and spawned a culture of corruption reaching the upper levels of the Mexican state."	Country	

		1	
	https://fern.org/sites/default/files/news-pdf/fern_community_forestry_mexico_0.pdf		
	Protecting forests, improving livelihoods - Community Forestry in Mexico - September		
	2015		
	"Mexico's community forests are some of the most advanced in the world: communities		
	collectively own more than 50 million hectares of the country's 63 million hectares of		
	forest."		
	"Despite this significant scope for local autonomy, most community forests still rely heavily		
	on the private sector: the majority of communities hire external logging companies to		
	extract, process and sell their timber. However, there are some communities who have		
	managed to take on more and more of this production chain, with some even transforming		
	the wood into finished products like wood board and furniture.		
	On the whole, Mexico's community forests have been a success. They have provided a		
	means of survival for traditional culture, as well as for the environment: evident shows that	Country	
	forests managed by communities in Mexico have experienced less deforestation than	Country	
	protected nature reserves, where logging simply continues in an illegal and uncontrolled		
	fashion."		
	"Some community forests exist within protected areas, and so are banned from logging.		
	Perversely, these protected areas can end up producing more deforestation than		
	commercial logging units. This is because communities continue to extract forest resources		
	informally, and have no guidance or incentive to pursue sustainable practices and stop		
	illegal loggers."		
	"Legality and illegality exist side by side. Legal loggers generally know who is selling timber		
	illegally, but do not report them to the authorities because of fears for their personal safety		
	and that of the ejido. There are also cases where illegal loggers make deals with		
	government authorities, ejidos or legal loggers to bring timber to the market without an		
	exploitation permit."		
From national CW RA: Info on illegal logging	Not available	-	-
Conclusion on country context:		Country	
	s context section such as stability, peace, freedom, transparency, corruption and		
governance. Several human rights issues are reported including			
	torture and other ill-treatment, enforced disappearances and extrajudicial executions, while		
human rights defenders and journalists continued to be threaten	ed, harassed or killed. Violence against women continued to be widespread. Large-scale		
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US AID: <u>www.usaid.gov</u>	There are no individuals or entities involved in the forest sector in Mexico that are facing		
Global Witness: www.globalwitness.org	UN sanctions.		
From national CW RA	Not available	-	-
Guidance			
	he country level or only an issue in specific regions? If so – which regions?		
 Is the conflict timber related to specific entities? If so, v 		_	
Conflict Timber is defined by US AID as: - conflict financed or sustained through the harvest and sale of timber (Type 1), - conflict emerging as a result of competition over timber or	No information on conflict timber in Mexico was found.	Country	Low risk for conflict timber
other forest resources (Type 2).			
www.usaid.gov			
Global Witness:	No information on conflict timber in Mexico found.	Country	Low risk for
www.globalwitness.org/campaigns/environment/forests			conflict timber
Human Rights Watch: http://www.hrw.org/	https://www.hrw.org/blog-feed/rethinking-war-drugs#blog-288625 The Unexpected Casualties of Mexico's "War on Drugs" – April 11, 2016 "In late 2006, the newly elected president of Mexico, Felipe Calderon, launched a "War on Drugs" by sending 6,500 soldiers to the state of Michoacán to battle drug cartels, ushering in a decade of drug-related bloodshed. [] Some 70,000 people have since died in drug-related violence throughout the country – a total that surpasses the number of combat deaths that the United States suffered during the entire 20-year Vietnam War. [] In March, Interior Minister Miguel Ángel Osorio Chong – calling the Drug War "badly designed" and a product of "false diagnosis" – blamed it for causing "unprecedented violence." General Salvador Cienfuegos Zepeda, commander of Mexico's armed forces, said that sending "soldiers prepared for war" to confront criminals was a "mistake" that has caused "serious problems.""	Country	Specified risk for conflicts Low risk for
	No information on conflict timber in Mexico was found.	Country	conflict timbe
World Resources Institute: Governance of Forests Initiative Indicator Framework (Version 1). http://pdf.wri.org/working_papers/gfi_tenure_indicators_sep09.pdf Now: PROFOR http://www.profor.info/node/1998	This work resulted in a publication: Assessing and Monitoring Forest Governance: A user's guide to a diagnostic tool (available on this page) published by PROFOR in June 2012. This tool has not yet been applied to Mexico.	Country	Low risk
Amnesty International Annual Report: The state of the world's human rights -information on key human rights issues, including: freedom of expression; international justice; corporate accountability; the death penalty; and reproductive rights. http://www.amnesty.org	https://www.amnesty.org/en/latest/news/2014/12/mexico-at-a-crossroads-more-than-words-needed-to-avoid-lawlessness/ Mexico at a crossroads: More than words needed to avoid lawlessness – 1 December 2014 "Back in 2012, Mexico was already immersed in one of the worst security crisis in its history. Hundreds of thousands of men, women and children across the country were caught up in a brutal war between powerful drug cartels and corrupt security forces.	Country	Specified risk for conflicts

		1	1
	Little seems to have changed since then.		
	The alarming levels of crime in many parts of the country and the consequences of the		
	militarization of many states as a way of combating organized crime and drug cartels has		
	increased insecurity and generalized violence. Respect for human rights and the rule of		
	law are under great threat.		
	Every day, new names are tragically added to the list of more than 100,000 people who		
	have been killed in Mexico since the "war on drugs" began in 2006. At least 22,000 are		
	missing. Thousands more have been forced to leave their homes as a consequence of the		
	increasing violence in their towns."		
	https://www.amnesty.org/en/latest/news/2018/04/las-muertes-en-mexico-danos-		
	colaterales-o-el-producto-de-una-politica-de-seguridad-fallida/		
	Killings in Mexico: Collateral damage or the result of a failed security policy? – April 2018		Specified risk
	In the last few weeks alone, Mexican Secretariat of the Navy (SEMAR) have been under	Country	for conflicts
	public scrutiny for their human rights violations, as well as for other irregularities. In 2014,	Country	ior commets
	in response to a request for public information lodged by academics from the Centro de		
	Investigación y Docencia Económicas and the Universidad Nacional Autónoma de México,		
	the Mexican Secretariat of National Defence revealed that they would no longer provide		
	public information relating to the number of persons killed during their operations and		
	claimed that such fact-finding fell to civil authorities, thereby denying the general public		
	their right to information. This policy violates international human rights standards and the		
	Mexican armed forces' own manual on the use of force, all of which clearly state the		
	obligation to report the outcomes of operations, particularly if lethal force has been		
	employed.		
	In addition to their lack of transparency about the events, the Navy launched a smear		
	campaign against the victims' relatives—something that is becoming increasingly		
	common—and accused them of lying in order to receive financial compensation.		
	This is not the first time that representatives of the armed forces have discredited victims of		
	human rights abuses, with no evidence whatsoever, solely for the sake of denying their		
	rights to truth, justice and reparation. Over the last few years, Amnesty International and		
	other human rights organisations have documented this recurring pattern in multiple cases.		
	For years, Amnesty International has warned of the dire consequences that the		
	militarization of public security policies would have on human rights.	Country	Low risk for
	No information on conflict timber related to Mexico was found.	Country	conflict timber
World Bank: Worldwide Governance Indicators - the WGIs	http://info.worldbank.org/governance/wgi/index.aspx#reports	Country	Specified risk
report aggregate and individual governance	In 2017 (latest available year) Mexico scored 23 for Political Stability and Absence of	, ,	for political
indicators for 213 economies (most recently for 2004–2017),	Violence/Terrorism (the scores range from 0 (lowest rank) to 100 (highest rank) with higher		instability and
for six dimensions of governance: Voice	values corresponding to better outcomes).		violence/terro
and Accountability; Political Stability and Absence of Violence;			rism
Government Effectiveness; Regulatory			1.5
Quality; Rule of Law; Control of Corruption.			
http://info.worldbank.org/governance/wgi/index.aspx#home			
http://inio.wondbank.org/governance/wg//index.aspx#flome		I	

Greenpeace: www.greenpeace.org (Search for 'conflict timber [country]')	No information on conflict timber in Mexico was found.	Country	Low risk for conflict timber
CIFOR: http://www.cifor.org/ http://www.cifor.org/publications/Corporate/FactSheet/forests conflict.htm	http://www.cifor.org/publications/Corporate/FactSheet/forests_conflict.htm "There are currently violent conflicts in forested regions in Colombia, Cote D'Ivoire, Democratic Republic of the Congo, India, Indonesia, Liberia, Mexico, Myanmar, Nepal, Philippines, Sierra Leone, Solomon Islands, Sudan, and Uganda."	Country	Specified risk for conflicts
(Google the terms '[country]' and one of following terms or in combination 'conflict timber', 'illegal logging')	http://www.businessinsider.com/now-mexican-drug-cartels-are-illegally-logging-ancient-forests-2011-7?IR=T Now Mexican Drug Cartels Are Shooting Villagers For Timber – July 6, 2011 "As Mexico's powerful drug cartels diversify operations beyond the illegal drug trade, the organized crime syndicates have found another lucrative line of work: The large scale theft of Mexico's natural resources. The Washington Post reports today that illegal loggers, guarded by gunmen with automatic weapons have strong-armed their way into the ancient forests in Mexico's western mountains. In Cheran, a timber-rich village in Mexico's Michaocan state, locals told the Washington Post that the criminals have cut down thousands of acres of old-growth forests, shooting villagers who oppose them and kidnapping men from indigenous communities. While illegal logging has long been a problem in Mexico, security experts say the trade now appears to be controlled by the cartels, who either coordinate the logging or provide security and then take a cut. Mexican officials have acknowledged that organized crime is likely responsible for many timber thefts in Michoacan, but they have made only two minor arrests."	Country	Specified risk for conflict timber
	https://en.wikipedia.org/wiki/Chiapas_conflict Chiapas conflict The Chiapas conflict refers to the 1994 Zapatista Uprising and its aftermath, [4] as well as the general tensions between the indigenous peoples and subsistence farmers in the Mexican state of Chiapas, having its roots in the 1990s and 1980s. The Zapatista uprising started in January 1994, lasting for less than two weeks, before being crushed by the government. Negotiations between the government and Zapatistas allowed agreements to be signed as part of peace negotiations, but these agreements were not complied with in the following years and the peace process stagnated. This resulted in an increasing division between people and communities with ties to the government and communities that sympathized with the Zapatistas. Social tensions, armed conflict and para-military incidents increased, culminating in the killing of 45 people in the village of Acteal in 1997 by para-militaries. Though at a low level, rebel activity continues and violence occasionally erupts between Zapatista supporters and anti-Zapatista militias along with the government. The last related incident occurred in 2014, with a Zapatista-affiliated teacher killed and 15 more wounded in Chiapas. [3] http://www.illegal-logging.info/regions/mexico Illegal Logging Portal - Mexico	Chiapas	Specified risk for conflict

	thought to be controlled by criminal syndicates.		for conflict timber
	http://www.itto.int/sfm_detail/id=12540000 "The management of Mexico's forests differs greatly between the pine and oak forests in the temperate zone, the forests in subtropical regions and the moist tropical forests in the south. The rate of deforestation has apparently slowed but is still high. Over-harvesting and illegal harvesting of forest resources is widespread (although less so in the tropics than in the temperate zone); they exceed sustainable levels in many areas. [] About 8,500 ejidos and local communities own an estimated 80% of Mexico's forests. About 15% is owned privately and 5% is national land. [] Continuing conflicts over land-use are apparently inhibiting SFM in some areas."	Country	Specified risk for conflict timber
From national CW RA	Not available	-	-
Conclusion on indicator 2.1: Information was found that indicates that there is illegal timber trade which is controlled by criminal syndicates who are engaged in a violent armed conflict (The "War on drugs") with the government.			Specified Risk
The following 'specified risk' thresholds apply (6) The area under assessment is a source of co (7) Operators in the area under assessment are compliance with the law).			

Guidance

- Are the social rights covered by the relevant legislation and enforced in the country or area concerned? (refer to category 1)
- Are rights like freedom of association and collective bargaining upheld?
- Is there evidence confirming absence of compulsory and/or forced labour?
- Is there evidence confirming absence of discrimination in respect of employment and/or occupation, and/or gender?
- Is there evidence confirming absence of child labour?
- Is the country signatory to the relevant ILO Conventions?
- Is there evidence that any groups (including women) feel adequately protected related to the rights mentioned above?
- Are any violations of labour rights limited to specific sectors?

The any violations of labour rights infrited to specific sectors:			
general sources from FSC-PRO-60-002a V1-0 EN	information found and specific sources	scale of risk	=
		assessment	indication
Status of ratification of fundamental ILO conventions:	http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:1		
http://www.ilo.org/dyn/normlex/en/f?p=1000:11001:0::NO::	02764		
C29 Forced Labour Convention, 1930	Mexico ratified 7 of the 8 ILO Core conventions and the status of the ratified onventions is:		
C87 Freedom of Association and Protection of the Right to	"in force". The ILO Convention 98 on the Right to Organise and Collective Bargaining	Country	Specified risk
Organise Convention, 1948	Convention, 1949, will enter into force for Mexico on 23 November 2019.		for the Right

³ "Conflict timber" limited to include "timber that has been traded at some point in the chain of custody by armed groups, be they rebel factions or regular soldiers, or by a civilian administration involved in armed conflict or its representatives, either to perpetuate conflict or take advantage of conflict situations for personal gain - conflict timber is not necessarily illegal. Please refer to FSC-PRO-60-002a V1-0.

C98 Right to Organise and Collective Bargaining Convention, 1949 C100 Equal Remuneration Convention, 1951 C105 Abolition of Forced Labour Convention, 1957 C111 Discrimination (Employment and Occupation) Convention, 1958 C138 Minimum Age Convention, 1973 C182 Worst Forms of Child Labour Convention, 1999	http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 255228:NO Observation (CEACR) - adopted 2015, published 105th ILC session (2016) Forced Labour Convention, 1930 (No. 29) - Mexico (Ratification: 1934) "3. Protection of victims. The Committee notes that the 2012 Act establishes in a detailed manner the rights and comprehensive protection that is to be afforded to victims (sections 59 to 83). It notes that, according to the 2014 activity report of the Inter-Ministerial Committee, 1,481 victims [of trafficking, LV] were identified (437 by federal authorities and 1,044 by state entities). Moreover, 1,108 operations were carried out, freeing 789 persons who were able to benefit from 20,328 protection and assistance measures. At the federal level, under the auspices of the Inter-Ministerial Committee, a Protocol has also been drawn up on the use of procedures and resources to rescue, assist and protect victims of trafficking, establishing specific guidelines for all the authorities involved from the identification of victims to their social reintegration. The Committee hopes that the Government will continue taking measures to ensure the safety and protection of victims of trafficking throughout the country, so that they are able to assert their rights before the competent authorities. Please also indicate the measures taken to promote the reintegration of victims, particularly Mexican victims returning to the country."	Country	to Organise and Collective Bargaining Low risk for trafficking of persons
	http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 254995:NO Direct Request (CEACR) - adopted 2015, published 105th ILC session (2016) Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) - Mexico (Ratification: 1950) Article 2 of the Convention. Registration of trade unions. [] "The Committee also notes the allegations of obstacles to the registration and recognition of trade unions contained in the observations of IndustriALL Global Union (IndustriALL) and the National Trade Union of Workers in the Iron, Steel and Allied Products Industry (SNTIHAPDSC). The Committee requests the Government to send its comments on these allegations. Article 3. Accreditation of elected trade union representatives. The Committee notes the observations of the ITUC and IndustriALL indicating that the "note-taking" procedure (whereby elected trade union leaders are required in order to take office to obtain a certificate from labour authorities attesting that the elections were held in accordance with the statutes of the trade union) continues to give rise to many abuses restricting the freedom of workers to elect their representatives, even though the Supreme Court of Justice has restricted the scope of this procedure through its case law. Noting the Government's indication that the authorities conduct a formal verification checking the stages of the election procedure and merely confirming that an election has been held, the Committee requests the Government to submit this issue to tripartite discussion with a view to considering any measures that may be necessary to ensure that the existing procedures offer effective guarantees in practice of the right to elect trade union representatives in full freedom.	Country	Specified risk for the freedom of workers to elect their representatives

Article 3. Right of workers' organizations to organize their activities and formulate their programmes. [] The Committee recalls that for many years it has been requesting the Government to take the necessary measures to amend various aspects of the legislation on the right to strike of public employees, particularly:(i) section 99(II) of the Federal Act on State Employees (LFTSE), which lays down the requirement of two-thirds of the workers in the public body concerned to call a strike;[] The Committee notes that, [] the Government indicates that, as discussions and deliberations are under way to determine whether the right to strike is covered by the Convention, it will refrain from providing comments until this issue has been resolved. The Committee requests the Government to consult with the social partners regarding revisions of the above legislative provisions and to indicate any developments in this regard. The Committee also requests the Government to provide its comments on the additional observations of the ITUC and IndustriALL relating to the exercise of the right to strike."	Country	Specified risk for the right to strike of public employees
http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 254999:NO Observation (CEACR) - adopted 2015, published 105th ILC session (2016) Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) - Mexico (Ratification: 1950) "The Committee notes the observations of the IndustriALL Global Union (IndustriALL), received on 29 August 2014 and 1 September 2015, the National Trade Union of Workers in the Iron and Steel Industry, Derivatives, Similar and Related Products of the Mexican Republic (SNTIHAPDSC), received on 31 August 2015, the International Trade Union Confederation (ITUC), received on 1 September 2015, and the National Union of Workers (UNT), received on 10 September 2015. The Committee also notes the observations of the International Organisation of Employers (IOE), received on 1 September 2015, which are of a general nature.		
[]The Committee notes with concern the allegations of the ITUC and IndustriALL relating to acts of violence against trade unionists, which refer to cases of attacks and arrests in the mining, telephone, electricity and footwear sectors, and protests by agricultural workers. The Committee requests the Government to provide its comments on this subject. []Representativity of trade unions and protection contracts. The Committee observes that the Committee on the Application of Standards requested the Government to identify, in consultation with the social partners, additional legislative reforms to the 2012 Labour Act necessary to comply with the Convention, emphasizing that this should include reforms that would prevent the registration of trade unions that cannot demonstrate the support of the majority of the workers they intend to represent, by means of a democratic election process – so-called protection unions. The Committee notes that the observations received from the ITUC, IndustriALL and the SNTIHAPDSC all consider that the issue of protection unions and contracts is one of the most serious obstacles to the exercise of freedom of	Country	Specified risk for acts of violence against trade unionists
association in the country. These organizations report that: (i) non-democratic trade unions and employers are signing collective protection contracts without the participation or even the knowledge of workers, with the aim of reducing wages and preventing the	Country	Specified risk for the establishment

establishment of independent trade unions; (ii) once a protection contract is registered, it is extremely difficult to establish an independent trade union in the enterprise and to conclude a legitimate collective agreement (IndustriALL emphasizes that the only means of challenging the control exercised by the protection union (elections and recounts to determine the title holder of the agreement) is not sufficiently regulated, grants broad powers to the labour authorities and can involve significant delays); (iii) the problem of protection unions and contracts persists and is affecting thousands of workplaces (the organizations describe recent examples that illustrate the difficulties experienced in establishing independent trade unions; (iv) the 2012 labour reform did not include the measures proposed to limit the practice of protection unions and contracts, in particular the proposal for section 388bis, which would have required the approval of collective agreements by workers (IndustriALL also proposes the simplification of trade union election and recount procedures, and the requirement for trade unions and employers to distribute copies of collective agreements to all the workers concerned); and (v) the Government has yet to give effect to the recommendations of the Committee on Freedom of Association and the Committee on the Application of Standards in this regard. The Committee notes that, regarding dialogue with the social partners to seek a solution to the issue of protection unions, the Government indicates that it has planned a meeting with the ITUC, and with the national organizations of employers and workers to address the matter. Furthermore, the Committee notes the Government's indication that the National Conference of Labour Ministers issued a joint statement condemning any collusion that restricted the freedom of workers to decide who they want to represent them or their will to sign a collective agreement. The Committee requests the Government, in consultation with the social partners and in		of independent trade unions
Application in practice. Conciliation and arbitration boards. The Committee notes the observations of the ITUC, IndustriALL and the SNTIHAPDSC, which report that the operation of the conciliation and arbitration boards is impeding the exercise of freedom of association, and which: (i) denounce the fact that the boards are controlled by federal Government and state bodies and lack the independence necessary for the discharge of their functions; (ii) allege that there is national consensus on the corruption and ineffectiveness of the boards (with particular reference to the critical conclusions of an April 2015 study on everyday justice by the Centre for Economic Investigation and Education (CIDE), conducted at the request of the President of the Republic); (iii) consider that the elections of workers representatives to such boards are not transparent and that the boards' members may be subject to conflicts of interests, especially when workers are represented by protection unions; and (iv) propose the modification of the boards' functions and powers, or their replacement, for example, by tribunals under the responsibility of the judicial authorities. The Committee observes that the Committee on Freedom of Association examined allegations of lack of impartiality in the operation of the conciliation and arbitration boards, invited the Government to initiate a constructive dialogue on the subject with the social partners and observed recently that the reform of the LFT was	Country	Specified risk for freedom of association

	T	
having a positive impact on the operation of the Federal Conciliation and Arbitration Board (see Case No. 2694, 370th Report, paragraph 567). The Committee requests the Government to provide its comments on this subject, and encourages it to continue examining, through constructive dialogue with the social partners, the issues raised by trade unions in relation to the conciliation and arbitration boards with regard to the exercise of the trade union rights enshrined in the Convention." http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 254458:NO Direct Request (CEACR) - adopted 2015, published 105th ILC session (2016) Worst Forms of Child Labour Convention, 1999 (No. 182) - Mexico (Ratification: 2000) "While noting this information, the Committee observes that, according to estimated figures		
from UNESCO, the net enrolment rate for primary school was 96.1 per cent in 2013, and 67.9 per cent for secondary school in 2012. The Committee also notes the results of the "Child Labour" module, published within the framework of the 2013 national survey of employment and occupation, which show that in 2013 the number of children between 5 and 17 years not attending school rose to 2,119,363. Furthermore, of the 2.5 million children engaged in work, 36 per cent do not go to school, which represents a total of 913,798 children: 648,725 boys and 265,073 girls. The Committee requests the Government to pursue its efforts to improve the functioning of the educational system, giving particular attention to boys, children from rural areas, indigenous communities and of migrant workers, and placing emphasis on raising the school attendance rate for secondary education. It requests the Government to continue to provide information on the results achieved in this regard, in particular in the context of the PROSPERA, PROSEDU and PIEE programmes.	Country	Specified risk for child labour
2. Children engaged in agricultural work or marginal urban activities. In its previous comments the Committee noted the results of the programme to prevent and eliminate child labour in the marginal urban sector (PROCEDER) and the Government's activities in the context of the Convention for the Execution of the Programme of Direct Action (PAD). The Committee noted that, according to the results of the 2011 national survey of employment and occupation mentioned above, the percentage of children between 5 and 17 years engaged in agricultural activities was 29.5 per cent in 2011. It encouraged the Government to pursue its efforts to protect children engaged in agriculture and the informal sector, and to provide information on the results achieved in the context of these programmes.		
The Committee notes the lack of information in the Government's report on measures taken to prevent and protect children engaged in informal activities and agriculture and on the results achieved in the context of the PROCEDER and PAD programmes. It also notes that, according to the results of the 2013 national survey of employment and occupation, 773,300 children and young persons between 5 and 17 years of age are engaged in the agricultural sector, 677,394 of whom are boys and 95,906 are girls. The Committee urges the Government to take the necessary measures to protect children engaged in informal urban activities and agriculture from hazardous work and requests it to provide information	Country	Specified risk for child labour in the

on the impact and results achieved in the context of the PROCEDER and PAD programmes.

Application of the Convention in practice and labour inspection. In its previous comments the Committee noted that, according to the results of the 2011 national survey of employment and occupation, 3 million children between 5 and 17 years of age worked. The Committee notes that, according to the results of the 2013 national survey of employment and occupation, the proportion of children between 5 and 17 years of age engaged in economic activities is 8.6 per cent (11.4 per cent of whom are boys and 5.8 per cent girls), amounting to 2,536,693 children. Over 50 per cent of these child and young workers are concentrated in eight federative entities, including Colima, Guerrero, Puebla and Guanajuato. More than a million child workers do not receive a salary. The Committee notes the study entitled "Child labour in Mexico; progress and challenges" carried out in 2014 by the Secretary of Labour and Social Protection, which demonstrates that Mexico was making headway in its fight against child labour and specifies that, between 2011 and 2013, the number of child and young workers had fallen by 540,376. The Government also indicates that it has awarded the "Mexico free from child labour" (MEXTI) prize to 98 institutions and organizations from the public, private and social sectors and trade unions which contribute to the prevention and eradication of child labour through their programmes or actions. This prize helps to strengthen the culture of social responsibility and develop good practices.

The Committee also notes the Government's indication according to which a labour inspection protocol concerning the eradication of child labour and the protection of young persons who have reached the statutory age for admission to work has been designed with ILO–IPEC support with a view to establishing a regulatory framework. Lastly, the Committee takes note of the capacity-building activities organized by the General Directorate of labour inspection in cooperation with other bodies, including the ILO, which has led to the training of some 800 inspectors in the prevention and eradication of child labour and the protection of young persons who have reached the statutory age for admission to work, in 2013 and 2014. While duly noting the measures taken by the Government, the Committee requests it to continue to provide statistics and other information on the nature, extent and trends of the worst forms of child labour, the number of children protected by the measures giving effect to the Convention, the number and nature of reported violations, investigations, prosecutions, convictions and criminal penalties imposed. To the extent possible, all information provided should be disaggregated by sex and age."

http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 254462:NO

Observation (CEACR) - adopted 2015, published 105th ILC session (2016) Worst Forms of Child Labour Convention, 1999 (No. 182) - Mexico (Ratification: 2000) "The Committee notes with satisfaction the adoption of the Decree reforming and repealing various provisions of the Federal Labour Law on child labour of 12 June 2015. Under section 175 of this Decree, it is prohibited to use children under 18 years in work which, by

agricultural sector

its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children. Section 176 sets out the detailed list of 20 types of prohibited hazardous or unhealthy work. The Committee nevertheless notes that, according to the "Child labour" module published as part of the 2011 national survey of employment and occupation, 31.5 per cent of child and young workers between 5 and 17 years are exposed to risks in their work. The Committee encourages the Government to intensify its efforts to ensure that, in practice, children under 18 years are not engaged in work likely to harm their health, safety or morals, in accordance with sections 175 and 176 of the Decree. The Committee requests the Government to provide information on the number of violations detected and penalties applied in this regard."	Country	Specified risk for child labour
http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 146201:NO Direct Request (CEACR) - adopted 2013, published 103rd ILC session (2014) Equal Remuneration Convention, 1951 (No. 100) - Mexico (Ratification: 1952) Objective job evaluation. The Committee notes that the Government's report does not contain specific information on the adoption of methods for the objective evaluation of jobs. The Committee recalls that the objective job evaluation is important to give effect to the principle of "equal remuneration for work of equal value" and that, as occupational gender segregation continues to be prevalent, it is fundamental to ensure that the scope of comparison is broad so that the principle of equal remuneration can be applied (General Survey on the fundamental Conventions, 2012, paragraph 697). Such evaluation has a measurable impact on the gender pay gap. With a view to making progress towards the full application of the Convention, the Committee requests the Government to indicate whether measures are being adopted with a view to establishing a system for the objective job evaluation in the public sector and to promote its adoption in the private sector."	Country	Specified risk for equal remuneration
http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 146205:NO Observation (CEACR) - adopted 2013, published 103rd ILC session (2014) Equal Remuneration Convention, 1951 (No. 100) - Mexico (Ratification: 1952) "Article 1(b) of the Convention. Equal remuneration for men and women for work of equal value. Legislation. The Committee notes with regret that the Government did not take the opportunity of the recent reform of the Federal Labour Act to include the principle of equal remuneration for men and women for work of equal value, as set out in the Convention. Indeed, section 86 of the Act continues to provide that there shall be equal pay for equal work performed in the same post, the same working day and conditions of efficiency. However, in its previous observation, the Committee noted the Mexican Standard on Equality at Work for Women and Men, which broadens the concept of equal wages to that of "equal wages for work of comparable value", and it requested the Government to clarify the scope of the term "comparable value". The Committee observes that, according to the Government's explanations, the Standard is a certification that is individual in scope and is granted to entities which apply practices aimed at equality at work, but that it does not explain the meaning of the term "comparable value". The Committee recalls that the	Country	Specified risk for equal remuneration

concept of "work of equal value" is the cornerstone of the Convention and that it is applicable to all workers. The Committee requests the Government to take measures to give full legislative expression to the principle of the Convention and to provide information on any developments in this respect. Gender pay gap. The Committee notes that the information provided by the Government does not enable it to determine the current situation with regard to the remuneration gap between men and women. The Committee notes that according to the study "Poverty and Gender in Mexico" prepared by the National Council for the Evaluation of the Social Development Policy in 2012, there is major occupational segregation and the labour market participation gap between men and women is higher in the poorest sectors, including and particularly for youth. The Committee recalls that in 2009 the pay gap measured in terms of average income was 29.3 per cent. The Committee referred previously to the comments of the National Union of Workers (UNT) on the absence of an adequate system for the compilation of statistics. The Committee notes the Government's indication concerning the adoption of key labour market indicators for inclusion in the national catalogue of indicators. The Committee recalls that pay differentials continue to be	Country	Specified risk for equal remuneration
one of the most persistent forms of inequality between women and men, and that the persistence of these disparities requires governments, together with employers' and workers' organizations, to take more proactive measures to raise awareness, assess, promote and give effect in practice to the principle of equal remuneration for men and women for work of equal value. The compilation, analysis and dissemination of statistical data are fundamental to detecting and addressing inequalities in remuneration. The Committee requests the Government to ensure that the arrangements that are implemented for the compilation of statistics make it possible to determine in a satisfactory manner the gender pay gap and trends in that gap, and to take specific measures for its reduction. The Committee asks the Government to provide information on any developments in this respect."		
http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 146221:NO Observation (CEACR) - adopted 2013, published 103rd ILC session (2014) Discrimination (Employment and Occupation) Convention, 1958 (No. 111) - Mexico (Ratification: 1961) "Article 1(1)(a) of the Convention. Grounds of discrimination. The Committee notes the amendment of 30 November 2012 to the Federal Labour Act, sections 2 and 3 of which establish the following prohibited grounds of discrimination: ethnic or national origin, gender, age, disability, social status, state of health, religion, migration status, opinions, sexual preference and marital status. Section 56 provides that, in addition to the enumerated grounds, no distinction may be made or exclusion applied on the grounds of sex, pregnancy or family responsibilities. The Committee recalls that the provisions which		
are adopted to give effect to the Convention should include all the criteria set out in Article 1(1)(a) of the Convention. The Committee notes that race, colour, national extraction, social origin and political opinion are not explicitly covered by the Federal Labour Act.	Country	Specified risk for discrimination

Discrimination on the basis of race and colour. The Committee has for many years been referring to the need to take measures to investigate the existence of the practice of publishing advertisements for vacancies that discriminate in relation to race and colour. The Committee notes the Government's indication of the publication, with the assistance of the National Council for the Prevention of Discrimination (CONAPRED), of the guide on institutions committed to inclusion, aimed at public and private institutions, which proposes measures for equality. In addition, CONAPRED has been carrying out various training activities since 2010. The Committee nevertheless notes the conclusions of the UN Committee on the Elimination of Racial Discrimination (CERD) on the existence of structural racial discrimination, the lack of visibility of the situation of Afro-descendants and the situation of indigenous peoples (CERD/C/MEX/CO/16-17 of 9 March 2012). While welcoming the measures adopted by CONAPRED, the Committee requests the Government to take additional, concrete and specific measures to address discrimination on the basis of race and colour, to provide information on the cases and complaints filed on that subject and on the action taken as a result.	Country	Specified risk for discrimination
Sexual harassment. The Committee notes that the Federal Labour Act, as amended, defines sexual harassment in section 3bis as "a form of violence in which, even where there is no subordination, there is an abusive exercise of power that incites a state of defencelessness and risk for the victim, regardless of whether it takes the form of one or of several acts". The Committee notes, however, that while the Federal Labour Act foresees sanctions in Part XVI, these do not appear to apply in the case of violations of 3bis. The Committee had previously noted that the procedures available with respect to sexual harassment ended in the termination of the employment relationship and the payment of compensation, and raised concerns that the termination of the employment relationship was a penalty against the victim, and could dissuade victims from bringing complaints. The Committee notes further that the penal codes of all the federated entities contain provisions punishing sexual harassment. The Government has also provided detailed information on the procedures for reporting sexual harassment to the Office of the Attorney-General of the Republic and on how the complaints are dealt with, the duration of the procedures and the application in practice of the Protocol for the intervention in cases of sexual harassment in the public administration, and the various awareness-raising activities carried out. Recalling that measures to prevent and prohibit sexual harassment in employment and occupation should cover both quid pro quo and hostile environment harassment, the Committee requests the Government to indicate the manner in which section 3bis of the Federal Labour Act covers these two elements. The Committee also requests the Government to indicate the procedures, sanctions and remedies available pursuant to the legislation applicable to sexual harassment in employment and occupation. The Government is also requested to indicate how it is ensured that complaints of sexual harassment do not result in the termination of th	Country	Specified risk for sexual harassment

	http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3 146217:NO Direct Request (CEACR) - adopted 2013, published 103rd ILC session (2014) Discrimination (Employment and Occupation) Convention, 1958 (No. 111) - Mexico (Ratification: 1961) Article 1(1)(a) of the Convention. Discrimination on the basis of sex. The Committee notes that section 2 of the Federal Labour Act, as amended on 30 November 2012, makes the substantive equality implied by access to the same opportunities, subject to "considering the biological, social and cultural differences of men and women". In this respect, the Committee recalls that protection against discrimination applies to both men and women, although considerable inequalities exist to the detriment of women. In this context, the Committee emphasizes that women should have the right to pursue freely any job or profession and that stereotyped assumptions regarding women's aspirations and capabilities, their suitability for certain jobs or their interest or availability for full-time work, continue to lead to the segregation of men and women in education and training, and consequently, in the labour market (see the General Survey on the fundamental Conventions, 2012, paragraph 783 et seq.). The Committee requests the Government to indicate the scope of application and the coverage of section 2 of the Federal Labour Act."	Country	Specified risk for discrimination of women in the labour market
ILO Declaration on Fundamental Principles and Rights at Work: Country reports. http://www.ilo.org/declaration/langen/index.htm (Search for 'racial discrimination', 'child labour', 'forced labour', 'gender equality', 'freedom of association')	No additional information found that indicates a 'specified risk'	Country	Low risk
ILO Child Labour Country Dashboard: http://www.ilo.org/ipec/Regionsandcountries/lang-en/index.htm	No additional information found that indicates a 'specified risk'	Country	Low risk
Global March Against Child Labour: http://www.globalmarch.org/	No additional information found that indicates a 'specified risk'	Country	Low risk
Office of the United Nations High Commissioner for Human Rights (OHCHR), Committee on Rights of the Child: http://www.ohchr.org/EN/HRBodies/CRC/Pages/CRCIndex.as px	https://documents-dds- ny.un.org/doc/UNDOC/GE N/G15/146/11/PDF/G1514611.pdf?OpenElement Committee on Rights of the Child - Concluding observations on the combined fourth and fifth periodic reports of Mexico - 3 July 2015 "Economic exploitation, including child labour 63. The Committee notes the constitutional reform raising the minimum age of employment to 15 years. However, it remains deeply concerned that hundreds of thousands of children, at times as young as 5 years old, continue to work and that a high percentage of them is involved in the worst forms of child labour, such as mining and agriculture, and do not receive a salary. It is further concerned at the insufficient measures taken to address child domestic labour, which particularly affects girls, as well as the involvement of children, especially children of migrant farmworkers, in agriculture. CRC/C/MEX/CO/4-5 18 64. The Committee recommends that the State party:	Country	Specified risk for child labour in the agricultural sector

Committee on the Elimination of Discrimination against Women http://www.ohchr.org/en/hrbodies/cedaw/pages/cedawindex.aspx (Use the link to 'Key documents' on the left-hand side. Go to 'observations' and search for country or right top select country click on CEDAW treaty, click on latest reporting period and select concluding observations)	(a) Review its legislation to ensure compliance with international standards, including International Labour Organization (ILO) Worst Forms of Child Labour Convention, 1999 (No. 182), ensure that domestic work and work in agriculture and brickyards, among others, are explicitly included as a hazardous form of labour and prohibited for children under 18 years of age, and take measures to eliminate them; (b) Strengthen its inspection system and effectively enforce in practice penalties on those who economically exploit and abuse children, including children working as beggars, in domestic labour, both paid and unpaid, and in agriculture; (c) Provide adequate resources for the effective implementation of the National Programme on Prevention and Elimination of Child Labour and Protection of the Adolescent Worker, and adopt specific measures to address the situation of child domestic workers, children working in mines and brickyards and migrant children in agriculture; (d) Ensure that data collected on child labour are disaggregated and include information on children working as beggars, in temporary agricultural labour and in domestic labour in their homes; (e) Expedite the ratification process of the ILO Minimum Age Convention, 1973 (No. 138) regarding the minimum age for admission to employment; (f) Continue to seek technical assistance from the International Programme on the Elimination of Child Labour of the International Labour Office." (p. 17-18) http://tbinternet.ohchr.org/. layouts/treatybodyexternal/Download.aspx?symbolno=CEDAW %2fC%2fMEX%2fCO%2f7-88Lang=en Concluding observations of the Committee on the Elimination or Discrimination against Women – Mexico – 7 August 2012 "Trafficking in persons 20. The Committee expresses its concern about information received that indicates a connection between the increased numbers of disappearances of women, in particular girls, throughout the country and the phenomenon of trafficking in persons. It is concern about the lack of uniformity in criminalizing traf	Country	Specified risk for trafficking women and forced labour by women
	Employment 28. The Committee is concerned about the persistent discriminatory practices against women in the field of employment, such as the requirement of pregnancy tests to obtain or maintain employment, the practice of subjecting pregnant women to difficult or hazardous working conditions in order to force them to resign from their jobs and that further the reform of the Federal Labour Act has been pending for several years. It is also concerned about reports indicating that 3 out of 10 women reported having experienced violence in	Country	Specified risk for violence and discrimination in the

	the workplace, including sexual harassment and abuse. The Committee is also concerned about the considerable pay differentials between men and women and that 56.6 per cent of the female working population is engaged in the informal labour sector and hence lacks access to social security benefits. It is further concerned about the unequal working conditions of domestic workers, 99 per cent of whom are women, and that they experience discrimination with respect to wages, working hours and benefits. 29. The Committee reiterates its previous recommendation to the State party to bring its labour legislation into full compliance with article 11 of the Convention and to expedite the adoption of the Federal Labour Act, which has been pending for years. It calls upon the State party: (a) To take measures to ensure equal opportunities for women and men in the labour market, including through the use of temporary special measures, with time-bound targets, in accordance with article 4, paragraph 1, of the Convention and the Committee's general recommendation No. 25 (2004) and by providing the general labour inspectorate directorate with the necessary and effective human and financial resources to monitor and sanction discriminatory practices against women in the field of employment, such as in the maquiladora industry; (b) To ensure the effective implementation of the protocol on intervention in cases of sexual harassment within the public administration and envisage similar measures to prevent sexual harassment in the private sector; (c) To take measures that enhance the situation of women in the informal sector, monitor their impact and ensure the continuation of these Seguro Popular programme, which aims at providing health services to these women; (d) To revise the legal social protection framework to formulate a comprehensive policy that ensures domestic workers equal access to equal access to social security and safety in working conditions; (e) To ratify International Labour Organization Convention No. 156 on		workplace for women and for gender pay gap
	34. The Committee notes that the Convention has been translated into 10 indigenous languages. It notes as well the creation of indigenous women's centres whose objectives are the prevention and treatment of violence and the promotion of sexual and reproductive health and rights for indigenous women. However, it remains concerned about the high levels of poverty, illiteracy and multiple forms of discrimination against indigenous rural women, in particular in Chiapas, Guerrero and Oaxaca.	Country	Specified risk for discrimination against indigenous rural women
Human Rights Watch: http://www.hrw.org/	No information found that indicates a 'specified risk'in relation to labour rights.	Country	Low risk for labour rights
Child Labour Index 2014 produced by Maplecroft:	https://maplecroft.com/portfolio/new-analysis/2013/10/15/child-labour-risks-increase-china-	Country	Specified risk
http://maplecroft.com/portfolio/new-analysis/2013/10/15/child-	and-russia-most-progress-shown-south-america-maplecroft-index/		for child
labour-risks-increase-china-and-russia-most-progress-shown-	(Last viewed in 2016)		labour
south-america-maplecroft-index/	Child Labour Index 2014		

(Last viewed in 2016)	Mexico is labeled "Extreme Risk".		
Verité:	No information found that indicates a 'specified risk'in relation to labour rights.	Country	Low risk for
https://www.verite.org/africa/explore-by-commodity/wood/			labour rights
The ITUC Global Rights Index: ranks 139 countries against 97	http://www.ituc-csi.org/IMG/pdf/survey_ra_2016_eng.pdf	Country	Specified risk
internationally recognised indicators to assess where workers'	The ITUC Global Rights Index 2016		for labour
rights are best protected, in law and in practice. The Survey	Mexico is classified in Rating 4 "Systematic violation of rights" (p. 13)		rights, to
provides information on violations of the rights to freedom of			freedom of
association, collective bargaining and strike as defined by ILO	"Workers in countries with the rating 4 have reported systematic violations.		association,
Conventions, in particular ILO Convention Nos. 87 and 98 as	The government and/or companies are engaged in serious efforts to crush the		collective
well as jurisprudence developed by the ILO supervisory	collective voice of workers putting fundamental rights under threat." (p. 19)		bargaining
mechanisms. There are 5 ratings with 1 being the best rating			and strike
and 5 being the worst rating a country could get.	https://www.ituc-csi.org/IMG/pdf/ituc-global-rights-index-2018-en-final-2.pdf		
http://www.ituc-csi.org/new-ituc-global-rights-index-	The ITUC Global Rights Index 2018	Country	Specified risk
the?lang=en	Trade union members were killed in nine countries in 2018, Mexico was among them.		for labour
One description (in OEOD asserting)	Mexico is classified in Rating 5 "No guarantee of rights" (p. 10)	0	rights
Gender wage gap (in OECD countries): http://www.oecd.org/gender/data/genderwagegap.htm	https://www.oecd.org/gender/data/genderwagegap.htm The gender wage gap for Mexico in the latest available year (2013) is 15,43 %. The OECD	Country	Low risk for
nitp://www.oecd.org/gender/data/genderwagegap.nitm	average gender wage gap is 15,5 %. Mexico's score is just below the OECD average.		gender wage
World Economic Forum: Global Gender Gap Index.	http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=MEX		gap
http://reports.weforum.org/global-gender-gap-report-2015/	Global Gender Gap Index 2015 - Mexico		
nitp://reports.weiorum.org/global-gender-gap-report-2015/	Mexico ranks no. 71 out of 142 countries with a score of 0.699. (The highest possible score		
	is 1 (equality) and the lowest possible score is 0 (inequality)).		
	On the more specific sub-index on Economic participation and opportunity Mexico ranks		
	no. 126 with a score of 0.545.		
	Within that index, the most specific and relevant indicator is the Wage equality for similar	Country	Specified risk
	work. Here Mexico ranks no. 128 with a score of 0.51 which is below the global average (of	Country	for equal
	142 included countries).		remuneration
Global Wage Report: "The Global Wage Report analyses the	http://www.ilo.org/wcmsp5/groups/public/dgreports/dcomm/		
evolution of real wages around the world, giving a unique	publ/documents/publication/wcms_324678.pdf		
picture of wage trends and relative purchasing power globally	Global Wage Report 2014/15		
and by region."	The actual gender wage gap minus the explained gender wage gap (taking into account	Country	Low risk for
http://www.ilo.org/global/research/global-reports/global-wage-	i.e. education, experience, economic activity, location, work intensity and occupation) for	-	equal
report/langen/index.htm	Mexico is 18% (22 % minus 4 %). This percentage represents the unexplained gender		remuneration
	wage gap which may capture discriminatory practices. The average unexplained gender		
	wage gap for Europe is 20%. Mexico is below the European average. (Figure 37, p. 49)		
The Global Slavery Index: estimates the number of people in	https://www.globalslaveryindex.org/2018/data/maps/#prevalence		
modern slavery in 167 countries. The Global Slavery Index	Mexico has a Prevalence Index Rank of 114 out of 167 countries.		
answers the following questions:	The 2018 Global Slavery Index estimates values of: 341,000 people or 2.71/1000 live in		
What is the estimated prevalence of modern slavery country	conditions of modern slavery in Mexico. A score of 57.31/100 is given to vulnerability to	Country	Low risk for
by country, and what is the absolute number by population?	Modern Slavery. In general, it is categorized as a country with a "intermediate-to-low" color		slave labour
How are governments tackling modern slavery? What factors	code between low and high prevalence rank.		
explain or predict the prevalence of modern slavery?			
http://www.globalslaveryindex.org/			

(Google the terms '[country]' and one of following terms	http://www.aflcio.org/lssues/Trade/Trans-Pacific-Partnership-Free-Trade-Agreement-		
'violation of labour rights', 'child labour', 'forced labour', 'slave	TPP/Labor-Rights/Mexico-Labor-Rights-Concerns		
labour', 'discrimination', 'gender pay/wage gap, 'violation of	Mexico: Labor Rights Concerns		
labour union rights' 'violation of freedom of association and	"The State Department's Mexico 2014 Human Rights Report concludes that:		
collective bargaining')	The government did not consistently protect worker rights in practice. Its general failure to		
	enforce labor and other laws left workers without much recourse with regard to violations of	_	
	freedom of association, working conditions, or other problems.	Country	Specified risk
	The practice of "protection contracts" (collective bargaining agreements signed between an		for freedom of
	employer and an employer-dominated union, often without the knowledge of the workers)		association
	is the single most serious threat to freedom of association and democratic collective		and collective
	bargaining in Mexico. Today, in thousands of workplaces, workers are governed by CBAs		bargaining
	which they have never ratified, were never consulted on, and in many cases have never seen. The magnitude of this problem has been well-documented in public reports of		
	review under the NAALC,2 academic investigations,3 and recent case studies.4		
	[] Mexico's system of Labor Boards (Juntas de Conciliación y Arbitraje) has been widely		
	criticized for inefficiency, political bias, and corruption.26 While nominally tripartite, in		
	practice Labor Boards are controlled by the Executive Branch and have no autonomy.		
	While workers in theory have direct representation, the procedures for electing worker		
	representatives are obscure and in practice there is little opportunity for democratic		
	participation. In practice, the worker representatives on the Boards function as agents of		
	employer-dominated unions.		
	Limitations on Trade Union Autonomy		
	Arbitrary Denial of Trade Union Registration		
	The refusal of Mexican labor authorities to deny legal registration (registro) to independent		
	unions on formal or technical grounds is well-documented in cases presented under the		
	NAALC29 and to the ILO Committee on Freedom of Association.30 Recent cases confirm that this practice continues.31		
	Toma de Nota		
	In order for an elected union officer to take office, he or she must have a certification from		
	the labor authorities that the election was conducted according to the union statutes.32 In		
	practice this requirement – known as "toma de nota" – has been used by the labor		
	authorities as a tool to deny union office to leaders who are politically disfavored. While		
	the scope of "toma de nota" was restricted by a May 2012 Supreme Court ruling,33 it		
	invites abuse and should be abolished.		
	Radio de Accíon		
	The Mexican labor authorities continue to assert that unions may represent only workers in		
	specific industries (e.g. a union that represents mineworkers may not also represent		
	autoparts workers), asserting that the state may restrict a union to a specific "radius of		
	action" (radio de accíon).34 Moreover, labor authorities have refused to allow unions to		
	modify their statutes to represent workers in other industries.35 These restrictions should		
	be eliminated.		
	[] As noted above, Mexican union members have no right to receive a copy of their collective bargaining agreement. While the labor law requires that union statutes certain		
	Consolive pargaining agreement. Writing the labor law requires that union statutes certain		

financial disclosure and due process provisions, many workers do not even know what union represents them and, if they do, have no way to obtain a copy of their union statutes. Limitations on the Right to Strike The Mexican Labor Boards routinely declare strikes "non-existent," often on narrow technical grounds.36 While independent unions have frequently succeeded in persuading the courts to overturn the decisions of the Labor Boards, this imposes significant costs and delays on the workers. [] Weak Remedies for Unjust Dismissal Studies indicate that on average workers who bring claims of unjust dismissal to the Labor Boards receive less than a third of the amount to which they are legally entitled.39 [] Attacks on Worker Rights Defenders Physical violence by authorities and employers against workers who seek to defend their rights is common in Mexico."	Country	Specified risk for right to strike
http://www.worldbank.org/en/news/feature/2013/01/18/children-at-work-in-mexico-still-a-		
major-issue Children at Work in Mexico, Still a Major Issue – 18 January 2013 [] "millions of minors work in the country, and 870.000 of them are under 13 years old. There are almost twice as many children in the countryside that work than in the city. Also, more of them work in States like Guerrero, in the South, (where 12% of six-to-13-years-old work), than in Chihuahua, in the North (where only 1.4% of children work).	Country	Specified risk for child labour
http://www.aljazeera.com/blogs/americas/2016/01/mexico-child-labour-perils-lost-		
education-160127055528295.html		
Mexico: Child labour and the perils of a lost education – 27 January 2016 Statistics show 2.5 million children are working in Mexico, with 870,000 below the age of 13.	Country	Specified risk for child labour
http://www.insightcrime.org/news-briefs/criminal-groups-enslaving-mexicans-in-forced-		labour
labor-camps Criminal Groups Enslaving Mexicans In 'Forced Labor Camps' - 15 July 2013		
"Disappeared Mexicans are reportedly being enslaved in forced labor camps run by criminal groups, a scenario that could help account for the tens of thousands reported	Country	Specified risk
missing since 2006.		for slave
In interviews with Proceso, victims' relatives, human rights ombudsmen, religious leaders, and NGOs described prisoners across Mexico being forced to work in a vast variety of		labour
ways in horrendous conditions under threat of death. According to civil society organizations, "jobs" include forced killings, preparing marijuana,		
constructing tunnels, cleaning safe houses, preparing food, installing communications		
equipment, and acting as lookouts or sex slaves." [] A report obtained through Mexico's Freedom of Information law from the country's		
National Commission of Human Rights revealed that between 2009 and 2013, government officials freed 2,352 captives, 855 of whom were migrants. Juan Lopez, lawyer for NGO		
United Forces For Our Disappeared In Mexico (Fundem), says of the more than 26,000		

people that have disappeared in Mexico in the last six years, up to a third could be enslaved.		
Bishop Raul Vera Lopez of Saltillo said there were "strong indicators" that many of Mexico's disappeared victims are working in forced labor camps, which he described as		
"concentration camps."		
[]The idea that up to a third of Mexico's disappeared victims may in fact be working in slave-like conditions is a horrifying proposition, although it seems unlikely given the huge		
profit margins of criminal organizations why would they would need to resort to large-		
scale slave labor when they can pay willing recruits? Isolated cases however, are certainly		
plausible. Fundem lawyer Juan Lopez told Proceso that that disappeared people did sometimes		
emerge, but it was rarely possible to interview them, helping explain why there is little		
public reporting on the issue. "The people that escape are destroyed, psychologically broken," he said. "They get to their houses, take their things, and flee."		
Ultimately, the notion that such forced labor camps could exist adds even more weight to		
the demand that the Mexican government must fully investigate what has happened to the victims of its forced disappearance "crisis."		
https://www.productsofslavery.org/ Products of slavery from Mexico listed on this website are: beans, chile, coffee, cucumber,	Country	Specified risk
eggplants, melons, onions, sugarcane, tobacco, tomatoes and pornography. Timber is not	, , , , , , , , , , , , , , , , , , , ,	for slave
mentioned.		labour
https://www.wsws.org/en/articles/2015/01/03/mexi-j03.html		
Forced labor on Mexican farms - 3 January 2015 "A recent report by investigative journalist Richard Marosi and photojournalist Don Bartletti		
of the Los Angeles Times, titled "Product of Mexico," chronicled brutal conditions of forced	_	
labor on 30 Mexican mega-farms visited in the course of 18 months of reporting. Such farms are a crucial component of Mexico's agricultural sector, accounting for \$7.6 billion	Country	Specified risk for forced
dollars of exports to the United States.		labour in the
The Times reported on mega farms such as Bioparques and Rene Produce where journalists witnessed squalid poverty and forced labor. Workers were trapped at farms		agricultural sector
surrounded by barbed wire, and in most cases had wages held illegally until the end of		000.0.
harvest to prevent them from attempting to leave once they realized how the camp operated. Workers who managed to escape would forfeit their earnings due to these illegal		
actions."		
https://www.monroecollege.edu/uploadedFiles/_Site_Assets/PDF/Human-Trafficking-		
MEXICO.pdf		
(Original source was available at: http://ihscslnews.org/view_article.php?id=388) Modern Day Slave Labor in Mexico - Jan 2014		
"Mexico is a large source, transit, and destination country for men, women, and children	Country	Specified risk
subjected to sex trafficking and forced labor. Groups considered most vulnerable to human trafficking in Mexico include women, children, indigenous persons, persons with mental		for forced labour in the
trainioning in wexico include women, children, indigenous persons, persons with mental		iabout itt tile

		T
and physical disabilities, and undocumented migrants. Mexican women and children are		agricultural
exploited in sex trafficking within Mexico and the United States, lured by fraudulent		sector
employment opportunities or deceptive offers of romantic relationships. Mexican men,		
women, and children also are subjected to conditions of forced labor in agriculture,		
domestic service, construction, and street begging, in both the United States and Mexico."		
http://www.mcclatchydc.com/news/nation-world/world/article24754798.html		
For dark-skinned Mexicans, taint of discrimination lingers – 22 August 2013		
"Flip through the print publications exalting the activities of Mexico's high society and		
there's one thing you rarely find: dark-skinned people.		
No matter that nearly two-thirds of Mexicans consider themselves moreno, the Spanish		
word for dark.	Advertisemen	Specified risk
Mexico has strong laws barring discrimination based on skin color or ethnicity, but the	t sector in	for
practices of public relations firms and news media lag behind, promoting the perception	Country	discrimination
that light skin is desirable and dark skin unappealing.		
The issue came to the fore this month when a casting call for a television spot for Mexico's		
largest airline stated flatly that it wanted "no one dark," sparking outrage on social media		
and, ultimately, embarrassed apologies."		
http://www.industriall-union.org/mexican-union-leader-calls-for-immediate-government-		
action		
Mexican union leader calls for immediate government action – 9 June 2016	Carrination	Connection winds
Mexican trade union leader, Napoleon Gomez, is calling for the Mexican government to	Country	Specified risk
take immediate action to stop the grave violations of trade union rights in the country.		for freedom of
Gomez, who is president of IndustriALL affiliate, Los Mineros, has been in Geneva,		association
Switzerland to attend the 105th Session of the International Labour Conference taking		and collective
place from 30 May to 10 June. The government of Mexico was requested to appear before		bargaining
the conference's Committee on the Application of Standards (CAS) to answer allegations		
of serious violations of ILO Convention 87 on freedom of association.		
The Mexican government brought a delegation of 70 representatives from government,		
business and trade unions to the conference to boast about recent constitutional and		
labour reforms proposed to the Senate. However, only one single trade union		
representative in the delegation was from a democratic union.		
Napoleon Gomez, who addressed the committee on behalf IndustriALL Global Union,		
denounced the protection contracts in the country, which are made between undemocratic		
unions and companies without workers' consent or, often, knowledge. The protection		
contracts have been disastrous for Mexican workers who are locked into unfair agreements		
and poverty wages.		
The government of Mexico told the Committee that the April 2016 proposals for labour law		
reform will change the system. However, it is unclear when and if the labour reform will be		
passed by Congress. The proposals will also do little for workers already stuck under		
protection contracts. Napoleon highlighted that to resolve all the current cases before the		
CAS and Committee on Freedom of Association at the ILO, no labour reform is needed.		

The Mexican Government needs to prove that it is committed to implement freedom of association in the real world and not only in public relations statements. In a video statement Gomez explains that the government needs to simply enforce existing legislation to stop the violations against trade unions." http://www.laborrights.org/blog/201601/protests-ju%C3%A1rez-shine-light-workers-rights-violations-mexico Protests in Juárez Shine a Light on Workers' Rights Violations in Mexico - January 11, 2016 "Just across the border with Texas, workers in Ciudad Juárez have been launching brave actions against global manufacturing giants to improve conditions in the low-wage maquiladora sector. Over the past six months, workers at large assembly plants owned by Commscope, Eaton, Foxconn and Lexmark, producing electronics, auto parts and printing supplies for the U.S. market, have launched a series of mobilizations to protest wages as low as \$30 per week, unsafe working conditions, sexual harassment and discrimination. Juárez is a major location of such industry, accounting for well over 10% of all such exports from Mexico. In several cases, workers have attempted to form independent unions to defend their rights and have a voice at work."	Maquilador(a productive sector in Country)	Specified risk for labour rights
http://www.maquilasolidarity.org/en/ourwork/freedomofassociation "MSN supports Mexican workers' efforts to organize authentic democratic unions, and engages with international apparel brands on the policies they should adopt and steps they should take to ensure greater respect for freedom of association and the right to bargain collectively in their Mexican supplier factories. As in many other countries, workers' rights to freedom of association and to bargain collectively are routinely violated in Mexico. In addition, there are major institutional barriers to freedom of association in Mexico that prevent workers from forming or joining a union of their free choice, including the signing of "employer protection contracts" by unrepresentative unions or individual lawyers without workers' knowledge or consent, the lack of transparency of union registrations and collective bargaining agreements, and the lack of impartiality of Conciliation and Arbitration Boards that grant union registrations."	Country	Specified risk for freedom of association and collective bargaining
http://www.fairlabor.org/report/protection-contracts-mexico Protection Contracts in Mexico – 11 March 2015 "Factory workers in Mexico face a unique barrier to their right to freedom of association and collective bargaining through employers' widespread use of illegitimate collective bargaining agreements (commonly known as "protection contracts") signed CBA between an employer and an employer-dominated union that does not truly represent workers and their interests. In determining the existence of protection contracts in Mexican factories, FLA assessors look for certain indicators that the union is not truly representing workers, and that there is therefore a violation of the freedom of association element of the FLA Workplace Code of Conduct. These indicators include: 1. There are no general assembly elections with worker participation; 2. Workers do not participate in meetings or in the development of agendas for meetings;	Country	Specified risk for freedom of association and collective bargaining

Additional general sources	 3. Workers do not receive prior notice of CBA negotiations, are not aware of who "represents" them in those negotiations, and do not have the opportunity to ratify new or revised CBAs; 4. Workers are automatically enrolled with the union upon hiring; 5. Workers are unaware of the existence of the union and the leaders that represent them; 6. The provisions of the CBA do not result in benefits to workers beyond the minimum legal requirements already in the labor code; 7. Workers are not provided with a copy of the CBA." Additional specific sources 		
From national CW RA	Not available	-	-
proposed to limit the practice of protection unions approval of collective agreements by workers; The men and women for work of equal value, as set of and political opinion is not explicitly forbidden by the appear to apply in the case of violations of 3bis, who November 2012, makes the substantive equality in cultural differences of men and women; domestic hazardous form of labour and prohibited for childrent of the government did not effectively enforce application freedom of association, because the boards are of discharge of their functions. Right to freedom of association and collective bar stands for "No guarantee of rights" on collective late made between undemocratic unions and compan been disastrous for Mexican workers who are lock Although this category 2 assessment indicated the the more profound assessment of category 1 contaddition, there is evidence confirming compulsory criminal groups. And although no direct evidence approach and conclude specified risk for forced late. There is evidence confirming discrimination in rese with a score of 0.51 for the most specific and relevant mentions. There is evidence confirming significant child labor the 2013 national survey of employment and occurs. See per cent (11.4 per cent of whom are boys and agricultural sector, which is not clear if it includes.	able laws: The operation of the conciliation and arbitration boards is impeding the exercise of ontrolled by federal Government and state bodies and lack the independence necessary for the againing is not upheld; Mexico is ranked in Category 5 of the ITUC Global Rights Index 2018 which abour rights. A trade union leader denounced the protection contracts in the country, which are its without workers' consent or, often, knowledge and states that the protection contracts have seed into unfair agreements and poverty wages. The applicable legislation regarding compulsory and/or forced labout covers key ILO Principles, cluded that indicator 1.12 on legal employment is not evidencing enforcement of the labour law. In and/or forced labour in Mexico in several sectors, and often related to the operations of organized was found that this occurs in the forest sector, this risk assessment must apply the precautionary abour. The pect of employment and/or occupation, and/or gender: Mexico ranks nr. 128 out of 145 countries want indicator 'wage equality for similar work' in the Global Gender Gap Index 2015. Discrimination sect to gender, in particular, rural indigenous women are being discriminated. The proportion of children between 5 and 17 years of age engaged in economic activities is 5.8 per cent girls), amounting to 2,536,693 children. Child labour evidences were found for the	Country	Specified risk

Organise and Collective Bargaining Convention and this will enter into force until 23rd November 2019.

- There is evidence that any groups (including women) do not feel adequately protected related to the rights mentioned above: see information on gender and minorities above; 3 out of 10 women reported having experienced violence in the workplace, including sexual harassment and abuse. Physical violence by authorities and employers against workers who seek to defend their rights is common in Mexico.
- Violations of labour rights are not limited to specific sectors: Examples of violations were found in relation to a wide variety of sectors, and not specifically for the forest sector. Therefore, following the precautionary approach, violations of labour rights are highly likely to occur in the forest sector.

The following 'specified risk' thresholds apply:

- (13) Applicable legislation for the area under assessment covers all key provisions of ILO Fundamental Principles and Rights at work but the risk assessment for relevant indicators of Category 1 confirms 'specified risk'; AND
- (14) The applicable legislation for the area under assessment contradicts indicator requirement(s); AND
- (15) There is substantial evidence of widespread violation of key provisions of the ILO Fundamental Principles and Rights at work.

Indicator 2.3. The rights of Indigenous and Traditional Peoples are upheld.

Guidance:

- Are there Indigenous Peoples (IP), and/or Traditional Peoples (TP) present in the area under assessment?
- Are the regulations included in the ILO Convention 169 and is UNDRIP enforced in the area concerned? (refer to category 1)
- Is there evidence of violations of legal and customary rights of IP/TP?
- Are there any conflicts of substantial magnitude [footnote 6] pertaining to the rights of Indigenous and/or Traditional Peoples and/or local communities with traditional rights?
- Are there any recognized laws and/or regulations and/or processes in place to resolve conflicts of substantial magnitude pertaining to TP or IP rights and/or communities with traditional rights?
- What evidence can demonstrate the enforcement of the laws and regulations identified above? (refer to category 1)
- Is the conflict resolution broadly accepted by affected stakeholders as being fair and equitable?

general sources from FSC-PRO-60-002a V1-0 EN	information found and specific sources	scale of risk assessment	risk indication
ILO Core Conventions Database	http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:1		
http://www.ilo.org/ilolex/english/docs/declworld.htm	02764		
- ILO Convention 169	Mexico ratified ILO Convention 169 and the status is: in force.	Country	Low risk
	http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3		
	145279:NO		
	Observation (CEACR) - adopted 2013, published 103rd ILC session (2014)		
	Indigenous and Tribal Peoples Convention, 1989 (No. 169) - Mexico (Ratification: 1990)		
	"The Committee notes the comprehensive information provided by the Government in the		
	detailed report received in September 2013, which includes observations from the		
	Confederation of Industrial Chambers of the United States of Mexico (CONCAMIN). The		
	Committee also notes the observations made by the International Organisation of		
	Employers (IOE), which were transmitted to the Government on September 2012. The		
	CONCAMIN indicates that it is important to develop and implement programmes for the		
	various indigenous and tribal groups, and also expresses concern at the confusion that		
	could arise from the requirement to submit any action in relation to infrastructure, economic		
	and social development for the approval of indigenous peoples. The CONCAMIN considers		
	it positive that the Government has provided information on the programmes related to the		

inclusion of indigenous groups in productive activities in various areas of the country. Similarly, the IOE, referring to the requirement of consultation set out in Articles 6, 7, 15 and 16 of the Convention, expresses concern at the negative impact that failure to comply with that requirement can have for States parties in projects carried out by both public and private enterprises. The Committee notes that the National Commission for the Development of Indigenous Peoples (CDI) held over 30 consultations, which served at the federal and state levels as a means for the harmonization of legislation, the formulation of development plans and programmes, the development of public policies, cultural protection and dissemination and the protection of natural resources. In particular, the Government emphasizes the outcome of the consultations held in the states of Guanajuato, Hidalgo and Nueva León.	Country	Low risk for Consultation of IPs
[]The Committee also notes with interest the inclusion of strategy 2.2.3 in the National Development Plan 2013–18, published in May 2013, which includes three action lines intended to promote the harmonization of the national legal framework in relation to indigenous rights, encourage the participation of indigenous communities and peoples in the planning and management of their own community development, and to promote the economic development of the indigenous peoples and communities. Furthermore, in February 2013, a Dialogue Commission with Indigenous Peoples of Mexico was established within the Secretariat for Governance.	Country	Low risk for Consultation of IPs
[] Article 6. Consultation. The Committee notes the relevant information provided by the Government concerning the inclusion in state constitutions and legislation of the right of indigenous peoples and communities to consultation and participation. The Committee also notes the recommendations of the final report on the consultation concerning the draft general Bill on consultation in relation to legislation, the purpose of consultation, the principles, the process of consultation and minimum rights. In 2012, the CDI updated the system of indigenous consultation and a consultation protocol was approved by the Advisory Council of the CDI at its XXXIIIrd ordinary session in February 2013. The Committee invites the Government to provide the Office with a copy of the abovementioned protocol when it is available. The Committee also invites the Government to continue providing information on the various consultation processes conducted in the country at the federal, State and municipal levels. Please also provide information on the progress made in the legislative process of the consultation Bill.	Country	Low risk for Consultation of IPs
Community of San Andrés de Cohamiata. With reference to developments in the land dispute examined in a representation (GB.272/7/2, June 1998), the Government indicates that it is continuing to pay attention to this agrarian issue, even though the conditions for negotiation between the parties have not been conducive to its final settlement. The Committee notes that the Government will maintain continuous communication so that, in a consensual manner and under respectful and cordial conditions, discussions are maintained until it is finally resolved. The Committee refers to its previous observations and once again hopes that the parties to the dispute will make efforts to reach a satisfactory solution so as to bring an end to a conflictual situation that has gone on for several	Community of San Andrés de Cohamiata	Specified risk for land rights

decades. The Committee invites the Government to continue providing information on any developments in this respect.		
http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100 COMMENT ID:3 145193:NO Direct Request (CEACR) - adopted 2013, published 103rd ILC session (2014) Indigenous and Tribal Peoples Convention, 1989 (No. 169) - Mexico (Ratification: 1990) "Part I. General policy. The Committee notes the information provided by the Government in its report received in September 2013 on the change in the age range in the 2010 Census to capture speakers of indigenous languages. The Government indicates that a proposal is being prepared for the inclusion in 2015 of a question on indigenous self-identification in the basic questionnaire. The Committee invites the Government to continue providing updated statistical data on indigenous peoples in the country and the manner in which the self-identification of the peoples concerned is promoted (Article 1 of the Convention).	Country	Low risk for recognition of IPs
[] Articles 8 to 12. Administration of justice. The Committee notes the information provided by the Government concerning the implementation by the CDI and the National Indigenous Languages Institute (INALI) of the strategy for training, accreditation and certification of interpreters in indigenous languages, in the context of the administration and enforcement of justice. As of August 2013, a total of 513 persons had been trained and 442 accredited as interpreters of 102 linguistic variants and included on the INALI National Register of Interpreters for Indigenous Languages. Moreover, in the context of the implementation of the programme for the Promotion of Agreements in the Field of Justice (PCMJ), during the period 2011–13 support was provided for 1,700 projects for the promotion and defence of rights of indigenous peoples, improving the conditions for the access of justice of approximately 527,000 people. During the same period, the Release of Indigenous Prisoners project obtained the release of 2,506 indigenous persons. The Committee invites the Government to continue providing information on the programmes and measures adopted under Articles 8 to 12 of the Convention. The Committee also invites the Government to provide examples of rulings by courts specializing in indigenous issues and by ordinary courts which have applied indigenous customs and usages.		Low risk for access to justice
Part II. Article 14. Land. The Committee notes the information provided by the Government on the disputes identified as focos rojos, of which 11 have been totally resolved, four disputes have been partially resolved and three are being addressed and are in the process of conciliation. The Committee also notes the information provided on the land situation in relation to the Suave community of San Francisco del Mar, which is in dispute with the population of San Francisco de Ixhuatán (State of Oaxaca), and the Zoque community of Chimalapas, which is in dispute with the communities of Santa Maria de Chimalapa, San Miguel Chimalapa and 27 centres in the North–Eastern area of the	Country	Low risk for conflict resolution
municipality of Cintalapa (State of Chiapas). The Government indicates that both matters have been addressed through the Programme to Address Social Disputes in Rural Areas. The Committee notes that it was agreed to seek authorization from the Communal General	Country	Low risk for conflict resolution

	Assembly to commence dialogue with the San Francisco khuatán community in July 2011, and that the San Miguel Chimalapa community approved its request to continue measurements in August 2010. The Committee also notes the information provided by the Government concerning the processing of expropriation claims, the implementation of presidential decisions, the recognition of legal personality to ejidos (communal lands) and communities and the work of the National Trust Fund for the Promotion of Communal Lands (FIFONAFE). The Committee further notes the information provided by the Government on the land titles issued in 2012 through the land transfer procedure. A total of 157 land titles were issued in the State of Chiapas. In the context of the procedure for the transfer of national lands, 22 declarations were issued of national ownership in relation to two rural properties in the State of Campeche, 14 in the State of Chiapas, one in the State of Sonora and five in the State of Tabasco. The Committee invites the Government to continue providing information on the manner in which effective protection is ensured for the rights of indigenous communities to the lands that they traditionally occupy. Please provide examples with the next report of administrative and/or judicial decisions recognizing the rights of indigenous peoples to lands which they traditionally occupy and resolving claims to land based on traditional occupancy. The Committee also requests the Government to provide information on the land situation of the Ñahñú community of San Pedro de Atlapulco (State of Mexico) and the Mazahua community of San Antonio de la Laguna (State of Durango).	Country	Low risk for land rights
	Natural resources. Participation in the benefits. The Committee invites the Government to provide information in its next report on the operation of existing procedures so that the peoples concerned can participate wherever possible in the benefits resulting from the activities covered by Article 15 of the Convention, and receive compensation for any damages which they may sustain as a result of such activities.	Country	Specified risk for benefit-sharing
	Hydroelectric projects. The Committee notes the information provided on the hydroelectric projects managed by the Federal Electricity Commission (CFE). In the case of the Paso de la Reina hydroelecric project, which is outside the area of the Istmo de Tehuantepec (State of Oaxaca), various activities were undertaken for the dissemination of information and consultation of indigenous peoples as a basis for the commencement of the feasibility stage. According to the Government, in the context of the Las Cruces (State of Nayarit) hydroelectric project, the CFE is undertaking feasibility work and prior consultations were held with the Cora communities based on a procedure including direct communication with the members of the communities, their representatives and their traditional authorities to obtain their consent for the implementation of environmental and topographical studies and geological exploration activities.	Cora communities in Las Cruces, State of Nayarit	Low risk for FPIC
Survival International: http://www.survivalinternational.org/	https://cse.google.com/cse?cx=016619701585897751082%3Ackvinmxszmm&ie=UTF- 8&q=Mexico&sa=#gsc.tab=0&gsc.q=Mexico&gsc.page=1 No information found that indicates a 'specified risk'.	Country	Low risk
Human Rights Watch: http://www.hrw.org/	No information found that indicates a 'specified risk'.	Country	Low risk
Amnesty International: http://amnesty.org	https://www.amnesty.org/en/documents/pol10/2552/2016/en/ State of the Human Rights Report 2015/16		

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"Mexico Large-scale development and resource exploitation projects were carried out without a legal framework regarding the free, prior and informed consent of Indigenous communities they affected. [] INDIGENOUS PEOPLES' RIGHTS The country still lacked a legal framework on the right of Indigenous Peoples to free, prior	Country	Specified risk for FPIC
and informed consent regarding development projects affecting their lands and traditional way of life. Two Indigenous Yaqui leaders who had been imprisoned for protesting against the construction of an aqueduct were released because of a lack of evidence against them. The aqueduct's operation, however, continued even after a national anthropology authority found that it threatened the survival of the Indigenous community." (p. 252)		
https://www.amnesty.org/download/Documents/POL1067002018ENGLISH.PDF State of the Human Rights Report 2017/18 MEXICO		
Violence increased throughout Mexico. The armed forces continued to undertake regular policing functions. Human rights defenders and journalists were threatened, attacked and killed; digital attacks and surveillance were particularly common. Widespread arbitrary detentions continued to lead to torture and other ill-treatment, enforced disappearances and extrajudicial	Country	Specified risk for indigenous rights and human rights
executions. Impunity persisted for human rights violations and crimes under international law. Violence against women remained a major concern; new data showed that two thirds of women had experienced gender-based violence during their lives. HUMAN RIGHTS DEFENDERS AND JOURNALISTS Human rights defenders and journalists continued to be threatened, harassed,		
attacked and killed. Two Indigenous human rights defenders of the Raramuri (Tarahumara) Indigenous People, were killed in January and February respectively. In May, a human rights defender leading the search for her daughter and other disappeared persons in Tamaulipas, was killed. In July, the leader of the Indigenous Yaqui People in Sonora state and beneficiary of protection measures from the federal protection mechanism, was subjected to an intrusion		
in his house by unidentified assailants who set fire to his partner's car. https://www.amnesty.org/en/latest/news/2016/05/mexico-indigenous-environmental-		
activist-named-prisoner-of-conscience/ Mexico: Indigenous environmental activist named 'prisoner of conscience' - 9 May 2016 A Mexican man unfairly imprisoned in what appears to be a punishment for his peaceful activism against illegal logging must be released immediately and unconditionally, Amnesty International said as it named him a "prisoner of conscience".	Country	Specified risk for access to justice
Ildefonso Zamora Baldomero was arrested in November 2015 in the Indigenous Tlahuica community of San Juan Atzingo, 80km south-west of Mexico City. He is accused of participating in a burglary in July 2012. "Ildefonso Zamora is being punished for speaking out against the damage being done to his community's territory and environment. He should have never been imprisoned in the		

environment and defending human rights are not crimes," said Erika Guevara-Rosas, Americas Director at Amnesty hitemational. The burglary charges against Idefonso Zamora are based on a series of fabricated testimonies. The prosecutor registered the testimonies of eyewinesses who described the events using the exact same words as if reading them from a script, the crime scene was not preserved, and the evidence was not properly handled. His arrest is part of a series of threats and harassment in relation to his anti-logging campaigns. In 2007, his son Ado was murdered and his son Miseal was injured in an attack which hasn't yet been fully investigated. Speaking from prison, telloroso Zamora said: "I work to stop illegal logging, and that has cost me dearly; my son's life and my freedom. I want to continue working for my community because illegal logging is destorying earnst of the planet earth." *Idefonso's story represents the way many human rights defenders and grassroots activists are readed all over Maxco. He must reade and lover flave and the same responsible for the attacks and political prescribe in a file to the face of the same of the same responsible for the attacks and political prescribe. Prisoners of conscience are people who have been detained because of their political, religious or other conscientiously held beliefs, or on the base is sexual orientation or other status. It is a distinction Armesty international only gives to individuals who have neither used nor advocated violence. https://www.amnesty.orien/latest/news/2012/02/mexico-urged-tackle-discrimination- acarrat-mirrants-and-adisences-peoples/ Markoto-urged to tackle discrimination and implement measures to ensure migrants and holgenous Peoples have access to their basic human rights. Amnesty International said today, ahead of an appearance in front of an anti-reaid discrimination wean being subjected to extrol. Mil-trained on Pacial Discrimination means being subjected to extrol. Milettimestory in the face of a considered recruitment			T	1
Indigenous Peoples."		Americas Director at Amnesty International. The burglary charges against Idefonso Zamora are based on a series of fabricated testimonies. The prosecutor registered the testimonies of eyewitnesses who described the events using the exact same words as if reading them from a script, the crime scene was not preserved, and the evidence was not properly handled. His arrest is part of a series of threats and harassment in relation to his anti-logging campaigns. In 2007, his son Aldo was murdered and his son Misael was injured in an attack which hasn't yet been fully investigated. Speaking from prison, Idelfonso Zamora said: "I work to stop illegal logging, and that has cost me dearly: my son's life and my freedom. I want to continue working for my community because illegal logging is destroying large parts of the planet earth." "Idefonso's story represents the way many human rights defenders and grassroots activists are treated all over Mexico. He must not be made to languish in jail for a second longer. Instead, the Mexican authorities should re-direct their efforts to find those responsible for the attacks and political persecution against him and his family," said Erika Guevara-Rosas. Prisoners of conscience are people who have been detained because of their political, religious or other conscientiously held beliefs, or on the basis of their ethnic origin, sex, colour, language, national or social origin, economic status, birth, sexual orientation or other status. It is a distinction Amnesty International only gives to individuals who have neither used nor advocated violence. https://www.amnesty.org/en/latest/news/2012/02/mexico-urged-tackle-discrimination-against-migrants-and-indigenous-peoples/ Mexico urged to tackle discrimination against migrants and Indigenous Peoples - 14 February 2012 "The Mexican authorities must tackle discrimination and implement measures to ensure migrants and Indigenous Peoples have access to their basic human rights, Amnesty International said today, ahead of an appearance in f	Country	Specified risk for access to justice
The Indigenous World: http://www.iwgia.org/regions http://www.iwgia.org/publications/search-pubs?publication_id=740	The Indigenous World: http://www.iwgia.org/regions			

The Indigenous world 2016		
"Mexico has the largest indigenous population of all Latin American countries. A total of 16,933,283, representing 15.1% of the total population (112,236,538), have been recorded and some 68 indigenous languages and 364 dialects are spoken within its territory. Mexico ratified ILO Convention No.169 in 1990. In 1992, the Constitution was amended	Country	Presence of IPs
and Mexico was recognised as a pluricultural nation (Art. 6). In 2001, as a result of the mobilization of indigenous peoples, the Constitution was again amended to reflect the "San Andres Accords" negotiated in 1996 between the government and the Zapatista National Liberation Army (EZLN). From 2003 onwards, the EZLN and the Indigenous National Congress (CNI) began to implement the Accords, creating autonomous indigenous governments in Chiapas, Michoacán and Oaxaca. The state constitutions of Chihuahua, Nayarit, Oaxaca, Quintana Roo and San Luís Potosí have dispositions concerning indigenous peoples, but indigenous legal systems are still not fully recognised. Mexico voted in favour of the UN Declaration on the Rights of Indigenous Peoples in 2007.	Chiapas, Michoacán and Oaxaca	Low risk for self- government
[]During the celebrations for International Day of the World's Indigenous Peoples 2015, Magdalena Gómez, a lawyer specialising in indigenous issues, noted: "This is why it is no accident that the leaders of resistance to this [government] policy are being criminalised. the Yaqui Mario Luna in his fight against the Independence Aqueduct in Sonora; Marco Antonio Suástegui against the La Parota dam in Guerrero; Nestora Salgado and Cemeí Verdía Zepeda campaigning for community police forces in Guerrero and Michoacán. Accusations have been fabricated against all of these people in order to paint them as thieves or abductors. And these are just a few examples, because there are at least a hundred conflicts of this kind underway with legal remedies being pursued for their defence. And the paradox is that if they eventually obtain judgments in their favour, as in the case of the Yaqui tribe, these rulings will not be implemented".	Country	Specified risk for access to justice
[]Establishing a public policy of land grabbing Unfortunately, lack of space prevents us from listing concrete cases in which there has been a systematic grabbing of the land and resources of Mexico's indigenous peoples and communities on the part of neocolonial extractivism. Suffice it to mention that cases such as the La Parota dam, the Independence Aqueduct, the Lema Highway, to name but a few of the hundreds of cases, are still ongoing. The support bases of the Zapatista National	Country	Specified risk for land rights
Liberation Army continue to be constantly harassed by the Armed Forces and paramilitary groups and those most recently accused of perpetrating the Acteal Massacre in 1997 still remain at large. The Mexican government responds to demands for justice by harassing and imprisoning indigenous leaders and criminalising their protests. It was in this context that the Mexican state approved what organisations fighting the mining companies' land grabs have coined the "Guide to Land Grabbing", the official name of which is the "Guide	Country	Specified risk for access to justice
to Land Occupations". Published by the Ministry of Finance, this guide justifies land grabbing on the basis that it is promoting the development of the mining sector. And quoting Julio César Cervantes, a member of the Central Campesina Cardenista (CCC) "The government is giving a practical and very concise guide to land grabbing, even giving	Mining sector in country	Specified risk for land rights

	the Peñoles and Farallon mining companies as successful examples [of socially and environmentally responsible companies], although we full well know that these companies have an environmental impact. The government is thus not only offering them the facility but also doing the work for them. This is clearly not a state with the least concern for the indigenous and peasant sector".		
United Nations Special Rapporteur on the rights of indigenous peoples: http://www.ohchr.org/en/issues/ipeoples/srindigenouspeoples/ pages/sripeoplesindex.aspx	https://documents-dds-ny.un.org/doc/UNDOC/GE N/G18/192/94/PDF/G1819294.pdf?OpenElement Report of the Special Rapporteur on the rights of indigenous peoples on her visit to Mexico in 2017 – September 2018 "The Special Rapporteur notes that, since the official visit made in 2003 by the former Special Rapporteur, Rodolfo Stavenhagen, and despite the commitments subsequently made by Mexico in the field of human rights, indigenous peoples continue to face serious challenges in the exercise of their human rights. Current development policies, which are based on megaprojects (in mining, energy, tourism, real estate and agriculture, among other areas), pose a major challenge to indigenous peoples' enjoyment of human rights. Lack of self-determination and prior, free, informed and culturally appropriate consultation are compounded by land conflicts, forced displacement, and criminal accusations and violence against indigenous peoples who defend their rights. All these problems are taking place against a backdrop of profound inequality, poverty and discrimination faced by indigenous peoples that restricts their access to justice, education, health and other basic services."	Country	Specified risk for IP rights-
	http://www.ohchr.org/EN/lssues/IPeoples/SR IndigenousPeoples/Pages/CommunicationsR eports.aspx Mexico is not mentioned in the latest available report on communications with communications sent, replies received and observations in the period 2012 – 2013.	Country	Low risk
UN Human Rights Council Universal Periodic Review: http://www.ohchr.org/EN/HRBodies/UPR/Pages/Documentation.aspx	https://documents-dds- ny.un.org/doc/UNDOC/GEN/G13/189/42/PDF/G1318942.pdf?OpenElement Report of the Working Group on the Universal Periodic Review* - Mexico - * 11 December 2013 "36. Finland asked about measures to protect human rights defenders and journalists, especially women and indigenous human rights defenders, and to combat impunity. 44. The Islamic Republic of Iran drew attention to reports of violations of the human rights of indigenous people, racial discrimination, treatment in prisons and commercial sexual exploitation of children. 120. Uzbekistan expressed concern about the rights of indigenous people, pretrial detention, use of torture by police officers, and enforced disappearances relating to drug cartels. Conclusions and/or recommendations 148.41. Continue its promotion of legislation and actions aimed at eliminating discrimination and strengthening the protection of the rights of disadvantaged groups such as women, children and indigenous peoples (China); 148.47. Take effective measures to prevent racial discrimination and violation of the rights of indigenous peoples (Uzbekistan);	Country	Specified risk for IP rights

148.113. Consider introducing forms of administration of justice that respect Country S	Specified risk
	or access to
access to justice (Costa Rica); 148.119. Strengthen and expand the Mechanism to Protect Human Rights	ustice
Defenders and Journalists including by providing it with adequate resources	
and powers to carry out its work and creating a mechanism for consultation	
with indigenous and other communities affected by land transactions (United	
	Specified risk
	or FPIC
economic and development policies and projects affecting them (Finland);	
148.168. Continue to work with the Commission for Dialogue with Indigenous Peoples in order to ensure the respect of their human rights, self-determination	
and autonomy (Bolivia (Plurinational State of));	
148.169. Encourage more participation of indigenous peoples through the	
elaboration of a law that regulates their right to prior consultations (Peru);	
148.171. Ensure prior consultations with indigenous communities in	
accordance with ILO Convention No.169 (Norway);"	
https://documents-dds-	
ny.un.org/doc/UNDOC/GEN/G13/160/14/PDF/G1316014.pdf?OpenElement	
Summary of Stakeholder's information - 31 July 2013	
"13. CNDH indicated that complaints continue to be filed regarding violations of the human	
	Specified risk
	or access to
	ustice
imperative.16 59. Al called on Mexico to accelerate judicial reforms and to uphold human rights	
protections, such as the inadmissibility of evidence obtained under torture or ill-treatment	
and the right to effective defence; to end the misuse of the criminal justice system to detain	
and prosecute human rights defenders, indigenous peoples and others on the basis of	
fabricated or unsubstantiated evidence; ensure access to truth, justice and reparations for	
victims of human rights violations and other crimes, including full implementation of the	
General Victims' Law; and fully implement the judgements against Mexico of the Inter-	
American Court of Human Rights, including to reform the Code of Military Justice to exclude human rights violations from military jurisdiction.96	
84. Coalición OSC indicated that Mexico does not have federal laws that wholly reflect the	
provisions contained in ILO Convention No. 169.137 AIDA-CEMDA indicated that,	
although Mexico accepted recommendation No. 77 in the course of the 2009 UPR,138 it	
A/HRC/WG.6/17/MEX/3GE.13-16014 11	
	Specified risk
	or FPIC
85. Coalición OSC referred to the poverty and marginalization of indigenous peoples.140 GIDHS-EdPAC referred specifically to obstacles to the enjoyment of the right to decent	
housing, access to basic services and the arbitrary detention of human rights defenders in	

UN Human Rights Committee: http://www.ohchr.org/EN/HRBodies/CCPR/Pages/CCPRIndex.aspx (search for country) UN Committee on the Elimination of All Forms of Racial Discrimination: http://www.ohchr.org/EN/HRBodies/CERD/Pages/CERDIndex.aspx	connection with civil resistance on the part of communities faced with high electricity charges in the State of Chiapas.141 86. Tlachinollan-HRCMorelos noted that the State treats movements demanding the rights of indigenous peoples as criminal activity and prosecutes participants in such movements. Tlachinollan-HRCMorelos indicated that an intercultural dialogue should be pursued that would enable indigenous peoples to have a genuine impact on decision making.142 87. International Human Rights Clinic (IHRC-OU) noted that Mexico has failed to appropriately consult with indigenous communities before mining, drilling and development projects have been approved.143 IHRC-OU also referred to concerns expressed by indigenous communities about genetically modified corn.144" https://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=8&DocTypeID=5 The latest available concluding observations of the UN Human Rights Committee date from 7 april 2010. 22. While acknowledging the measures adopted by the State party, such as the Programme for the development of indigenous peoples 2009–2010 and the 2001 constitutional reforms aimed at guaranteeing indigenous rights, the Committee remains concerned that indigenous peoples are not sufficiently consulted in the decision-making process with respect to issues affecting their rights, such as during the constitutional reform discussions in 2001 (articles 2 and 25 to 27 of the Covenant). The State party should consider reviewing the relevant provisions of the Constitution reformed in 2001, in consultation with indigenous peoples. It should also take all necessary steps to ensure the effective consultation of indigenous peoples for decision-making in all areas that have an impact on their rights, in accordance with article 1, paragraph 2, and	Country	Specified risk for access to justice Specified risk for FPIC Specified risk for IP rights (in specific FPIC)
	article 27 of the Covenant. http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CERD% 2fC%2fMEX%2fCO%2f16-17⟪=en Concluding observations of the Committee on the Elimination of Racial Discrimination – Mexico - 4 April 2012 "11. Although the State party has carried out important legislative reforms, the Committee notes with concern that the definition of discrimination in the Federal Act on the Prevention and Elimination of Discrimination contains no mention of racial discrimination and is not in line with the Convention. The Committee also expresses its concern that the legislation on matters affecting indigenous peoples varies greatly from one federal state to another and that policies rely heavily on the administration's agenda in each federal state. The Committee reiterates its concern at the absence of domestic legislation that defines as an offence punishable by law all dissemination of ideas based on racial superiority or hatred, incitement to racial discrimination, and all acts of racially motivated violence against, in particular, indigenous people and people of African descent in the State party (art. 1 and art. 4 (a)). 12. The Committee takes note of the recognition and application of the indigenous justice system within the local justice system by evoking "usage and customs", particularly in the	Country	Specified risk for IP rights

	1	
election of local representatives. However, it expresses its concern at the limited scope for	Country	Specified risk
applying the "usage and customs" of indigenous communities (art. 5).		for access to
In light of its general recommendation No. 31 (2005) on the prevention of racial		justice
discrimination in the administration and functioning of the criminal justice system, the		
Committee urges the State party to respect the traditional systems of justice of indigenous		
peoples, in accordance with international human rights standards, including by establishing		
special indigenous courts.		
14. While the Committee takes note of the State party's efforts to reform security and the	_	
justice system, it reiterates its concern about the obstacles to access to justice faced by	Country	Specified risk
members of indigenous peoples and the alarming number of allegations of irregularities in		for access to
cases concerning indigenous people, as well as the number of indigenous people in		justice
prison. In particular, the Committee expresses concern about the shortage of interpreters		
and bilingual justice officials familiar with judicial procedures, and also about the availability		
and quality of federal public defenders. []	_	
15. The Committee expresses deep concern about the recent tragic events in which	Country	Specified risk
defenders of the rights of indigenous peoples were physically attacked and, in some cases,		for IP rights
killed (art. 5 (b)).		
The Committee recommends that the State party investigate and punish those		
responsible for the above-mentioned killings. It also urges the State party to expedite the		
adoption of legislation that specifically guarantees the protection of human rights		
defenders, including defenders of the rights of indigenous peoples, and to take timely		
measures to prevent such acts, inter alia by establishing a special mechanism for the		
protection of human rights defenders, in line with the Declaration on Human Rights		
Defenders, adopted by the General Assembly, and the recommendations of the Special		
Rapporteur on the situation of human rights defenders.		0 % 1 . 1
16. While taking note of the State party's efforts to guarantee the participation of	Country	Specified risk
indigenous peoples in the political process, and particularly in representative institutions,		for
the Committee reiterates its concern about the number and level of government posts held		participation
by indigenous people, especially women. The Committee notes with concern that,		in decision
pursuant to article 2, section A.VII, of the Constitution, the right of indigenous peoples to		making
elect their political representatives according to their own laws is limited to the municipal		
level. It also notes with concern the lack of information on the political participation of		
people of African descent (art. 5 (c)).		
In light of its general recommendation No. 23 (1997) on indigenous peoples, the Committee recommends that the State party redouble its efforts to ensure the full		
participation of indigenous people, especially women, in all decision-making institutions,		
participation of indigenous people, especially worners, in all decision-making institutions, particularly in representative institutions and those dealing with public matters, and that it		
take effective measures to ensure that all indigenous peoples participate at every level of		
the administration. []		
17. The Committee notes that the National Commission for the Development of		
Indigenous Peoples has a system for consultations with indigenous peoples, based on		
articles 2 and 26 of the Constitution and the Act on the National Commission for the	Country	Specified risk
Development of Indigenous Peoples. However, it is concerned that this consultation	Journay	for FPIC
system does not incorporate the concept of "free, prior and informed consent". The		.5
- System does not incorporate the concept of free, prior and informed consent. The	l	

	Committee expresses its deep concern at the growing tensions between outsiders and indigenous peoples over the exploitation of natural resources, especially mines. The Committee reiterates its concern at reports of conflict on lands traditionally owned by indigenous peoples and at the failure, in practice, to fully respect their right to be consulted before work starts on exploiting the natural resources in their territories. The Committee also notes that there are three proposals for laws on the subject and regrets that it has been given no detailed information on them. The Committee is also concerned about the need for administrative measures to safeguard traditional forms of land tenure and ownership (art. 5 (d) (v)). In light of its general recommendation No. 23 (1997), the Committee recommends that the State party should: (a) Ensure that effective consultations are carried out at each stage of the process with communities likely to be affected by projects to develop and exploit natural resources, with the aim of obtaining their free, prior and informed consent, particularly in the case of mining projects. It also recommends that everything possible be done to expedite the adoption of a law on the subject, and reminds the State party that the absence of implementing regulations for the International Labour Organization (ILO) Indigenous and Tribal Peoples Convention, 1989 (No. 169), is no obstacle to holding prior consultations; (b) Promote forums where government representatives can actively participate in different discussion groups with indigenous peoples, ensuring that these lead to concrete, viable and verifiable agreements that are properly implemented; and also encourage the use of alternative dispute-settlement methods in line with international standards in the field of human rights and the rights of indigenous peoples; (c) Ensure, in exceptional cases where it is deemed necessary to relocate and resettle indigenous peoples, compliance with international standards in the necessary to relocate an	Country	Specified risk for land rights
	report information on indigenous peoples and land tenure, particularly in cases where		
Intercontinental Cry http://intercontinentalcry.org/	attempts are being made to exploit the natural resources on the land." http://www.scribd.com/doc/216154458/Indigenous-Struggles-2013 Indigenous Struggles 2013 Approximately 450 Ch'ol women and men from the organization Laklumal Ixim (Our People of Maize) initiated a highway blockade to demonstrate against the newly elected state government in Chiapas, Mexico. The Ch'ol group explained in a communiqué that the government is continuing to employ "A strategy of looting and abandonment toward the indigenous and campesino communities of the state" instead of attending to their demands and needs. They also strongly condemned the "National Crusade against hunger", calling it "a farce that seeks merely to share crumbs to our communities that experience poverty, while our natural resources are handed over to foreign firms for exploitation." (p. 15) Indigenous Peoples on the Isthmus of Tehuantepec resisted a new police offensive meant to impose the construction of a mega wind park project in the Barra de Santa Teresa of San Dionisio del Mar, Oaxaca, Mexico. This wind park, the largest in Latin America, would	Chiapas	Specified risk for IP rights

completely do away with the habitat, natural resources and food supplies of the fishing and farming families of the Barra and would also destroy their sacred sites. Moreover, the project is a direct violation of their human rights as Indigenous Peoples. (p. 16)	Oaxaca	Specified risk for IP rights
Three Nahua-Otomi communities are facing dispossession from their lands by a consortium of mining companies in Colima, Mexico. According to the Mesoamerican Movement Against the Extractive Mining Model (M4), the consortium Peña Colorada wants to gain control of Nahua-Otomi lands so it can be used as a mine waste dump site. M4 is urging people to contact government officials to stop the expulsion. (p. 31)	Colima	Specified risk for IP rights
Yaqui Traditional Authorities initiated a roadblock on international Highway 15 near the community of Vícam, in Sonora, Mexico. The action was in response to the state government's refusal to stop the operation of the Independence Aqueduct, which began to illegally extract water from the Yaqui River in March. The Yaqui are heavily dependent on the water from the Yaqui River, a fact that was identified in a Supreme Court (SCJN) resolution that ratified protection for the tribe pending an Environmental Impact Assessment (MIA), which is required to legally begin taking the water. (p. 40)	Sonora	Specified risk for IP rights
In Mexico, Wixarika leaders filed an injunction to stop the illegal exploration for gold and silver in their ancestral sacred lands of Wirikuta. The injunction was prompted by the Mexican government's refusal to even so much as acknowledge the Wixarika Regional Council for the Defense of Wirikuta, which has been petitioning for government intervention since early March. The Council says that drilling and excavation is occurring on a wide and destructive scale, even though permits have not been issued. (p. 40)	Wirikuta	Specified risk for IP rights
Not Speaking Spanish, according to a new report by Mexico's National Com- mission for the Development of Indigenous Peoples (CDI), is the most common reason that Indigenous men and women are sent to jail in Mexico. CDI says that in 2012 alone, 8,502 Indigenous people were unjustly impris- oned for only knowing the words "sf" or "no" in Spanish. (p. 50)	Country	Specified risk for access to justice
http://intercontinentalcry.org/wp-content/uploads/2013/01/Indigenous-Struggles-2012.pdf Indigenous Struggles 2012 Dispateches from the fourth world. A publication by Intercontinental Cry. "The Triqui women and children who spent 17 months living on the sidewalk outside the Oaxaca's governor's palace i southern Mexico, attempted once again to return home. The still-displaced Triqui people abandoned their community in September 2010 after months of intense paramilitary violence in their community. In December, the governor of Oaxaca, Gabino Cue, promised to protect the families if they returned to San Juan Copala. Previous attempts to return home were met with blockades. (p. 6)	Oaxaca	Specified risk for IP rights
The Wixarika peopleafter campaigning for seventeen straight months to protect their sacred territorywere granted a major reprieve by the federal courts in Mexico. First Majestic's Silver's plan to exploit the minerals that lie dormant in the sacred territory of		

Wirikuta was formally suspended. The courts also ruled that no further mining permits within Wirikuta will be granted as long as the Wixarika's concerns remains unresolved 10)		Low risk for access to justice
Mexico's Supreme Court issued a surprise judgement that a Tarahumara (Raramuri) community in the state of Chihuahua possessed the constitutional right to participate it decision-making of any project that would affect them. The high court also stated that relevant national law is similar to the International Labor Organization's Convention Not 169, a legally-binding international agreement that protects the rights of indigenous Peoples Mexico among the 22 nations to ratify ILO 169. (p. 15)	Country D.	Low risk for access to justice
The Wixarika (Huichol) People slammed Mexico's measures to protect thousands of a of their sacred land. Despite being hailed as a victory by the media and the general puthe Wixarika leadership stated that it was nothing more than a "media ploy", because only amounted to one percent of their land . (p. 20)	ublic,	Specified risk for IP rights
In Oaxaca, Mexico, another two activists were shot as they casually stood with friends front of city hall in the town of San José del Progreso. Bertín Vásquez Ruiz was shot i abdomen and Guadalupe Vázquez Ruis took bullets in his leg and hand. Both are members of the Coalition of United Peoples of the Ocotlán Valley (CPUVO), which had been actively protesting Fortuna Silver Inc.'s Trinidad/Cuzcatlán mine. They, too, were reported to be in stable condition. (p. 23)	n the S Oaxaca	Specified risk for IP rights
The EZLN sent out an international call for solidarity with San Marcos Avilés, a small indigenous Tzeltal- speaking community located in the highland region of the state of Chiapas, in southeastern Mexico. The EZLN explained that the community was fightin live according to their own indigenous culture and struggling for freedom, justice, democracy and a dignified life for all. For that reason, to were being faced with threats, kidnappings, and displacement by armed menmember the political parties PRI, PRD, and PAN. The community started coming under attack 2010, when they constructed a small wooden building to house an autonomous school named 'Emiliano Zapata'. (p. 31)	Chiapas hey rs of in	Specified risk for IP rights
The Peoples Permanent Tribunal (PPT) convened in Mexico to review the case of Medical Dams and Forced Evictions. After hearing several days of testimony from effected communities, the PPT, an ethical opinion tribunal founded in 1979, criticized the Mexical government's long-term failure to observe international human rights law and its own constitution. It also called for the authorities to cease the construction of five dams. Further thanks to construct the National Water Commission and other authorities of corruption after the vetted dam construction despite the range of concerns. The PPT will reside in Mexicol 2014 to hear the claims of Mexican civil society. (p. 38)	can urther, Country	Specified risk for IP rights

The Yaqui in Sonora, Mexico said they will defend their rights to the Rio Yaqui, against the		
theft of water by the government of Mexico for the Independence		
Aqueduct, the largest engineering project in the state's history. Yaqui representatives said	Sonora	Specified risk
that their People have first rights to the water from the Yaqui River, and that 98% of the		for IP rights
population was not willing to accept the current project, which would take 634 gallons per		_
second." (p. 40)		
· ,		
https://intercontinentalcry.org/mexicos-new-president-promises-more-of-the-same-		
indigenous-peoples-get-ready-to-resist/		
MEXICO'S NEW PRESIDENT PROMISES 'MORE OF THE SAME'—INDIGENOUS		
PEOPLES GET READY TO RESIST		
December 2018		
"There will be profound changes, but they'll come in accordance with the established legal		
order. There will be freedom for businesses. In terms of economics, we'll respect the		
Banco de Mexico's autonomy. The new government will maintain fiscal and financial		
responsibility. It will recognize the contracts with national and foreign companies and		
banks." This was a speech given by the Mexican President-Elect, Andrés Manuel Lopez		
Obrador (AMLO) on July 2nd of this year. He announced that during his 6-year term as		
President, which begins this December, there would be continuity of the pro-development		
policies of his predecessors, both for unfinished projects and for those already agreed to.		
Among the already agreed upon contracts with companies and banks such as the Inter-		
American Development Bank and the World Bank are projects that bring in massive flows		
of capital such as the Special Economic Zones, regions, including the Trans-Isthmian		
corridor in Mexico's southwest Tehuantepec Isthmus, that were established by current		
Mexican president, Enrique Peña Nieto by presidential decree. They also include the New		
International Airport of Mexico City and the gas pipelines throughout Mexico that connect		
to the United States. Another project that will continue as planned is the 1500-kilometer		
Trans peninsular Tourist Train in the Yucatan, known as the Maya Train. Speaking in		
Cancun on October 11th, Obrador said that the train would be constructed "whether our		
adversaries like it or not," dismissing claims that it will cause severe environmental damage		
in the region.		
If anyone has shown fierce opposition not just to the Maya Train but also the new airport,		
special development zones, and the promotion of monoculture, it has been original and		
indigenous peoples who gathered from October 11-14 in San Cristobal de las Casas,		
Chiapas, for the Second Plenary Assembly of the National Indigenous Congress and the	Country	Specified risk
Indigenous Governing Council (CNI-CIG, for its initials in Spanish.)		for FPIC
The members of the CNI-CIG, accompanied by the leadership of the indigenous		
organization the Zapatista Army for National Liberation, expressed their disagreement with		
AMLO's arguments: "Down here, there is no more for us than to defend life, regardless of		
whatever lies may come from the government that's leaving (Enrique Peña Nieto's) or the		
government that's coming in (Lopez Obrador's). Their words are superfluous when their		
Trans-Isthmian projects and the expansion of their Special Economic Zones are		
threatening the Binniza, Chontal, Ikoots, Mixe, Zoque, Nahua, and Popoluca peoplesas		

	well as the Mayan peoples who are threatened by their capitalist train project that strips and destroys everything in its path. They were unified in their position regarding the new Mexican government and the programs its looking to implement, saying that "words are also superfluous in comparison to the announced plan to plant a million hectares of trees for fruit and lumber in Southern Mexico." This was a response to Lopez Obrador's declaration that he considers "100"	Isthmus region	Specified risk for IP rights and FPIC
	million hectares of communal and cooperative property to be abandoned" in the region, thus justifying his plan to develop monoculture as a way to "convert these into productive lands.""	Southern Mexico	Specified risk for IP rights and land rights
Forest Peoples Programme: www.forestpeoples.org FPP's focus is on Africa, Asia/Pacific and South and Central America.	http://www.forestpeoples.org/region/south-central-america/mexico No information found that indicates a 'specified risk'.	Country	Low risk
Society for Threatened Peoples: http://www.gfbv.de/index.php?change_lang=english	https://www.gfbv.de/index.php?id=73&L=1&tx_kesearch_pi1%5Bsword%5D=mexico&tx_k esearch_pi1%5Bpage%5D=1&tx_kesearch_pi1%5BresetFilters%5D=0&tx_kesearch_pi1%5BsortByField%5D=score&tx_kesearch_pi1%5BsortByDir%5D=desc_No information found that indicates a 'specified risk'.	Country	Low risk
Regional human rights courts and commissions: - Inter-American Court of Human Rights: http://www.corteidh.or.cr/index.php/en - Inter-American Commission on Human Rights: http://www.oas.org/en/iachr/ http://www.oas.org/en/iachr/indigenous/ - African Commission on Human and Peoples' Rights - African Court on Human and Peoples' Rights - European Court of Human Rights	http://www.corteidh.or.cr/cf/Jurisprudencia2/index.cfm?lang=en No results found after searching "indigenous peoples mexico". http://www.oas.org/en/iachr/reports/pdfs/Mexico2016-en.pdf Situation of Human Rights in Mexico - Inter-American Commission on Human Rights - Country report on Mexico - 31 december 2015 "This report addresses the human rights situation in the United Mexican States (Mexico), with particular emphasis on forced disappearances, extrajudicial executions and torture, as well as citizen insecurity, access to justice and impunity, the situation of journalists, human rights defenders, and other groups especially affected by the context of violence in the country. [] The IACHR has confirmed a deep gulf between the legislative and judicial framework and the daily reality millions of people face in accessing justice, violence prevention, and other public initiatives. Time and again the IACHR heard from victims throughout the country that the administration of justice is a "simulation." (p. 11) [] Serious human rights violations against indigenous peoples and communities in Mexico occur in two main areas: violence in the context of mega-projects on ancestral lands and territories authorized without the due process of free, prior and informed consultation and consent; or in the context of title claims affecting their land, and the lack of due process in criminal matters. They have repeatedly denounced the granting of State concessions to private companies in violation of the right to prior consultation. As a result of the struggle for their lands, information has also been received about the criminalization of human rights defenders of indigenous peoples." Up to December 2013, there were an estimated 2,600 mining concessions in Mexico, many of which were located on the ancestral territories of indigenous	Country	Specified risk for access to justice Specified risk for IP rights and FPIC Specified risk for access to justice

	peoples without their consent.361 At a public hearing at the IACHR, the petitioners		
	stated that 35% of the national territory has been concessioned through more than 29,000 concessions	Country	Specified risk for IP rights
	—mining, hydroelectric, and wind power. 17% of them are inside some indiengous		and FPIC
	territories.		
	The State indicated that in compliance with the national and intentational legal framework, and pursuant the obligations assumed in relation to indigenous peoples,		
	in February 2013 it approved the Protocol for the implementation of consulations		
	with indigenous peoples in accordance with ILO Convention No. 169 regarding	Country	Low risk for
	Indigenous and Tribal Peoples in Independent Countries, which contains the international		FPIC
	standards on the subject and sets forth the methodology to carry out a consultation process.363 In addition, the State indicated that the Judicial Branch has issued	Country	Low risk for
	judgments that constitute a reference point for the protection of the human right to prior	Country	access to
	consultation and the participation of indigenous peoples.		justice
	Violence in the context of mega-projects has resulted in murders, executions, harassment		
	and threats against indigenous people in many states of the country. The Commission was aware of the arrests of indigenous leaders in Guerrero, Oaxaca, Chiapas,	Country	Specified risk for IP rights
	Quintana Roo, Sonora, Chihuahua and Puebla, among others, in connection with		TOT IT TIGHTS
	their activities in opposition to various megaprojects.364 When it comes to violence		
	in indigenous territories or communities where large projects are located, the		
	common denominator is the granting of permits or concessions without consultation and without free, prior and informed consent. This often triggers social unrest and	Country	Specified risk
	eventually leads to violence, and even costs individuals their lives.365	Country	for FPIC
	[] When members of an indigenous people are involved in legal proceedings as		
	victims, accused or witnesses, the entrenched discrimination interferes with the		
	respect for judicial guarantees to ensure full respect for their due process rights, such as the lack of interpreters and of intercultural training for justice operators.		
	After a visit to Mexico, the UN Special Rapporteur on extrajudicial, summary or arbitrary	Country	Specified risk
	executions found that in Mexico it is common to set traps to incriminate innocent	,	for access to
	individuals, and this produces discriminatory effects for indigenous people and		justice
	people in poverty.367 [] In the same vein, the Commission has recently received information about the		
	alleged misuse of the criminal law against indigenous defenders, environmentalists and		
	peasant leaders.369 Factors like discrimination and exclusion also contribute to indigenous		
	people being more likely to be victims of torture and other cruel, inhuman or		
	degrading treatment when arrested. In states with large indigenous and rural populations, such as Guerrero, the absence of legal assistance is serious, due to the	Country	Specified risk
	lack of bilingual public defenders. There is also a lack of translation services and suitable	Journal	for access to
	infrastructure. In addition to the scarcity of forensic doctors in these areas, they are		justice
	not sensitive to the cultural and social situation of the population.370 This poses additional barriers to access to justice for indigenous peoples and communities." (p. 119-		
	additional barriers to access to justice for indigenous peoples and communities. (p. 119-121)		
Data provided by National Indigenous Peoples', Traditional	http://www.cnipeninsular.canek.org/?page_id=2		
Peoples organizations.	Congreso Nacional Indígena de México	<u> </u>	

[Google translation from Spanish:]		
"The CNI is the house where our indigenous peoples are, is a way to serve one another to		
magnify our people and achieve our common goals.		
The CNI is the home of all people, is our school is where we are, where we recognize and		
take agreements. It is not an organization, it is a house.		
WALKING THE GUIDELINES CNI	Country	Consisted riels
- We challenge all the corruption of the Mexican state, its political party system, and all	Country	Specified risk
laws that do not obey the interests of the people.		for IP rights
- We assume and defend the San Andres Accords Sacamch'en de los Pobres, Chiapas.		
 We demand the immediate respect for our human rights. We understand that we were alone and we had to exercise our own rights and our 		
· · · · · · · · · · · · · · · · · · ·		
autonomy in fact.		
- We condemn with all our energy and our anger repression, murder and imprisonment		
against our communities and peoples for the pure and vile interest of keeping our resources, deprive us of our territories and become salaried workers and away from our		
own communities be ghosts with no future in cities.		
- We can not apply for recognition of rights to a state before our eyes has lost all		
legitimacy.		
- Ratify the Sixth Declaration of the Lacandon Jungle and the Other Campaign we claim as		
a space for articulation of indigenous struggles with other sectors that remain in resistance		
against the neoliberal model and its policy of extermination.		
- We condemn the systematic and fascist violence exercised by the state against all		
women are claiming their work with the struggles of resistance and dignity throughout the		
country.		
- We reject all laws with which the State intends to divest, legitimizing the country delivery		
and impose controls that restrict the action of peoples and communities and give wide		
latitude transnational corporations to ravage and seize the material and spiritual wealth of		
our peoples and of all Mexicans.		
- We rejec government programs that implement such laws and seek to divide		
communities.		
- We insist that the earth is our mother, NOT SOLD WITH LIFE IS DEFENDED."		
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https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/MEX/INT_CERD_N		
GO_MEX_80_9637_E.pdf		
THE TRADITIONAL AUTHORITIES OF THE RIO YAQUI PUEBLOS		
SUBMISSION TO THE COMMITTEE ON THE ELIMINATION		
OF RACIAL DISCRIMINATION - January 31, 2012		
"As the situation of the Rio Yaqui Pueblos illustrates, Mexico is failing to meet its		
international obligations to respect the human rights of the Yaqui people including their	Rio Yaqui	Specified risk
rights to property, economic and cultural rights, rights to life, liberty, and security, and has		for IP rights
failed to provide a mechanism for the demarcation and titling of Yaqui lands and rights to		_
precious resources including surface water. One cannot stress the centrality of water to the		
life of the Rio Yaqui Pueblos and without it, they will fade and disappear in the very near		

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future as a distinct people who once lived in a sustainable and harmonious lifestyle along		
its now empty banks."		
https://www.iitc.org/wp-content/uploads/2014/08/UFIC_AC_IITC_Mexico80_web.pdf		
Unidad de la Fuerza Indígena y Campesina (UFIC, regional members include		
Indigenous Peoples in 25 Mexican states)		
Alternative indigenous Information to CERD - 07-02-2012		
[Google translation from Spanish:]		
[]All this, added to what stated in previous paragraphs on article 1 of the		
CPEUM, Should ensure improved if situation of discrimination and racism against		
indigenous peoples and communities in Mexico, against the dispossession of their lands		
and territories, in strengthening their regulatory systems and their situation marginalization	Country	Specified risk
and extreme poverty. However, the concerns expressed in this alternative report, reflect	Country	for IP rights
the lack of compliance with the government of Mexico regarding International Human		ioi ii riginta
Rights Instruments and their own Constitution with indigenous peoples and they represent		
a violation of their basic rights. The imposition of megaprojects lands and territories of Indigenous Peoples has affected		
the lives and livelihoods of peoples and communities, particularly in the case of mining	Country	Coocifical vials
companies . He Free, Prior and Informed Consent (FPIC in English), is a principle of law	Country	Specified risk
approved describing the right of indigenous peoples to give or withhold consent for		for FPIC
activities or actions that AFECT		
in their lands, territories and recursos. The lack of enforcement This principle has raised		
the level of conflict in the territories of indigenous peoples, as Indians have risen up to		
defend the integrity of their land and natural resources, especially to gua and its		
environment."		
https://www.facebook.com/coordinadoranacionaldemujeresindigenas.conami		
Coordinadora Nacional de mujeres Indígenas (CONAMI)		
Post on website dated 10 August 2016		
In Michoacan, the International Day of Indigenous Peoples, there is nothing to celebrate -		
Pavel Ulyanov · woensdag 10 augustus 2016		
■ In Mexico, there is nothing to celebrate. Currently 7 out of 10 speakers of indigenous		
languages live in poverty; no health service 57.7% of men and 45.3% of indigenous		
women; the percentage of children originating from 3 to 5 years not attending school is		
64.4%; and in general, the percentage of illiteracy in speakers of indigenous languages		
amounts to 23% (La Jornada 09 / Aug / 2016 http: //goo.gl/rDDcde).		
■ In Michoacan, during 2016, the Federal and State Government earmarked the amount of		
just over 103 million pesos to serve the more than 600,000 Indians who exist secondment		
in the state, this amount represents 0.5% of total assigned to state agencies, although		
indigenous communities are the most neglected, poor, discriminated and high educational		
gap, which is totally discriminatory, inadequate and a mockery of indigenous communities		
(the great white elephant of Michoacán: the Secretary of Indigenous Peoples		
http://goo.gl/dBjUME).		
ттр.//goo.g//αDJO™L).		
		<u> </u>

■ For its part, the Congress of Michoacán, also discriminates and does not serve indigenous communities, legislating on their backs and without consulting them prior, free and informed manner, without regard or understand the current struggles for self-determination and autonomy that they exist in various towns and indigenous communities. (CSIM accuses the Congress of discriminating against indigenous communities https://goo.gl/tFrjek). ■ Finally, in the state, the institutions that are supposed to serve indigenous communities, work to divide and isolate (http://goo.gl/5WUE5G). Nothing to celebrate."	Michoacán Michoacán	Specified risk for FPIC Specified risk for IP rights
http://enlacezapatista.ezln.org.mx/ Zapatista Army for National Liberation - Mexico New Paramilitary Attack. Caracol Resistance Toward a New Dawn, La Garrucha - June 25, 2015 "As we already know, the bad government mixes fraud with violence. It doesn't matter which political party they're from, those who rule always seek to stay above on the backs of those below. [] Before, it was Juan Sabines Guerrero, the one everyone insisted was very much a leftist politician. The progressive politicians came to receive awards from him, and even "the legitimate one" [i] came to shout enthusiastically, "long live Juan Sabines!" It is the very same Juan Sabines Guerrero who set it up so that his successor in government would be that 'famous blonde' Manuel Velasco Coello, because they are both from the families who, along with a few others, divvy up the political posts in Chiapas among themselves. Juan Sabines stole, committed fraud, and spread violence. [] How shameless they must be to make the head of state education an alcoholic murderer that says one thing one day and the opposite the next. How is somebody who can't even speak properly going to create educational reform? The person I speak of is named Emilio Chuayffet, and he is one of the murderers of Acteal, the one who would get drunk and say idiotic things. He's doing the same now. This isn't only happening in Chiapas, but also in Oaxaca, Guerrero, and other states, where the bad governments want to cover up the truth with beatings, gas, bullets, and threats.[] But the blood of the teachers isn't enough for Manuel Velasco in Chiapas. He also wants to drink the indigenous blood of the communities.[] We once again denounce attacks against us by the paramilitaries from the ejido Pojkol, barrio Chiquinibal, municipality of Chilón, and 21 persons from the same paramilitary group from Rosario, official municipality of Chilón, and 21 persons from the Pojkol ejido of the barrio Chiquinbal came to the town of Rosario in the Autonomous Municipality of San Manu	Country	Specified risk for IP rights

In Rosario there are 21 paramilitaries who are trying to invade our recuperated lands, and they are supported by this group of 28 paramilitaries from the Pojkol ejido of the barrio Chikinibal. [] We want to say clearly that we will not stand here with our arms crossed as our bases of
support are harassed in whatever way and with whichever means the bad government
chooses to use against us. We have said clearly that we will defend our lands at whatever cost; we were born from this land and we will return to her. []
We hold the federal, state, and municipal governments directly responsible for whatever
might happen, as they hold direct responsibility for these actions, and this is not the first
time we have denounced what these groups of people are doing."
http://www.conflictosmineros.net/noticias/23-mexico/10976-demandan-indigenas-solucion-a-los-conflictos-agrarios-mineros-y-forestales
National Indigenous Movement
[Google translation from Spanish:]
Sued indigenous solution to the agrarian conflicts, mining and forestry - Mexico DF.; Country Specified risk
October 2, 2012 for IP rights
[] "More than 520 years of Western invasion, the current neoliberal model in the country, keeps indigenous peoples in a situation of social exclusion, economic exploitation,
educational backwardness, cultural integrationist, looting and plundering of natural
resources, migration, lack political representation, social insecurity, discrimination,
domination and ignorance of rights as Indigenous Peoples.
Despite the great participation and contribution of indigenous peoples in the Revolutionary
War, the War of Reform, in the Revolution and in the electoral process, has not been
recognized nor has restored the historic debt that the national society has with our towns
and that at the present time as a result of the development of international indigenous
movement, has allowed achieving legal instruments of international law, such as
Convention 169 of the ILO, the San Andres Accords and the Universal Declaration of the Country Specified risk
Rights of peoples Indians, they remain unknown and denied in Mexico. In addition, it auffers from an Indian policy, where no clear policies are absorbed in fours of portionation.
In addition, it suffers from an Indian policy, where no clear policies are observed in favor of a true identity development in our towns and communities. The development model in decision
imposed on indigenous peoples with a Western view is no organized participation of making
communities. In addition, indigenous peoples have no political representation in Congress
or in instances where public policies are operating.
In this situation, the indigenous movement in Mexico has several challenges that must
analyze, reflect and establish real commitments, clear objectives in order to influence Country Specified risk
social change that requires our country to build a multiethnic, multicultural and multilingual for IP rights in
Mexico that includes indigenous peoples in conditions of equality, justice and dignity. forestry
Therefore we propose: Sector
[] Constitutional recognition of the Rights of Indigenous Peoples of Mexico; Solution to agrarian conflicts, mining and forestry;
Creation of Municipalities and Indigenous Electoral Districts;
Defense and recovery of indigenous lands and territories, beaches, coastlines, mines,
sanctuaries and natural resources;

	Immediate suspension of projects and mega projects under construction in indigenous territories; [] Amnesty law for prisoners of indigenous origin; Demilitarization of indigenous territories. FRATERNALLY, National indigenous movement.		
Data provided by Governmental institutions in charge of Indigenous Peoples affairs;	https://web.archive.org/web/20150920024114/http://www.cdpim.gob.mx/v4/01_principios_c_dpim.html La Comisión para el Diálogo con los Pueblos Indígenas de México (The Commission for Dialogue with Indígenous Peoples of Mexico) [Google Translation from Spanish]: The Commission for Dialogue 2012 It is the political body of rapprochement with member communities of indigenous peoples. Contributes to the conduct of domestic policy, through the strengthening of democratic institutions, from the Interior Ministry. With those which encourage active participation ciudadana- the Commission for Dialogue with Indigenous Peoples of Mexico should favor the conditions for the construction of political agreements and social consensus. Among its powers and objectives it is to achieve the necessary understanding with the various communities and indigenous peoples of Mexico; ensure full respect for their human rights; meet their needs and strengthen the right to self-determination and autonomy. The preservation of social, economic, cultural and political institutions that are proper, motivated and committed action by the Commission. It also represents the Ministry of the Interior in commissions, committees, agencies, corporate bodies or federal, or local public authorities, all of which are committed to carrying out the purposes of the Constitution of the United Mexican States. Similarly for federal legislation concerning the case, or interest in affairs of indigenous peoples and communities. https://web.archive.org/web/20150920024124/http://www.cdpim.gob.mx/v4/01_principios_directrices.html La Comisión para el Diálogo con los Pueblos Indígenas de México (The Commission for Dialogue with Indígenous Peoples of Mexico) [Google Translation from Spanish]: Guidelines The Government of the Republic has a broad and inclusive vision for with the indigenous peoples of Mexico. The spirit of respect, yentendimiento dialogue with indigenous communities consists in the fundamental documentospolíticos presented by the Federal Executive. In	Country	Low risk for IP rights

In order to promote and strengthen democratic governance, to achieve a Mexico in peace, a strategy of anticipation and management of social conflicts is constituted, through constructive dialogue. coordinated actions for the identification and monitoring of potential social conflicts will be established, setting criteria and mechanisms for monitoring variables and mapping of		
actors and scenarios. This, to promote conflict resolution through open and constructive dialogue, and in order to timely address the legitimate demands of society and promoting a National Agreement for Welfare, Respect and Progress of Indigenous Peoples of Mexico, that includes the tools necessary for its implementation. Moreover, in order to ensure a Mexico Incluyente, that its premises are ensuring the effective exercise of social rights for all indigenous people, a strategy that promotes the welfare of the peoples and communities originating, and to strengthen the process of social and exercise of social and exercises of their outliers and exercises.	Country	Low risk for IP rights
and economic development, respecting the manifestations of their culture and exercise their rights. To this end, the mechanisms for public action to the attention of the indigenous population will develop culturally relevant. This is also important to promote the harmonization of the national legal framework on indigenous rights, as well as the recognition and protection of their heritage and cultural wealth. This is to ensure the exercise of the rights of communities and indigenous peoples. In planning and managing their own community development, participation of communities and indigenous peoples ensuring respect for their rights and ways of life will be encouraged.	Country	Low risk for access to justice
In the same sense it is a duty to promote policies for sustainable and sustainable use of natural resources in indigenous regions. In such a way that the conservation of the environment and biodiversity be guaranteed, taking advantage of their traditional knowledge. actions to ensure human rights and security conditions, indigenous groups performing temporary migration in the country will also be supported. Pact for Mexico		
[] Rights of Indigenous Peoples The Mexican State has a historical debt to indigenous peoples. The latest figures of poverty in Mexico confirm what has been a constant in the development of our country: the natives are mostly excluded from it. Nearly seven of every 100 Mexicans are speakers of an indigenous language. Of these, eight out of ten are poor, half of whom live in extreme poverty. To reverse this unjust situation a state policy be established for indigenous exercise in practice the same rights and opportunities as the rest of Mexicans. To achieve this goal, the following actions will be promoted: Strengthening indigenous communities the effective recognition of indigenous peoples and communities as entities of law and public interest, enabling them to manage public resources, conduct community planning of their development projects and associate freely		

with other communities or municipalities will be implemented to promote projects that		
promote common development. (Commitment 34)		
Education, health, infrastructure and credit for the inhabitants of the indigenous		
communities as budgetary priority.		
The unjust lag in the exercise of rights and access to tools for the economic welfare of the		
indigenous population against the rest of Mexicans, requires that indigenous people and		
their communities are a priority of state and, therefore, a budgetary priority. Therefore it will		
substantially increase budgets for education and quality health reach the indigenous		
population. Similarly, historical investments will be made in the infrastructure of their		
communities and to facilitate their access to credit. (Commitment 35)		
equal access to justice and education		
The State has an obligation to ensure that the language and indigenous culture are not a		
limiting factor to exercise rights such as access to justice and education. Therefore it will		
ensure that the indigenous population has access to quality defenders and bilingual		
translators for their defense processes and have access to bilingual and intercultural		
education quality. (Commitment 36)"		
	Country	Recognition
Diagnosis and performance		of IPs
The Constitution of the United Mexican States recognizes the existing ethnic and		
multicultural diversity in the country, and is based on our indigenous peoples. At the end,		
62 indigenous peoples concentrated 15.7 million inhabitants, which represents 14% of the		
population.	_	
The adverse reality of indigenous communities living in Mexico is worrisome. A poverty,	Country	Specified risk
marginalization, unemployment and low wages ongoing displacement and dispossession		for IP rights
of their lands are added. Among the most visible causes is the proliferation of concessions		
to the mining industry, and the direct impact of megaprojects in their habitats and regions.	_	
Often the plundering of natural resources and the search of their ceremonial centers. Nor	Country	Specified risk
they have legal certainty in the administration of justice and are recurrently violated their		for FPIC
human rights.		
Most served conflict has its origin in the absence of consultation with indigenous peoples	_	
to obtain the free, prior and informed consent of projects intends to carry out in their	Country	Low risk for
territories consent, so it is necessary to respect all their rights.		participation
To help reduce the level of inequality in this sector, and encourage the dissemination of		in decision
their rights and opportunities, the Commission for Dialogue with Indigenous Peoples of		making
Mexico has maintained a permanent dialogue with representatives of these peoples and		
communities.		
In it are treated conflicts they face in their regions, mainly due to lack of recognition of their		
right to be consulted and informed prior to the licensing of hydroelectric projects, mining		
concessions, wind farms, rural towns, among others. Similarly meetings with officials from		
various branches of the three levels of government and representatives of indigenous and		
social organizations were held.		
In the same context, it was installed, along with the government of Guerrero, the		
Commission for Harmony and Development of Indigenous Peoples of the state.		
		1

	Also, we convened meetings to hear various indigenous issues. Established with community members and leaders dialogue mechanisms to ensure full respect for the rights		
	of indigenous peoples and meet their demands. This with the aim of promoting a National		
	Agreement for Welfare, Respect and Progress of Indigenous Peoples of Mexico,		
	contemplating improve their living conditions and their incorporation into national		
	development.		
	Note that the implementation of the Action Protocol, important document prepared by the		
	Supreme Court of Justice of the Nation, for the administration of justice involving the rights		
	of indigenous peoples was promoted.		
	of indigenous peoples was promoted.	Country	Low risk for
	http://www.gob.mx/cdi/acciones-y-programas/programa-de-derechos-indigenas?idiom=es	Country	IP rights
	Comisión Nacional para el Desarrollo de los Pueblos Indígenas (National		ii rigitis
	Commission for the Development of Indigenous Peoples (CDI))		
	[Google Translation from Spanish]:		
	Indigenous Rights ProgramWe contribute to building a Incluyente Mexico by supporting		
	and strengthening indigenous peoples to exercise their rights of access to cultural justice,		
	communication, gender, etc.		
	The National Development Plan 2013-2018 identifies the need to promote the welfare of		
	indigenous peoples and communities through a thorough review of the design and		
	implementation of programs aimed at their benefit, and operation of funds intended for		
	development within a framework of respect for their autonomy, identities, voices and		
	priorities, and sets as a strategy "Promoting the welfare of indigenous peoples and		
	communities, strengthening their process of social and economic development, respecting		
	the manifestations of their culture and exercise of their rights ".		
	This same instrument establishes the need to ensure respect for and protection of human		
	rights including civil, economic, social, cultural, political, health and the eradication of		
	discrimination.		
	The National Commission for the Development of Indigenous Peoples, under a rights		
	approach, operates the Indigenous Rights Program in order to support this sector of the		
	population in the exercise of their cultural rights, communication, access to justice, gender		
	equality and health.		
	Types of Support		
	Implementation of projects for the exercise of rights of access to justice.		
	Responsible Care Indian Penal and Penitentiary.		
	Support for Access to Displaced Indigenous Rights.		
	Exercise Cultural Rights and Communication.		
	Support for journalists (as) indigenous to the production and realization of projects of		
	intercultural communication.		
	Right to Gender Equality.		
	Support for Access to Health Care Third Level.		
Data provided by National NGOs; NGO documentation of	See above.	-	-
cases of IP and TP conflicts (historic or ongoing).			
National land bureau tenure records, maps, titles and	http://www.usaidlandtenure.net/sites/default/files/country-profiles/full-		
registration (Google)	reports/USAID_Land_Tenure_Mexico_Profile.pdf		

USAID COUNTRY PROFILE - PROPERTY RIGHTS AND RESOURCE GOVERNANCE -		
MEXICO		
"Following legislation adopted in 1992, the fundamental transformation of Mexico's land regime, which allowed privatization and market transfers of ejidal land rights, is now largely		
completed. Follow-through is needed to: ensure an up-to-date and reliable land		
certification and registration process; increase support for women's land rights; increase		
access to credit; and improve the functioning of land markets.		
Mexico's development is constrained by numerous environmental challenges, many		
pertaining to water and forest resources. The northern Mexican states are intensely water-		
stressed, and there is increasing contamination of both surface and underground water.		
Deforestation in Mexico is contributing to soil erosion and desertification. Mexico must		
improve its water and forest management systems to avoid limiting its potential for further		
growth.		
[] Mexico implemented a large-scale land reform that began after the revolution in 1917		
and ended in 1992. The reform distributed more than 100 million hectares from large farms		
to groups of households organized into ejidos (collective holdings). Indigenous groups also	Country	Low risk for
gained rights to their commonly held land during this period, which they organized into	,	land rights
comunidades (forms of collective ownership). These		
comunidades, however, lagged behind the development of privately held farms, and		
collective owners were more likely to be poor. In 1992, Mexico fundamentally changed its		
land regime and allowed privatization and market transfers of ejidal land rights. This reform	_	
is now largely completed, though it has been hindered by: inadequate state participation in	Country	Specified risk
the land certification and registration process; insufficient protection of women's land rights;		for land rights
and lack of credit or marketing mechanisms. A large part of Mexico's rural population faces		
significant challenges in overcoming poverty and entering a future of broad-based,		
sustainable development in the countryside.		
[]Women in Mexico were largely excluded from land redistribution programs and most		
ejidal land is held by men. Most women are not voting members (ejidatarios) of ejidos and		
do not hold use-rights. The 1992 reforms have in some cases further eroded women's rights on ejidos, as only ejidatarios		
were allowed to vote on new regularization and tenure regimes, and only ejidatarios' land		
rights were strengthened through these processes.		
[]Between 1917 and 1992, the GOM [Government of Mexico] distributed approximately		
100 million hectares – 50% of the country's arable land – from large private farms to ejidos	Country	Specified risk
and comunidades, rural village collectives in which land was held communally. The		for land
government retained ownership of the redistributed land, allocating only usufruct rights,		ownership
which were not alienable, to members of the newly formed ejidos and comunidades (delta		rights
2006; Brizzi 2001; Deininger and Bresciani 2001; Castellanos 2010; Penner and		·
Associates n.d.). In order to obtain ejido or comunidad land, groups applied to the federal		
government. To become members, people had to establish residency within the ejido or		
comunidad. In most ejidos and comunidades, members received: (1) usufruct rights to a		
portion of land for their house; (2) usufruct rights to a portion of land to farm individually;		
and (3) rights to shared access to communally held property and land of the ejido or		
comunidad. In terms of individually farmed land, members (and their families) were allowed		

to farm individually up to 4 hectares of forestland and up to 8 hectares of brush land, and land was supposed to have been divided equally among members. All ejido members had voting rights through the ejido's General Assembly, through which they also elected a leader called a comisariado. To retain their holdings, ejidatarios had to fulfill mandatory work requirements and had to maintain the land in agricultural production. Usufruct rights to ejidal land were considered a family's patrimony and could be inherited. The GOM distributed social benefits through the ejido structure, tying aid to the requirements imposed on members (Castellanos 2010; Deininger and Bresciani 2001; Haenn 2004).	Country	Low risk for forest use rights
Through constitutional amendment in 1992, the GOM gave ejidos and comunidades the opportunity to privatize their land, creating the possibility for significant changes in land-rights distribution in (mostly) rural Mexico. The goals of the amendment were to increase the efficient functioning of factor markets (specifically land and credit markets) and to increase agricultural investment. The overarching goal of improving efficiency in agricultural production was further driven by: (1) awareness that the rural population was aging; and (2) the need for increased international competitiveness due to the North Atlantic Free Trade Agreement (NAFTA). Rural Mexico's response to these changes has been lukewarm. Initially, the reforms were greeted with widespread concern that changes in the land tenure structure would lead to land sales on a massive scale and the disappearance of the social sector. In fact, land rights in Mexico have not changed hands on a large scale following the constitutional and legal changes of 1992 (Deininger and		
Bresciani 2001). In 2002, there were 27,941 ejidos and 2157comunidades with an estimated 3.2 million members. The total area occupied by these holdings amounted to roughly 103 million hectares or 56% of national lands usable for agriculture. While most of these ejidos and comunidades are rural, 1122 are located in urban areas (de lta 2006; Brizzi 2001). In addition to lands held by ejidos and indigenous comunidades, 73 million hectares of rural land in Mexico are owned by 1.6 million private landholders. In order to prevent the excessive concentration of land, the GOM sets a maximum legal limit on the number of hectares (100 irrigated hectares) that can be held privately and by commercial enterprises (de lta 2006).	Country	Low risk for land use rights
[]The Constitution of Mexico (1917) establishes the basis for land relations. The key article regarding land tenure, Article 27, was amended in 1992 to reflect the country's new tenure regime which allows the certification, transfer, and privatization of ejidal and comunidad land. The amended Article 27 is implemented by the 1992 Agrarian Law. The Constitution provided for a land redistribution scheme under which, until 1992, land could be taken from large landowners and distributed to landless laborers. The Constitution also provides that indigenous communities can reclaim their historic landholdings (Brown 2004). The 1992 Agrarian Law's key tenets include: (1) ending land redistribution from private farms to ejidos; (2) privatizing the housing plots of ejidatarios; (3) allowing for leasing of ejidal land to parties both within and outside of the	Country	Low risk for IP land rights

ejido; (4) allowing for sales of ejidal land within the ejido; and (5) allowing for the full		
privatization of ejidal land (disincorporation of the ejido) through a two-thirds vote of the		
General Assembly. The law also recognized the ejido as a legal person and, as such, able		
to enter into contracts and joint ventures. The law also established new rules on		
expropriation, including a requirement of mandatory compensation, and created a new		
system of agrarian justice independent of the executive branch (Deininger and Bresciani		
2001; Castellanos 2010).		
Regulations issued pursuant to the 1992 Agrarian Law also contain important provisions		
regarding ejido relations and land tenure. These include: the Regulations of the Agrarian		
Law on Matters of the Certification of Ejido Rights and Title to Plots of Land; the		
Regulations of the Agrarian Law on the Code of Rural Lands; and the Regulations of the		
Agrarian Law for the Promotion of the		
Organization and Development of Peasant Women (González and Lopez-		
Gastélum n.d.). The General Law on Human Settlements (1976) and the Law of		
Environmental Equilibrium and Protection also govern some aspects of ejidal land rights		
and development. The first of these was adopted to address rapid development of the		
informal urban settlements, which often took place illegally on ejidal lands. The law		
required state-level governments to administer urban planning (González and Lopez-		
Gastélum n.d.; Castillo 2004).		
The Federal Civil Code and the states' commercial laws govern all matters regarding ejidal		
land that are not specified in the laws mentioned above, as well as the sale, mortgage and		
registration of non-ejidal private land (Martindale-Hubbell 2008; González and Lopez-		
Gastélum n.d.).		
[]Ejidal and comunidad lands. Owned by the state, ejidos and comunidades are		
managed communally by their residents. Individual households often hold individual land	0	1
plots. Many ejidos and comunidades contain a mix of some individually parceled land as	Country	Low risk for
well as some land that is held and used communally. Since 1992, ejidal land can be freely		land use
leased and sold to other ejido members. Further, these lands can now be privatized and		rights of IPs
sold to outsiders if the ejidal body decides to privatize. Comunidades cannot sell or lease land, but do have the option of converting into ejidos,		
which would give members the option to make this decision.		
Ejidal land cannot be subdivided for inheritance, and thus inter-generational transfers		
cannot be formalized.		
Colonias. These informal urban settlements have developed on formerly vacant land.		
Colonias residents often hold a right of possession, which is similar to private ownership,		
but subject to restrictions on transfer.		
[] Mexico has two systems for land-rights registration: the National Agrarian Registry		
(RAN) for all rights pertaining to ejidos, comunidades and colonias; and the Public Registry		
of Property for all rights pertaining to private property (Penner and Associates n.d.).		
As a part of the 1992 reforms, the GOM instituted a massive land-rights regularization		
program known as PROCEDE (Program for the Certification of Ejido Land Rights and the		
Titling of Urban House Plots, or Programa Nacional de Certificación de Derechos Ejidales		
y Titulación de Solares Urbanos). The goals of this program were to register and title land-		

ejido members, representing a life-long struggle for liberty and the pivotal asset saving		
peasant farmers from becoming day laborers. In addition, most ejidos had been farmed on		
a subsistence level – only 15% were considered		
commercially viable - and the government did not provide sufficient institutional support for		
small farmers. Small farmers lacked access to modern technology, and competition in		
agricultural production increased significantly		
following NAFTA (Barnes 2009; Assies 2008; Castellanos 2010).		
[]Despite equitable statutory rights, in practice women have unequal access to land	•	
rights. Traditional customs and practices (usos y costumbres) often discriminate against	Country	Specified risk
women. Under usos y costumbres, there is a strong male preference in the inheritance of		of land use
land and generally only sons inherit. In addition, women have largely been excluded from		rights of
land redistribution efforts. For the first 50 years following land reform, the exclusion was		indigenous
legal, but even as legal restrictions were lifted, cultural barriers remained. Initially, women were only		women
eligible to become members of ejidos or comunidades if they were widows or single		
women supporting a family. Though this rule has since been revoked, most women do not		
hold use-rights and are not voting members of ejidos or comunidades. Some comunidades		
even bar women from their meetings (FAO 2002; Deere and Leon 2001; Young 1998;		
Brown 2004).		
According to most observers, the 1992 reforms have further eroded women's rights on		
ejidos and comunidades.		
Since most women were not official members of these groups, they were unable to vote on		
critical land-tenure issues under PROCEDE, and were also not recipients of strengthened		
land rights. In addition, ejidal plots that are		
privatized can now be sold by the head of household, rendering the land rights and access		
of women within the household less secure. While spouses have the first right of refusal,		
they very well may not have the financial resources to purchase the plot (Young 1998;		
Brown 2004; Haenn).		
[]The National Agrarian Registry (Registro Agrario Nacional – RAN) is the federal agency		
responsible for recording rights to land under federal control, including ejidal, comunidad,		
and colonias land. All acts related to the use, disposition and modification of these land		
rights must be recorded with RAN, which operates through state-level offices. RAN is also		
responsible for issuing: (1) certificados particulares, which document a household's rights		
to individually cultivated plots and its proportional share of common-use lands; (2) urban		
plot certificates; and (3) titles for land held in domino pleno, which are then registered in		
the Public Registry of Property. Other rights pertaining to private property are also		
registered by the Public Registry of Property, which is decentralized to local offices (Brizzi 2001; Brown 2004; Deininger and Bresciani 2001; Penner and Associates n.d.).		
The National Institute for Statistics and Geographic Information (INEGI) is charged with		
mapping and delineating ejido boundaries (both for individual plots within ejidos and		
boundaries between ejidos) (Haenn 2004).		
Soundanies Settroon Glussy (Hacilii 2007).		
[]LAND DISPUTES AND CONFLICTS		
Land disputes have been common in Mexico in both rural and urban areas. On		

	Т	
ejidos, disputes related to inheritance and parcel boundaries are common.		
Prior to the 1992 reforms and PROCEDE, lack of parcel boundary demarcations was a		
significant cause of disputes. Although ejido members were supposed to receive equally-		
sized plots for individual cultivation, boundaries were not well marked or measured, and		
many members suspected that their plots were too small (Haenn 2004; Deininger and		
Bresciani 2001; Brizzi 2001). Within most ejidos, disputes among members were resolved		
by the General Assembly or by the comisariado (elected by the General Assembly).		
However, reliance on non-ejido bureaucrats to help resolve land disputes was not		
uncommon; in some cases the local mayor (presidente municipal) would help resolve		
disputes between individual members and the		
ejido itself (Deininger 2001 and Bresciani; Castellanos 2010). Following the adoption of the		
1992 Agrarian Law, the federal government created a new court system to ensure		
accessible and effective justice for the ejidal and non-		
ejidal sector, and to reduce the authority of elected comisariados, many of whom had		
assumed a great deal of authority and control within the ejidos. This new system contained		
42 Agrarian Tribunals (Tribunales Unitarios Agrarios) as well as an appeals court, the		
Tribunal Superior Agrario. The Agrarian Attorneys General (Procuraduría Agraria) was also		
established to serve as a sort of ombudsman or attorney general office for rural land rights,		
helping rural landholders negotiate the justice system to secure their rights. Between 1992		
and 1999, the court system processed approximately 350,000 conflicts. In dealing with		
conflicts, the tribunals are explicitly instructed to seek a settlement out of court (Brizzi		
2001; Deininger and Bresciani 2001; Castellanos 2010).		
Land disputes in urban areas are also common. Almost 5% of Mexico's ejidos		
are located in the country's 110 main cities, and 15% of all ejidos are affected by problems		
caused by land invasions and informal settlements. This has given rise to widespread		
conflicts between new (informal) occupants and	Country	Specified risk
ejidatarios, undermining the broader framework of governance in rural areas (Brizzi 2001).		for land
[] Mexico fundamentally changed its land regime in 1992 when reforms began to grant		rights.
individual property rights to ejidatarios, allowing leasing (previously illegal, though		
common), privatization and market transfers of land rights in ejidos. The reforms also		
strengthened the self-governance rights of ejidos and allowed them to choose from among		
several property rights regimes. However, the reforms ended the expropriation and		
redistribution of land for rural agriculture and, as a result, 20% of those who applied for		
land prior to the reform did not receive land (Brizzi 2001; Brown 2004).		
http://www.ran.gob.mx/ran/index.php/english/mision-a-vision		
Registro Agrario Nacional – RAN (National Agrarian Registry)		
The National Agrarian Registry, a decentralized organ of the Secretariat of Agrarian,	Country	Low rick for
Territorial and Urban Development, is responsible for the control of land tenancy and	Country	Low risk for
communal land (ejido), and provides documentary legal certainty by applying the Agrarian		land title
Law. MISSION		registration
In agrarian matters, to take efficient control on land tenancy and other legal concepts of		
association by the means of avant-garde elements, with trained and involved honest		

	personnel, in order to ensure legal certainty, high-quality and in-time services, and systemized and accessible registry, cadastre and documentary information, for the benefit of the persons under the agrarian Law and their incorporation into the country's whole development. This website has no online database with land titles. http://www.ineqi.org.mx/ Instituto Nacional de Estadística y Geografía – INEGI (The National Institute for Statistics and Geographic Information) [Google translation from Spanish]: "With its creation, the INEGI modernized the valuable tradition that was our country's collection, processing and dissemination of information about the territory, population and economy. It brought together in a single institution the responsibility to generate statistics and geographic information." According to the information from USAid above, he National Institute for Statistics and Geographic Information (INEGI) is charged with mapping and delineating ejido boundaries, however these are not readily to be found on the website. The website is in Spanish, mainly.	Country	Low risk for land use right boundaries registration of ejido's and communidade s
Relevant census data	https://en.wikipedia.org/wiki/Censo_General_de_Poblaci%C3%B3n_y_Vivienda "The Censo General de Población y Vivienda (General Census of Population and Housing, or National Census of) is the main national census for Mexico. It is produced by the national statistics agency INEGI, a decentralized agency of the Mexican Federal government, with the purpose of collating and reporting detailed demographic, socioeconomic and geographical data from across the nation. Since 1900 the censo general has been conducted on a decennial basis, taking place the year ending in zero of each decade. The only variation to this schedule thus far occurred with the fourth census (IV censo general), where difficulties arising from the Mexican Revolution resulted in its deferral from 1920 to 1921. [1] As of 2014 there have been a total of 13 censuses generales taken at the national level, the most recent completed in 2010.[1]" http://www3.diputados.gob.mx/camara/content/download/271337/837099/file/Carpeta16_S ituacion_indigenas.pdf. [Google translation from Spanish]: socio-demographic description of the population language speaker, utoadscrita as indigenous and the rest of the population, from Census data Population and Housing 2010 Situation of Indians. number 16 - December 2011 [] • Changing ethnicity questions regarding the census form 2000 was to increase significantly the target population to which They are directed policies of the three levels of government. The results of XII General Census of Population and Housing 2000, interpreted by the Commission National Development of Indigenous Peoples of 10,253,627 registered Indians in our country. According to data from the last Census of Population and Housing in 2010 between speakers and autoadscritos reached a record of	Country	

		•	•
	 16,102,646 conisderadas indigenous people. [] The speaking population and is considered indigenous in Mexico it represents 14.9% of the total population [] The states with the highest concentration of population and speaker autoadscritos are: Yucatan (62%), Oaxaca (58%), Quintana Roo (34%), Chiapas (33%), Logwood (32%). The main languages spoken in Mexico, as a percentage of the speaking population, are: Nahuatl (23%), Maya (11.5%), Tzeltal (Tseltal) (7%), Mixteco (6.09%), Tzoltzil (Tsoltsil) (6.5%). Less used they are: Kickapoo (Kickapoo), Chamateca, Paipai, Chapaneco, Miskito. These languages, among others, are spoken by fewer than 50 people. 	Country	Presence and recognition of indigenous peoples
	https://en.wikipedia.org/wiki/Indigenous_peoples_of_Mexico According to the National Commission for the Development of Indigenous Peoples (Comisión Nacional para el Desarrollo de los Pueblos Indígenas, or CDI in Spanish) and the INEGI (official census institute), in 2015 25,694,928 people in Mexico self-identify as being indigenous, [3] of many different ethnic groups,[4] which constitute 21.5% of Mexico's population.[1][2] http://www.ineqi.org.mx/est/contenidos/proyectos/encuestas/hogares/especiales/ei2015/do	Country	Presence and recognition of indigenous peoples
	c/eic_2015_presentacion.pdf [Google translation from Spanish]: 2015 intercensal survey []Therefore, the estimate of the total population would be 119,938,473 to March 15, 2015. 25,694,928, or 21.5% of the total population self-identify as indigenous.	Country	Presence and recognition of indigenous peoples
 Evidence of participation in decision making; Evidence of IPs refusing to participate (e.g. on the basis of an unfair process, etc.); 	See information above.	-	-
National/regional records of claims on lands, negotiations in progress or concluded etc.	See information above.	-	-
Cases of IP and TP conflicts (historic or ongoing).) Data about land use conflicts, and disputes (historical / outstanding grievances and legal disputes)	See information above.	-	-
Social Responsibility Contracts (Cahier des Charges) established according to FPIC (Free Prior Informed Consent) principles where available	Not applicable.	-	-
Google the terms '[country]' and one of following terms 'indigenous peoples organizations', 'traditional peoples organizations', 'land registration office', 'land office', 'indigenous peoples', 'traditional peoples', '[name of IPs]', 'indigenous peoples+conflict', 'indigenous peoples+land rights'	http://fusion.net/story/245192/mexico-discovers-1-4-million-black-mexicans-they-just-had-to-ask/ Mexico 'discovers' 1.4 million black Mexicans—they just had to ask 15 December 2015 For the first time in its history, Mexico's census bureau has recognized the country's black population in a national survey that found there are approximately 1.4 million citizens (1.2% of the population) who self-identify as "Afro-Mexican" or "Afro-descendant."	Country	Presence of Afro- Mexicans

[] Miguel Cervera, director general of sociodemographic statistics for the country's census bureau (known as INEGI), told Fusion the 2015 survey is a preliminary effort to register demographic changes in preparation for the 2020 national census. He says Afro-Mexicans have always been included in past surveys, but were never given the option to identify themselves as such. http://webcache.googleusercontent.com/search?q=cache:1ZoLV5KJb80J:theredddesk.org/file/3111/download+&cd=1&hl=nl&ct=clnk≷=nl Tenure of indigenous peoples territories and REDD+ as a forestry management incentive: the case of Mesoamerican countries - 2012 "Land tenure systems and ways of recognizing the land rights of indigenous populations have been influenced by historical agrarian processes in the country, land appropriation during colonial times, agrarian reform and the amendment of Article 27 of the Mexican		
Constitution in 1992. Article 27 of the 1917 Constitution established three type of property: small property, ejidos and communal property (with the latter two also known as agricultural units).30 Before the above-mentioned amendment of that Article of the Constitution in 1992, they belonged to the State and were inalienable. By its nature, small private property is subject to size limits depending on type of crop and economic activity. Communal property recognizes the historical rights of indigenous communities and titles awarded to them by the Spanish Crown, giving way to permanent traditional structures of communal property. Unlike in the case of ejidos, communities have collective ownership of their land. Through the process of agrarian redistribution, indigenous peoples recovered some of the territories they had lost during the dictatorship of Porfirio Díaz (1876-1910), which now came under the ejido or communal land arrangement. Titling for both such arrangements considered indigenous communities as single entities, rather than groups of communities (indigenous peoples) living within a territory.31	Recognized community land in Country	Low risk for ownership of land
Mexico's 30 000 ejidos and communities cover around 50 percent of the national territory, contain 75 percent of the country's forest territory, and 23 percent of them (6 800) are home to groups of indigenous speakers (Merino, 2010). Within that national total, Chiapas has 2 823 ejidos and communities, with a surface area covering 60.5 percent of total state territory, while Oaxaca has 1 632 ejidos and communities covering 92 percent of the state territory (Procuraduría Agraria (Agrarian Ombudsman), 2006). As a result of the changes introduced to Mexican agrarian legislation when Article 27 of the Constitution was amended in 1992, the ownership rights for ejidos ceased to belong to the State and were assigned to their members through the Asamblea Ejidal. The reform of Article 27 maintains the land of communities under their ownership (as was the case previously). Although the 1992 legislation maintains the assembly of ejidos and communities as the highest decision-making body in terms of the sale of agricultural plots, it does prohibit the transfer, division and parcelling of ejido and communal woodlands and forest lands. In terms of use, indigenous ejidos and communities have developed various forms of managing territories, which include communal use areas and family-owned areas where agricultural and agroforestry activities are carried out.	Recognized ejidos in the Country	Low risk for ownership of land

The General Law on Ecological Balance and Environmental Protection (LGEEPA), created in 1988 and reformed in 2012, gives ejidos and communities the right of protection, preservation, use and sustainable exploitation of natural resources, and the safeguarding and use of biodiversity. As well as regulating woodland areas, this Law also regulates protected natural areas that are often set up on community and ejido territory. Protected natural areas come under the National Council for Protected Areas (CONAP) and are administered through management programmes. Each protected natural area has a consultative body known as the Technical Advisory Committee, which involves members of the communities and ejidos, NGOs and research institutes. The management of the protected natural areas is, however, the responsibility of the government, not the owners. In terms of land disputes, in 2006 the Agrarian Ombudsman (Procuraduría Agraria, 2006) recognized 1 248 ongoing agrarian disputes nationwide, including boundary disputes among neighbours32 and internal family disputes (for reasons of inheritance). Some of these conflicts may be over 30 years old. They are more common in forest regions and among indigenous agrarian communities. The highest rates of agrarian dispute in the country are seen in the states of Chiapas, Oaxaca, Michoacán and Guerrero. Currently,	Illegal logging areas in the country	Specified risk for land dispute s
land disputes are being aggravated by factors such as illegal timber extraction and drug crops, which both thrive amidst a lack of local governance seen in many disputed lands (Merino, 2010). Mexico has developed an effective alternative dispute settlement system that supports dispute settlement within groups by means of mediation processes. These methods have been hugely useful and successful in resolving the country's land disputes, particularly in the period following the reform of Article 27 of the Constitution. At present, most community disputes are solved within the community or ejido using assemblies,	Country	Low risk for border disputes
which are the groups' main decision-making body" http://hrbrief.org/hearings/land-tenure-and-human-rights-situation-of-indigenous-peoples-in-mexico/		
Land Tenure and Human Rights Situation of Indigenous Peoples in Mexico - April 6th, 2011 "The Inter-American Commission on Human Rights (IACHR) held a thematic hearing on Monday, March 28, 2011, regarding land tenure and the human rights situation of		
indigenous peoples in Mexico. Petitioners included the Centro de Derechos Humanos y Asesoría a Pueblos Indígenas and the Centro de Derechos Humanos para las Américas del Instituto Internacional de Derechos Humanos DePaul University, as well as two citizens from Oaxaca who testified about their personal experiences regarding "agrarian conflicts" with the State of Mexico.		
Agrarian conflicts are some of the most serious problems faced by the indigenous peoples in Mexico. "Indigenous communities live in constant persecution," the petitioners argued, because "they are taken advantage of" and "persecuted for defending their land." The	Country	Specified risk
petitioners presented several land tenure issues faced by indigenous communities throughout Mexico. First, despite Mexico's program to redistribute land back to indigenous communities, over the past decade, new legislative and other efforts have curbed or even eradicated any successes from that program. The petitioners cited an example from 1998 in Baja California, where the government granted land to a wealthy family that had been		for land rights of IPs

partially owned by an indigenous community. Armed government efficials divested the lead		1
partially owned by an indigenous community. Armed government officials divested the land from the community living on it and bulldozed one of the community's most sacred burial grounds. The second problem the petitioners highlighted is the poverty in which many indigenous peoples live. New modifications to Article 27 of the Constitution of Mexico allow indigenous peoples to sell or rent their properties. The petitioners argued that the extreme poverty of the indigenous persons, combined with pressure from the government, forces them to sell their land. Together, invasions on the indigenous communities land and laws allowing indigenous peoples to sell their properties have increased the private ownership of ancestral land and dispossessed indigenous communities. The State responded by explaining Mexico's land redistribution program, which lasted from 1915 to 1992, making it the longest and largest redistribution program in the world. Currently, 7.4 million hectares of land are considered community property, belonging mostly to Mexico's indigenous peoples. The State also maintained that the indigenous peoples have formed various organizations, such as the Asamblea de Campesinos, which act as the primary decision makers for indigenous communities' lands. Finally, the State argued that its initiatives and public policies concerning this issue have resolved almost 1,500 agrarian conflicts. Commissioner Dinah Shelton posed a few questions regarding indigenous peoples' autonomy over their lands and the exploitation of natural resources, as well as historical and cultural sites. The petitioners asserted that their interests are not considered when the State makes such decisions. The petitioners provided two examples: the construction of a cell phone tower over ancient ritual grounds, and how indigenous peoples sometimes need permission to enter previously sacred grounds that have been taken over by the State. In response, the State again asserted the progress of its various reforms and initiatives, mentioning infra	Recognized community land Country	Low risk for IP rights Specified risk for participation in decision making
<u>podf</u> [Google translation from Spanish]: Superficial Occupation Guide - Strategic Partnerships for the Promotion and Development of Competitiveness of the Mexican mining sector.		

Conclusion on Indicator 2.3:	1.12	Country	Specified risk
Additional general sources for 2.3 From national CW RA	Additional specific sources Not available	scale of risk assessment	risk indication
	Article 20 of the General Law on National Property provides that concessions goods that are public property, as in the case of mining concessions, grants the right to use, exploit or benefit of such property in accordance with the rules and conditions laid down by law, writing or title concession. Because the mining concession grants the right to the exploitation of minerals located in the subsoil, it is necessary that dealer to negotiate access to the surface covering the area concesionada directly with the owner of the surface where the concession is located. On this basis, in order to access the surface, the licensee may resort to legal forms They listed below, according to the legal status of the land: If the surface is privately owned, the dealer can buy it or lease it with the support of the Civil Code of the State where the land is located. If the territory belongs to an ejido, the licensee may establish an agreement with the community within the framework of the Agrarian Law, which will be recorded in the Register National Agrarian and likewise, although not binding, in the Public Registry Mining. Regardless of the type of land regime, the concessionaire has the possibility of establishing temporary occupancy agreements, with the aim of developing activities mining. The land can also be property of the nation or the state. If the land owner refuses, Article 19, Section IV, of the current Mining Law, gives the concessionaire the right to get the expropriation, temporary occupation or easement on the surface necessary to carry out the work and activities of exploration, exploitation and processing as well as for the deposit of waste, waste, slag and fat deposits. The Ministry of Economy only decides on expropriations of private property goods that are due the expropriation of ejido land must be requested in accordance with the Land Law provided, such as it indicated in the last paragraph of Article 21 of the Mining Law. When the action is justified expropriation, the Ministry of Economy	Country	Specified risk for land rights in mining sector

Zapatista National Liberation Army (EZLN). From 2003 onwards, the EZLN and the Indigenous National Congress (CNI) began to implement the "San Andres Accords", creating autonomous indigenous governments in Chiapas, Michoacán and Oaxaca. The state constitutions of Chihuahua, Nayarit, Oaxaca, Quintana Roo and San Luís Potosí have dispositions concerning indigenous peoples, but indigenous legal systems are still not fully recognised and there is no national legislation on FPIC. Mexico ratified ILO Convention No.169 in 1990 and endorsed UNDRIP in 2007. Nevertheless, risk assessment for relevant indicators of Category 1 confirms specified risk, especially indicator 1.15 on indigenous peoples' rights. According to data from the last full Census of Population and Housing in 2010, 6,102,646 inhabitants are indigenous people, representing 14.9% of the total population. In the 2015 intercensal survey, which included a question on indigenous self-identification in the basic questionnaire, 25,694,928, or 21.5% of the total population self-identify as indigenous. Some 68 indigenous languages and 364 dialects are spoken within its territory. Although for the first time in its history, Mexico's census bureau has recognized the country's black population in a national survey that found there are approximately 1.4 million citizens (1.2% of the population), there is no indication that these are considered as traditional peoples with the same rights as indigenous peoples.

communidade s- of indigenous communities)

- There is significant evidence of violations of legal and customary rights of indigenous peoples. The category 2 analysis above reports many examples and it is mentioned that there are hundreds of cases of systematic grabbing of the land and resources of Mexico's indigenous peoples.
- There are conflicts of substantial magnitude⁴ pertaining to the rights of indigenous peoples; indigenous communities gained usufruct rights to some of their commonly held land during Mexico's large-scale land reform between 1917 and 1992, which they organized into ejidos or comunidades. Through this process of agrarian redistribution, indigenous peoples recovered some of the territories they had lost during the dictatorship of Porfirio Díaz (1876-1910), which now came under the eiido or communal land arrangement. It should be noted that 20% of those who applied for land prior to the reform in 1992 did not receive land, but no reports were found of indigenous people's outstanding land claims. After 1992, when Mexico fundamentally changed its land regime, indigenous and other communities also gained ownership titles to these recovered lands. By 2005, 96% of agricultural households had registered their land rights, and 89% had received titles. Mexico's 30,000 eiidos and communities cover around 50% of the national territory, contain 75% of the country's forest territory, and 23% of them (6 800) are home to groups of indigenous speakers. Mexico has been effective in resolving border disputes in and between communities. The National Commission for the Development of Indigenous Peoples (CDI) is engaged in consultations with indigenous communities, which served at the federal and state levels as a means for the harmonization of legislation, the formulation of development plans and programmes, the development of public policies, cultural protection and dissemination and the protection of natural resources. The National Development Plan 2013-18 includes three action lines intended to promote the harmonization of the national legal framework in relation to indigenous rights. A Dialogue Commission with indigenous peoples of Mexico was established and a consultation protocol was approved by the Advisory Council of the CDI in 2013. However, there is no legal national-level framework regarding the free, prior and informed consent of Indigenous communities and many large-scale development and resource exploitation projects were carried out in indigenous territories without their consent. 35% of the national territory has been concessioned through more than 29,000 concessions including for mining, hydroelectric and wind power. 17% of them are inside some indigenous territories. Besides this, 15% of all ejidos are affected

Guidance

In the identification of conflicts of substantial magnitude one must also be aware of possible parallel activities of other sectors than the forest sector that also impact the rights of indigenous/traditional peoples and that there can be a cumulative impact. This cumulative impact can lead to a 'gross violation of indigenous peoples' rights' or 'irreversible consequences' but the extent of the contribution of forest management operations needs to be assessed. The substance and magnitude of conflicts shall be determined through NRA development process according to national/regional conditions. NRA shall provide definition of such conflicts.

⁴ For the purpose of the Indicator 2.3, a conflict of substantial magnitude is a conflict which involves one or more of the following:

a) Gross violation of the legal or customary rights of indigenous or traditional peoples;

b) Significant negative impact that is irreversible or that cannot be mitigated;

c) A significant number of instances of physical violence against indigenous or traditional peoples;

d) A significant number of instances of destruction of property;

e) Presence of military bodies;

f) Systematic acts of intimidation against indigenous or traditional peoples.

- by problems caused by land invasions and informal settlements. This, together with the organized crime and the current mega-projects from the government has given rise to widespread conflicts. Land disputes are being aggravated by factors such as illegal timber extraction and drug crops. Reference to hundreds of cases of systematic grabbing of the land and resources of Mexico's indigenous peoples have been mentioned above.
- There are recognized laws and/or regulations and/or processes in place to resolve conflicts of substantial magnitude pertaining to TP or IP rights and/or communities with traditional rights, but there was no evidence found in which these are recognized by affected stakeholders as being fair and equitable; indigenous peoples make use of processes to resolve conflicts, and in some instances were successful, e.g. the judgement of Mexico's Supreme Court that a Tarahumara (Raramuri) community in the state of Chihuahua possessed the constitutional right to participate in the decision-making of any project that would affect them. But despite of this and despite support of the government of Mexico for the promotion and defence of rights of indigenous peoples, improving the conditions for the access of justice, it is also widely reported that the Mexican government responds to demands for justice by harassing and arbitrary detention of indigenous leaders and criminalizing their protests on the basis of fabricated or unsubstantiated evidence. Although there is some recognition and application of the indigenous justice system within the local justice system by evoking "usage and customs", particularly in the election of local representatives, the Inter-American Committee on Human Rights expressed its concern at the limited scope for applying the "usage and customs" of indigenous communities and the lack of establishing special indigenous courts.

The following 'specified risk' thresholds apply, based on the evidence:

- (23) The presence of indigenous and/or traditional peoples is confirmed or likely within the area. The applicable legislation for the area under assessment contradicts indicator requirement(s) (refer to 2.2.6); AND
- (24) Substantial evidence of widespread violation of indigenous or traditional peoples' rights exists; AND
- (26) There is evidence of conflict(s) of substantial magnitude pertaining to the rights of indigenous and/or traditional peoples. Laws and regulations and/or other legally established processes do not exist that serve to resolve conflicts in the area concerned, or, such processes exist but are not recognized by affected stakeholders as being fair and equitable. Note under threshold No 20 applies.

Controlled wood category 3: Wood from forests in which high conservation values are threatened by management activities

Overview

Mexico is part of both the North and Central American sub-continents. It borders the United States to the north and east, and Belize and Guatemala to the south. It has 1,959,248 km² of continental territory and 3,149,920 km² of marine area (based on 200 nautical miles from the coast line). On the east Mexico is on the Caribbean Sea (Mexican Gulf) and on the west the Pacific Ocean. The country has a population of around119 million people (1). Mexico is considered a megadiverse country and is one of the top five most biodiverse countries in the world, hosting up to 10% of all living species, many of them endemic to the country, in less than 1% of the global land mass It ranks first in species richness of reptiles and amphibians combined, third for mammals, fourth for vascular plants, and eighth for birds. Mexican biodiversity is unique in that about 20% of its vertebrate species are endemic to the country. Endemism is higher than 40% for amphibians, reptiles and vascular plants, and also remarkable in particular groups such as cacti (84%), orchids (48%) and pines (43%). Its biodiversity is composed of both tropical and temperate species, being the only country on Earth in which two major biogeographic realms (i.e., the Neartic and the Neotropical) completely intergrade. There is a gradient of humidity from north to south, with arid lands and deserts dominating the northern landscapes, temperate forests covering the mountains, and tropical forests dominating the south and coastal regions. There are 50 vegetation types representing four main biomes: arid shrubland, temperate forests, tropical forests, and grasslands (2).

Protected Areas

In Mexico there are various types of protected areas: federal, state, municipal, community, ejido and private. There are six categories of Federal-protected areas: 1) 44 Biosphere reserves; 2) 67 National Parks; 3) 5 Natural Monuments; 4) 8 Protected areas of natural resources; 5) 40 Protected areas of Fauna y Flora; 6) 18 Sanctuaries (6, 15). In relation with State-protected natural areas, at least 22 states have decrees of protected areas at the state level under the administration of environmental secretaries or institutes of the state governments, at the same way as states, some municipalities have also created municipal protected areas, but no detailed information was found on protected areas in municipalities according with the national entity (6). While, ejidos and communities have long kept areas with a low intensity of use for various reasons. Some have been protected to maintain water sources, others for religious purposes, other to conserve populations of particular species. Currently there are over 150 Community- or Ejido-protected areas ranging from less than 10 hectares to 100,000 hectares (6). In the case of Private-protected areas, there are also of relatively small size and are present in much smaller numbers than those of public ownership (6, 8, 9, 15). For the Municipal-protected areas, no specific figures for the country were found during the development of this assessment.

All federal areas are under the administration of the National Commission of Natural Protected Areas (CONANP, acronym in Spanish). Their areas range from 84 hectares in the Chamela Bay Island sanctuary, Jalisco, to 2,493,091 ha in the Biosphere Reserve El Vizcaino, in Southern Baja California. Of the 182 protected areas, 58 are part of the National System of Protected Areas (SINAP) for bringing together those protected areas with biodiversity and ecological characteristics of particular relevance to the country (6, 8, 15, 26).

The SINANP includes terrestrial and marine ecosystems with a total extension of nearly 25.4 million hectares; it only includes 5.7 million hectares of temperate and tropical forests. The areas in the SINANP were established for a variety of reasons such as for their scenic or recreational value. Before the 1990s, their creation was often unrelated to the protection of biodiversity. Hence, their management, even though is related to conservation, does not follow the international standards established for protected areas, which include the definition of a core area for strict conservation that is surrounded by a buffer area where some production activities are allowed depending on the biophysical characteristics of the area. Nevertheless, more than 80 % of the SINANP reserves are classified as multiple-use reserves, which allow a wide variety of uses and activities within their borders. Each reserve is required to have a management program that specifies proper uses and conservation activities for the subunits that compose the reserve. However, by 2013, only 44 % of the reserves in the SINANP had a management plan approved (16, 17).

Forest Tenure in Mexico

There are four broad categories of land tenure in Mexico: federal, communal/ejidal, private and possessory rights held in colonias (informal settlements). Mexico implemented a large-scale land reform that began after the revolution in 1917 and ended in 1992. The reform distributed more than 100 million hectares property of the nation, from large farms to groups of households organized into ejidos (collective holdings). Indigenous groups also gained rights to their commonly held land during this period, which they organized into communal (forms of collective ownership). Communal ownership involves land under the ownership of rural agrarian communities (nuclei), which are either ejidos or traditional indigenous communities. Ejidos are communally managed agrarian villages acting as self-organised legal entities that have been granted collective land holding by the state (24).

Following the 1917 Land Distribution Reform, the federal government held ultimate title over all land, allocating only usufruct rights. However, in 1992, Article 27 of the Constitution was reformed, creating the Agrarian Law. Whereas previously communities-maintained use rights only, the Agrarian Law provided legal recognition of the rights of possession and use to ejidos and communities to forestland and permitted for the lease and sale of ejido property. The communal land is the land/forest for all the community and is not legally allowed to rent or sell. To implement the reform, the Programme for the Certification of Ejido Land Rights and the Titling of Urban House Plots (Programa de Certificación de Derechos Ejidales y Titulación de Solares, PROCEDE) was created. PROCEDE aimed to strengthen land tenure through the survey and certification of land parcels and common use land (25). PROCEDE provided for the conversion of ejidal land parcels to private property, granting ejidatarios (ejido members) the right to rent or sell their individually-owned land thus opening up ejidos to private investment. This system does not apply to the communal land of indigenous communities, who could only engage in the sale of land parcels if they adopt an ejido-type regime. Communal lands operate according to the Agrarian Reform Law of 1917, which allow the owners to remain as communities or to become ejidos and to be able to sell or rent (based on collective decisions), as established by current constitutional article 27 (25). In any of the following types of land ownership, different land uses can be found: agriculture, forests, livestock, etc.

Private property. Property owned by a private individual or corporate body and can be freely bought, sold, leased, mortgaged and inherited. In Mexico, rights to private property are referred to as "domino pleno" (i.e. freehold). Although the 1992 Agrarian Law gave ejidos the right to —fully privatize their land, some observers argue that the law does not actually allow for full privatization because it grants the ejidatario's family members a right of first refusal for any ejidal land offered for sale and allows the government to set mandatory minimum prices for land sales (25).

Federal property. This term applies to land owned by the national government and includes areas of public interest such as some forests, and areas of public benefit, such as roads and airports (25).

Ejidal and communal lands. Ejidos and communities are managed communally by their residents. Individual households often hold individual land plots. Many ejidos and communities contain a mix of some individually parceled land as well as some land that is held and used communally. Since 1992, ejidal land can be freely leased and sold to other ejido members. Further, these lands can now be privatized and sold to outsiders if the ejidal body decides to privatize. Communities cannot sell or lease land, but do have the option of converting into ejidos, which would give members the option to make this decision. Ejidal land cannot be subdivided for inheritance, and thus inter-generational transfers cannot be formalized (25).

Colonias. These informal urban settlements have developed on formerly vacant land. The residents of these areas often hold a right of possession, which is similar to private ownership, but subject to restrictions on transfer (25).

Mexican Forests

The National Institute of Statistics and Geography (INEGI, acronym in Spanish), uses a system to classify vegetation based on the characteristics of flora, ecosystems and climate. The country's vegetation cover is described considering 12 biomes and 58 types of vegetation, in addition to considering the current state of the vegetation in successional phases (secondary growth in tree, shrubby and serbaceous seral phases) in 219 combinations registered so far (114). The main vegetation types (114) present in Mexico are: coniferous forests (8.4% of the national territory), oak forest (7.6% of the national territory), mountain cloud forest (0.7% of the national territory), evergreen tropical forests (4.5% of the national territory), semideciduous tropical forests (2.8% of the national territory), deciduous tropical forests (7.4% of the national territory), thorny tropical forests (0.4% of the national territory), grasslands (6.9% of the national territory), xerophytic scrub (28.0% of the national territory), hydrophytic vegetation (1.4% of the national territory) and other vegetation types (2.0% of the national territory)(114).

The Forest Sector

Mexico has approximately 138 million of cover forest equivalent to 70% of the national territory, with an estimated 21.6 million hectares suitable for wood production (115, 116). Temperate forest cover 51% of this area, and the remaining 49% is covered by tropical forest (4). Timber production is not the common purpose of the conventional forest management in many forest areas. Often, forest owners have no timber production objective at all, and objectives such as conservation, harvesting of nontimber products, protection of religious and ceremonial sites, and provision of forest services (e.g., water production, recreation, carbon sequestration) have a higher priority (18).

Forest management for timber production in Mexico is practiced in communal and private forest lands. Communal forests currently under active timber management work under the form of Community Forest Enterprises (Empresas Forestales Comunitarias, EFC, acronym in Spanish) to protect, restore, harvest, log, and industrialize forest lands. Nationally, the active EFCs have an average forest cover of about 100 ha, and they use only about 60 % of their forests for timber production. Nevertheless, they produce almost 85 % of the timber volume logged in the country. The existing EFCs has low vertical industrial

integration, and usually, they sell only standing trees or logs. More than 55 % of EFCs and more than 60 % of private forest ownerships sell standing trees to logging contractors (18, 19, 20).

Decision-making processes are more complicated in FCEs. Decisions such as use of resources, harvesting rules, definition of conservation criteria and areas, and logging systems to be used for extractions are prepared by a professional forestry and presented to the Community's General Assembly for discussion and approval. Also, forest management objectives in a communally owned forest are broader than maximization of profits, and involve the improvement of the wellbeing of the community, creation of jobs, conservation of special places (e.g., religious or traditional sites), conservation or promotion of specific species (sometimes non-commercial ones), and the combination and promotion of different economic activities (e.g., orchards, livestock, agriculture) jointly with forestry activities (21). Hence, community forestry tends to have lower timber harvest levels, and the usual timber management goals such as forest regulation, achieving efficiency, maximizing profits, or even ensuring a sustained yield of timber are not as important as other community's goals. Furthermore, in many cases, timber production is seen as a cyclical temporary activity that uses some of the community's forest resources to supplement their income, or finance the development of other economic, social or cultural activities (20, 21).

Mexican methods for timber management were developed to manage large forest tracks during the times of large forest concessions. Today, those concessions do not exist and timber management is commonly carried out at the property level, usually in small to medium size forest ownerships (e.g., 500 to 1000 ha). In few instances, several private forest owners join to manage their forests as a single unit. In most cases, the properties comprise different land uses and their owners, particularly communal ownerships, in which there is a demand for agriculture and grassland areas. Thus, forest management is just one component of a broader use of a wooded landscape and timber production objectives must be seen as just one component within a broader process of rural development (20, 21).

Today, timber management in the country faces a wide variety of instruments of public policy and incentives related to the production of timber, nontimber products, and environmental services. The emergence of carbon markets and compensations for avoided deforestation such as the REDD+ initiative have introduced new quasi-products to be considered in forest management decisions. Markets for these quasi-products are developing and they are already having some impact on timber management decisions (e.g., delaying or reducing harvest levels). Income from subsidies such as payments for environmental services, and other incentives aimed to reduce land use change and intensive timber extractions in fragile ecosystems add to the set of alternatives to be considered by the forest owners. To be able to access these incentives and emerging markets, forest and environmental authorities require forest owners to reduce harvest areas, harvest volumes, delaying harvests, or even change silvicultural systems (22).

The rapidly changing site conditions over small areas, and the complex composition of the forests (in age and species), combined with the need to manage the forests at the property level greatly complicate the management system, the development of planning tools, as well as the implementation of production and operational practices at an efficient economic scale. Hence, timber production in most cases is a temporal or seasonal activity with low returns that is unable to compete with cheaper imported timber products. This lack of competitiveness has led to the shrinking of the market for Mexican timber products in the last 15 years (19). However, less than a third of this area is under active management or has been managed for has been managed for wood production in the past, while the domestic demand for wood has been increasing. This The domestic wood supply deficit demand has been met instead by wood imports from Chile, and the United States, and there are reports that significant volumes of illegally harvested wood from Peru enter the country (23). The main piece of legislation regulating the forest sector in Mexico is the General Law for Sustainable Forest Development of 2003 and its subsequent related amendments. It

assigns specific responsibilities to the competent authorities at local, regional and national levels, and seeks to regulate and promote the conservation, protection, restoration, production, organization, agricultural activity, and management of Mexico's forests in order to secure sustainable forest development. The earlier Law for the Ecological Balance and the Protection of the Environment of 1998, which was written to promote the preservation and restoration of ecological balance and environmental protection in Mexico, remains in force. It covers any matters that are not addressed in the General Law for Sustainable Forest Development.

A number of additional laws complement the 2002 law in regulating forest use. The General Law on Ecological Equilibrium and Environmental Protection (Ley General del Equilibrio Ecológico y Protección del Ambiente) regulates activities for protecting biodiversity and reducing the impact on forests and tropical areas of certain forest activities. The Wildlife Law (Ley de Vida Silvestre) governs the use of plants and wildlife found in the forests. The General Law on Sustainable Rural Development (Ley General de Desarrollo Rural Sustentable) provides guidance for activities aimed at protecting and restoring forests within the framework of rural development programs. Finally, the Agrarian Law (Ley Agraria) governs farmers 'ability to use forest resources on their land (26). Forestry activities in the country are regulated by the National Forestry Commission (Comisión Nacional Forestal, CONAFOR) within the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT). To use forest resources for commercial sale requires authorization from the Secretariat of the Environment and Natural Resources (SERMARNAT). Forest use permits are generally issued for 10 years. Forest owners/managers need to submit a forest management plan for CONAFOR approval, and prior to harvesting timber, must apply for a timber transportation permit, at which time CONAFOR conduct a desktop check of compliance with the management plan, primarily just extraction volumes against management plan harvesting volume projections. For tropical forests only when tropical rainforest areas are >20 ha, or where the harvesting involves species for which natural regeneration can be difficult, an environmental impact statement must also be submitted and approved, as stipulated by the law on Environmental Protection (Ley General del Equilibrio Ecológico y la Protección al Ambiente). The main difference between temperate forest and tropical rainforest harvesting is that the latter is the only that requires an Environmental Impact Statement. To obtain authorisation to harvest timber forest resources in areas under or equal to 20 ha, the corresponding Forest Management Plan shall be consolidated into a plot not larger than 250 hectares in total. When harvesting timber forest resources in areas over 20 hectares and under 250 hectares, the interested party must present an intermediate-level Forest Management Plan.

No (legal) harvesting takes place within the protected area system. However, the country has a system of environmental subsidies for the sustainable extraction of natural resources on environmentally sensitive areas, which are to be found mostly on private land and ejidos across the country. At the end of the year 2011, there were about 10,607 such environmentally sensitive areas, called Environmental Management Units (Unidades de Manejo Ambiental, UMA) containing 1130 vertebrate species and subspecies under intensive (605 species and subspecies) or extensive (697) management (2). Land surface within UMAs is around 38.5 million ha (11) that account for almost 20% of the Mexican territory. Most UMAs are between 1,000 and 10,000 ha in size, and cover a range of natural habitats including xerophytic scrub/semi-desert, grassland, and a range of forest types. A management plan is mandatory for all UMAs, which must be approved by SEMARNAT. An evaluation carried out for SEMARNAT in 2011 reported that there was insufficient data to evaluate the effectiveness of the UMA designation in protecting environmental values on these sites (12).

Forest management plans incorporating decisions on the use of resources, harvesting rules, definition of conservation criteria and areas, and logging systems to be used for extractions are mostly prepared by a professional forestry consultant and, in the case of EFCs, presented to the Community's General Assembly for discussion and approval before submission to CONAFOR. Forest management objectives in a communally owned forest are broader than

maximization of profits, and involve the improvement of the wellbeing of the community, creation of jobs, conservation of special places (e.g., religious or traditional sites), conservation or promotion of specific species (sometimes non-commercial ones), and the combination and promotion of different economic activities (e.g., orchards, livestock, agriculture) jointly with forestry activities. Hence, community forestry tends to have lower timber harvest levels, and the usual timber management goals such as forest regulation, achieving efficiency, maximizing profits, or even ensuring a sustained yield of timber are not as important as other community's goals (19).

Rural communities that live in forest areas are for the most part poor. More than 50 % of them live in extreme poverty with challenging health, education, and accessibility conditions (19). People in forest communities for the most part do not have a tradition of making a living from cultivating and investing in their forests. Obtaining a harvest permit is not an easy task. There are many transaction costs as well as a large volume of associated paper work and complicated bureaucratic processes that have resulted in forestry activities that do not always fully comply with laws and regulations.

Mexican silvicultural systems that are used by forestry consultants when drawing up management plans were developed in the past to manage large forest tracts during earlier times of large forest concessions. Today, those concessions do not exist and timber management is commonly carried out at the property level, usually in small to medium size forest ownerships and the fragmentation of the forest resource has given rise to scale inefficiencies in forestry operations.

Threats to HCVs

In Mexico it is identified illegal or informal harvesting in natural forest and the conversion of natural forest to agricultural and pasture land, plus the lack of the enforcement of the law that prohibited the replacement of current native primary vegetation by other uses (5, 32, 33, 34). According to deforestation rates, Mexico lost 6,9% of its forest cover between 1990 and 2005 (33), it is supported by SEMARNAT (34) and others reports that conclude as a main motor forces related to the degradation and loss of biodiversity and ecosystems: population growth, land use change for agriculture, livestock, increase of network roads/highway, and forest management activities (36).

In relation with this, CONAFOR estimates that of the 71m ha of forest in the country, 21.6m has commercial wood production potential. In the last 15 years, timber harvesting has taken place over approximately 8m ha and annual log production has an average of 7.53m m³, principally pine, oak and various tropical hardwoods. The volumes of high value hardwoods, such as cedar and mahogany is low, at less than 1% of total annual log production (5). Illegal logging is estimated to be at least 50% of legal log production and it has been estimated that Illegal logging is responsible for 8% of deforestation in Mexico (32).

The forest management activities in both cases, forest plantations and natural forest, could potentially threaten HCVs, mainly through lack of effective protection of species and habitats, habitat elimination or fragmentation, unsustainable timber extraction, reduction in the quantity of available water, the consumption on firewood and forest fires. In the same way, could potentially threaten HCVs other activities such as clear-cutting for agriculture and ranching, construction of infrastructure works and development, illegal crops and the illegal felling of trees. The impacts motioned before could affect people's livelihoods and threaten a wide range of plant and animal species, and destruction or disruption of rights or values of cultural or historical importance (44, 45, 50).

Experts consulted	Name	Organization	Area of expertise (category/sub-category)
1.	Expert 1	Public Ministry	HCV4 and HCV5 Environmental and community forest management
2.	Expert 2	Indigenous community	HCV 5 and HCV6. Community forest management
3.	Expert 3	Environmental NGO	HCV1, HCV2 and HCV3 Management Forest and Environmental / Biodiversity aspects
4	Expert 4	Certification Body	Forest Management, Certification. Threats for HCV from FM.
5	Expert 5	Public Organization	Community-based forest management. HCV5 and HCV6

Risk assessment

Indicator	Sources of Information	HCV occurrence and threat assessment	Functional scale	Risk designation and determination
3.0	Refer to the information sources table.	No national level HCV assessments have been carried out in Mexico, and georeferenced datasets that can be used as HCV proxies are available. There are sufficient information and data available on forest cover and species and habitat distribution to draw conclusions about the likelihood of HCV presence and distribution in areas of forest management activity. There is also data available that documents forest management impacts on HCVs or in areas used as HCV proxies. Sufficient general information and data are available on potential forest management impacts and levels of monitoring and control of forest management activities across the country to draw conclusions about the threats to HCVs from these activities in the country. See introduction text above and literature list below.	Geographic al scale: • Country	Low risk for HCV 1 to 6. The following risk thresholds are met: (1) Data available are sufficient for determining HCV presence within the area under assessment; AND

3.1 HCV 1	1, 4, 5, 8, 11, 12, 13, 14, 15, 17, 18, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 55, 56, 60, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 94, 95, 96, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 147, 148, 149, 150, 151, 165, 166, 167, 168, 169, 172, 185.	HCV Occurrence Mexico is one of the most megadiverse countries in the world. Although the Mexican territory represents only 1% of the earth's surface, it hosts more than 10% of the world's biological diversity. Thanks to its geographic location and formation, Mexico presents a great diversity of ecosystems, such as: temperate, tropical, aquatic, freshwater and marine. 30 to 35% of the national territory is covered by forests, jungle or other types of vegetation, and according to the FAO, Mexico ranks 12 th in terms of global forest area. An estimated 7.8% of plant genera and 50% of the plant species in the country are endemic (5). The country has the highest number of endemic pine and oak species of any country in the world and outstanding biodiversity and high levels of endemism in non-plant taxa, such as birds, amphibians, reptiles and mammals (5). The states with the greatest biological diversity are found in the south, with Oaxaca being the most biodiverse state, followed by Chiapas, Veracruz, Guerrero and Michoacán (1). The following is a list of references with information related for all endangered species in Mexico: - Center for Biological Diversity, 2018. The 10 iconic endangered species are not adequately protected by the Mexican government (11). - IUCN Red List (12). - The Mexican Commission for the Knowledge and Use of Biodiversity (CONABIO) (13). - The National Norm NOM-059-SEMARNAT-2010 (14). - Conservation program species at risk: list of priority species for conservation in Mexico (15, 147).	Geographic al scale: - Country Functional Scale: - Type of forest (all types of tenure or property) • Natural forest (Tempera te forest and Tropical rainforest) • Forest plantation .	(2) Data available are sufficient for assessing threats to HCVs caused by forest management activities. Specified risk for Protected Natural Areas, Biodiversity Hotspots, Wilderness Areas, EBAs, Mesoamerican Biological Corridor, and all natural forest and forest plantations adjacent to all of them. The following risk threshold is met: (8) HCV 1 is identified and/or its occurrence is likely in the area under assessment
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However, there are no maps available to allow the identification of specific areas with the presence of the RTE species for the country according to the list of references above. Nevertheless, these references evidence the country's presence of RTE. In addition, these references are often considered by forest managers for the development of forest management plans.

The following proxies are considered for HCV1:

In Mexico, there are areas that are designated as important with regard to HCV 1 values, because of national legislation and/or international agreements. Some of these areas fall under restrictions imposed by national legislation, and it can be seen that in many of the protected areas there is no allowance of forest management activities or these are restricted and require compliance with normative requirements.

- **1. Protected Natural Areas.** The criteria considered to incorporate a Protected Natural Area (PNA) in the national Registry, are the following (26):
 - a) Wealth of species;
 - b) Presence of endemism;
 - c) Presence of restricted distribution species;
 - d) Presence of species at risk;
 - e) Difference of species with respect to other protected areas previously incorporated into the National System of Protected Natural Areas;
 - f) Diversity of present ecosystems;
 - g) Presence of relictual ecosystems;
 - h) Presence of restricted distribution ecosystems;
 - i) Presence of important or fragile natural phenomena;
 - j) Functional integrity of ecosystems;
 - k) Importance of the environmental services generated, and
 - I) Social viability for its preservation

In Mexico, there are various types of Protected Natural Areas: federal, state, municipal, community, ejido and private (15), according to the entity that has the responsibility to protect them, such as the CONANP for federal areas or the state of Oxaca for the protected areas present in its state. In accordance with the General Law of Ecological Balance and the Protection of the Environment (Ley General del

and it is threatened by management activities.

Low risk for: the rest of the country.

The following risk threshold is met: (5) There is no HCV1 identified in the area under assessment and its occurrence is unlikely.

Equilibrio Ecológico y la Protección al Ambiente in Spanish) in Article 76 Second Title, Chapter I, section IV, referring to the National System of Natural Protected Areas, it mentions that: "The Secretariat will integrate the National System of Natural Protected Areas, with the purpose of including in it, the areas that, due to their biodiversity and ecological characteristics, are considered of special relevance in the country (148).

1.1 Federal Protected Areas. There are seven categories of federal protected areas. The Protected Natural Areas are the areas under the administration of the <u>National Commission of Protected Natural Areas</u> (CONANP). Among the most well known are the National Park Desert of Los Leones and the Biosphere Reserve of the Monarch Butterfly (15).

Their areas range from 84 hectares in the Chamela Bay Island sanctuary, Jalisco, to 2,493,091 ha in the Biosphere Reserve El Vizcaino, in Southern Baja California. Of the 166 protected areas, 58 are part of the National System of Protected Areas (SINAP) for bringing together those protected areas with biodiversity and ecological characteristics of particular relevance to the country.

For more detailed about specific location, please see the map in the web page of The National Commission of Protected Natural Areas – CONANP ¹(165).

(****)				
Category	Number	Area (Ha)		
Biosphere	44	62,952,750.5		
reserves				
National Parks	67	16,220,099.3		
Natural	5	16,269.11		
Monuments				
Protected areas of	8	4,503,345.23		
natural resources				
Protected areas of	40	6,996,864.12		
Fauna y Flora				
Sanctuaries	18	150,193.29		
	182	90,839,521.55		

 $^{^{1} \} The \ map \ of \ Federal \ Protected \ Areas \ in \ Mexico \ are \ available \ in \ this \ link: \ http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_actualizado_anps_PREVIO.htm$

Source: CONANP Mexico June 2019 (15)

National Parks that are part of this federal protected areas include:

1.2 World Heritage Sites: Natural World Heritage sites protect some of the most unique and outstanding natural wonders. As of 2013 UNESCO World Heritage Centre's Forest Program recognizes 107 forest World Heritage sites globally for insitu conservation of forest biodiversity (149). They present a total area of 75 million hectares, over 13% of all IUCN category I to IV protected forests worldwide (27).

Natural World Heritage Sites are sites with outstanding universal value because they meet at least one of the next criteria i) contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; ii) is an outstanding example representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features; iii) is an outstanding example representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems, and communities of plants and animals; or iv) contains the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation. Many of these areas aim to conserve one or more endangered or endemic species of flora and fauna (27).

Mexico has thirty-five World Heritage Sites, of which six are natural sites (1. Archipiélago de Revillagigedo; 2. El Pinacate and Gran Desierto de Altar Biosphere Reserve; 3. Islands and Protected Areas of the Gulf of California; 4. Monarch Butterfly Biosphere Reserve; 5. Sian Ka´an; 6. Whale Santuary of El Vizcaino) and two of them are a mixed sites (cultural and natural: 1. Ancient Maya City and Protected Tropical Forest of Calakmul; 2. Tehuacán-Cuicatlán Valley: originary habitat of Mesoamerica) and twenty-seven are cultural importance sites (27). In terms of importance for HCV1, only five natural sites (except number 6. Whale Santuary of El Vizcaino) and the other two mixed sites are important because there are identified for in-situ conservation of biodiversity and some of them provide critical habitat for a range of wildlife and are of particular importance for biodiversity. Cultural sites have no relation with biodiversity. For more detailed about specific

location of World Heritage as part of Protected National Areas in Mexico, please see the map in the web page of The National Commission of Natural Protected Areas – CONANP² (172).

1.3 RAMSAR Sites: Ramsar Sites are designated because they meet HCV1-relevant criteria for identifying Wetlands of International Importance. The first criterion refers to sites containing representative, rare or unique wetland types, and the other eight cover sites of international importance for conserving biological diversity. These criteria emphasize the importance the Convention places on sustaining biodiversity.

Wetlands are extremely rich in biodiversity: waterbirds such as herons, egrets, swans, ducks and geese, and waders use wetlands during the majority of their lifetime. At least 12% of all Globally Threatened Birds, (146 species) depend on wetlands (28).

Wetlands represent strategic ecosystems and great importance for the conservation of biodiversity and the well-being of human communities, so it is necessary to carry out actions that ensure the maintenance of their ecological characteristics (117).

The list of RAMSAR sites includes wetlands that are considered to be of international importance under the Ramsar Convention. Mexico currently has 142 sites designated as "Wetlands of International Importance" with a surface area of 8,657,057 hectares (28).

For more detailed about specific location of Ramsar sites as part of Protected National Areas in Mexico, please see the map in the web page of The National Commission of Natural Protected Areas – CONANP² (166).

1.4 State and municipal Protected Natural Areas: At least 22 states have decrees of protected areas at the state level under the administration of environmental

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² The map of Natural Protected Areas with International Designation in Mexico such as World Heritage and RAMSAR are available in this link: http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_anps_designaciones_PREVIO.htm

secretaries or institutes of the state governments. Some states have a State System of Protected Natural Areas such as Oaxaca and Jalisco. Some municipalities have also established municipal protected areas. Please see the map in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO ³ (167).

1.5 Community Protected Areas: eiidos and communities have long kept areas with a low intensity of use for various reasons. Some have been protected to maintain water sources, others for religious purposes, others to conserve populations of particular species. All Voluntarily Conserved Area (VCA is the legal term through which the reforms to Article 46 and 74 of the General Environmental Protection Law - LGEEPA- provide formal recognition to natural lands conserved by private. communal, or ejidal owners; these areas should have the potential to complement state protected areas in ensuring adequate covering of priority habitats and ecosystems, their biological and ecological characteristics are similar to those National Park, or Biosphere Reserve, or Flora and Fauna Protection Areas (169)) dedicated for protection by communities and certified by CONANP are part of the country's protected areas system. Over the past 10 years, several indigenous communities and ejidos have specified their community areas protected by community territorial orders. Currently there are over 150 community or ejido protected areas ranging from less than 10 hectares to 100,000 hectares in the case of El Ejido Largo in Chihuahua. Average areas are around 3 to 5 hectares. The largest number of community protected areas is in the state of Oaxaca. See the map of community protected areas formally registered as PNAs (that include communities and ejidos) in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO³ (167).

1.6 Private Protected Areas: Private protected areas have also been created in Mexico. Like the ejido and community areas, private areas are also of relatively small size and are present in much smaller numbers than those of public ownership. A variety of legal tools support the creation of private protected areas. See the map

³ The Mexican Commission for the Knowledge and Use of Biodiversity. State, Municipal, Community and Private Protected Natural Areas of Mexico 2015: http://www.conabio.gob.mx/informacion/gis/layouts/anpest15gw

in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO³ (167). For more detailed about specific location of I State Protected Areas, Community Protected Areas, Private Protected Areas and Federal Protected Areas as part of Protected National Areas in Mexico, please see the map in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – COABIO (8)3. 2. Biodiversity Hotspots. Mexico contains portion of 4 out of the 36 "hotspots" on the planet (168). These hotspots are regions with at least 1500 endemic species of vascular flowering plants (more than 0.5 percent of the total species in the world) which have lost at least 70% of the original extent of their habitat. The Mexican Hotspots are: a) The Pine-Oak Forest of the Sierra Madre (including the Sierra Madre del Sur and the Neovolcanic axis) (29); nearly 4,000 endemic plant species exist in the Madrean Pine-Oak woodlands and the hotspot is widely known and

- esteemed for the millions of monarch butterflies that periodically or seasonally move through the region (49).
- b) Mesoamerica (including Southeast Mexico, the Atlantic and Pacific coasts and the Balsas river basin) (29); the ecosystem is known for incredible numbers of endemic mammals, birds and amphibians. The area also hosts more than 17,000 plant species. Furthermore, it's the habitat of the howler monkey and the guetzal (49).
- c) the southern portion of the California Floristic Province (29). This site is distinguished more by the endemism of its plants than its animals. Of nearly 3,500 species of vascular plants in the hotspot, more than 61 percent are found nowhere else in the world. About 52 plant genera are also endemic. This hotspot is largely within the borders of the United States of America, but a portion extends into Mexico: The Sierra nevada. (49).
- d) North American Coastal Plain. This biodiversity hotspot "stretches from northern Mexico to southern Maine and includes areas within major U.S. cities, notably New York City and Washington, D.C." (168).

See annex 1, Map 1, for a map of the Biodiversity Hotspots in the country and see the map in the web page of Critical Ecosystem Parthernship Fund⁴ (168).

3. Wilderness Areas: A wilderness area is a region where the land is in a natural state; where impacts from human activities are minimal that is, as a wilderness. Wilderness Areas are identified using different criteria, one of them is biodiversity criterion to determine which wilderness areas make the greatness contribution to global biodiversity conservation. Lands, where impacts from human activities are minimal, is not a criterion for inclusion as a wilderness in itself, but rather one that distinguishes between wilderness areas that are important also of their size and intactness alone besides of being rich in biodiversity. As a result, the criteria for wilderness are at a broad, biome level and take into consideration size, intactness of natural systems, human population density, and biodiversity. Although these are difficult to establish, this initiative has developed some rough quantitative criteria are necessary. The cutoff point chosen here is the same used in the hotspots analysis: 0.5% of global vascular plant diversity (300,000 species) endemic to the region as defined, or 1,500 endemic vascular plant species (118).

Mexico has 2 of the 37 Wilderness Areas of the planet (29). These areas retain 70% or more of their original habitat in good condition, and cover at least 10.000 Km2 with a density of less than 5 human inhabitants per square kilometer (See annex 1, Map 2, for a map of their location)⁵ (119). The wilderness areas of Mexico are:

3.1 the Chihuahua Desert, which covers part of the states of Chihuahua, Coahuila and Nuevo Leon; The desert is home to more than 130 species of mammals, such as the Mule deer and pronghorn. The kit fox roams the vast grasslands of the northern desert. The Chihuahuan Desert boasts 3,000 plant species, including more than 500 of the world's 1,500 species of cactus. The desert also harbors North America's largest prairie dog colony as well as nesting sites and migratory habitats for more than 500 bird species. More than 110 native freshwater fish species ply its rivers. In the desert scrub, lives roadrunners, earless lizards, golden eagles and black tailed jackrabbits (88, 150).

⁵ Geo-Mexico, the geography and dynamics of modern Mexico. 2014. How similar are Mexico's two major deserts, the Sonora Desert and the Chihuahuan Desert? https://geo-mexico.com/?p=11201

⁴ Critical Ecosystem Partnership Fund. N/d. Explore the Biodiversity Hotspot: Mesoamerica. https://www.cepf.net/node/1996 Accessed 11 December 2019.

The Rio Grande-Rio Bravo mainstem and Rio Conchos contain important large river habitats in an otherwise dry region. Large scale ecological phenomena such as bird migrations also follow these watercourses. The aquatic fauna has evolved to live under highly variable cycles of flooding and drought both within and across years.

3.2 the Sonora Desert, which occupies Sonora State and the Baja Californian Desert, located in both states of the peninsula. Its mountains, rivers, and canyons provide luxurious habitat for numerous unique species specially adapted for heat, aridity, and intense summer monsoons. More than 100 reptiles, 2,000 native plants, 60 mammals, and 350 birds call this desert home, not only surviving here, but thriving — as long as their habitats remain intact (90, 151).

The Sonoran Desert is the only place in the world where the saguaro cactus grows naturally. Other cacti of the area include the beavertail, hedgehog, fishhook, prickly pear, and organ pipe, among many others. The desert is also home to such plants as the creosote bush, the bur sage, Mormon tea plant, and the California fan palm, as well as many species of wildflowers (89, 151).

The flora of the Sonoran Desert provides sustenance for its diverse animal life, which comprises hundreds of different animal species. Among the animal denizens of the Sonoran Desert are the canyon wren, the desert box turtle, the kangaroo rat, the spotted owl, the Arizona night lizard, the ring-tailed cat, the greater roadrunner, and dozens of species of birds, from the Crissal Thrasher to the Black-throated Sparrow (89, 151).

4. **Endemic Bird Areas (EBAs):** EBAs are areas of land important for habitat-based bird conservation because it contains the habitats of restricted-range bird species, which are thereby endemic to them. A restricted-range bird species is a term coined by BirdLife International in conjunction with the identification of Endemic Bird Areas. An EBA is formed where the distributions of two or more such restricted-range species overlap. A secondary EBA comprises the range of only one restricted-range species. 218 regions containing two or more of these restricted species, have been identified worldwide. Due to their limited distribution, over half of these species are

considered at risk. In Mexico, 22 EBAs have been identified (30). In reference 30 you can see the map shows internationally significant EBAs⁶.

5. Mesoamerican Biological Corridor: Mexico is part of the Regional Program Review of the World Bank that support the Mesoamerican Biological Corridor (MBC) (120). The corridor is necessary for wide-ranging species and for ecological processes on which key biodiversity areas depend. The Corridor within the Northern Mesoamerica region was identified and delineated based on the following criteria: coverage of key biodiversity areas, existence of large-scale intact biota assemblages, needs of wide-ranging landscape species, connectivity of habitats, and opportunities for maintaining ecological and evolutionary processes (31). This corridor encompasses the majority of site and species outcomes for Northern Mesoamerica. It is large enough to maintain ecosystem processes essential for sustaining biological diversity, while also being anchored by key biodiversity areas that have been determined to be of the highest priority for conserving globally threatened species. This corridor outcomes aim to consolidate the areas that function as corridors for biodiversity, including the conservation of areas that provide connectivity to maintain ecological processes (for more detailed please see the map in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO⁷)(166).

The MBC is based on the protected areas already existing in each of the countries and on proposals for new ones. Most of these areas were selected and legally declared as protected areas during the last four decades because they contain species of flora and fauna that are endemic or in danger of extinction, samples of unique natural ecosystems, and landscapes that either appeal to the public or produce goods and services of use to society, such as water. The MBC also includes a number of corridor zones which link the core protected areas. Most of these were selected for their forestry potential, or for the effective tree cover they provide.

⁶ Birdlife International. Nd. World Database of Important Bird & Biodiversity Areas. Website: http://datazone.birdlife.org/country/mexico/ebas

⁷ The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. http://www.conabio.gob.mx/informacion/gis/layouts/mun_gw.png

An analysis carried out in 2000 showed that the full MBC proposal covered 321,103 km2, of which 48.7% are legally declared protected areas, 3.9% are areas proposed for protection and 47.4% are corridor zones (where, in addition to crop, livestock and forestry activities, ecological measures or other forms of conservation are being carried out on private land) (120).

This analysis also showed that the MBC as proposed could protect 10 ecoregions in critical condition (7% of the area), many of which are on the Pacific side, 8 endangered ecoregions covering 28% of the area (Osa in Costa Rica and Peten in Guatemala), 4 ecoregions in a vulnerable state (53% of the area), many of which are on the Caribbean side, and 8 ecoregions in a relatively stable state (some parts of Amistad and Damien), accounting for 12% of the area.

Finally, it is important to mention that in the case of forest plantations and natural forest outside the previous sites, Mexico has not enough information available and sufficient to clearly identify in which of them it is possible that HCV1 is occurring. Following precautionary approach, forest plantations and natural forests adjacent to HCV1 sites identified before (Protected National Areas, Biodiversity Hotspots, Wilderness Areas, EBAs, Mesoamerican Biological Corridor), are also likely to have HCV1 occurrence.

Threat Assessment

Mexico is not exempt from degradation processes and loss of terrestrial and marine ecosystems. Deforestation; intensive or illegal harvesting of timber and the introduction of invasive species; as well as overgrazing and agriculture are direct causes of Mexico's forest loss and degradation (18, 77).

The initiatives of Hotspots, Mesoamerican biological Corridor, Wilderness and EBAs areas, for the large-scale landscape that they are, contain or cover several states and provinces in the country in which different land uses are possible (agriculture, cattle raising, natural parks, natural forest, temperate or tropical forest, forest plantations, and others), for that reason HCV1 found inside of these large-scale

landscapes is not likely to be entirely legally protected from forest management activities .

Habitat loss was analyzed in relation to three aspects: i) destruction which is done by completely removing trees and plants and changing the landscape. Deforestation by cutting down trees is the principal cause of this; ii) fragmentation, it takes place by altering the land in a way that disrupts their natural way including animals; and iii) degradation, this occurs by species that are not part of an ecosystem to invade the area. Known as invasive species, they naturally contribute to the downfall of other animals and plants.

- 1. Habitat removal. The main causes listed below could occur throughout the country and affect Protected Natural Areas, natural forests outside of them and areas considered as HCV1 proxies in the previous section:
- **Deforestation.** Deforestation occurs at a rate of 0,6 0,7% per annum and is one of Mexico's most pressing environmental problems. Between 1990 and 2005, Mexico lost 6,9% of its forest cover (approximately 4.7 million hectares). Though deforestation rates have decreased since 2005, deforestation continues, primarily due to the conversion of forest to agricultural and pasture land. Other factors contributing to deforestation include forest fires, illegal logging, and the collection of fuelwoods. Deforestation is most acute in tropical forest, threatening Mexico's biodiversity (33).

This is similar to what was reported by SEMARNAT in official data, the authority states that the deforestation per period still persist, and this is an evidence of the lack of the enforcement of the law that prohibited the replacement of current native primary vegetation by other uses (34). The Protected Natural Areas are threatened by a variety of human activities in Mexico such as the Río Sonora mine spill, the impact of unchecked private development on mangroves in Cancún, and poor oversight, large scale mega-development projects but among the most expansive threats is open pit mining (34).

- illegal and selective logging (always cutting down the best species) and poor quality of forest management plans.

In Mexico are some illegal activities that have contributed with the forest degradations according with SEMARNAT such as: land use change; forest fires, uncontrolled timber harvesting and illegal logging of NTFP (78). Illegal logging is published by 2014, to be at least 50% of legal log production and it has been estimated that Illegal logging is responsible for 8% of deforestation in Mexico (32, 39). Other reports confirm this trend, for example, according to Greenpeace around a third of Mexico's land area is covered by forest, about half of which are primary forests. It is published in 2017 that 70% of the national timber market is illegally sourced (77).

On the other hand, considering natural forest outside the protected areas that can be harvested to produce wood or NTFP, the management plans are based on a few number of species (typically red cedar and mahogany) with a low yield (under 1.5 m³/ha/25-year cycle), scarce regeneration (42), little potential for stable markets for other species that grow in the tropical rainforest, with felling cycles that does not have a consistent technical basis and is not consistent with silvicultural needs future harvest inventories are not considered. Since felling is regulated according to volume without controlling the residual structure, the estimated harvest volume is often larger than the sustainable volume (42).

In the case of temperate forest, they are being cleared to make way for farms and ranches. Around 40% of Mexico's agricultural land has been established at the expense of these forests. Another threat is the lack of planning for forest management and sustainable logging in these forests; management plans protect only 12% of Mexico's 330,000 km² of temperate forest (43).

Poor management in tropical and temperate forests has decreased the density of populations to under the technically desirable amount, resulting in forest loss in most of the forests. This state of forest loss in Mexico reflects a historical lack of regulation and land management principles for forest harvesting (for example, in forests in temperate climates, the inappropriate application of the Silviculture Development Method (Métodos de Desarrollo Silvícola – MDS, Spanish acronym- in regions with small properties or with a large diversity of species). Under these circumstances, the MDS results in the inventory being reduced below sustainable harvest levels and in a notable decrease in the productivity of sites (42, 43).

The requirements for the management of natural forest include a Forestry management plan, which may not include robust requirements for endangered, threatened, rare or endemic species of fauna and flora. Considering this, the forest management plans prepared on the bases of these legal requirements are not very effective with respect to the protection of HCV1 and the situation is likely to be worse in forests where there is no a management plan or where this is weak, as mentioned before.

- Others main motor forces (drivers) related to habitat removal are: i) Population growth (CONAPO estimates that 156 million people will live in the Mexican territory by 2050); ii) Land use change for agriculture (81% of forest loss is due to the agricultural sector); iii) Urban growth (the percentage of the population living in cities increased from about 35% in 1940 to 77% in 2010, with about 86 million people living in urban areas); iv) Pertinent poverty levels especially in the rural sector with populations highly dependent on the use of the natural resource for their daily lives (in 2012, it was estimated that 63.6% of the rural population lives in patrimony poverty, 40.2% in capacity poverty and 30.9% in food poverty (35), numbers between 2 to 3 times higher than those exhibited in the urban sector); v) Unsustainable tourism, mainly in coastal areas where tourism development has been based on the destruction or the degradation of coastal ecosystems such as mangroves, wetlands, reefs, etc. In addition, the tourism sector needs over 3 times more energy than other sectors and over 6 times more water than other economic activities; vi) The effects of climate change (50% of the vegetated surface of the country is vulnerable to the impacts of climate change (36).

- Lack of protection for Protected Natural Areas

Biodiversity in the Protected Natural Areas is threatened by permits for land use change, which lead to deforestation (37). In PNA, timber can be harvested in the buffer zones but not in the core zone, except in cases of natural plague or disaster. In this way, the main threats to the PNAs are overexploitation of resources, pollution, invasive species, climate change, drug trafficking, politician's corruption (37). Another major threat to PNA care is that many are privately owned. This makes the care of these areas involve many actors whose interests are not always in the same line as protection (37). In addition, the National Commission for Protected Natural

Areas does not deploy enough economic resources for the protection and management of biodiversity, the budget was reduced by 26% from 2015 to 2016 (37).

In 2016 it was reported that from the 177 PNAs, the SEMARNAT had not published nor updated the forest management plans of 74 of them, which is leaving them in danger of land use change. The National Commission on Human rights concluded against the SEMARNAT and the CONANP (National Commission for PNAs) that they lack action programs to secure ecosystem's conservation. The lack of Management Programs has led to changes in land use, expansion of extensive livestock, soil erosion, urban development, illegal extraction of species and pollution of water and soil (38, 39, 40, 41).

- Hunting or illegal collection of endangered or threatened species

Logging activities can promote wildlife hunting or illegal collection of wild species. As an example, a team of researchers from Oxford University, the University of Queensland, the University of Stirling, and the Wildlife Conservation Society has developed a review of more than 160 papers and reports on trends in wildlife populations, hunting, and land use in the Congo Basin, and have found links between logging and increasing hunting of wildlife. They said that while humans have long hunted animals in Africa's tropical forests, in recent decades the proliferation of logging roads, which provide access to remote forest areas, and the emergence of large urban markets for bushmeat have culminated in a sharp rise in commercial hunting in the region. They also conclude that the exploding demand for ivory is worsening the situation, resulting in depletion of a range of seed-dispersing species and wildlife that plays a key role in forest ecology. They highlight the example of the loss of elephants from forests in West Africa has triggered a shift toward smaller, faster-growing trees that are less diverse and store less carbon (121). The authors also note that "Logging infrastructure and industrial roads usher in a domino effect of factors known to intensify hunting pressure, such as population growth from an immigrant workforce, increased income and demand for wild meat, increased forest access and increased extraction to international markets for specialist products like ivory," they write. "Although logging itself can affect animal densities by modifying habitat at landscape and local scales, evidence across the region [West Africa] indicates that secondary impacts of logging activity are currently of far greater ecological importance" (121).

In Mexico there are signs of overexploitation of wild animal species. In the tropical forests of the south of the country more than 60 species of mammal, bird and reptile are hunted for meat, skins, feathers, bones, oils, pigments, medicines and other products for consumption or sale. Estimates of hunting levels in the Selva Lacandona put figures at 100,000 animals per year (1000 tonnes of bushmeat) used by more than 200,000 people and 24,000 hunters in the same communities. Deer, tapirs, agoutis, armadillos are the mostly commonly hunted mammals, with wild turkeys, guans, currasows, ducks and tinamou being the most widely hunted birds and iguanas and freshwater turtles being the most commonly hunted reptiles. Cases of 'defaunación' or 'empty forest syndrome' where most vertebrates have been hunted to local extinction occur in all regions of the country. The ecological consequences have been little studied, but the impact is expected to include coextinction of other species and disruption of structural and functional aspects of natural communities. In 2001, 1,100 hunting clubs were legally registered in the country, principally in the north of the country, which in the same year issued 9,803 hunters with over 35,000 permits with a combined value of over USD 800 million (5). Permitting can be a useful means of regulating hunting, but in the absence of management plans and long-term monitoring of populations of hunted species, it does not currently serve this purpose.

Sometimes hunting activities are linked to other activities that involve forest management. For example, in an ejido located in the southern area of the Yucatan Peninsula it was reported that one of the activities in the forest with high impact on the conservation of natural resources was the *milpa*⁸ (185) due to its all year round development and the frequency with which the peasants visit their plots and it is associated with firewood collection and with hunting (122). Another example is a study by Townsend et al. (2002, 123) that assessed the impact of hunting associated to logging operations in Bolivia. The study indicated that based on captured preys in 7 logging camps and during 83 sampling days for the most frequently captured species (Tapirus terrestris, Mitu tuberosa, Mazama americana),. The hunting area was estimated in 0.36 km2/day and the hunting rate per sq km for the most

⁸ Milpa is a crop-growing system used throughout Mesoamerica. It has been most extensively described in the Yucatán peninsula area of Mexico. The word milpa is derived from the Nahuatl milpan of milli "planted plot" and bread "up". Though different interpretations are given to it, it usually refers to a cropping field. The word is also used for a small field, especially in Mexico or Central America, that is cleared from the forest, cropped for a few seasons, and then abandoned for a fresh clearing (The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO: https://www.biodiversidad.gob.mx/usos/alimentacion/milpa.html
Accessed 28 November 2019) (185).

frequently captured species in 0.81 ind/km2. The species' vulnerability to be hunted supported hunter's reports which indicated these species disappear first on heavily hunted areas, all of them were being hunted at unsustainable levels (123).

The extent of illegal overexploitation of plant and animal species in Mexico is not well known, due to a paucity of data. Figures for 2002 suggest that over 207,000 illegal collected biological specimens were recorded by insurers which suggests that this represents a serious threat to biodiversity in the country (5). PROFEPA, in inspection and surveillance actions in relation to combating illegal wildlife trafficking, carried out a total of 860 operations from 2011 to 2013, resulting in the precautionary assurance of 22,537 wildlife specimens and were placed to the Federal Public Ministry a total of 176 people (124).

Overhunting in natural forests could provoke depleting populations of many forest animals (endangered or threatened species) and loss of wildlife can threatens survival of the whole forest ecosystem as crucial pollinators, dispersers and browsers are lost, thereby reducing species diversity and curbing the ability of the forest to maintain itself, and to regenerate after any disturbance (including those caused by forest management activities: gaps, roads, trails) (80).

Despite appropriate laws and regulations, illegal timber and wildlife harvesting inside protected

areas is widespread throughout the Central America Region. Weak law enforcement allows illegal and unsustainable hunting and trafficking of fauna, despite the fact that Belize, Guatemala and Mexico each have laws that prohibit the hunting or collection of endangered or threatened species, that outlaw hunting inside a protected area and its buffer zone, and that regulate in other areas through strict permits capture rates and closed seasons and areas. Subsistence and trophy hunting not only kill individual animals, but also can affect biodiversity in the rest of the forest through the loss of potentially important ecosystem processes (49).

Although there is no information that hunting activities are being presented or have occurred in areas of forest management in Mexico, following a precautionary approach, forest management is highly likely to be linked to wildlife hunting and thus threatening HCV1.

Timber organizations working in natural forest must fulfill and enforce regulations a) to prevent company workers form hunting and from buying wild meat from local people while in the logging camps, b) to provide fresh protein supplies to all staff and workers to remove need for obtaining wild meat while being in the logging camp, c) to prevent company vehicles from carrying wildlife and wild meat, d) close all non-essential roads after logging activities, and e) to protect important breeding areas or refuges for animals less tolerant of logging disturbance. All these activities contribute to reducing the loss of species in the forests.

2. Fragmentation. The main causes listed below could occurs throughout the country and affect Protected Natural Areas, natural forests outside of them and areas considered as HCV1:

The Landscape modification and habitat fragmentation are key drivers of global species and biodiversity loss, as well as a major threat to the conservation of forest ecosystems (4, 81). The study carried out by Torres et al. in 2014 generated a national level assessment of the fragmentation of temperate and tropical forests in Mexico for 2002, 2008, and 2013. These results explore how transitions to non-forest or to other fragmentation classes have evolved within the previous date fragmentation classes for the 2002-2008 and 2008-2013 periods (44, 45). The results in Torres at al. in 2014 showed that high fragmentation classes are more likely to transition to no-forest land covers in tropical than in temperate forests and that these conversions were larger during 2002–2008 than during the 2008–2013 period in both forest types. When analyzing the transitions between fragmentation classes, a higher percent of the forest area remained the same fragmentation class between 2008 and 2013 than from 2002 to 2008. Transitions between forest fragmentation classes were relatively small compared to transitions to no-forest land covers, and transitions to higher fragmentation classes were slightly larger in tropical than in temperate forests (44, 45). This study does not distinguish between natural and anthropogenic induced fragmentation. However, some studies provide insights into these factors and processes and all of them identify the deforestation as the main cause of vegetation loss in the Mexico and it is directly explained by land use changes from forest to agricultural or cattle ranch lands, due to social pressures that the local social actors have exerted (82, 83, 84). It is important to consider that some forest activities could contribute to fragmentation, and logging could be a major

cause of habitat fragmentation in forests because it creates clear-cut, open ground areas that were once protected by the cover of trees (125). Logging roads that are built for the logging trucks to travel on can also be cut through forests, disrupting the habitat. On the other hand, forest activities also could prevent from fragmentation, two case studies in the Democratic Republic of the Congo and in North Benin, show how planned corridors, using a group of existing teak plantations, could contribute to the conservation and management of remaining natural forest patches in the Atlantic Department in Benin (85).

But nevertheless, road building during logging operations directly leads to many negative consequences for wildlife, aquatic health, and the ecological integrity of the forest. Roads fragment and divided the forest, creating barriers for wildlife dispersal and migration. Many species are unable to cross these barriers and therefore have their range and distribution altered, oftentimes leading to drastic consequences on a local scale. There are more miles of roads in our national forest system than in the rest of the entire continent (126).

Separate from the creation of roads, logging operations also lead to habitat fragmentation by changing large areas of forest from one highly utilized habitat type to another that may be less useful to a certain species. The open spaces and edges created during logging operations inhibit movement by many wildlife species that were otherwise at home in the pre-existing forest landscape. Species that typically live in the forest interior which has higher levels of old-growth and mature forest will find themselves having to adjust to conditions that are no longer compatible with their natural habitat needs. In the Sierra Nevada, a species such as the American marten or Northern flying squirrel will have a difficult time adapting to and recovering from a logged forest which has reduced the forest characteristics required for their survival. Scientific research is also quite convincing in documenting the impact of logging on the habitat needs of many bird species. The edges created by logging operations can introduce rarely encountered predators and competitors for resources (126).

After an extensive online search, no specific information on forest operations in Mexico was found reporting habitat fragmentation, but following the precautionary approach, the previous evidence allows to acknowledge the likelihood of having forestry activities that contribute to habitat fragmentation in Mexico..

- Forest fires and pest attacks.

An estimated 6% of deforestation in Mexico and fire has destroyed more than 7.7 million hectares of forest ecosystems in the las 20 years. In the first seven months of 2012, there were a recorded 6,977 fires in Mexico affecting more than 333,000 hectares, though 92 percent of these fires were in shrubland rather than treed areas. The average fire lasted about twelve hours. The vast majority of the 2012 fires so far were classified as minimal, meaning they destroyed less than 20 percent of the forest mass and will recuperate in a year or two. Less than one percent of fires (60) were severe, meaning they destroyed more than half the forest mass and will take over a decade to recover. The frequency of forest fires in México has not changed much in the last 15 years, with the number of hectares destroyed annually ranging from 78,000 to 314,000, with notable exceptions in 1998 and 2011—years during which more than 800,000 hectares were affected by fire (47).

Though there is no direct financial gain derived from forest fires, the value of agricultural commodities, cultivated with slash and burn practices, does create an incentive to initiate forest fires. Forty percent of forest fires are caused by agricultural practices (swidden), according to CONAFOR, and insecure land tenure can increase the risk of forest fire. The states of Chiapas and Oaxaca, which have large indigenous populations and a high level of marginalization, have historically experienced rates of fire higher than the national average (47, 48).

The activities in forest fire management can be divided into three different categories with different objectives: fire prevention (how to prevent fires from happening); fire detection (how to report the fires as fast as possible); fire suppression (the work to put out the fire, actually fighting the fire). In this context, Mexico has normative that require actions related to Environmental Impact Statement having been submitted and approved in order to obtain authorisation for harvesting (See Category 1 for the CNRA of Mexico), where fires play an important role in environmental impacts. However, the application of management systems adapted to specific conditions is not regulated or monitored by the institutions (FAO, 2005). As assessed in Category 1 for the CNRA of Mexico, the low implementation of environmental requirements is a national trend, for plantation as well as for tropical rainforest.

At the same time, forest plagues, or insects that significantly degrade forests, are a deforestation and fragmentation driver along with forest fires. There are 200 species known to cause forest degradation in Mexico. The most common forest diseases in Mexico are bark beetles in temperate forests and wood borers in rainforests. Ten million hectares—about 18% of Mexico's total forest—are vulnerable to plagues. In 2009, the most recent year for which data is available, forest plagues affected 80,820 hectares, destroying 373,931 cubic meters of wood. Bark beetles alone affected more than 24,000 hectares; their damage was most severe in the states of Oaxaca, Nuevo León, and Guerrero.

Though there are some efforts to combat forest fire and disease in Mexico, these drivers of deforestation are less of a policy concern than land use change or illegal logging since neither is directly tied to financial incentives (47, 48).

The Historical Atlas of Forest Fires in Central America, produced by the Program for Sustainable Development in Agricultural Frontier Areas in Central America, states that a number of protected areas have "a high recurrence of forest fires, which constitutes a threat to

conservation of biodiversity and of forest cover, a threat which also extends to the integrity of

the Mesoamerican Biological Corridor, of which these areas form the backbone." These fires affect several critical protected areas and represent a serious threat to the integrity and connectivity of the Mesoamerican Corridor itself, particularly in Mexico and Guatemala. Stakeholders report that forest fires have not received the attention they deserve, and that greater consideration needs to be paid to this threat. They acknowledge that advances have been made in recent years in the governmental and international response to fires, however, fire-prevention and fire-fighting capacity at the local level remains weak (49).

3. Use/introduction of exotic/invasive species. In the development of plantations, different factors may affect HCV1, e.g. road construction, providing access to hunters, habitat transformation / fragmentation, and exotic species invasion (86, 87). The exotic invasive species can have negative ecological and economic impacts that include local extinction of species, the modification of the structure and functioning of ecosystems, as well as crop damage in agriculture, forestry, fisheries, public health

risks and the loss of tourism revenues. In the country, there are 1,957 registered exotic invasive species, of which at least 46 are considered amongst the 100 most harmful in the world (5). Mexico has carried out activities to identify and monitor invasive plants. In 2015 The National Biodiversity Commission (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, CONABIO) created a series of categories based on the degree of invasiveness according to their ability to spread, their establishment, and their impact on biodiversity. Combining all categories are a total of 184 species identified as invasive plants (17). The spread of invasive plants is attributed to an increase in the transformation of vegetation cover for food production, overexploitation of components of biodiversity or the introduction of invasive alien species; the impact of alien species in island ecosystems is a representative example (18). Exotic or invasive species have the potential to dramatically alter ecosystem, decrease native biodiversity, and further threaten imperilled species (55). In extreme cases, a single non-native plant species can completely displace the pre-existing native flora, fundamentally alter ecosystem function and act as an "ecosystem engineer" through the formation of novel habitat (56). The potential for non-native invasive species to cause irreversible impacts on ecosystem function often results in focused efforts on eradication. Most of the reforestation responsible for a gain in forested area in the tropics has been conducted in the form of industrial monocultures involving a limited number of species e.g., fast-growing tropical timber species of genera Tectona, Eucalyptus, Pinus, and Acacia, which are exotic to most of the areas where they are cultivated (46). Although there is not enough evidence to confirm the potential impact caused by the use in commercial plantations of exotic species on natural forests or protected areas. It is evident the invasive potential that some exotic species used have in Mexico like the casuarina (Casuarina equisetifolia) and eucalyptus (Eucalyptus globulus). These two species have been used in reforestation of for soil conservation programs and have generated changes in natural habitats and water resources (94, 95, 96). Currently, some estimates indicate that Mexico has the potential to establish over 10 million hectares of Commercial Forest Plantations; since their productivity exceeds that of natural forests by far, commercial forest plantations in Mexico are enormously attractive from a productive point of view. As a consequence, some government incentive programs promote their establishment (46). This potential area could overlap with biodiversity hotspots areas, EBAs areas and the Mesoamerican

		-		
		biological corridor, with the threat to generate future habitat transformation and fragmentation besides introduction of exotic/invasive species. All threats mentioned in this assessment can obviously affect ACV 1 areas previously identified because they are threats that happen at the national level and also, they can affect natural areas that are outside of the Protected Natural Areas. In addition, considering the low application of procedures Regulatory and few public resources for effective control against these threats by national authorities in the country the threat is present. On the other hand, is important to consider that sourcing forest materials always requires permission from the state and municipal authorities, regardless of whether it is from private, public or community land (see more in Category 1 for the CNRA of Mexico). However, for all timber harvesting permissions, there are threats related to do with the accuracy of the management plans and environmental impact statement (poor technical basis for felling cycle, lack of stratification of sites by productivity, poor forest inventories) presented by the producers. This generate that sourcing forest materials has always had a potential impact on the forest and may have an impact on HCV1 areas, especially when forest management areas are adjacent HCV1 areas, both in natural forest or forest plantations through habitat fragmentation by roads, fires, pest attacks, degradation, removal and/or exotic species encroachment. As described before and following a precautionary approach, management activities in natural forests and forest plantations which are likely to have HCV1 occurrence, are also likely to to be threatening HCV1. Management activities in natural forests and forest plantations could contribute to habitat fragmentation, through: logging, constructions of roads/trails, forest fires and non-control of pest attacks.		
3.2 HCV 2	3, 4, 27, 28, 29, 30, 33, 34, 37, 39, 40, 41, 42,	HCV Occurrence In Mexico there are HCV2 sites:	Geographic al scale: - Country	Specified risk for: IFLs,
	43, 44, 45, 49,		Functional	Contiguous
	50, 51, 52, 77,	1. IFLs: According to maps and information provides by Global Forest Watch, in the	Scale:	Protected
	78, 90, 91, 92,	country IFLs cover over 15,000 km ² (as at year 2000), which is estimated to be 1.8%		Natural Areas,
	93, 127, 128,	of the forest cover in the country, and 0.1% of the global area of IFLs (3). Mexico's	- Type of	major
	129, 168, 170,	IFLs include: Chimalapas in Oaxaca, The Sierra de la Laguna, Montes Azules	forest (all	RAMSAR sites,
	171	Natural Park in Chiapas and The Calakmul Biosphere Reserve in Campeche	types of	6 major
		(3).Only the Chimalapas IFL in Oaxaca are outside of Protected Natural Areas, the	tenure or	UNESCO WHS
		remaining IFL sites are inside Protected Natural Areas (See annex 1, Map 3). On	property)	sites (except

plantations in the	cording to the maps from Global Forest Watch, the current forest country do not overlap with Mexico's IFL (See annex 1, Map 3). L map also in the web page of IFL Mapping Team ⁹ (170).	 Natural forest (Tempera te forest 	the Whale Sanctuary of El Vizcaino), major
areas larger than other accesses a contiguous Protect HCV2 (See table	otected Natural Areas: following the guide for HCV2 identification, 50.000 ha that are relatively far from human settlements, roads or re consider as a HCV2 (91). For this reason, at the national level cted Natural Areas totaling 50,000 ha or more could classify as 1 annex 1). As it can be seen in table 1, Mexico has 58 Protected h areas larger than 50,000 ha.	and Tropical rainforest) • Forest plantation	Biodiversity Hotspots and major EBAs The following risk threshold is met:
also following the relatively far from	pe Areas/Corridors/Ecosystems significant at global/regional level: guide for HCV2 identification, areas larger than 50.000 ha that are human settlements, roads or other accesses are consider as a his reason the following are identified as having HCV2 occurrence:	·	(12) HCV 2 is identified and/or its occurrence is likely in the
Mexico on 4 Nove	AR sites (28). The RAMSAR Convention entered into force in ember 1986. There are currently 35 sites designated as Wetlands aportance (Ramsar sites), with an area greater than 50,000 ha, ex 1).		area under assessment, and it is threatened by management
of which 6 are Na	O WHS sites (27). Mexico has currently 35 World Heritage Sites, tural sites and 2 of them are mixed sites (cultural and natural) and		activities.
The sites conside Revillagigedo (63 Reserve (714,566	cultural importance sites, all of them are National Natural Park. red proxies for HCV2 are the following 7: Archipiélago de 6,685 ha); El Pinacate and Grand Desierto de Altar Biosphere 6 ha); Monarch Butterfly Biosphere Reserve (56,259 ha); Sian a); Whale Sanctuary of El Vizcaino (369,631 ha); Ancent Maya City		Low risk for: the Whale Sanctuary of El Vizcaino.
	opical Forest of Calakmul, Campeche (391,788 ha) and Tehuacán-		The following

⁹ IFL Mapping Team. On-line IFL Map. 2017. http://www.intactforests.org/world.webmap.html

Caucatlán Valley: originary habitat of Mesoamerica (344,931 ha). These 7 sites are

part of the Protected Natural Areas. The Whale Sanctuary of El Vizcaino comprises

risk threshold

is met:

two coastal lagoons is a marine refuge. The rest of the UNESCO WHS sites are archeological sites or places (or group of physical sites) in which evidence of past activity is preserved. For more detailed about these sites, please see the map in the web page of World Heritage Convention¹⁰ (171).

3.3 Major Biodiversity Hotspots. In Mexico three are recognized as major biodiversity hotspots: the Pin-Oak Forest of the Sierra Madre (including the Sierra Madre del Sur and the Nonvolcanic axis) whit a size of 1,424,493 ha, this ecoregion or hotspot is characterized by its high plant endemism especially in the Sierra de Jaures montane forest; Mesoamerica (including Southeast Mexico, the Atlantic and Pacific coasts and the Balsas river basin) is comprised of the seven countries in Central America and the five states of southeastern Mexico (Campeche, Chiapas, Quintana Roo, Tabasco and Yucatan) with a total area of approximately 76,000,000 hectares; and the southern portion of the California Floristic Province with an area of 29,380,300 hectares, as defined by Conservation International, it is largely within the borders of the United States of America, but a portion extends into Mexico and this hotspot is distinguished more by the endemism of its animals. Of nearly 3,500 species of vascular plants in the hotspot, more than 61 percent are found nowhere else in the world. About 52 plant genera are also endemic (29). Please see the map in annex 1, map 1, Biodiversity Hotspots in Mexico¹¹ (168).

3.4 Major Endemic Bird Areas (EBAs). In Mexico, 22 EBAs have been identified, but only fourteen have an area greater than 50,000ha. Baja California (4,300,000 ha); Balsas region and interior Oaxaca (11,000,000 ha); Central Mexican marshes (1,000,000 ha); Isthmus of Tehuantepec (670,000 ha); Los Tuxtlas and Uxpanapa (1,400,000 ha); North Central American Highland (15,000,000 ha) this EBA includes the mountains of south-east Mexico, Guatemala, el Salvador, Honduras and north-central Nicaragua; North Central American Pacific Slope (3,000,000 ha) The narrow strip of the Pacific coastal plain and adjoining foothills of Chiapas state (Mexico), Guatemala, El Salvador, southern Honduras and north-west Nicaragua form this EBA, on the Pacific slope of the Sierra Madre mountains; North-east Mexican Gulf

(10) There is low/negligible threat to HCV2 caused by management activities in the area under assessment.

Low risk for: the rest of the country.

The following risk threshold is met: (9) there is no HCV2 identified and its occurrence is unlikely in the area under assessment.

¹⁰ World Heritage Convention. World Heritage List: https://whc.unesco.org/en/statesparties/mx

¹¹ Esri. 2016. Biodiversity Hotspot: Mesoamerica. https://utility.arcgisonline.com/arcgis/rest/directories/arcgisoutput/Utilities/PrintingTools GPServer/x xyrGnNUv1ZiB3czjYFv6cOQ..x x ags e4280834-1ab6-11ea-99ac-22000a457ff9.png

slope (10,000,000 ha); North-west Mexican Pacific slope (9,300,000 ha); Northern Sierra Madre Oriental (1,500,000 ha in Mexico and USA); Sierra Madre del Sur (1,200,000 ha); Sierra Madre Occidental and trans-mexican range (23,000,000 ha); Southern Sierra Madre Oriental (3,100,000 ha); and Yucatán peninsula coastal scrub (340,000 ha) (30). Please see in reference 30 the map of significant EBAs¹² (30).

Threat Assessment

1. Fragmentation

Fragmentation refers to the reduction of continuous tracts of habitat to smaller, spatially distinct remnant patches. Global studies have identified human actions have profoundly fragmented landscapes across the word (92, 93), altering the quality and connectivity of habitats, converted to urban or agricultural land, or physical barriers such as fences and roadways are constructed (92). The main human actions that contribute to habitat fragmentation are; i) land-use change (agriculture and livestock); ii) tree plantations (non-native tree species because have limited benefits for biodiversity) (127). In addition, logging, mining, fossil fuel and infrastructure projects are an economic drive for road-building in many areas, which also promotes habitat loss. Fragmentation can also be generated through environmental factors like fire or drought (92, 93).

For all the IFLs in Mexico that are part of the Protected Natural Areas, the Contiguous Protected Natural Areas, major RAMSAR sites and major UNESCO sites (all these also part of the Protected Natural Areas in Mexico), it has been reported that they present a lack of effective protection, lack of permits for land use change, which is reflected in deforestation (37, 39, 40, 41); A variety of decreed Protected Natural Areas now show increasing pressures due to potential land use conversion from natural habitat to agriculture and urban settlements which threatens their biodiversity content at the same time as others drivers like: population and urban growth; poverty levels; unsustainable practices (agriculture, turism) and effects of climate change.

¹² Birdlife International. Nd. World Database of Important Bird & Biodiversity Areas. Website: http://datazone.birdlife.org/country/mexico/ebas

Outside protected areas, the temperate forest are being cleared to make way for farms and ranches. Around 40% of Mexico's agricultural land has been established at the expense of these forests. Another aspect is the lack of planning for forest management and sustainable logging in these forests; management plans stand for only 12% of Mexico's 330,000 km² of temperate forest (43).

Pine-oak forests once covered about 21 percent of Mexico, but these remaining forests now cover no more than about 8 percent. Such estimates, however, fail to account for stands that have been impacted by fire and overgrazing, and so it seems reasonable to expect that no more than about 20 percent of the biodiversity hotspot's original vegetation can be considered pristine (51).

Deforestation in Mexico has a significant impact with habitat loss ranging from 10-90%.. In Mexico, deforestation occurs at a rate of 0.6 - 0.7% per annum and is one of Mexico's most pressing environmental problems. Between 1990 and 2005, Mexico lost 6,9% of its forest cover (approximately 4.7 million hectares). Though deforestation rates have decreased since 2005, forest degradation and deforestation continue, primarily due to the conversion of forest to agricultural and pasture land. Other factors contributing to deforestation include forest fires, illegal logging, and the collection of fuelwoods. Deforestation is most acute in tropical forest, threatening Mexico's biodiversity (33, 34, 50). In relation with the Biodiversity Hotspot present in Mexico, the principal threat to the forest of the Madrean Pine-Oak Woodlands is commercial logging. The exploitation of pines and, to a lesser extent, oaks for timber has increased, in some areas becoming indiscriminate. Additionally, many nontimber forest products are also being used unsustainably. For example, the vascular epiphyte (Tillandsia usneoides) is extracted for Christmas ornamental purposes in Mexico, and a large variety of mushrooms in pine-oak forests, including species in the genera Amanita, Leccinum, Russula, and Boletus, are collected for culinary use (51). This is supported by FAO and Sarmiento (42, 43) when showing that temperate forests have decreased the density of populations to under the technically desirable amount, resulting in forest loss in most of the forest, with the primary cause is the lack of regulation and land management principles for forest harvesting (42, 43).

Fire is partly a natural process in this pine-oak forest ecosystem, but intentional burning to foster regeneration of fresh sprouts for livestock grazing or to clear land for agricultural purposes is altering habitats throughout the region (The mountains of Mexico – Sierra Madre Occidental, the Sierra Madre Oriental, the Trans-Mexican

volcanic belt, the Sierra Madre del Sur, the Sierra Madre de Oaxaca, the Peninsular Ranges of the Baja California Peninsula- and the southwestern United Sated) (90). In southern Arizona, 90 years of fire suppression by federal and state agencies and modification of fuels by grazing and other causes, has led to conifer forests at higher elevations changing from open-grown ponderosa pine (Pinus ponderosa) to dense stands of mixed conifers (51). In Mexico, the number of fires that have occurred and the area affected have remained relatively constant over the last fifteen years (1998 -2013). Between 1998 and 2013, the annual average of fires was 8 729 conflagrations, with an average annual sinister area of just under 319 thousand hectares (128). In addition, in 2013 the main causes of forest fires were the burns associated with agricultural activities (36%), followed by intentional fires (18.5%), fires not extinguished properly (12.3%) and cigarette butts not extinguished by smokers (9%). The area affected between 1998 and 2013, the majority corresponded to pastures (43.5%), followed by shrubs and brush (42.2%) and forest (11.7%) (128). All of them also have adversely affect forest ecology of the natural forests in Mexico (129).

In recent decades, the Mesoamerica Biodiversity Hotspot has seen some of the highest deforestation rates in the world; between 1980 and 1990, deforestation averaged 1.4% annually, and it is estimated that 80% of the area's original habitat has been cleared or severely modified (33, 34, 51). The expansion of the road network, logging, agricultural encroachment and livestock production, and the use of wood for cooking have contributed to deforestation. While the national governments of the Mesoamerica Hotspot have declared dozens of new national parks and reserves, many of these areas remain poorly protected. Some of these areas are too small to provide adequate protection to the full range of their biodiversity and are vulnerable to outside threats, especially illegal squatters and poaching (34, 51). In addition, in Northern Mesoamerica, significant investments hold great promise in terms of introducing new opportunities for economic development and to address the poverty that is a root cause of environmental degradation. At the same time, however, large infrastructure projects could well fuel wide scale habitat destruction if not designed and implemented with adequate protection (51). In the case of Endemic Bird Areas, they are not protected under the Protected

that can be managed to obtain wood or NTFP. For them, it has been reported unsustainable extraction; loss of forest land; forest fires, fragmentation; and according to Vidal (2009) the principal environmental threats to EBAs in the country include illegal trade, habitat loss, urban expansion and climate change, among others (33, 34, 49, 51, 52).

Moreno-Sanchez (2014) study suggests that there is a relationship between high fragmentation levels and forest areas disappearance during the 1993-2008 period (4, 44, 45). The study generated a national level assessment of the fragmentation of temperate and tropical forests in Mexico for 2002, 2008, and 2013. These results explore how transitions to non-forest or to other fragmentation classes have evolved within the previous date fragmentation classes for the 2002–2008 and 2008–2013 periods. The results showed that high fragmentation classes are more likely to transition to no-forest land covers in tropical than in temperate forests and that these conversions were larger during 2002–2008 than during the 2008–2013 period for both forest types. When analyzing the transitions between fragmentation classes, a higher percent of the forest area remained in the same fragmentation class between 2008 and 2013 than from 2002 to 2008. Transitions between forest fragmentation classes were relatively small compared to transitions to no-forest land covers, and transitions to higher fragmentation classes were slightly larger in tropical than in temperate forests (44, 45).

2. Logging in IFLs

According with Global Forest Watch from 2001 to 2018 three of the four ILFs present in Mexico lost area: Chimalapas in Oaxaca, Montes Azules Natural Park in Chiapas and The Calakmul Biosphere Reserve in Campeche, these last two are PNA (3). The main causes of loss of these IFLs have been: shifting agriculture and deforestation (3).

Illegal logging is published in 2014 to be at least 50% of legal log production and it has been estimated that Illegal logging is responsible for 8% of deforestation in Mexico (32, 39). In the country as published in 2017, it is estimated that 70% of the national timber market is illegally sourced (77), some illegal activities that have contributed with the forest degradations and fragmentations according to SEMARNAT are: land use change; forest fires, uncontrolled timber harvesting and

	illegal logging of NTFP (78). This kind of illegal forest activities could contribute with fragmentation because it creates clear-cut, open ground areas that were once protected by the cover of trees. Logging roads that are built for the logging trucks to travel on can also be cut through forests, disrupting the habitat. Finally, during the development of this assessment, it was not found evidence or information supporting management activities are not threatening HCV2 or are providing an effective protection for HCV2. The previous, together with the national		
	trend of lack of compliance with management plans and the lack of capacity from the authorities to enforce the law (see category 1), and the lack of quality of these management, precautionary approach is followed for the areas where HCV2 is likely to occur. For the rest of the country were HCV2 occurrence was not identified and the search during the development of this assessment did not find evidence on that forest		
	management activities in these areas are or could threaten HCV2.		
3.3 HCV 3 5, 7, 8, 15, 16, 17, 18, 26, 27, 28, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 46, 47, 48, 49, 50, 54, 55, 56, 57, 58, 77, 78, 80, 94, 95, 96, 97, 98, 121, 122, 123, 124, 130, 131, 152, 153, 154, 155, 157, 172, 186.	Chief among Mexico's conservation efforts must be its establishment of reserves to protect areas with threatened or fragile habitats and the plants and animals they contain. The country has long had several Protected National Areas, but the pace of declaring reserves, especially larger ones with critical, high-biodiversity habitats, significantly quickened during the 1980s and 1990s, as the deteriorating nature of Mexico's last wild areas became known (15). Currently, Mexico has 182 Protected Natural Areas that, in total, make up about 46% of the national territory. Most of the total area is included within large wild zones known internationally as Biosphere Reserves, make up about 31,9% of the national territory (15). 1. Biosphere Reserves. The first proxies for HCV3 present in the country are the Biosphere Reserves. Those sites include representative and unusual or rare ecosystems of the world's biomes and helps to rebuild any damage caused to ecosystems. The main objects are to i) Conserve representative samples of ecosystem; ii) Provide long term in situ conservation of genetic diversity iii) Provide appropriate sustainable managements of the living resources iv) help in the restoration of degraded ecosystem (27). Mexico has 44 Biosphere Reserves (see table 3 annex 1, for specific location, please see the map in the web page of The National Commission of Natural Protected	Geographic al scale: - Country Functional Scale: - Type of forest (all types of tenure or property) • Natural forest (Tempera te forest and Tropical rainforest).	Specified risk for: RAMSAR Sites, Biosphere Reserves, and natural forest and forest plantations adjacent to all of them. The following risk threshold is met: (17) HCV 3 is identified and/or its occurrence is likely in the area under assessment

Areas – CONANP ¹³ (172)) with a total area of 62,9 million of hectares (31,9% of the
total area) and all of them are part of the Protected Natural Areas and around of
these areas live peasants or indigenous peoples engaged in management forest,
agriculture, cattle grazing, fisheries, and also the extraction of high-value timber.
According with the General Law for Ecological Balance and Environmental
Protection, for the proper management of the Protected Natural Areas it has been
established a zoning scheme, in which each type of zone and sub-area has different
management objectives, which allows that within a Protected National Area there
can be made different activities compatible with physical factors, biological, social
and economic aspects of the area (26).

2. RAMSAR sites. Ramsar Sites are designated because they meet the <u>Criteria for identifying Wetlands of International Importance</u>. The first criterion refers to Sites containing representative, rare or unique wetland types, and the other eight cover Sites of international importance for conserving biological diversity. These criteria emphasize the importance the Convention places on sustaining biodiversity. Mexico currently has 142 sites designated as "Wetlands of International Importance" with a surface area of 8,657,057 hectares and all of them are National Natural Park (28). For more detailed about the specific location of Ramsar sites in Mexico, please see the link at the bottom of the footnote 13 (172).

In Mexico, the area certified by FSC is 1,256,791 hectares, 78,5 % of which corresponds to natural forest management and 21,5% to plantations (mainly of exotic species, Eucalyptus, Melina and Teak) (54). Nevertheless, there is not enough information available nor sufficient to clearly identify in which natural forests and forest plantations in Mexico it is possible to find HCV3. HCV3 could potentially occur in forest plantations and natural forests that are established adjacent to RAMSAR sites and Biosphere Reserves S. Sometimes inside PNAs, and depending on their management plan, different land use are allowed, included forest plantations. For the rest of the country HCV3 occurrence was not identified.

Threat Assessment

 Forest plantplant ation. and it is threatened by forest management activities; AND (18) There is no progress in achieving Aichi biodiversity targets.

Low risk for: the rest of the country.

The following risk threshold is met: (13) There is no HCV3 identified and its occurrence is unlikely in the area under assessment.

¹³ The map of Natural Protected Areas with International Designation in Mexico such as Biosphere Reserves and RAMSAR sites are available in this link: http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_anps_designaciones_PREVIO.htm

The main threats for rare, threatened and endangered ecosystems and habitats in Mexico are deforestation, overexploitation of resources, the introduction of invasive species and lack of better planning and greater protection of Protected Natural Areas. All of them are direct causes of the lack of effective protection of ecosystems and habitats and are linked to indirect factors such as demographics and public policy (18).

Mexico is a huge country (one of the world's 15 largest) with a big population (129,2 million in 2017) growing at a fast pace (between 2% and 3% annually, due to double within 24 to 34 years). There are major environmental threats, chiefly destruction of natural habitats, and the country has had, until very recently, a poor environmental record and outlook. Suffering from widespread poverty, governmental neglect and corruption, and little organized local interest in conservation (7, 8).

Others main motor forces (drivers) related to the overexploitation that cause or contribute to degradation and loss of important ecosystems and habitats are: i) Population growth (CONAPO estimates that 156 million people will live in the Mexican territory by 2050); ii) Land use change for agriculture (81% of forest loss is due to the agricultural sector); iii) Urban growth (the percentage of the population living in cities increased from about 35% in 1940 to 77% in 2010, with about 86 million people living in urban areas); iv) Pertinent poverty levels especially in the rural sector with populations highly dependent on the use of the natural resource for their daily lives (in 2012, it was estimated that 63.6% of the rural population lives in patrimony poverty, 40.2% in capacity poverty and 30.9% in food poverty (35), numbers between 2 to 3 times higher than those exhibited in the urban sector); v) Unsustainable tourism, mainly in coastal areas where tourism development has been based on the destruction or the degradation of coastal ecosystems such as mangroves, wetlands, reefs, etc. In addition, the tourism sector needs over 3 times more energy than other sectors and over 6 times more water than other economic activities; vi) The effects of climate change (50% of the vegetated surface of the country is vulnerable to the impacts of climate change (36).

- Deforestation and overexploitation of resources

Deforestation and illegal logging are threats for Biosphere Reserves, those are the main forces related to the degradation and loss of these areas (152, 153, 154, 155). Deforestation occurs at a rate of 0,6 – 0,7% per annum and is one of Mexico's most pressing environmental problems. Between 1990 and 2005, Mexico lost 6,9% of its forest cover (approximately 4.7 million hectares). Though deforestation rates have decreased since 2005, forest degradation and deforestation continue, primarily due to the conversion of forest to agricultural and pasture land. Other factors contributing to deforestation include forest fires, illegal logging, and the collection of fuelwoods (33). This is similar to what was reported by SEMARNAT in official data, the authority shows that the deforestation per period still persist, and this is an evidence of the lack of the enforcement of the law that prohibited the replacement of current native primary vegetation by other uses (34).

Important forest habitat is lost for several reasons (35, 36, 50). The major factor is land use – land is cleared for crop agriculture, cattle grazing, human colonization, and for business development (34, 35, 36). A rapidly multiplying human population and economic growth propels and constantly increases these uses. Other causes of forest loss are over-exploitation for timber and fuelwood, and natural agents such as fire and disease (42, 43, 47, 48, 49). The use of trees as fuel for heating and cooking takes an especially heavy toll on forests (97, 98). Very few forested areas of Mexico are free from human disturbance; in fact, most forests contain scattered settlements whose residents are usually very poor and who still practice age-old slash-and-burn agriculture. The rate of forest loss is officially estimated rate at anywhere between 0.6 - 0.7% per annum (600,000 - 700.000 ha/year) (32, 33, 35, 36).

CONAFOR estimates that of the 71m ha of forest in the country, 21.6m has commercial wood production potential. In the last 15 years, timber harvesting has taken place over approximately 8m ha and annual log production has an average of 7.53m m³, principally pine, oak and various tropical hardwoods. The volumes of high value hardwoods, such as cedar and mahogany is low, at less than 1% of total annual log production (5). Illegal logging is published in 2014 as estimated to be at least 50% of legal log production and it has been estimated that Illegal logging is responsible for 8% of deforestation in Mexico (16). In the country as published in 2017, it is estimated that 70% of the national timber market is illegally sourced (77), some illegal activities that have contributed with the forest degradations and

fragmentations according to SEMARNAT are: land use change; forest fires, uncontrolled timber harvesting and illegal logging of NTFP (78).

It is estimated that more than 1000 NTFPs (including various leaves, fruits, resins, fibres, fungi, and bark amongst others) are collected in the country, from 5-7,000 species distributed across almost all the ecosystems present in the country. The sustainable use of NTFPs requires plans and regeneration strategies, but regulation is weak and data on uses, rates of extraction (both legal and illegal), harvesting methods, markets and the impacts of harvesting on production and on the wider ecosystems the products are extracted from is limited and unreliable (5, 42, 43).

Overhunting in natural forests could provoke depleting populations of many forest animals (endangered or threatened species) and loss of wildlife can threatens survival of the whole forest ecosystem as crucial pollinators, dispersers and browsers are lost, thereby reducing species diversity and curbing the ability of the forest to maintain itself, and to regenerate after any disturbance (including those caused by forest management activities: gaps, roads, trails) (80).

It's documented, that forest management can be a factor that promotes hunting in forests. In the logging camps, the food that is provided to the workers sometimes it does not contain fresh protein supplies and workers prefer to hunt while in the camp. Sometimes, due to economic reasons, the forest managers prefer bushmeat to other proteins because it is cheaper and available, and this allows the transport and sale of wild meat using company vehicles, not closing all roads or industrial roads after logging activities, and not identifying and protecting important areas for animals/fauna less tolerant to logging disturbance (121, 122, 123 - See assessment of 3.1 HCV1).

Moreover, in the tropical forests of the south of the country more than 60 species of mammal, bird and reptile are hunted for meat, skins, feathers, bones, oils, pigments, medicines and other products for consumption or sale. Estimates of hunting levels in the Selva Lacandona put figures at 100,000 animals per year (1000 tonnes of bushmeat) used by more than 200,000 people and 24,000 hunters in the same communities. Deer, pecaries, tapirs, agoutis, armadillos are the mostly commonly hunted mammals, with wild turkeys, guans, currasows, ducks and tinamou being the most widely hunted birds and iguanas and freshwater turtles being the most

commonly hunted reptiles. Cases of 'defaunación' or 'empty forest syndrome' where most vertebrates have been hunted to local extinction occur in all regions of the country. The ecological consequences have been little studied, but the impact is expected to include coextinction of other species and disruption of structural and functional aspects of natural communities. In 2001, 1,100 hunting clubs were legally registered in the country, principally in the north of the country, which in the same year issued 9,803 hunters with over 35,000 permits with a combined value of over USD 800 million (5). Permitting can be a useful means of regulating hunting, but in the absence of management plans and long-term monitoring of populations of hunted species, it does not currently serve this purpose.

The extent of illegal overexploitation of plant and animal species in the country is not well known, due to a paucity of data. fFigures for 2002 suggest that over 207,000 illegal collected biological specimens were recorded by insurers which suggests that this represents a serious threat to biodiversity in the country (5). PROFEPA, in inspection and surveillance actions in relation to combating illegal wildlife trafficking, carried out a total of 860 operations from 2011 to 2013, resulting in the precautionary assurance of 22,537 wildlife specimens and were placed to the Federal Public Ministry a total of 176 people (124). Despite appropriate laws and regulations, illegal timber and wildlife harvesting inside protected areas are widespread. Weak law enforcement allows illegal and unsustainable hunting and trafficking of fauna, despite the fact that Belize, Guatemala and Mexico each have laws that prohibit the hunting or collection of endangered or threatened species, that outlaw hunting inside a protected area and its buffer zone, and that regulate in other areas through strict permits capture rates and closed seasons and areas. Subsistence and trophy hunting not only kill individual animals, but also can affect biodiversity in the rest of the Forest through the loss of potentially important ecosystem processes (49).

After an extensive search during the development of this assessment, there was not found information that hunting activities being linked to areas under forest management in Mexico. Nevertheless, a precautionary approach is taken following the generalized national context of illegal overexploitation and lack of law enforcement.

- Introduction of invasive species

Exotic invasive species can have negative ecological and economic impacts that include local extinction of species, the modification of the structure and functioning of ecosystems, as well as crop damage in agriculture, forestry, fisheries, public health risks and the loss of tourism revenues. In the country, there are 1,957 registered exotic invasive species, of which at least 46 are considered amongst the 100 most harmful in the world (5). In Mexico there are various efforts to identify and monitor invasive plants. In 2015 The National Biodiversity Commission (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, CONABIO) created a series of categories based on the degree of invasiveness according to their ability to spread. their establishment, and their impact on biodiversity. Combining all categories are a total of 184 species identified as invasive plants (17). The spread of invasive plants is attributed to an increase in the transformation of vegetation cover for food production, overexploitation of components of biodiversity or the introduction of invasive alien species; the impact of alien species in island ecosystems is a representative example (18). Exotic or invasive species have the potential to dramatically alter ecosystem, decrease native biodiversity, and further threaten imperiled species (55). In extreme cases, a single non-native plant species can completely displace the pre-existing native flora, fundamentally alter ecosystem function and act as an "ecosystem engineer" through the formation of novel habitat (56).

In that regard, in Mexico most of the reforestation responsible for a gain in forested area in the tropics has been conducted in the form of industrial monocultures involving a limited number of species e.g., fast-growing tropical timber species of genera *Tectona*, *Eucalyptus*, *Pinus*, and *Acacia*, which are exotic to most of the areas where they are cultivated (46). Currently, some estimates indicate that Mexico has the potential to establish over 10 million hectares of Commercial Forest Plantations; since their productivity exceeds that of natural forests by far. Commercial forest plantations in Mexico are enormously attractive from a productive point of view. As a consequence, some government incentive programs promote their establishment (46). This potential area could overlap with Protected Natural Areas and other important initiatives (hotspots, EBAs, Mesoamerica corridor), with the future threat to generate impacts like habitat transformation, fragmentation, land use change and construction of infrastructure.

Although there is not enough evidence to confirm the potential impact caused by the use in commercial plantations of exotic species on natural forests, it is evident the

invasive potential that some exotic species used have in Mexico like the casuarina (*Casuarina equisetifolia*) and eucalyptus (*Eucalyptus globulus*). These two species have been used in reforestation of for soil conservation programs and have generated changes in natural habitats and water resources (94, 95, 96). According to data produced by the UNIBIO Monitoring Network *Eucalyptus globulus* is one of the 7 extremely invasive species in Mexico. Although the *Casuarina equisetifolia* specie is not currently promoted and used in Mexico and there is no exact/available information on the area reforested with *Eucalyptus globulus*, it is evident the invasive potential that these species have. Particularly when considering the potential and interest that Mexico has to establish commercial forest plantations across the country (46), precautionary approach must be considered for commercial plantations using these species and that are established bordering areas with likelihood of HCV3 occurrence.

- Lack of better planning and greater protection of Protected Natural Areas.

Actions taken to achieve the 2020 Aichi Biodiversity Targets by Mexico have been implemented. "Mexico's Estrategia Nacional sobre Biodiversidad y Plan de Acción (2016-2030) [National Strategy on Biodiversity and Action Plan 2016-2030] is a public policy document, developed with broad sectoral and stakeholder participation, and with consideration given to implementing the global Strategic Plan for Biodiversity (2011-2020) and its Aichi Targets as well as the United Nations 2030 Agenda for Sustainable Development. A positive trend exists regarding national (public expenditure) and international funding for biodiversity. Mexico is also a member of the UNDP BIOFIN programme. Key actions required to strengthen capacity include, among others, those related to: generation and communication of biodiversity knowledge; coordination among actors and sectors; development of basic capacities in other sectors on the valuation of biodiversity and ecosystem services and the impacts of different productive activities on the country's natural capital; improvement of evaluation mechanisms and monitoring of actions; and training for human resources in certain areas. Recently-adopted laws include the Federal Law on Environmental Responsibility (2013) and the General Law on Climate Change (2012). Mexico was the first megadiverse country to ratify the Nagoya Protocol on ABS in 2012, and intends to have adopted the legislation necessary to implement the Protocol by 2020." (186)

For example, positive incentives have been developed for the environmental sector and, even though a comprehensive analysis of incentives offered by other sectors is yet to be developed, the merging of common agendas between the environmental sector and the forestry, agricultural, fisheries and tourism sectors is currently underway in order to mainstream the conservation and sustainable use of biodiversity within their plans, programs and policies (57, 58).

Since 2005 the legally protected area has increased and become more representative of the vulnerable species and areas. In 2005, efforts were initiated to identify and assess areas of priority for conservation in three environments (terrestrial, marine, epicontinental aquatic) through an ecoregional analyses. Results revealed that a significant portion of these areas was not contained within a protected area or protection scheme. In 2012, a proposal aimed at addressing conservation priorities for the most vulnerable species and areas in an integrated manner, and in the context of sustainable territorial development strategy, resulted in the designation of priority sites for conservation in the three environments. Today, this classification serves to guide implementation of various in situ conservation tools, such as protected areas, biological corridors, social and private reserves, integrated management programs, payment for environmental services, management units for the conservation of wildlife and sustainable forest management programs (58). Between 2009 and 2015, 11 new protected areas were established bringing the total number to 176, increasing coverage by 1.44 million hectares, for a total current coverage of 25.63 million hectares (12.96% of the country). Likewise, the past five years have been very important in developing management programs for protected areas; currently 76% of the protected areas under federal jurisdiction have management programs. In 2012, the National Wetland Inventory was developed, through which 6,331 wetland and wetland complexes were identified covering 10.03 million hectares (5% of the surface country). Of this total, 8.64 million hectares are registered as Ramsar sites. Between 2009 and 2015, 30 additional Ramsar sites were registered bringing the current total to 142 (57, 58).

Nevertheless, due to the lack of monitoring on the field, it is not possible to identify any concrete progress in terms of achieving the Aichi biodiversity targets themselves. "A mechanism for comprehensively monitoring and reviewing NBSAP implementation is absent. While the existence of the various aforementioned public

information systems facilitates the collection of information, there is a need to increase the quantity and quality of information on various issues, develop *ad hoc* indicator and monitoring systems, among other needs, to fulfill the goals of the Convention and the current global framework." (157).

There are also evidences against the effective protection of the HCV3. Between 2016 PROFEPA reported that from the 177 PNAs, the SEMARNAT had not published nor updated the forest management plans of 74 of them, with consequences and changes in land use, expansion of extensive livestock, soil erosion, urban development, illegal extraction of species and pollution of water and soil (38). In addition, PROFEPA reports by 2015-2017, it reported that more than 30-60% of the inspections had occurred on protected areas due to or attending complaints related to PNAs, showing the need for control and monitoring in PNAs (38, 39, 40, 41).

In addition, the Professor and Postdoctoral Researcher of the Universidad Autónoma de Baja California Echeverría-García in his article "Are Mexico's new nature reserves a real conservation effort or empty political gesture?" states as follows:

"Mexico's century-long track record of conservation efforts is mixed. The government has, for example, often failed to consult local inhabitants before designating their land as a nature reserve. A 2007 study found that many residents of Mexico's 158 protected areas had no idea their homes were in a nature reserve. In addition, journalist Nancy Flores' Project 2030 shows that at least 23 Mexican wildlife conservation zones (2.5 million hectares of "protected" land) have been partially privatised since 2010.

Though regulations should limit environmentally damaging activities, such as mining and logging, in practice the permit system is easily corrupted, and municipal authorities have limited capacity to monitor and control these sectors. Ecologist Elisa Armendáriz-Villegas recently overlaid a map of 24,715 mining concessions granted through 2010 with a map of Mexico's protected natural areas. She found 1,609 mines located in nature reserves, and that a third of all 63 federal protected natural areas were being actively mined.

Journalist Elva Mendoza's 2012 report for the investigative journalism site Contralínea exposed similar misuse of government lands. It is perhaps unsurprising, then, that a 2008 study found that of 69 large government-protected natural areas established prior to 1997, 54% were barely effective in protecting vegetation, 23% were somewhat effective and 23% were ineffective.

Creating nature preserves is thus necessary but not sufficient for saving Mexico's environment. If a primary objective of nature preserves is to serve as a model for how human populations may live in harmony with natural resources, then Mexico has a long way to go.

Without comprehensive policies to govern not just natural areas but also the people who live there and market forces that seek to exploit them, Peña Nieto's COP13 declaration could turn out to be little more than a political gesture." (130)

"Established in territories representative of different ecosystems but also of cultural diversity, protected areas in Mexico have historically been created and managed with a centralized rationale, creating several conflicts with local communities over the use of natural resources. The country's approach to protected areas perfectly illustrates the complexities, difficulties and challenges entailed in biodiversity conservation" (131).

The study conducted by García-Frapolli et al. (2009) "develops a critical analysis of this policy instrument in Mexico, and analyzes three Natural Protected Areas in the Yucatan Peninsula: The Calakmul Biosphere Reserve, the Celestún Biosphere Reserve, and the Otoch Ma'ax Yetel Kooh Natural Protected Area. The case studies served as examples of the most common difficulties that arise in Mexican Natural Protected Area policy: (1) uncoordinated public policies; (2) the usual conflict between environmental authorities and local people over the management of natural resources; and (3) the exclusion of local people's perspectives, values and beliefs in conservation policy development and implementation" (131).

During the development of this assessment, it was not found evidence on that the management in forest plantations and natural forest is effectively protecting HCV3. The previous, together with the lack of measured concrete progress of the specific Aichi targets, the national trend of lack of compliance with management plans and the lack of capacity from the authorities to enforce the law and protect natural areas (see Category 1, indicator 1.9 Protected sites and species), and the lack of quality of the management, allows this assessment to apply precautionary approach for

		Biosphere Reserves, Ramsar sites and natural forest and forest plantations adjacent to the previous two sites where HCV3 is likely to occur.		
3.4 HCV 4	2, 3, 4, 5, 28, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 46, 47, 48, 49, 59, 60, 62, 63, 79, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,132, 133, 134, 135, 136, 156, 158, 159, 160, 161, 162, 172, 174, 175, 176, 177, 178, 179, 180, 181	The hydrological resources of the country include 50 large rivers, 70 lakes, 137 coastal lagoons, 6,331 wetlands spanning more than 10 million hectares, besides numerous river tributaries and permanent and non-permanent streams (5). These aquatic ecosystems are distributed in a heterogeneous way across the whole country. In 2009 (latest available information found) the north and central parts of the country housed 77% of the country's population and approximately 47% of available groundwater was extracted for human consumption, compared with just 4% in the south east (5). The region Waters from Mexico's Valley (Aguas del Valle de México) is the most extreme case, as water consumption is 33% higher than the amount of the natural water supply (5). Mexico receives an average annual rainfall between 740-760 mm, but the monthly distribution of the precipitation accentuates the problems related with the availability of water resources, since 68% of the normal monthly precipitation falls between the months of June and September (105, 106). Within the Mexican territory, exist a great diversity of climates and high spatial and temporal variability in water resources availability. this has made the country has considerable natural resources including large areas of megadiverse forests, deep rivers and low-lying areas, more than 6,000 kilometers of coastline on the Pacific, Gulf of Mexico and Caribbean Sea, dry zones in the center and north of the country, and mountainous areas which are susceptible to floods, hurricanes, droughts and landslides (99). Mexico is affected by natural disasters such as Earthquakes, volcanoes, tsunamis, hurricanes, wildfires, floods, landslides, and droughts; between 1970 and 2009, approximately 60 million people were affected by natural disasters in Mexico. The country is ranked as one of the world's 30 most exposed countries to three or more types of natural hazards (99). The occurrence of disasters has increased significantly at the global level, especially due to the effects of climate c	Geographic al scale: - Country Functional Scale: - Type of forest (all types of tenure or property) • Natural forest (Tempera te forest and Tropical rainforest). • Forest plantation .	Specified risk for: RAMSAR sites, cloud forests, eight main regions of landslide in Mexico, and all natural forests and forest plantations adjacent to all of them. Threshold (22) is met: (22) HCV 4 is identified and/or its occurrence is likely in the area under assessment and it is threatened by management activities. Low risk for: the rest of the country.

cutting the forest therefore usually increases the dry-season flow, but it also somewhat increases flood flows (134). The water storage on a piece of upland landscape is in the soil, and the amount that can be stored to reduce flooding from single storm events depends on the soil depth, its infiltration capacity (lack of compaction), texture, structure and degree of previous saturation with water. Forests influence some of the characteristics such as antecedent soil moisture, infiltration capacity and structure. These are usually the hydrological best bet for reducing storm flow volumes, lowering peak flows and delaying peaks in watercourses emanating from the watershed (133).

The forest vegetation also protects the soil's exposed soil may have enough energy to break up soil aggregates. Individual soil particles are then easily eroded and washed into soil pores, clogging them and preventing rainwater absorption. When such conditions occur, water tends to flow over the soil surface, increasing the chance of erosion. However, in forest, rain is intercepted by forest canopy, by the leaves of shrubs or small trees in the understory, and by the organic litter layer covering the forest floor, reducing the force with which rain falls on the soil. Soil pores remain unclogged, allowing infiltration (133). Vegetation cover plays an important role in landslide risk. Deep-rooted trees and shrubs can reduce the occurrence of shallow rapidly moving landslides by strengthening soil layers and improving drainage. In shallow soils, roots may penetrate the entire soil mantle, providing anchors into more stable layers while dense lateral roots stabilize soil surface layers against landslides. Additionally, forests can play a role in attenuating and blocking smaller debris flows and rock falls by forming a physical barrier (108). Woody vegetation protects the soil better and lasts longer than annual plants. Its roots deepen and improve the soil, and the shade it provides facilitates ecosystem metabolism. These functions are essential for ensuring the soil stability and the continuity of agricultural activities. By intercepting rain, a forest canopy reduces the impact of heavy rainfall on the forest floor, reducing soil disturbance. Leaves and natural debris on the forest floor can slow the rate of water runoff and trap soil washing away from nearby fields. Tree roots can hold soil in place and stabilize stream banks. In addition, coastal forests and forested wetlands protect coastlines by absorbing some of the energy and impact of storm surges, thus reducing erosion and other in-shore impacts (133). Trees reduce the rate of erosion by protecting the soil from the impact of rain,

The following risk threshold is met: (19) There is no HCV4 identified and its occurrence is unlikely in the area under assessment.

transpiring large amounts of water, which counteracts very wet soil and binding soil to sloping land with their roots. Riparian strip is a strip (10 or more meters wide) near

a stream or river. It may be planted with a mix of trees, shrubs and pasture. The aim is to trap sediment, and nitrogen and phosphorus in water run-off, from nearby slopes before it enters waterways.

Woody biomass plantations reduce water erosion by improving water infiltration, reducing impacts by water droplets, intercepting rain and snow and physically stabilizing soil by their roots and leaf litter. Shelterbelts reduce wind erosion when planted as shelterbelts and improve soil organic matter, soil structure and soil moisture in their leeward zone, reducing soil erodibility. Harvesting of woody biomass plantations may be accompanied by increased erosion. Forest clear-cutting, especially on steep slopes often results in a large increase in water erosion (133). On the other hand, forests are crucial to sustainable drinking water supplies and quality of water. It is increasingly recognized that both the availability and the quality of water are strongly influenced by forests and that water resources in many regions are under growing threat from overuse, misuse and pollution. Forest management measures can increase water yield, regulate water flow, and reduce drought stress for a forest. By intercepting precipitation, evaporating moisture from vegetative surfaces, transpiring soil moisture, capturing fog water and maintaining soil infiltration, forests influence the amount of water available from groundwater, surface watercourses and water bodies (132). By maintaining or improving soil infiltration and soil water storage capacity, they influence the timing of water delivery. By minimizing erosion, they minimize impairment of water quality due to sedimentation. Forests can also protect water bodies and watercourses by trapping sediments and pollutants from other upslope land uses and activities. In addition, along streams, forests provide shade, thus reducing water temperature (132).

1. Eight main regions of landslide in Mexico: Important Regions with Forests that protect vulnerable slopes and soils

Mexico is affected by natural disasters such as flooding and landslides (99). Some number of studies have shown a light on the high level of losses occurring in many regions of Mexico due to landslides (159, 160). One of them is the study by Diaz – 2019 (159), who examined losses for Mexico over the period from 1935 to 2017 with places an emphasis on the social impact of landslides, and the other one is the study by Sepulveda – 2015 (160), analyzed the regional trends and controlling factors of fatal landslides in Latin America. The authors recorded 1,967 landslides across Mexico, the vast majority of which were triggered by rainfall. The study by Sepulveda identified Mexico 4th country largest number of fatalities in Latin America

due to landslides (159, 160). The study by Diaz (2019) recorded 3,447 fatalities from landslides over the study period, with the largest event being a catastrophic landslide on 1 October 1956 that claimed 1,000 lives in La Paz, Baja California (159). Sometimes these instabilities severely affect the exposed communities, roads and infrastructure, causing deaths and serious material damage. The occurrence of the slope instability is the result of the combination of climatic, geologic, hydrologic, geomorphologic and anthropogenic factors.

Based upon this background, the National Center for Disaster Prevention (CENAPRED) developed a methodology to construct susceptibility maps for slope instability at national levels. Using this methodology, CENAPRED developed an analysis of the main landslides, caused by heavy and prolonged rains that occurred between 1999 and 2008. Susceptibility is obtained considering various conditioning and triggering factors of instability and the probability of event occurrence is estimated from deterministic methods. The vulnerability analysis is was done considering the spatial and temporal components of the potential events, as well as the impact that these could have on the exposed elements, in terms of social, environmental and material losses. From this analysis and based on the first map of susceptibility to slope instability (rockfall, landslide), prepared by CENAPRED In 2001, the regions most affected by landslides caused by long-term rains were identified (175). Eight regions were identified as critical to slope instability: Baja California, Baja California Sur, Neovolcánico Axis, Golfo California, Chihuahua, Durango, Golfo Golfo, Mexico Gulf, North Pacific and South Pacific (175). For more detailed about the specific location of the eight main regions of landslide in Mexico, please see the map in the web page of the Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO¹⁴ (158).

2. RAMSAR Sites

Ramsar Sites are designated because they meet the <u>criteria for identifying Wetlands</u> <u>of International Importance</u>. According to the RAMSAR initiative, "Wetlands are vital for human survival. They are among the world's most productive environments;

14 The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. Potential regions of landslide of the slopes in Mexico. http://www.conabio.gob.mx/informacion/gis/layouts/rpotdladgw

cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival.(28).

Wetlands are particularly relevant in terms of HCV 4, these sites play a critical role in maintaining many natural cycles and supporting a wide range of biodiversity. They serve as a natural sponge against flooding and drought, protect coastlines and help fight climate change. Bursting with biodiversity, wetlands are a vital means of storing carbon. These are particularly important providers of all water-related ecosystem services. They regulate water quantity, groundwater recharge, and can contribute to regulating floods and the impacts of storms. Wetlands also help in erosion control and sediment transport, thereby contributing to land formation and increasing resilience to storms. All these ecosystem services improve water security, including security from natural hazards and climate change adaptation. The final Rio+20 outcome document, "The Future We Want", inter alia, recognised the role of ecosystems in the supply of water and its quality. Wetland ecosystems can have some of the highest ecosystem service values compared to other ecosystems. This is due to the importance of clean water provision, natural hazards mitigation (156, 161).

Mexico currently has 142 sites designated as "Wetlands of International Importance" with a surface area of 8,657,057 hectares and all of them are National Natural Parks (28). For more specific location of Ramsar sites in Mexico, please see the map in the web page of The National Commission of Natural Protected Areas – CONANP¹⁵ (172).

3. Cloud Forest

Additionally, the cloud forest could be identified as another site where HCV4 is likely to occur. A very important land ecosystem is located in cloud forests; these tend to develop in the zones of condensation of humid air originating primarily from the sea, where dense cloud masses are formed with a resulting high humidity and high rain precipitation. Share frequent rain, clouds, fog and high humidity throughout the year.

¹⁵ The map of Natural Protected Areas with International Designation in Mexico included RAMSAR sites are available in this link: http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_anps_designaciones_PREVIO.htm

They are distributed in very humid areas. Rank 1% (18, 534 square kilometers) of the country, in small portions of 20 states, at altitudes between 600 and 3,100 m. They are preferably located in the upper parts of the Sierra Madre Oriental (Sierra de Juárez), Sierra Norte de Chiapas, Sierra Madre del Sur (Guerrero and Oaxaca) and Jalisco (101).

Cloud forests are also important for humans. In addition to the forests' branches, leaves, mosses, and epiphytes capturing moisture from clouds, they also play an active role in creating those clouds. Between the water in their roots and the water in the air, cloud forests are like giant reservoirs sprinkled across the mountains of Latin America and watering the lands far below. And the water coming out of these chilly forests is substantially cleaner than other reservoirs, because colder temperatures and less suspended material mean fewer parasites. This situation is most unfortunate, as intact montane forests are highly beneficial to human communities. The forests help to hold in place the mountainsides on which they grow, and rates of erosion and landslides are far higher in neighboring pastures than in intact cloud forest. They capture and hold immense levels of carbon, mitigating climate change. The presence of the shady, humid forest, and the moisture-capturing mosses, helps cloud forest to provide valuable water to regional rivers, water that is both steady in flow and high in quality (181).

The cloud forest of Mexico is immensely valuable for the ecosystem goods and services that they provide. They have environmental services that provide to society at large: climate regulation, soil nutrient cycles, natural products, scenic beauty, and most importantly, water supply (102). The largest cloud forest tracts in Mexico are located in the Sierra Madre Oriental, the Sierra Norte de Oaxaca (Northern Oaxaca Range), the Sierra Madre del Sur, the Northern Mountains of Chiapas and the Sierra Madre de Chiapas. Perhaps the most remarkable cloud forest region in Mexico is found in the very humid mountains of northern Oaxaca, where the average total annual precipitation generally exceeds 5,000 mm in many places, particularly at elevations between 1,600 and 2,500 m (102). For more detailed about specific location of the main regions and subregions of the Cloud Forest in Mexico, please see the map in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO¹⁶ (174).

¹⁶ The Mexican Commission for the Knowledge and Use of Biodiversity, Main regions and subregions with Cloud Forest in Mexico: http://www.conabio.gob.mx/informacion/gis/layouts/sregbmmgw

Finally, it is important to mention that in the case of forest plantations and natural forest outside the previous sites, Mexico has not enough information available and sufficient to clearly identify in which of them it is possible that HCV4 is occurring. Following precautionary approach, forest plantations and natural forests adjacent to HCV4 sites identified before, are also likely to have HCV4 occurrence.

Threat Assessment

In Mexico, the average water volume obtained from precipitation is 1,488 cubic kilometers per year, but most of it, 1,079 km3 (72.5%), returns to the atmosphere through evapotranspiration. In addition to the water entering through precipitation, Mexico receives 49.744 km3 as import from rivers draining into Mexico from the Northern and Southern borders, and exports 0.432 km3 from the Bravo River to the United States. In this way, the general balance shows that the average natural water availability in Mexico is 458 cubic kilometers of water per year. In Mexico the mean annual precipitation during the period 1981-2010 was 740 millimeters, in 2016 was 744 millimeters, a volume that is deemed abundant (176).

Mexico ranks 11th in the countries with the largest production Water Footprint (WF)¹⁷ worldwide, and the 8th in consumption WF in the world (177). This is due to its population size (11th most populated country) and its territory size (14th place). Although per capita consumption is relatively moderate (49th place, with 1,978 m3/capita/year), it ranks above the global average (177). However, a distribution curve would show the diversity of these types of consumption: 40% of the Mexicans have some degree of malnutrition or eating deterioration, reducing their food consumption per capita to less than that of the remaining 60% (177). Agricultural production is the major component, followed by the livestock sector (grazing and production): together they represent the 91% of the production WF.

¹⁷ This concept brings a wider approach that allows visualize and consider the real water consumption in human activities, and to relate it to factors, such as trade, that were formerly considered external. The WF takes only fresh water into account and is made up of 4 main components: Volume, Color/classification of water, Place of origin of water, Moment of water extraction. The WF considers the place where water comes from and, according to it, classifies it in 3 kinds or colors: blue, green and gray. The opportunity costs, the management and the impacts on each of them vary enormously from one to the other.

Blue water: Water found in surface water bodies (rivers, lakes, estuaries, etc.) and in underground aquifers is referred to as blue water. The blue water footprint relates to the consumption of surface and ground water of a certain basin; consumption is then understood as extraction.

Green water: It is the rainwater stored into the ground as humidity, as long as it doesn't turn into runoff. Likewise, the green water footprint focuses on the use of rainwater, specifically on the soil's evapotranspiration flow used in agriculture and forestry output.

Grey water: It refers to all the water contaminated by a process. However, the grey water footprint is not an indicator of the quantity of contaminated water, but rather of the quantity of fresh water necessary to assimilate the load of pollutants given their well-known natural concentrate. (177)

FSC-CNRA-MX V1-0
CENTRALIZED NATIONAL RISK ASSESSMENT FOR MEXICO
2019
- 258 of 335 -

mainly green water. Most of Mexico's green WF is linked to agricultural activity (76%), while grazing accounts for 24%. With respect to blue water, 85% is attributed to agricultural irrigation, and 1% to industrial use. Practically half of the grey water is linked to agricultural production, 39% to domestic use and 12% to industrial use (177). In Mexico, agricultural irrigation holds 77% of the total amount of water granted of which 66% is surface water (CONAGUA). The consumption WF consists of what people eat, drink and use. Globally the consumption WF per capita is estimated in 1,385 m3/year. Mexico ranks 49th for this indicator with 1,978 m3/year. Agricultural product consumption constitutes most of their WF as individuals (Agricultural 1,820 m3/year and Individual less than 150 m3/year) (177). The National Water Commission of Mexico (CONAGUA) predicts a decrease in Mexico's water availability due to the effects of climate change, and a high variability in the traditional patterns of precipitation, soil moisture and runoff (177, 179). Mexico is the biggest consumer of corn worldwide (123 kg/capita/year). In average, 900 liters of water are required to produce 1 kg of corn. If Mexico would produce the imported quantity of corn in its territory, it would generate a much large WF. However, if analyzed considering other factors, the result could be very different: in various regions of Mexico, corn has ceased to be grown and in turn, other considerably more profitable agricultural products have been sowed, some of them with a larger WF per hectare, like rice (8,400 m3/ha) and tomato (9,212 m3/ha). In consequence, the VW saved due to corn imports has translated into a larger regional WF (177).

On the other hand, according to The Organization for Economic Co-operation and Development (OECD), in part of the country, Mexico's water resources are among the most seriously degraded of all OECD countries, particularly in densely populated zones: surface waters and even groundwaters are often contaminated and/or overexploited and water quality in rivers, lakes and aquifers is commonly not fit for many uses (136). The growing megacities are also overexploiting their aquifers, producing subsidence and water pollution together with changes in land use, thus reducing water infiltration into the aquifers during the monsoon. Regional and temporal water stress is further aggravated by unsustainable production processes, where mining and agribusiness hog the water needed by people and small farmers (179). Despite the efforts already made, the contamination of water resources, which particularly affects the health of poor people who do not have access to drinking water of good quality, still poses grave problems (136, 162).

On the other hand, the patterns and trends in water quality in the Gulf of Mexico, for example, are complex and variable in space and time. Assessments performed over more than two decades have concluded that water quality in a majority of estuaries and coastal environments along the northern Gulf of Mexico coast is highly influenced by human activities. One of the most prevalent causes of degraded water quality in the coastal areas of the Gulf of Mexico is excessive levels of anthropogenic nutrients that create widespread coastal eutrophication (180). In one study, 13 of the 38 Gulf of Mexico estuaries studied were predicted to develop worsening conditions in the future. Factors expected to influence future trends in water quality were control and mitigation of urban runoff, wastewater treatment, industrial expansion, atmospheric deposition, animal activity, and agriculture activities. There were no estuaries where conditions were expected to improve, and worsening conditions were predicted in all systems for which data were available. Trends in human population distributions, accelerating development pressures, and human-associated activities were the main factors suggesting water quality will worsen in the future (180).

According to a 2018 FAO report (178), three-quarters of the Earth's freshwater comes from forested watersheds, and the loss of trees can affect water quality. The UN's 2018 State of the World's Forests report found that over half the global population relies on forested watersheds for their drinking water as well as water used for agriculture and industry (178).

In addition, deforestation is also a pressing issue in Mexico, and can play a key role ensuring the regular flow of clean water and protecting lands from flood and drought. As Mexico's population increases, more locations are needed to accommodate people and more land is needed to meet the population growth. In a country facing rapid population growth, migration to cities, and poverty that affects one-third to one half of the population, pursuing sustainable development raises exceptionally difficult economic, social and environmental challenges. Depletion of groundwater supplies, air pollution in metropolitan areas, continuing deforestation and decreasing biodiversity are all symptoms of the stress being placed on the Mexican resource base (136).

1. **Deforestation: contributes to forest critical ecosystem services' degradation** In parts of the country, Mexico's water resources are among the most seriously degraded of all OECD countries, particularly in densely populated zones: surface waters and even groundwaters are often contaminated and/or overexploited and water quality in rivers, lakes and aquifers is commonly not fit for many uses (136).

Between 2001 and 2016, Mexico lost 3.1 million hectares of tree cover equivalent to 5.8% of the tree cover existing in 2001 (3) and there are 26 ecoregions in the country that have less than 0.05% of their original natural vegetation cover intact (2). The change in land use is evident by the increase in secondary and induced vegetation in urban and agricultural areas. Deforestation occurs at a rate of 0.6-0.7% per annum and is one of Mexico's most pressing environmental problems. Between 1990 and 2005, Mexico lost 6.9% of its forest cover (approximately 4.7 million hectares). The consequence of deforestation has been devastating for soil erosion, water, carbon cycles, which can lead to the reduction of critical ecosystem services, such as soil stability, water quantity and quality.

Deforestation rates have decreased since 2005 but it continues, primarily due to the conversion of forest to agricultural and pasture land. Other factors contributing to deforestation include forest fires, illegal logging, and the collection of fuelwoods. Deforestation is most acute in tropical forest, threatening Mexico's biodiversity (33). It has been estimated that Illegal logging is responsible for 8% of deforestation in Mexico (32).

The cloud forests have been vanishing across Mexico, a new study warns that climate change resulting from human pressures could result in the near total loss of some of the world's most delicate ecosystems. The scientists believe that the Mexican cloud forest and other cloud forests around the world could see the rate of annual decline doubled by global warming. Many of the world's most rare and rich forests, the tropical montane cloud forests, could be all-but obliterated by 2080. Cloud forests are unique ecosystems that exist within a narrow band of physical and climatic conditions. They provide clean water for the cities below, as well as crucial habitat for dozens of critically threatened plants and animals (161, 181).

On the other hand, the cloud forests of Mexico, as elsewhere in the world play an important role in watershed hydrology and protection against erosion but are under severe threat because of their naturally scattered distribution along a narrow elevational belt in which intense land-use change continues to take place (2, 3, 4, 33) causing fragmentation owing to deforestation. Consequently, not only is the biodiversity of cloud forests in peril, but also the environmental services that they provide to society at large.

Despite the fact that the extremely abrupt and rugged topography of the Sierra Madre of Oaxaca, for example, has allowed some of these and other forests to remain relatively intact despite human exploitation, during the last half-century, the highest deforestation rates have been reported in cloud forests, considering both Mexico as a whole (33) and for regions that still have considerable cloud forest cover. In addition to global climate change, threats to cloud forest biodiversity derive from a poor representation of cloud forests within protected areas, extensive changes in land-use patterns that do not favour biodiversity, continued human population expansion into mountainous regions, and slow progress in alleviating poverty and marginalization (102, 103). As an example, in the Sierra Madre of Oaxaca, the cattle farming and grazing are responsible for the deforestation for this cloud forest. This kind of land management triggers erosion and soil loss, and thus hinders the ability of the forest to regenerate. The flora in the area is also threatened by collection of plants with ornamental value and resin extraction, which if performed in a controlled manner does not harm the trees. However, in regions such as Veracruz, Oaxaca and Puebla, where cloud forest is present, resin extraction is undertaken carelessly. This leads to weakening of the pine trees, which in turn become prone to disease and die. Loss of habitat could severely impact the populations of many animals and plants that depend on pine-oak forests. In Oaxaca, these forests are surrounded either by fragments of perturbed (secondary) vegetation or, in the lowest elevations, by different vegetation associations. The inability of many species to move from gradually deforested pine-oak forests to other areas will inevitably result in their status changing to seriously endangered species. (101, 104)

Clear felling the rainforests changes the reflectivity of the earth's surface, which affects global weather by altering wind and ocean current patterns, and changes rainfall distribution. If the forests continue to be destroyed, global weather patterns may become more unstable and extreme. The availability and quality of water in many regions of the world are more and more threatened by overuse, misuse and pollution, and it is increasingly recognized that both are strongly influenced by forests (132).

Deforestation weakens the local hydrological cycle, and a new pattern of heat release occurs due to the changed land cover. Deforestation can reduce evapotranspiration due to loss of vegetation (133). This results in reduced moisture circulation and decreased rainfall (133). Deforestation also impacts local

thermodynamics, resulting in a decrease in heat released to the atmosphere. This impacts atmospheric circulation and its associated rainfall (133). Models suggest that deforested regions have reduced annual rainfall of up to 80%, with regions outside of the deforested area also impacted by rainfall changes (133). The large-scale landuse change could alter rainfall patterns hundreds to thousands of kilometers away from the region of deforestation. Changes in rainfall patterns could result in droughts, especially in the dry season, negatively impacting agriculture and water availability (133).

At the local level is where deforestation has the most immediate effect. With forest loss, the local community loses the system that performed valuable but often underappreciated services like ensuring the regular flow of clean water and protecting the community from flood and drought (135, 161). When forest cover is lost, runoff rapidly flows into streams, elevating river levels and subjecting downstream villages, cities, and agricultural fields to flooding, especially during the rainy season. During the dry season, such areas downstream of deforestation can be prone to monthslong droughts which interrupt river navigation, wreak havoc on crops, and disrupt industrial operations (135).

2. Lack of enforcement and compliance with the legislation: contributes to forest critical ecosystem services' degradation

Mexico has specific regulations for the protection of forests that provide critical ecosystem services, which are defined as protective forest for riverside vegetation or buffer strips for riverside vegetation. There is a national regulation protecting critical ecosystem services that has been established through the Official Mexican Norm (NOM-152-SEMARNAT-2008) (60). This norm provides a definition of Protective Forests for riverside vegetation. This definition refers to the conservation value of natural forests in relation to their strategic location for watershed conservation, and regulating water flow and flood dispersal, and stabilizing soil against landslides, and to ensure water supply at the needed quality and quantity (60). In these areas, the norm restricts all harvesting activities because are subject to protection. The protective forests, strictly defined, comprise only the vegetation in a stream channel and along the river banks. However, the term has recently been used more broadly to include the part of the landscape adjacent to a stream that exerts a direct influence on stream and lake margins and the water and aquatic ecosystems associated with them (133). In the landscape, riparian habitats are corridors located at the interface of terrestrial and aquatic ecosystems. They act as conduits, filters or

barriers controlling flow of water, sediments and nutrients (133). Ensuring riparian ecological functions such as filtering of polluted overland and subsurface flows. stabilization of stream banks and control of in-stream habitats is an important part of sound natural resource management (133). The vegetation around the riverbank, riparian areas, protective forest for riverside vegetation or federal zone are defined as vegetated ecosystems a long a waterbody through which energy, material, and water pass. Protective forests for riverside vegetation characteristically have a highwater table and are subject to periodic flooding and influence from the adjacent waterbody (100). Those zones can play a critical role such as water quality improvement, aquatic habitat, stream shading, flood attenuation, shoreline stabilization, and ground-water exchange, these zones typically occur as natural buffers between uplands and adjacent waterbodies (100). Besides having regulation for the protective forests, Mexico has regulation for areas with slopes greater than 100% or 45 degrees and areas more than 3,000 meters above sea level; and cloud forest vegetation (NOM-152-SEMARNAT-2006). In these areas, the norm restricts all harvesting activities because are subject to protection. Mexico has taken steps to manage its natural hazard risk and improve recovery after disaster events. The National System for Civil Protection (SINAPROC) was established in 1986 following the devastating earthquake that hit Mexico City the previous year. Under the framework of SINAPROC, the government established Mexico's Fund for Natural Disasters (FONDEN) in 1996 to support the rapid reconstruction of federal and state infrastructure affected by natural hazard events (99). However, in the period 2000-2015, damages from hydrometeorological phenomena in Mexico represented between 60 and 99% of total damages and losses at national level due to natural events (107). Furthermore, national regulations protecting water resources have been established since 1992, when the National Water Law was approved. This law defines in Article 15 that water planning is mandatory for the integrated management of water, water resources, the conservation of natural resources, vital ecosystems and the environment. The National Water and its Regulations, it has environmental requirements related to the harvesting activity. Article 15 mentioned that water planning is mandatory for the integrated management of water, water resources, the conservation of natural resources, vital ecosystems and the environment (100). In the case of forest management plans, it is required to describe the permanent and non-permanent watercourses in maps and measures to prevent and mitigate the

environmental impacts of the affected resources must be described and programmed, including water (59). The Official Mexican Norm 152-SEMARNAT establishes guidelines, criteria and specifications as to the content of the Forest Management Plan regarding the harvesting of timber forest resources in forest, and vegetation in arid zones, require in the Article 5.2.5 that the protective bands of riparian vegetation must have a minimum of 20 meters, counting from the banks of the channels and other permanent bodies of water. For the riverbeds and temporary bodies of water, it will be at least 10 meters (60).

Although, authorities have the responsibility of enforcing the law, very often there are limited resources available for controlling the fulfilment of the prescriptions of the approved forest management plans, and for preventing change of land use on forest lands; extraction of healthy wood (without plagues or diseases) under sanitation notifications; illegal logging and overexploitation to the resource (41, 62, 63).

In the case of RAMSAR sites Protected Natural Areas, this previous is evidenced. Between 2016 PROFEPA reported that from the 177 PNAs, the SEMARNAT had not published nor updated the forest management plans of 74 of them, with consequences and changes in land use, expansion of extensive livestock, soil erosion, urban development, illegal extraction of species and pollution of water and soil (38). In addition, PROFEPA reports by 2015-2017, it reported that more than 30-60% of the inspections had occurred on protected areas due to or attending complaints related with PNA, showing the need for control and monitoring in PNAs (38, 39, 40, 41). Another factor that affect PNAs is land use – land is cleared for crop agriculture, cattle grazing, human colonization, and for business development (34, 35, 36). A rapidly multiplying human population and economic growth propels and constantly increases these uses. Other causes of forest loss (also applicable to RAMSAR sites, which some of them are natural parks with forests) are overexploitation for timber and fuelwood, and natural agents such as fire and disease (42, 43, 47, 48, 49). The use of trees as fuel for heating and cooking takes an especially heavy toll on forests. Very few forested areas of Mexico are free from human disturbance; in fact, most forests contain scattered settlements whose residents are usually very poor and who still practice age-old slash-and-burn agriculture. The rate of forest loss is officially estimated rate at anywhere between 0,6 - 0,7% per annum (600,000 - 700.000 ha/year) (32, 33, 35, 36). Some of the environmental issues presented by Ramsar sites that have forest are: water pollution

from pesticides, habitat fragmentation, fire risk, and land invasion due to a poor productivity of the surrounding cultivated lands (e.g. in the case of Areas of Protection like the Selva Lacandona) or agriculture and livestock (case of Arroyos y manantiales de Tanchachín) and illegal logging, poaching and changes in land use for agricultural, cattle and urban uses (e.g. in Cascadas de Texolo). Other threats are deforestation, agricultural expansion, and the construction of hydroelectric power stations to use water from the springs (28).

Landslides encompass a wide range of phenomena including slumps, rock falls, debris slides, and earth-, debris- and mud-flows. Landslides may be shallow or deep-seated and are caused by changes in slope stability resulting from undercutting, changes in water saturation or loss of woody vegetation. Activities that increase erosion and slope instability in uplands include logging, road and trail construction and forest conversion. In undisturbed forest catchments land sliding is usually low (108).

Landslide risk is greatly increased by slope disturbance especially where appropriate precautions are lacking. Roads, which are often built in conjunction with agricultural or forestry activities, contribute the largest landslide losses compared to other land uses. With respect to vegetation removal, studies in temperate regions have shown that clearance of forests on sloping land increases landslide risk and conversion from trees to crops or grazing land significantly reduces rooting depth and strength. Given these impacts, maintenance of forest cover is particularly important in areas where slopes are greater than 45-55% or are concave, or where soils have low cohesion, or cover bedrock or an impermeable layer (108).

Management of natural forests and plantation forests without management plans is also a concern. Due to the great hydric wealth that the country has (1,471 catchments organized into 37 hydrological regions) (104), together with the national wealth of forests (forests in Mexico cover over 65 million hectares) (79) and in addition to the potential that Mexico has with commercial forest plantations (over 10 million hectares of Commercial Forest Plantations)(46); it is very likely that the areas under current and potential forest management, in natural forest and in plantations, could overlap the water network that the country has.

		In this context, poor forest management activities are known to have the potential to affect water resources (quality / quantity or availability). Timber harvesting, road construction, and chemical use may directly affect onsite delivery of nonpoint-source pollutants as well as contribute to existing cumulative impairments of water quality. At the same time, the silvicultural activities have the potential to increase sedimentation and alter stream channel conditions. Effects depend on elevation, slope, and the rate at which vegetation recovers following harvest (109). In the development of plantations, different factors may affect HCV 4, e.g. irresponsible agrochemical use polluting soil and/or water resources, road construction and maintenance that may alter water quality and quantity, riparian vegetation degradation, reduction in water availability, etc. (108). Taking this into account and knowing that in Mexico despite all inspections and monitoring actions carry out by PROFEPA (See 1.10 Environmental requirements), the reports do not describe levels of compliance with environmental impact regulations, such as maintenance of protection federal zones or buffer strips for riverside vegetation, and management practices implemented to protect water resources. Following precautionary approach, it is concluded that management activities in natural forest and forest plantations adjacent or inside the sites were HCV4 is highly likely to occur, could contribute to the reduction of water quality/quantity and with negative impacts on human's health, the threats to HCV4.		
3.5 HCV 5	4, 5, 18, 19, 28, 38, 39, 40, 41,	HCV Occurrence	Geographic al scale:	Specified risk for:
	42, 43, 46, 47, 48, 53, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 108, 109, 110, 111, 112, 113, 136, 137, 138, 139, 140, 141,	The current population of Mexico is 119,938,473 (latest INEGI estimates, 2015) (66) with 16,933,283 indigenous people in the country, representing 15,1% of all Mexicans. Mexico is the country in the Americas with largest indigenous population and the greatest number of native languages spoken in its territory, that is 68 languages and 364 counted dialect variations (66). In July 2017 the CONADI (National Commission for Indigenous Development) reported that – based on 2015 figures – there were 25.7 million Mexicans who self-identified as indigenous, equivalent to 21.5 per cent of the national population at the time, with another 1.6 per cent identifying as part-indigenous. Over 12 million of these (more	- Country Functional Scale: - Type of forest (all types of tenure or property)	Ejidal and Communal lands, eight Hydrological Administrative Regions with pressure on water resources,
	142, 143, 144, 145, 146, 163,	than 10 per cent of the national population) lived in indigenous households and some 7.4 million spoke indigenous languages (67).	 Natural forest. 	RAMSAR sites (except

164, 172, 173,		Forest	Cenotes) and
182	The forest in Mexico cover roughly a third of the national territory by forest or	plantation	natural forest
	rainforest (temperate and tropical), mangroves or plantations. However, when areas	'.	and forest
	covered by vegetation in arid and semiarid zones are included as part of the		plantations
	country's forested area, then a little over two-thirds of the land surface (138 million		adjacent to all
	hectares) is covered by vegetation (68). The geographical location of the country at		of them.
	the confluence of the neartic and neotropical biogeographic zones, its long north-		
	south shape and its complicated topography create a large diversity of climates and		Threshold (26)
	microenvironmental conditions that give rise to highly diverse forest ecosystems and		is met:
	site conditions.		(26) HCV 5 is
			identified
	This ecological diversity is found in locations with very diverse population densities		and/or its
	and socio-cultural and economic conditions. Most of the forest in the central and		occurrence is
	southern part of the country are fragmented and under high land-use pressures from		likely in the
	high populations densities within the forests, as well as from urban, agricultural, and		area under
	livestock activities at their edges. In contrast, the forest in the mountain ranges of		assessment
	the north-west cover extensive areas and have lower population densities (4, 18).		and it is
			threatened by
	Ejidos and communities living in rural areas have, in general, a subsistence		management
	economy, based on forest resources, farming and, in some cases, hunting and		activities.
	gathering (111). There is a close relationship between most of the ejidos and		
	communities in the country and the forests they inhabit (110). Forest resources are		
	vital for ejidos and communities; both timber uses, like firewood, building materials		Low risk for:
	and furniture, and non-timber uses. Food supply is very important, considering the		cenotes.
	gathering of fruits and wild honey, NTFP, complemented with proteins from hunting		Throphold (O4)
	and fishing. Charcoal is also produced at a small scale and then locally		Threshold (24)
	commercialized, being an important resource for ejidos and communities. In general terms, forests protect fresh water supplies that run from springs and head water		is met: (24) There is
	catchments which are used by local and indigenous communities (110, 111).		low/negligible
	catchinents which are used by local and indigenous communities (110, 111).		threat to HCV5
			caused by
	The diversity in the ecological, socio-cultural, and economic contexts in which the		management
	forest areas are immersed has given rise to different strategies and methods for the		activities in the
	management of the forest resources in Mexico. The traditional forest management		area under
	objective of timber production is not common in many forest areas. Often, forest		assessment.
	owners have no timber production objective at all, and objectives such as		assessment.

conservation, harvesting of nontimber products, protection of religious and ceremonial sites, and provision of forest services (e.g., water production, recreation, carbon sequestration) have a higher priority (18, 69). According with that, Mexican forest has been inhabited for hundreds of years by a lot kind of communities that have their own languages, traditions, beliefs, medicine, among other things and therefore their knowledge is closely related to the forest (19, 70, 71).

Forest provide the basic needs for the communities and ejidos, however, over time the number of communities or ejidos that live in a traditional way is smaller. Forests and woodlands, and the wild plants and animals they contained, were once the main source of food for many early hunter-gatherer societies. Over the millennia, with the development of cultivated varieties of wheat, rice and the other staple crops, and the domestication of livestock, man's dependence on forests has declined. Nevertheless, there are a great many rural people who remain dependent on forests for critical portions of their food supplies, and the forest foods remain an essential supplement to their diet. The array of different food consumed is vast; it ranges from beetle larvae to nuts and honey. Besides providing food, they also serve as a source of income and capital – part of which can be used to buy food or invest in future food production (19, 70,71).

It is important to mention that the communities and ejidos farthest from the towns and cities are those that still depend almost entirely on the resources of their lands for their survival and to ensure the maintenance of their culture. For example, they depend on hunting wild species for food; trees to obtain the wood that allows them to build their houses; fruits, barks or leaves and palms as food or dyes, among others (71).

The hydrological resources of the country include 50 large rivers, 70 lakes, 137 coastal lagoons, 6,331 wetlands spanning more than 10 million hectares, besides numerous river tributaries and permanent and non-permanent streams (5). These aquatic ecosystems are distributed in a heterogeneous way across the whole country. In 2009 the north and central parts of the country house 77% of the country's population and approximately 47% of available groundwater was extracted for human consumption, compared with just 4% in the south east (5). The region Aguas del Valle de México is the most extreme case, as water consumption is 33%

Low risk for: the rest of the country

Threshold (23) is met: (23) There is no HCV5 identified and its occurrence is unlikely in the area under assessment.

higher than natural water supply (5). These conditions present water managers with a difficult task in redressing a severe mismatch between water availability and demand, ranging from superabundance in the humid, thinly populated south-east to great scarcity in the arid or semi-arid areas of the populous center and the cities in the north.

The foundation for water policies in Mexico is Article 27 of the 1917 Political Constitution of the United Mexican States, which establishes that water is the property of the nation and heritage of its people. The National Water Act (LAN, acronym in Spanish) is the primary set of laws related to continental waters under the Constitution and international treaties; it regulates water use, distribution and control. Its main principles establish the decentralization of its management into thirteen administrative hydrological regions, an integrated management of water resources, the participation of the private sector and the involvement of social stakeholders.

Given the above, the sites where the main sources of water for drinking and cover fundamental needs of indigenous peoples and local communities in Mexico are found and where HCV5 is highly likely to be occurring are:

1. Ejidal and communal lands. Forests across the country are fundamental for satisfying the basic necessities of ejidos and communities. It is estimated that more than 1000 NTFPs (including various leaves, fruits, resins, fibres, fungi, and bark amongst others) are collected in the country, from 5-7,000 species distributed across almost all the ecosystems present in the country (5). The map 5 provide locations of ejidos and communities (see annex 1, Map 5 Classification of ejidos and communities in Mexico)18 (110).

According to that indicated previously, forests that are owned by communities and ejidos can be considered as the surface used by them and it can be considered as HCV5, because ejidos and communities are located in all the forested areas and

¹⁸ Inter-American Institute for Cooperation on Agriculture - IICA. 2012. Atlas of Environmental Services and Social Property in Mexico: Map of Classification of ejidos and communities the Indigenous Peoples in Mexico in page 23. http://repositorio.iica.int/bitstream/11324/2789/1/BVE3254500000e.pdf

depend in a different degree on the resources of the forests on their lands for their survival. Forests lands meet their needs, and the well-being of some communities could be affected by the reduction in the availability of some of the resources provided by the forests on which they depend (72).

Ejidos are located in all the forested regions in Mexico and depend in a different degree on the resources of the forests on their lands for their survival. Forests lands meet their needs, and the well-being of some communities could be affected by the reduction in the availability of some of the resources provided by the forests on which they depend (72).

Indigenous and ejidos community's lands and adjoined natural and plantation forests are relevant sites for HCV5 following precautionary approach.

2. Eight Hydrological-Administrative Regions with pressure on water resources. The wealthier North, Northwest and Central regions of Mexico, which are dry year around and see little rain, are home to almost 80 % of the country's residents, and these regions are accountable for a little under 90 % of the country's Gross Domestic Product (163). The Northern regions make up about 50 % of the country's landmass, and only receive around 25 % of the rainfall (163).

On the other hand, the less affluent Southern parts of Mexico are characterized by plentiful water resources. Although these regions have copious water resources, they cannot be considered as suitable as supplies of water for the country's rural population because of their levels of pollution (163). Many people in rural parts of Mexico live without running water, the consequence of which is that the water they do acquire in other ways is more expensive (163).

CONAGUA has defined for their administration in Mexico, thirteen Hydrological-Administrative Regions, covering all the hydrological basins in the country because support the delivery of services, such as, water provisioning, recreation, fish production. Some of them are fundamental sources of drinking water and make riverside communities more resilient to flood risks. Protected watersheds and riverside lands provide clean, dependable water to local communities by filtering nutrients and sediments, moderating water temperatures, and reducing flood risks. In the process, riparian lands significantly reduce the need for costly municipal water supply filtration and treatment facilities. To access the map of Hydrological-

Administrative Regions in Mexico, please see the map in the web page of The Mexican Commission for the Knowledge and Use of Biodiversity – COABIO19(173).

Considering the thirteen hydrological-administrative regions defined by the National Water Commission (CONAGUA), the differences are also evident in relation with the degree of pressure (GPR, acronym in Spanish). The degree of pressure on hydrological resources, which represents the proportion of available water that is being extracted in a given area, either for agricultural, public, industrial or other purposes, in another way of assessing water availability (182). The UN Commission for Sustainable Development defines four categories of degree of pressure, ranging from a heavy pressure (extraction exceeds 40% of natural availability) to a scarce pressure (the water extracted does not exceed 10% of the available liquid). Mexico, with an estimated GPR of 17% is included in the moderate-pressure category, above the average of 11.5% for OECD countries. Nevertheless, the relatively low GPR for Mexico is influenced significantly by the highwater availability in the southern region of the country, since in regions like the Southern Border, Central Gulf, Yucatan Peninsula and Southern Pacific, less than 8% of the water available is extracted. In contrast, the Baja California I, North Western II, Northern Pacific III, Bravo River VI, Northern Central Basins VII, Balsas IV and Lerma-Santiago-Pacific VIII regions, have a drastically different situation, with degrees of pressure above 40%. A particular case is the Aguas del Valle de Mexico XIII region, where the degree of pressure reached 155% in 2007 (182). These eight regions are considering to be relevant for HCV5 because they represent the regions with the highest degree of pressure on water resources in the country. For more detail about location of these eight regions please see the map in Environmental situation report in Mexico. Compendium of environmental statistics²⁰ (182).

3. **RAMSAR Sites.** Wetlands of international importance recognized by the Ramsar Convention; Wetlands are vital for human survival. They are among the world's most productive environments; cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival.

¹⁹ The Mexican Commission for the Knowledge and Use of Biodiversity: Hydrological Administrative Regions. Webpage: http://www.conabio.gob.mx/informacion/gis/layouts/rha250kgw ²⁰ SEMARNAT. 2008. Environmental situation report in Mexico. compendium of environmental statistics. https://apps1.semarnat.gob.mx:8443/dgeia/informe_2008/00_intros/pdf.html Instruction: In the right-hand column select the item "6.Water", and then click on "water availability", then scroll down to the Map 6.4.

Wetlands are indispensable for the countless benefits or "ecosystem services" that they provide humanity, ranging from freshwater supply, food and building materials, and biodiversity, to flood control, groundwater recharge, and climate change mitigation.

Ramsar sites include wetlands that are considered to be of international importance under the Ramsar Convention. Mexico has 142 sites designated as Wetlands of International Importance with a surface area of 8,657,057 hectares and all of them are National Natural Park and these include a complex of 99 cenotes known as ring of cenotes (Anillo de Cenotes) in Yucatan (28). For more detailed about specific location of Ramsar, please see the map in the web page of The National Commission of Natural Protected Areas – CONANP²¹ (172).

Cenote is a somewhat loosely defined term that refers to various types of water bodies contained in limestone cavities. Historically, cenotes served as the only sources of water supply and as important ceremonial places for the ancient Maya culture (61). Without them, the Mayans would have been without sufficient water. For the growing urban and tourist industry of the Mexican Caribbean region, cenotes play an important role as potential drinking-water resources besides been recreational sites, such as swimming and cave-diving (64, 73, 112).

Mexico's Yucatan Peninsula has had a complex and dynamic history, which has seen processes such as the rise of the Maya civilization, colonial conquests, indigenous rebellions and a range of commercial activities. The Peninsula also represents a unique ecological place in the world: no rivers or major lakes exist on its surface – rather fresh water can only be found in its extensive underground flooded cave system, which is only accessible through cenotes (water sinkholes) that sporadically pierce the landscape's surface across the region and supply of potable water as basic need for the local communities living there (112).

Although no specific information was found about the dependence that may exist regard to the other RAMSAR sites (in addition to the cenotes) by local people, ejidos

²¹ The map of Natural Protected Areas with International Designation in Mexico like RAMSAR are available in this link: http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_anps_designaciones_PREVIO.htm

or communities near of these to meet their basic needs, applying the precautionary approach this assessment considers all RAMSAR sites as HCV 5 sites. In the case of forest plantations and natural forest adjacent to HCV5 sites, following precautionary approach, it is highly likely to have HCV5 occurrence also in these areas.

Threat Assessment

In some parts of the country, Mexico's water resources are among the most seriously degraded of all OECD countries, particularly in densely populated zones: surface waters and even groundwaters are often contaminated and/or overexploited and water quality in rivers, lakes and aquifers is commonly not fit for many uses (136). Despite the efforts already made, the contamination of water resources, which particularly affects the health of poor people who do not have access to drinking water of good quality, still poses grave problems (136).

Agriculture consumes 77 per cent of the water, of the total consumed in the arid north, an area greatly affected by climate change. Industry uses 10 per cent and domestic users 13 per cent of water. The growing megacities are also overexploiting their aquifers, producing subsidence and water pollution together with changes in land use, thus reducing water infiltration into the aquifers during the monsoon. Regional and temporal water stress is further aggravated by unsustainable production processes, where mining and agribusiness hog the water needed by indigenous people and small farmers, forcing them to migrate to the urban centres (74, 113).

Water resources in Mexico are threatened by scarcity, pollution and climate change (137, 138, 139, 140, 182). In two decades, water consumption doubled, producing water stress in dry seasons and semi-arid and arid regions. Water stress rises due to physical and economic stress. In seven parts of the country a multidisciplinary team analyzes hydrological processes in basins and their interaction with climate, soil and biota. Competing water use in agriculture, industry and domestic needs require savings, decontamination processes and desalination to satisfy the growing demand. Water quality affects health and ecosystems. This creates conflicts and cooperation that may be enhanced by public policy, institution building and social organization (74).

At a national level, forest management (natural forest and forest plantations), if not well management, these can result in deterioration in water quality, risking drinking water supplies and water dependent ecosystems e.g. wild fires, clear-fell timber harvesting and constructions of roads, all of these can have impacts on water quality, or limiting the availability of traditionally used tree species and/or NTFP availability, degrading habitats of hunting species, and degrading protective forests of watersheds or steep slopes that produce unique sources of water (42, 43, 46, 47, 48).

Furthermore, is important to consider the limited resources available for controlling the fulfilment of the prescriptions of the approved forest management plans. deficiency in its capacity, the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files (62, 63), all of these generate conditions for forest degradation by management forest activities and illegal logging activities, which can compromise fundamental resources and sites for the local communities and indigenous peoples. Non-planning timber harvesting, road construction, and chemical use may directly affect water quality and quantity, riparian vegetation degradation, reduction in water availability (108). At the same time, the silvicultural activities have the potential to increase sedimentation and alter stream channel conditions. Effects depend on elevation, slope, and the rate at which vegetation recovers following harvest (109). The sustainable use of wood and NTFPs requires plans and regeneration strategies, but regulation is weak and data on uses, rates of extraction (both legal and illegal). harvesting methods, markets and the impacts of harvesting on production and on the

In the specific case of the RAMSAR sites Protected Natural Areas. Between 2016-2017 PROFEPA reported that from the 177 PNAs, the SEMARNAT had not published nor updated the forest management plans of 74 of them, with consequences and changes in land use, expansion of extensive livestock, soil erosion, urban development, illegal extraction of species and pollution of water and soil (38). In addition, PROFEPA reports by 2015-2017, it reported that more than

wider ecosystems the products are extracted from is limited and unreliable (5, 42, 43,

53).

30-60% of the inspections had occurred on protected areas due to or attending complaints related with PNA, showing the need for control and monitoring in PNAs (38, 39, 40, 41).

For Cenotes, most of the rural communities in Yucatán depend, directly or indirectly, on groundwater resources derived from the more than two thousand cenotes. Beekeepers, farmers, Maya elders, women, children — all of them are the direct local resource users and are also responsible for taking care of and protecting the cenotes (64). The main threats according with Lopez-Maldonado are tourism, poor solid waste management, contamination and deficiency of interest in preservation (65, 112). After an exhaustive search on the web, forest management activities were not listed among the causes of affectation for these sites or resources. different communications media report a wide range of threats that exist for cenotes, which run from the constant increase in the production of refuse and wastes due to tourism; the open of pig farms, the use of pesticides in agriculture and other factors such as poor waste management as was mentioned before, the forest management was not mentioned as an injury factor (141, 142, 143, 144, 145, 146).

In the case of forest plantations and natural forest adjacent to HCV5 sites with also potential occurrence of HCV5, the potential negative impacts related to the fundamental needs could be: i) the reduction in the amount of water available for human consumption, for the failure to comply with the restrictions set in the management plans due to non-planning harvesting, road construction and also for the chemical use (164); ii) the risk of damage to communities' dwellings/town adjacent to forest management areas due to the erosion of fragile soils, plantations leaving the soil without an adequate top soil cover thus making the soils susceptible to erosion caused by rain and other abiotic agents (164).

The search during the development of this assessment did not find evidence on that forest management activities (in natural forests or forest plantations) in Mexico is not threatening HCV5 unique/main sources of water (for drinking and other daily uses and for the irrigation of food crops) and food, NTFP, medicines or fuel for local consumption by compromising (impacting) fundamental needs of local communities. Furthermore, in Mexico despite all inspections and monitoring actions carry out by PROFEPA (See 1.10 Environmental requirements), the reports do not describe levels of compliance with environmental impact regulations in general, such as

			T	ı
		maintenance of protection federal zones, and management practices implemented to		
		protect water resources. Another aspect to consider is that the assessment of		
		indicator 2.3 "The rights of indigenous and traditional peoples are upheld" of this		
		CNRA supports a generalized national trend on violation of rights of the local		
		communities.		
		Considering the previous and following precautionary approach, management		
		activities in natural forest and forest plantations in HCV5 sites and adjacent to these,		
		are highly likely to compromise the fundamental needs of local communities.		
3.6 HCV 6	12, 13, 14, 27,	HCV Occurrence	Geographic	Specified risk
	34, 35, 36, 37,		al scale:	for:
	38, 76, 171, 183,	Mexico has one of the largest and most diverse indigenous populations in Latin	- Country	
	184	America and indigenous culture is considered to be at the heart of Mexican society.	Functional	UNESCO WHS
		Mexico is proud of its ancient Maya and Aztec monuments, and its indigenous	Scale:	natural and
		dances, crafts and markets, which contribute significantly to the country's appeal to		mixed sites
		tourists. Mexico's indigenous population numbers 12.7 million people representing	- Type of	(except the
		13 per cent of the national population, speaking 62 languages between them (12).	forest (all	Whale
		Official statistics had traditionally defined the indigenous population using criteria	types of	Sanctuary of El
		based on language, which many have argued largely underestimated this	tenure or	Vizcaino) and
		increasingly urban population.	property)	the 7 sites with
		The majority of the indigenous population is concentrated in the southern and south-	 Natural 	forested
		central region of Mexico. Almost 80 per cent of those who speak an indigenous	forest.	ecosystems
		language live in eight of Mexico's 31 states; in rank order these are Oaxaca,	Forest	from the
		Chiapas, Veracruz, Puebla, Yucatán, Guerrero, Hidalgo and Mexico City. The five	plantation	tentative list
		predominant languages spoken by indigenous people are Náhuatl, followed by	plantation	(as in the
		Maya, Zapotec, Mixtec and Otomí (Mexican Statistics Bureau) (12). Maps of the	•	assessment)
		distribution of indigenous populations by language are available (13).		and forest
		For Mexico, there are inventories of sites of cultural, archaeological or historical		plantations and
		significance, and/or of critical cultural, ecological, economic or religious/sacred		natural forest
		importance are established at the national, regional and local levels. These		adjacent to all
		· •		of them.
		inventories have been used as a basis for the selection of sites of global significance,		or mem.
		namely World Heritage Sites (WHS) (14).		The following
		There are come information recourage at country level that can halp to identify areas		The following risk threshold
		There are some information resources at country level that can help to identify areas with more probability to contain HCV6:		is met:
		1. UNESCO World Heritage Sites are places of importance to cultural or natural		(30) HCV 6 is
		heritage as described in the UNESCO World Heritage Convention, established in		identified

1972 (27). Mexico accepted the convention on 23 February 1984, making its historical sites eligible for inclusion on the list. As of 2018, there are thirty-five World Heritage sites in Mexico, including twenty-seven cultural sites (Agave Landscape and ancient Industrial Facilities of Tequila; aqueduct of Padre Tembleque Hydraulic system; Archaeological Monuments Zone of Xochicalco; Archaeological zone of Paquimé, Casas Grandes; Camino Real de Tierra adentro; Central University City Campus of the Universidad Nacional Autónoma de México: Earlies 16th-century Monasteries on the Slopes of Popocatepetl; El Taiin, Pre-Hispanic City; Franciscan Missions in the Sierra Gorda of Querétaro; Historic Centre of Mexico City and Xochimilco; Historic Centre of Morelia; Historic Centre of Oaxaca and Archaeological Site of Monte Albán: Historic Centre of Puebla: Historic Centre of Zacatecas: Historic Fortified Town of Campeche; Historic Monuments Zone of Querétaro; Historic Monuments Zone of Tlacotalpan: Historic Town of Guanajuato and Adjacent Mines: Hospicio Cabañas, Guadalajara; Luis Barragán House and Studio; Pre-Hispanic City and National Park of Palenque; Pre-Hispanic City of Chichen-Itza; Pre-Hispanic City of Teotihuacan; Pre-Hispanic Town of Uxmal; Prehistoric Caves of Yagul and Mitla in the Central Valley of Oaxaca; Protective town of San Miguel and the Sanctuary of Jesús Nazareno de Atotonilco: Rock Paintings of the Sierra de San Francisco), six natural sites (Archipiélago de Revillagigedo; El Pinacate and Gran Desierto de Altar Biosphere Reserve; Islands and Protected Areas of the Gulf of California; Monarch Butterfly Biosphere Reserve; Sian Ka'an and Whale Sanctuary of El Vizcaino) and two mixed sites (Ancient Maya City and Protected Tropical Forests of Calakmul, Campeche; Tehuacán-Cuicatlán Valley: originary habitat of Mesoamerica). Mixed World Heritage Sites contain elements of both natural and cultural significance (27). For more detailed about these sites, please see the map in the web page of World Heritage Convention²² (171).

All of UNESCO WHS are Protected Natural Areas and timber can be harvested in the buffer zones but not in the core zone, except in cases of natural plague or disaster. In this way, the Protected Natural Areas are classified as multiple-use, which allow a wide variety of uses and activities within their borders. Each reserve is required to have a management program that specifies proper uses and conservation activities for the internal subunits that compose the PNA (37, 38).

and/or its occurrence is likely in the area under assessment, and it is threatened by management activities.

Low risk for: the Whale Sanctuary of El Vizcaino, the UNESCO WHS cultural sites. the Intangible Cultural Heritage of Humanity and the 15 sites not having forested ecosystems from the tentative list (as in the assessment)

The following risk threshold is met:

²² World Heritage Convention. World Heritage List: https://whc.unesco.org/en/statesparties/mx

2. On the other hand, the UNESCO also keeps a list of the **Intangible Cultural Heritage of Humanity**. These are traditions or living expressions which are passed down through generations in the form or oral traditions, performing arts, social practices, rituals, festive events, or knowledge and practices concerning nature and the universe. Mexico recognizes that "communities, in particular indigenous communities, groups and, in some cases, individuals, play an important role in the production, safeguarding, maintenance and recreation of the intangible cultural heritage" (76).

(28) There is low/negligible threat to HCV6 caused by management activities in the area under assessment.

In this way, Mexico has 10 UNESCO Intangible Cultural Heritages (ICHs) elements:

1) La Romería (the pilgrimage): ritual cycle of "La llevada" (the carrying) of the Virgin of Zapopan; 2) Charrería, equestrian tradition in Mexico; 3) Xtaxkgakget Makgkaxtlawana: the Centre for Indigenous Arts and its contribution to safeguarding the intangible cultural heritage of the Totonac people of Veracruz; 4) Mariachi, string music, song and trumpet; 5) Pirekua, traditional song of the P'urhépecha; 6) Parachicos in the traditional January feast of Chiapa de Corzo; 7) Traditional Mexican cuisine – ancestral, ongoing community culture, the Michoacán paradigm; 8) Places of memory and living traditions of the Otomí-Chichimecas people of Tolimán: the Peña de Bernal, guardian of a sacred territory; 9) ritual ceremony of the Voladores; 10) Indigenous festivity dedicated to the dead (76).

Low risk for the rest of the country.

3. Tentative list of 22 sites of cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance, which is part of the inventories previously described. While the Mexican sites are mostly of a cultural character, they also include some natural properties. They represent a variety of sites, including archaeological remains of Mayan culture; cultural landscapes; pre-historic caves, as well as areas of natural beauty. (14). The list is as follows (14): 1) Chapultepec Woods, Hill and Castle, 2) Historic Town of Alamos, 3) Church of Santa Prisca and its Surrounding, 4) Pre-Hispanic City of Cantona, 5) Great City of Chicomostoc-La Quemada, 6) Historic Town of San Sebastián del Oeste, 7) Diego Rivera and Frida Kahlo's Home-Study Museum, 8) Vallée des Cierges, 9) Aire de protection de la flore et de la faune Cuatrociénegas, 10) Historical Town The Royal of the Eleven Thousand Virgins of Cosala in Sinaloa, 11) Huichol Route through the sacred sites to Huiricuta (Tatehuari Huajuye), 12) Région Lacan-Tún – Usumacinta, 13) Réserve de la Biosphère Banco Chinchorro, 14) Tecoaque, 15) Cuetzalan and its Historical, Cultural and Natural Surrounding,

The following risk threshold is met: (27) There is no HCV6 identified and its occurrence is unlikely in the area under assessment

16) Historical city of Izamal (Izamal, Mayan continuity in an Historical City), 17) Los

Petenes-Ría Celestún, 18) Las Pozas, Xilitla, 19) El Arco del Tiempo del Río La Venta, 20) Ring of cenotes of Chicxulub Crater, Yucatan, 21) Las Labradas, Sinalao archaeological site, 22) Franciscan Ensemble of the Monastery and Cathedral of Our Lady of the Assumption, Tlaxcala (extension of the property Earliest 16th-Century Monasteries on the Slopes of Popocatépetl). From these, only 7 sites present forested ecosystems, which are the sites numbered under 8, 9, 12, 13, 17, 18, 19.

For the forest plantations and natural forest adjacent to HCV6 sites, following precautionary approach, it is highly likely to have HCV6 occurrence also in these areas.

For the rest of the country HCV6 occurrence was not identified.

Threat Assessment

The most important legal instrument for the protection and conservation of tangible cultural heritage is the 1972 Federal law on archaeological, artistic and historic monuments and zones. The national institutions responsible for the implementation of the policies on cultural and natural heritage are the National Commission of Protected Natural Areas and the National Institute for Anthropology and History (INAH). A recent UNESCO evaluation considered the country's legal framework as adequate for the identification, conservation and protection of cultural and natural heritage (14). In addition, the instruments for the protection and conservation of Protected Natural Areas are protected under a range of legislation being the General Low of Ecological Balance and the Protection of the Environment (LGEEPA) and by the natural commission of Natural Protected Areas (CONANP) in close collaboration with a number of other government authorities and varius NGOs and university partners (76).

Additionally, is important to consider that Protected Natural Areas are currently threatened by different factors. According with the Category 1 of this assessment for Mexico, the lack of PNA's management plans nor updates to these for 74 PNA, which is leaving them in danger of land use change, deficiency in surveillance and law enforcement by PROFEPA and SEMARNAT evidence a remaining considerable level of noncompliance with the legal requirements and a lack of capacity from the relevant authorities to efficiently follow up via preventive actions when there are

cases of violations to the laws in PNAs, resulting in a low level of conservation effectiveness in many cases. And this has particularly been reflected in more natural forest area loss (27, 34, 35, 36).

In relation with the Natural and Mixed World Heritage Sites inscribed on the World Heritage List; the threats are identified as follows:

- Archipiélago de Revillagigedo. Prevent sport fishers entering no fishing zones and to manage their impacts. Efforts are also needed to ensure that fishing in the very large surrounding buffer zone is managed to be sustainable so as to counteract the potential or real threat of over-fishing in the region. Management emphasis should be applied to the control and where possible eradication of alien invasive species from the islands and their marine environments such as rats or increased issues with invasive species such as locusts (27, 183). Other greatest threat is the existence of feral cats on Socorro and rabbits on Clarión. Cats on Socorro have now been reduced to very low numbers with possibly eradication. Other threats include diving tourist pressure, and natural events including frequent hurricanes and occasional volcanic eruptions. Potential threats are introduction of invasive species such as rats or increased issues with invasive species such as locusts, and climate change could affect the property in unexpected ways (183).
- El Pinacate and Gran Desierto de Altar Biosphere Reserve. Special attention should be given to avoid the indirect impacts of nearby tourism development including from increased traffic, which creates ecological disturbance, littering and wildlife road kills. More importantly, tourism can create pressure to extend existing road infrastructure which could facilitate entry points for alien invasive species. Increasing impact from off-road vehicles has been observed, requiring monitoring and effective law enforcement in EPGDABR. However, the most critical long-term management issue is to address potential problems derived from tourism-related water consumption (27). Also, a number of threats raise concerns, including invasive species, such change is already observable elsewhere in the Sonoran Desert where non-native grasses and associated increase in fire frequency and intensity have fundamentally altered the entire desert ecosystem. Mining concessions overlapping with the property and plans for salt extraction in its vicinity or even in its buffer zone also raise concerns (183).

- Islands and Protected Areas of the Gulf of California. Threats today include, on land, alien invasive species with herbivores and predators menacing the delicate small island systems. The biggest, ongoing impact on the marine conservation values stems from artisanal, industrial and sport fishing. Fisheries and shrimp trawling play an important role in the local economy but put ever more pressure on the resources. Looming potential threats include plans for large-scale tourism development. From the coasts pollution from agriculture, industry and sewage are increasing (27). Bycatch of the highly endangered vaguita, over-fishing and tourism development is rated as "very high". Other bycatch, uncontrolled tourism, pollution and exotic species are rated as "high". Threats to the marine resources are increasing from both artisanal and industrial fishing. Pollution from farm agricultural, shipping and coastal developments are also on the increase in the Gulf, and are expected to get much worse as tourism development continues around the region. Destruction of mangroves associated with the development of recreational facilities has a strong economic impact on local fishing communities and on food production in the region. The increasing impacts of climate change will particularly impact corals, calcifying organisms, and coastal wetlands (183).
- Sian Ka´an. Is susceptible to frequent and heavy tropical storms. As for human impacts, the inaccessibility protects large tracts of the property. Besides the coastal fishing villages of Punta Allen and Punta Herrero, there are few permanent residents in the property. Hunting, fishing, however, are widespread. Sport fishing and commercial fishing to supply nearby tourism centers has resulted in marked declines of some species, notably the Spiny Lobster. Agriculture north of the property bears pollution risks pollution and fires set to clear land have repeatedly spread into the property. The main economic sector directly and indirectly impacting on the property, however, is tourism (27, 183).
- Monarch Butterfly Biosphere Reserve. The principal focus of protection and management should be to prevent illegal logging in the property. Priorities to achieve this include concerted planning and action between all relevant federal, state and local agencies, and work with local communities on environmental protection and the provision of alternative livelihoods to logging (27). The combination of ongoing habitat loss and degradation, agricultural encroachment in the surroundings, insufficiently regulated and controlled tourism and visitation indicating capacity constraints and jointly amount to a very high degree of threat. There are 3 primary threats to the monarch butterfly in its range in North America: deforestation and degradation of forest by illegal logging of overwintering sites in México; widespread

- reduction of breading habitat in the United States due to land-use changes and the decrease of this butterfly's main larval food plant (common milkweed [Asclepias syriaca]) associated with the use of glyphosate herbicide to kill weeds growing in genetically engineered, herbicide-resistant crops; and periodic extreme weather conditions throughout its range during the year (183).
- Whale Sanctuary of El Vizcaino. Overfishing and illegal fishing are the main threats, besides tourism and inadequate waste management. Agriculture, mining expansion, species displacement, overfishing and illegal fishing and garbage collection are also important threats (27). Mientras que el desarrollo incontrolado del turismo, y la exploración de petróleo, gas y recursos geotérmicos son amenazas potenciales que necesitan ser monitorizadas (183).
- Ancient Maya City and Protected Tropical Forests of Calakmul, Campeche. The property protection is guaranteed due to its location within the Calakmul Biosphere Reserve, but it is required to develop and implement a single property-wide management plan to guide integrated natural and cultural heritage protection, management and presentation (27). Ongoing forest loss and degradation continue to pose a risk to long term conservation and landscape connectivity for Maya forest. This includes forest fires, illegal logging and longstanding infrastructure plans at the regional level and more recent plans to invest in tourism development. Tourism also raises important management questions, including as regards access roads and water and waste management and lack of boundary demarcation (183).
- Tehuacán-Cuicatlán Valley: originary habitat of Mesoamerica. The property Tehuacán-Cuicatlán Valley: originary habitat of Mesoamerica has effective legal protection to ensure the maintenance of its Outstanding Universal Value but the main threat is the tourism (27). It is estimated that presen levels of primary vegetation remain at only 50-60% of the original cover. Over the last 25 years, the reserve's administration and scientific reserchers have identified several threats gravely affecting conservation of the área. Among the most signifcant are: cutting and extraction of cactus, Illegal hunting, extensive goat grazing, community relations, pollution, lack of monitoring, lake of information and road and power lines (184). In accordance with the above, and after an exhaustive search, only the Monarch Butterfly Biosphere Reserve is the onesite from the UNESCO WHS natural and mixed sites that is reported to be threatened by illegal logging or forest management activities. In addition to this, deforestation is affecting the natural forest in this site mainly caused by the clearing of land for extension of agricultural and livestock frontier. Besides, the ineffectiveness of management of protected areas has been

detected, being weak in many cases because of a lack of economic resources (27, 34, 35, 36). Despite the previous, the risk assessment for the relevant indicators 1.15 "Indigenous peoples' rights" and indicator concludes specified risk. Of specific relevance for indicator 3.6, in indicator 1.15 it was found that FPIC mechanisms stablished in some specific states is still not fully implemented and there is no national legislation on FPIC. Another aspect to consider is that the assessment of indicator 2.3 "The rights of indigenous and traditional peoples are upheld" of this CNRA supports a generalized national trend on violation of rights of the local communities. The previous, allows to apply precautionary approach to the WHS natural and mixed sites (with exception of the Whale Sanctuary of El Vizcaino which lacks significant forest resources) and the 7 sites that have forested ecosystems from the tentative list (of cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance). This also applies to the forest plantations and the natural forests adjacent to the all the HCV6 sites previously identified. At the same time, regarding the twenty-seven WHS cultural sites, these sites are not forested areas and some of them are even in urban areas. During the development of this assessment the exhaustive search did not showed forest management activities being relevant in any way in these places. For the Intangible Cultural Heritage, forest management also did not appear to have relevance in general terms nor in terms of threatening of destruction of this intangible	
heritage.	

Recommended control measures

The recommended control measures here are only indicative in nature, and are not mandatory. Recommended control measures might not have been provided for all the risks that have been identified in this risk assessment. Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable.

Indicator	Recommended control measures
3.0	N/A
3.1 HCV 1	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.
3.2 HCV 2	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.
3.3 HCV 3	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.

3.4 HCV 4	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.
3.5 HCV 5	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.
3.6 HCV 6	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk
	assessment as applicable.

No.	Source of information	Relevant HCV category and indicator
1	National Institute of Statistics and Geography. N/d. INEGI. Website: http://en.www.inegi.org.mx/temas/estructura/ Accessed July 2019	Overview, 3.1
2	Conabio-Conanp-TNC-Pronatura-FCF, UAN L. 2007. Analysis of gaps and omissions in conservation of terrestrial biodiversity of Mexico: spaces and species. National Commission for the Knowledge and Use of Biodiversity, National commission of Protected Natural areas. Análisis de vacíos y omisiones en conservación de la biodiversidad terrestre de México: espacios y especies. Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, Comisión Nacional de Áreas Naturales Protegidas, The Nature Conservancy-Programa México, Pronatura, A.C., Facultad de Ciencias Forestales, Universidad Autónoma de Nuevo León, Méxicohttp://www.biodiversidad.gob.mx/pais/pdf/LibroGapTerrestre.pdf	Overview, 3.4
3	Global Forest Watch Mexico. N/d. Dashboard: Mexico. Website: https://www.globalforestwatch.org/country/MEX Accessed July 2019	3.2, 3.4
4	Moreno-Sanchez, R. T. Buxton Torres, K, Sinbernagel, F. Moreno-Sanchez. 2014. Fragmentation of the Forests in Mexico: national level assessments for 1993, 2002 and 2008. International Magazine on Statistics and Geography Revista Internacional de Estadística y Geografía. Available at: http://www.inegi.org.mx/rde/rde_12/doctos/rde_12_art1.pdf	Overview, 3.1, 3.2, 3.4, 3.5
5	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2016. National Strategy on Biodiversity and action plan of Mexico 2016 – 2030. http://www.biodiversidad.gob.mx/pais/pdf/ENBIOMEX_baja.pdf	Overview, 3.1, 3.3, 3.4, 3.5
6	Mexican biodiversity. N/d. Webpage: https://www.biodiversidad.gob.mx/region/areasprot/enmexico.html Accessed July 2019.	Overview
7	Heino M, Kummu M, Makkonen M, Mulligan M, Verburg PH, Jalava M, et al. 2015. Forest Loss in Protected Areas and Intact Forest Landscapes: A Global Analysis. PloS ONE 10(10): e0138918. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138918#pone-0138918-g005	3.3

8	The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO. N/A. Maps available at: http://www.conabio.gob.mx/informacion/gis/ Accessed July 2019	Overview, 3.1, 3.3
9	Paulo Petry and Leonardo Sotomayor. 2009. Mapping Freshwater Ecological Systems with Nested Watersheds in South America. The Nature Conservancy. https://databasin.org/maps/new#datasets=5637f67d31d94a1cb165cdbddb8c4257	Overview
11	Olivera, A. 2018. Mexico's 10 Most Iconic Endangered Species – Center for Biological Diversity. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiN6cKf2L zjAhXohOAKHXLDDS0QFjAAegQIABAC&url=https%3A%2F%2Fwww.biologicaldiversity.org%2Fprograms%2Fint ernational%2Fmexico%2Fpdfs%2Fenglish-Top-10-Endangered- Mexico.pdf&usg=AovVaw0qDPzUbNhe4LRJ3Tr9XK0W	Overview, 3.1,
12	IUCN. N/d. The IUCN Red List of Threatened Species: Mexico. Website: https://www.iucnredlist.org/search/list?query=mexico%20&searchType=species Accessed July 2019.	Overview, 3.1, 3.6
13	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO, Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. N/d. Website: https://www.biodiversidad.gob.mx/especies/endemicas/endemicas.html Accessed November 2019	3.1, 3.6
14	The National Norm NOM-059-SEMARNAT-2010. 2010. "Environmental Protection-Native Flora and Fauna Wildlife Species of Mexico-Risk Categories and Specification for Inclusion, Exclusion or Change- 286ontine Species at risk" ("Protección Ambiental – Especies Nativas de México de Flora y Fauna Silvestres – Categorías de Riesgo y Especificaciones para su Inclusión, Exclusión o Cambio-Lista de Especies en Riesgo"). http://dof.gob.mx/nota_detalle.php?codigo=5173091&fecha=30/12/2010	3.1, 3.6
15	The Mexican Commission for the Knowledge and Use of Biodiversity. N/d. Conservation program species at risk: list of priority species for conservation in Mexico. https://www.biodiversidad.gob.mx/especies/espPrioritaria.html Accessed July 2019	Overview, 3.1, 3.3
16	González, H.A., et al. 2014. Protected Natural Areas of Mexico (Las áreas naturales protegidas de México). Investigación y ciencia de la Universidad Autónoma de Aguascalientes. <a href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiW1LGLlfvjAhXrqlkKHQYEBukQFjAAegQIABAC&url=http%3a%2F%2Fwww.redalyc.org%2Fpdf%2F674%2F67431160002.pdf&usg=AovVaw0BFsXrpuEXyFxZIZEDz-f-</td><td>Overview, 3.3</td></tr><tr><td>17</td><td>Secretariat of Environment and Natural Resources - SEMARNAT. 2013. Environment and natural resources sector program. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiqh8nYlvvjAhWh1FkKHdp https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiqh8nYlvvjAhWh1FkKHdp https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiqh8nYlvvjAhWh1FkKHdp https://www.ordenjuridico.gob.mx%2Fdocumentos%2Ffederal%2Fwo89556.doc&usg=AovVaw2Q5x-H5aHbKcXQMtn6hkoN	Overview, 3.1, 3.3

18	Sarhukhán, J. et al. 2012. Natural Capital of Mexico: Strategic actions for valuation, preservation and recovery. https://www.biodiversidad.gob.mx/pais/capitalNatMex.html	Overview, 3.1, 3.3, 3.5
19	Torres-Rojo, J.M. 2016. Sustainable Forest Management in Mexico. https://link.springer.com/article/10.1007/s40725-016-0033-0	Overview, 3.5
20	Torres-Rojo, J.M. 2015. Characteristics of forest agrarian nuclei in Mexico. In: Community Forest Development. Características de los núcleos agrarios forestales en México. In: Desarrollo Forestal Comunitario. https://www.researchgate.net/publication/308139738_Caracteristicas_de_los_nucleos_agrarios_forestales_en_Mexico_In_Desarrollo_Forestal_Comunitario	Overview
21	Antinori C, Bray D.B. 2005. Community forest enterprises as entrepreneurial firms: economic and institutional perspectives from Mexico. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjNhl_9n_vjAhUJnlkKHY98 <a href="https://www</td><td>Overview</td></tr><tr><td>22</td><td>Aguirre-Calderón, O.A. 2015. Forest management in the XXI Century. Madera y Bosques. Vol 21. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiDgJmlofvjAhXRjVkKHVF https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiDgJmlofvjAhXRjVkKHVF https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiDgJmlofvjAhXRjVkKHVF https://www.scielo.org.mx%2Fpdf%2Fmb%2Fv21nspe%2Fv21nspea2.pdf&usg=AovVaw2lc6PTnCe8Fvmu9Skzk9Ly	Overview
23	Gaworecki, M. 2018. Critics say proposed changes to Mexico's Forestry Law threaten sustainable forest management by local communities. https://news.mongabay.com/2018/04/critics-say-proposed-changes-to-mexicos-forestry-law-threaten-sustainable-forest-management-by-local-communities/b	Overview
24	The REDD Desk. N/d. REDD in Mexico. https://theredddesk.org/countries/mexico#land-tenure Accessed July 2019.	Overview
25	Robles, F.F. and Peskett, L. 2011. Carbon rights in REDD+: The case of Mexico. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwjZ7fKcqPvjAhXEuVkKHa9 9AlQQFjABegQIBBAC&url=https%3A%2F%2Ftheredddesk.org%2Fsites%2Fdefault%2Ffiles%2Fresources%2Fpd f%2F2011%2Fmexico_case_study_final.pdf&usg=AovVaw3tAylo33Gacf7vzQZYrNrb	Overview
26	The National Commission of Protected Natural Areas – CONANP. N/d. National System of Protected Areas. https://www.gob.mx/conanp/acciones-y-programas/sistema-nacional-de-areas-protegidas-sinap Accessed July 2019.	Overview, 3.1, 3.3
27	World heritage Sites. 2018. Biosphere Reserves – Learning Sites for Sustainable Development. Website: http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/	3.1, 3.2, 3.3, 3.6
28	RAMSAR. N/d. Mexico. Website: https://www.ramsar.org/wetland/mexico Accessed July 2019	3.1, 3.2, 3.3, 3.4, 3.5

29	Fernandez, A.B. 2011. Biology and Ecology: Mexico-Hotspot. http://biojcosta.blogia.com/2011/111001-mexico-hotspotphp	3.1, 3.2
30	Birdlife International. Nd. World Database of Important Bird & Biodiversity Areas. Website: http://datazone.birdlife.org/country/mexico/ebas Accessed July 2019	3.1, 3.2
31	World Bank Group. 2011. The Mesoamerican Biological Corridor. http://documents.worldbank.org/curated/en/378391468330902777/The-Mesoamerican-Biological-Corridor	3.1
32	Mexican Civil Council for Sustainable Silviculture. 2014. Informative note # 38. http://www.ccmss.org.mx/wp-content/uploads/2014/10/NOTA_38_Crisis_del_sector_forestal_mexicano_nuevos_indicadores_110814.pdf	Overview, 3.1, 3.2, 3.3, 3.4
33	Mongabay. 2010. Mexico Forest information and Data. https://rainforests.mongabay.com/deforestation/2000/Mexico.htm Accessed July 2019.	Overview, 3.1, 3.2, 3.3, 3.4, 3.6
34	Secretariat of Environment and Natural Resources - SEMARNAT. 2014. The Environment in Mexico 2013-2014 Terrestrial Ecosystems (El medio ambiente en México 2013-2014 Ecosistemas Terrestres). https://apps1.semarnat.gob.mx:8443/dgeia/informe_resumen14/02_ecosistemas/2_3.html Accessed July 2019	Overview, 3.1, 3.2, 3.3, 3.4, 3.6
35	CONEVAL. N/d. 10 years of measuring Poverty in Mexico, advances and challenges in social policy (10 años de medición de la Pobreza en México, avances y retos en política social). https://www.coneval.org.mx/Paginas/principal.aspx Accessed July 2019.	3.1, 3.3, 3.4, 3.6
36	National Forestry Commission of Mexico - CONAFOR. 2012. Result Report for 2004-2009 period. National Forest and Soil Inventory. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwi5-MjfwPzjAhUuwlkKHShMArwQFjADegQIBRAC&url=https%3A%2F%2Fwww.conafor.gob.mx%2Fbiblioteca%2Finventario-Nacional-Forestal-y-de-Suelos.pdf&usg=AovVaw2MkT6VbNYfs_cdh4ErfLPR	Overview, 3.1, 3.3, 3.4, 3.6
37	De la Torre, A. 2014. These are the natural reserves of Mexico, how to protect them? (Estas son las reservas naturales de México, ¿Cómo protegerlas?). https://ecoosfera.com/2014/08/estas-son-las-reservas-naturales-de-mexico-como-protegerlas/	3.1, 3.2, 3.6
38	Roldan, N. 2016. SEMARNAT forgets care plans for 74 protected áreas (SEMARNAT olvida planes de cuidado de 74 áreas protegidas). https://www.animalpolitico.com/2016/04/areas-naturales-protegidas-pero-solo-en-papel-74-no-tienen-planes-de-cuidado/ Accessed July 2019.	3.1, 3.3, 3.4, 3.5, 3.6
39	The Federal Attorney for Environmental Protection (Procuraduría Federal de Protección al Ambiente) (PROFEPA). 2012. Anual report 2012.	3.1, 3.2, 3.3, 3.4, 3.5
40	http://www.profepa.gob.mx/innovaportal/file/5322/1/iap_2012_260813.pdf The Federal Attorney for Environmental Protection (Procuraduría Federal de Protección al Ambiente) (PROFEPA). 2015. 2015 activity report. https://www.gob.mx/cms/uploads/attachment/file/125063/Informe_Anual_de_Actividades_PROFEPA_2015.pdf	3.1, 3.2, 3.3, 3.4, 3.5

41	The Federal Attorney for Environmental Protection (Procuraduría Federal de Protección al Ambiente) (PROFEPA). 2017. 2017 activity report.	3.1, 3.2, 3.3, 3.4, 3.5
	https://www.gob.mx/cms/uploads/attachment/file/311596/Informe_de_actividades_profepa_2017.pdf	
42	FAO. 2005. Characterization of Forest Sector (Caracterización del Sector Forestal). http://www.fao.org/3/j2215s/j2215s06.htm	3.1, 3.2, 3.3, 3.4, 3.5
43	Sarmiento, L.G. 2014. Deforestation, ilegal logging and climate change threaten temperate 289ontin: UNAM (Deforestación, tala ilegal y cambio climático, amenazan bosques templados: UNAM). https://www.proceso.com.mx/377813	3.1, 3.2, 3.3, 3.4, 3.5
44	Moreno-Sanchez, R. et al. 2014. Fragmentation of the Forest in Mexico: national level assessments for 1993, 2002 and 2008. <a 295892034"="" href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjCv5HA2vzjAhUP2FkKHTi6CycQFjAAegQIARAC&url=https%3A%2F%2Fwww.inegi.org.mx%2Frde%2Frde_12%2Fdoctos%2Frde_12_art1.pdf&usg=AovVaw0CD_RZIP5I7q2F0Ad-J5JM</td><td>Overview, 3.1, 3.2,</td></tr><tr><td>45</td><td>Clay, E. et al. 2016. National Assessment of the Fragmentation Levels and Fragmentation-Class Transitions of the Forest in Mexico for 2002, 2008 and 2013. https://www.researchgate.net/publication/295892034 National Assessment of the Fragmentation Levels and Fragmentation-Class Transitions of the Forests in Mexico for 2002 2008 and 2013	Overview, 3.1, 3.2
46	Guerra-De la Cruz, V. and Galicia, L. 2017. Tropical and Highland Temperate forest plantations in Mexico: pathways for Climate Change Mitigation and Ecosystem Services Delivery. https://www.mdpi.com/1999-4907/8/12/489/htm#B14-forests-08-00489	3.1, 3.3, 3.4, 3.5
47	National Forestry Commission of Mexico - CONAFOR. 2012. Seminal 289ontin f forest fire results 2012. Data accumulated from January 1 to September6, 2012 (Reporte seminal de resultados de incendios forestales 2012. Datos acumulados del 01 de enero al 06 de septiembre de 2012). <a href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjd8LL96fzjAhWwrVkKHa3wCrcQFjAAegQIARAC&url=http%3A%2F%2Fwww.conafor.gob.mx%3A8080%2Fdocumentos%2Fdocs%2F10%2F3993Estad%25C3%25Adstica%2520semanal%2520de%2520incendios%2520Forestales%2520al%252006%2520de%2520septiembre%2520de%25202012.pdf&usq=AovVaw0ShZ8o8SPcCPF8ZyAnenyW</td><td>3.1, 3.3, 3.4, 3.5</td></tr><tr><td>48</td><td>Goldstein, A. et al. N/d. Evaluation of Land use Policy and Financial Mechanism that affect Deforestation in Mexico. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=16&ved=2ahUKEwjTydPP6vzjAhXotlkKHS3 3BqYQFjAPegQlAxAC&url=http%3A%2F%2Fwww.biopasos.com%2Fbiblioteca%2Fpa00mw52.pdf&usg=AovVaw 2yTkp9f_pRGpAT1Xsm2See Accessed July 2019.	3.1, 3.3, 3.4, 3.5
49	Conservation International. N.d. Norther Region of the Mesoamerica Biodiversity Hotspot. https://www.cepf.net/resources/documents/northern-region-mesoamerica-ecosystem-profile-2004 . Accessed July 2019.	3.1, 3.2, 3.3, 3.4

50	Sánchez-Cordero, V. et al. 2009. Deforestation and biodiversity conservation in Mexico. https://www.researchgate.net/publication/287642623	Overview, 3.2, 3.3
51	Conservation International. N.d. Critical Ecosystem. https://www.cepf.net/our-work/biodiversity-hotspots/madrean-pine-oak-woodlands/threats Accessed July 2019	3.2
52	VIDAL, R. M., et al. 2009. Important Bird Areas Americas – Priority sites for biodiversity conservation. Quito, Ecuador: BirdLife International (BirdLife Conservation Series No.16). <a cpi2018"="" href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjm4dbl_f7jAhVwzlkKHV2FD-UQFjAAegQIABAC&url=https%3A%2F%2Fwww.biodiversidad.gob.mx%2Fespecies%2Fscripts_aves%2Fdocs%2Fmexico.pdf&usg=AovVaw030Hy0b3ltwxb5e_m5k-0t</td><td>3.2</td></tr><tr><td>53</td><td>Transparency International. 2018. Perceptions Index 2018. https://www.transparency.org/cpi2018	3.5
54	National Forestry Commission of Mexico - CONAFOR. 2014. Mexico has 270 thousand hectares of Commercial Plantations (México cuenta con 270 mil ha de Plantaciones Forestales Comerciales). https://www.inforural.com.mx/mexico-cuenta-con-270-mil-hectareas-de-plantaciones-forestales-comerciales/	3.3
55	Mack, R.N., et al. 2000. Biotic invasions: causes, epidemiology, global consequences, and control. <i>Ecological Applications</i> 10:689-710. https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1890/1051-0761%282000%29010%5B0689%3ABICEGC%5D2.0.CO%3B2	3.1, 3.3
56	Grosholz, E.D., et al. 2009. Changes in community structure and ecosystem function following Spartina alterniflora invasion of Pacific estuaries. https://www.researchgate.net/publication/236849491	3.1, 3.3
57	Secretariat of Environment and Natural Resources - SEMARNAT. N.d. Environment Report: Terrestrial Ecosystemas (Informe del Medio Ambiente: Ecosistemas Terrestres). https://apps1.semarnat.gob.mx:8443/dgeia/informe15/tema/cap2.html Accessed July 2019.	3.3
58	Convention on Biological Diversity (CBD). N/d. Mexico – Country Profile. https://www.cbd.int/countries/targets/?country=mx Accessed July 2019.	3.3
59	Secretariat of Environment and Natural Resources - SEMARNAT. 2012. National Water Law and its Regulation. National Water Comission (Ley de Aguas Nacionales y Su Reglamento. Comisión Nacional del Agua). https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwjzu4_RvoHkAhUGpFkKHT-jsAJAQFjABegQIAhAC&url=http%3a%2F%2Fwww.conagua.gob.mx%2FCONAGUA07%2Fpublicaciones%2Fpublicaciones%2Fpublicaciones%2FSGAA-37-12.pdf&usg=AovVaw1xahm37xYBJeeexOC-xZCx	3.4
60	Secretariat of Environment and Natural Resources - SEMARNAT. 2008. Official Mexican Standard NORM-152-SEMARNAT-2006: Guidelines, criteria and specifications of the contents of forest management programs for the use of timber forest resources. http://www.monitoreoforestal.gob.mx/repositoriodigital/items/show/446	3.1, 3.4
61	Arriaga, C. et al. 2008. Inland Waters and biological diversity of Mexico: a current count (Aguas 290ontinentals y diversidad biological de Mexico: un recuento actual).	3.5

	https://web.archive.org/web/20080627103433/http://www.imacmexico.org/ev_es.php?ID=20133_208&ID2=DO_T	
	<u>OPIC</u>	
62	Chapela, G. 2018. Forest social enterprises in Mexico. Mexican Civil Council for sustainable Forestry (Las empresas sociales forestales en México. Consejo Civil Mexicano para la Silvicultura Sostenible), http://www.ccmss.org.mx/wp-content/uploads/2018/10/Empresas_Sociales_Forestales_CCMSS_20102018.pdf	3.4, 3.5
63	CCMSS. 2012. Approach to combat logging and ilegal timber trade in Mexico (Enfoque para combatir la tala y el comercio de madera ilegal en México). http://www.ccmss.org.mx/wp-content/uploads/2014/10/NOTA_INFO_33.Un_nuevo_enfoque_para_combatir_la_tala_y_el_comercio_de_madera_ilegal_en_Mexico.pdf	3.4, 3.5
64	Lopez-Mardonado, Y. 2018. Can the Cenotes be Saved? Biocultural Conservation in Yucatán, Mexico. https://medium.com/langscape-magazine/can-the-cenotes-be-saved-biocultural-conservation-in-yucat%C3%A1n-mexico-586bee1b81fb	3.5
65	Lopez-Mardonado, Y., and Berkes, F. 2017. Restoring the environment, revitalizing the culture: cenote conservation in Yucatan, Mexico. https://doi.org/10.5751/ES-09648-220407	3.5
66	INEGI. 2015. National Institute of Statistics and Geography (INEGI). http://en.www.inegi.org.mx/default.html Accessed July 2019	3.5
67	CONADI. 2015. Population report: Mexico (Reporte poblacional: México). https://www.gob.mx/conadis	3.5
68	FAO. 2010. Forest Resource Assessment 2010: Mexico. United Nations, FAO, Forestry, FRA 2010. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjyg-aQmlPkAhXH1VkKHSIxC40QFjAAegQIARAC&url=http%3A%2F%2Fwww.fao.org%2F3%2Fa-i1757e.pdf&usg=AovVaw0svuca3rCtxsmXHIx4xyBn	3.5
69	Barton., D.B. and Merino-Perez, L. 2002. The Rise of Community Forestry in Mexico: History, Concepts, and Lessons Learned from Twenty-Five Years of Community Timber Production. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiN-qvsmoPkAhXKrVkKHXbhDc4QFjAAegQIABAC&url=http%3A%2F%2Fwww.ccmss.org.mx%2Fwp-content%2Fuploads%2F2014%2F09%2Fthe_rise_of_community_forestry_in_mexico.pdf&usg=AovVaw3xs08t3m_0eJPT5R6iZxL77	3.5
70	National Forestry Commission of Mexico - CONAFOR. 2013. 5 million indigenous people live in forests and jungles of Mexico (5 millones de personas indígenas habitan en bosques y selvas de México). https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwiyx6uA_lpkAhVlp1kKHQy2 BxlQFjABegQlBBAC&url=http%3A%2F%2Fwww.conafor.gob.mx%3A8080%2Fdocumentos%2Fdocs%2F7%2F48 505%2520millones%2520de%2520personas%2520ind%25C3%25Adgenas%2520habitan%2520en%2520bosque s%2520y%2520selvas%2520de%2520M%25C3%25A9xico.pdf&usg=AovVaw2BelRxNVpDFuoRTXANol_I	3.5
71	Vinceti, B. et al. 2013. The contribution of Forest and Trees to sustainable Diets. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=2ahUKEwjC2pTB_	3.5

	T	
	YpkAhUsq1kKHbZ8ANgQFjABegQIAhAC&url=https%3A%2F%2Fwww.bioversityinternational.org%2Fuploads%2	
	Ftx_news%2Fthe_contribution_of_forests_and_trees_to_sustainable_diets_1682.pdf&usg=AovVaw2MS71aqbr6b	
	RVF1Ejof4Ve	
72	PNUD. 2006. National Commission for the Development of Indigenous Peoples. Indigenous regions of Mexico	3.5
	(Comisión Nacional para el Desarrollo de los Pueblos Indígenas. Regiones indígenas de México).	
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=13&ved=2ahUKEwji5_uW_oPkAhXtw1kKHc	
	6wADYQFjAMegQIABAB&url=https%3A%2F%2Fwww.gob.mx%2Fcms%2Fuploads%2Fattachment%2Ffile%2F3	
	5735%2Fcdi-regiones-indigenas-mexico.pdf&usg=AovVaw3XclDsL-dxFOukibTjn55a	
73	Alcocer, J. et al. 1998. Hydrochemistry of waters from five cenotes and evaluation of their suitability for drinking-	3.5
	water supplies, northeastern Yucatan, México.	
	https://www.researchgate.net/publication/226771719_Hydrochemistry_of_waters_from_five_cenotes_and_evaluati	
	on_of_their_suitability_for_drinking-	
	water_supplies_northeastern_Yucatan_Mexico/link/0046351ffe939ce825000000/download	
74	Spring, O. N.d. Water security and national water law in Mexico. https://link.springer.com/article/10.1186/2194-	3.5
	6434-1-7 Accessed July 2019	
76	UNESCO, 2018. Elements on the Lists. https://ich.unesco.org/en/state/mexico-MX?info=elements-on-the-lists	3.6
77	Greenpeace Mexico. 2017. Deforestation and causes. Press release, Mexico.	3.1, 3.2, 3.3
	https://www.greenpeace.org/archive-mexico/es/Campanas/Bosques/La-deforestacion-y-sus-causas/	
78	Secretariat of Environment and Natural Resources - SEMARNAT. 2019. Illegal forest.	3.1, 3.2, 3.3
	http://dgeiawf.semarnat.gob.mx:8080/ibi_apps/WFServlet?IBIF_ex=D4_R_PROFEPA01_03&IBIC_user=dgeia_mc	
	e&IBIC_pass=dgeia_mce	
79	The National Institute of Indigenous Peoples (INPI, Instituto Nacional de los Pueblos Indígenas). N/d. Atlas of the	3.4
	Indigenous Peoples. Accessed July 2019.	
80	United Nations. 2019. Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates	3.1, 3.3
	'Accelerating'. https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/	
81	Fischer, J. And Lindenmayer, D.B. 2007. Landscape modification and habitat fragmentation: a synthesis.	3.1
	https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1466-8238.2007.00287.x	
82	Bocco, G et al. 2001. The dynamics of land-use change in the State of Michoacán. A methodological proposal	3.1
	for the study of deforestation processes. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0188-	
	46112001000100003	
83	Klooster, D. 2004. Forest Transitions in Mexico: Institutions and Forest in a Globalized Countryside.	3.1
	https://onlinelibrary.wiley.com/doi/abs/10.1111/0033-0124.5502010	
84	Bonilla-Moheno, M. et al. 2011. The influence of socioeconomic, environmental, and demographic factors on	3.1
	municipality-scale land-cover change in Mexico. https://www.semanticscholar.org/paper/The-influence-of-	
	1 /	I .

	socioeconomic%2C-environmental%2C-and-Bonilla-Moheno-	
	Aide/9c1c18fb3a373944585737880bd4e6d85e50d997	
85	Bogaert, J. et al. 2011. Forest Fragmentation: Causes, Ecological Impacts and Implications for Landscape	3.1
	Management. https://link.springer.com/book/10.1007/978-3-642-12754-0	
86	Ching Liu, C.L., et al. 2018. Mixed-species versus monocultures in plantation forestry: development, benefits,	3.1
	ecosystem services and perspectives for the future.	
	https://www.sciencedirect.com/science/article/pii/S235198941830088X	
87	Braun, A.Ch. et al. 2017. Assessing the impact of plantation forestry on plan biodiversity: A comparison of sites in	3.1
	Central Chile and Chilean Patagonia. https://www.sciencedirect.com/science/article/pii/S235198941630155X	
88	The Nature Conservancy and World Wildlife Fund. 2004. Ecoregional Conservation Assessment of the	3.1
	Chihuahuan Desert.	
	https://www.google.com/url?sa=t&rct=j&g=&esrc=s&source=web&cd=2&ved=2ahUKEwiXp_eN06TkAhUSrVkKHY	
	5ECylQFjABegQIARAC&url=https%3A%2F%2Fwww.conservationgateway.org%2FconservationPlanning%2Fsetti	
	ngPriorities%2FecoregionalReports%2Fdocuments%2Fchihuahuan%2520Desert%2520Report.pdf&usg=AovVaw	
	1qMt9dje6bmr_XePcDT3jK	
89	Center for Biological Diversity. Sonoran Desert. N/D	3.1
	https://www.biologicaldiversity.org/programs/public_lands/deserts/sonoran_desert/index.html Accessed July 2019	
90	Wordatlas. Ecological Regions of Mexico. Updated August 12, 2019.	3.1, 3.2
	https://www.worldatlas.com/articles/ecological-regions-of-mexico.html	
91	Proforest. 2008. Assessment, management and monitoring of High Conservation Value Forest: A practical guide	3.2
	for forest managers.	
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=15&ved=2ahUKEwjAncyd2qTkAhVwp1kKH	
	VH0CXUQFjAOegQICBAC&url=https%3A%2F%2Fwww.proforest.net%2Fproforest%2Fen%2Ffiles%2Fhcvf-	
	20for-20forest-20managers.pdf&usg=AovVaw0hJHoRcbUSTQGyAMmF_mpb	
92	Haddad, N.M., et al. 2015. Habitat fragmentation and its lasting impact on Earth's ecosystems.	3.2
	https://advances.sciencemag.org/content/1/2/e1500052?&ei=a9EWVfiLLoa4ygOt3YGACQ&ved=0CD0Q9QewEzh	
	Q&usg=AFQjCNFEWyYo7LjT3SjhkNuT3QNwDg2zLg	
93	Wilson, M.C., et al. 2016. Habitat fragmentation and biodiversity conservation: key findings and future challenges.	3.2
	https://link.springer.com/article/10.1007/s10980-015-0312-3	
94	National Advisory committee on Invasive Species. 2010. National strategy on invasive species in Mexico:	3.1, 3.3
	prevention, control and eradication.	
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiP0ajW-	
	qrkAhWGv1kKHZ3wB6EQFjAAegQIAhAC&url=https%3A%2F%2Fwww.biodiversidad.gob.mx%2Fpais%2Fpdf%2	
	Festrategia_Invasoras_Mex.pdf&usg=AovVaw3M8LqmO5NennPtLBYoQPGQ	

95	Saad Alvarado, L. 2016. Study of the feasibility of developing and implementing economic instruments to reduce the risk of intentional introductions of invasive alien species that threaten biodiversity. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwimwtGz-6rkAhUDtlkKHf65BaUQFjAAegQIARAB&url=https%3A%2F%2Fwww.biodiversidad.gob.mx%2Fespecies%2Finvasoras%2Fgef%2Fpdf%2F1.3-2-propuesta-instrumentos-economicos-documento-completo.pdf&usg=AovVaw1fUS3JfZxn2lpTGiTF4mdT	3.1, 3.3
96	National commission for the Knowledge and Use of biodiversity (CONABIO). 2016. Method of Rapid Invasiveness Assessment for exotic species in Mexico: Euclyptus camaldulensis. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiNrcyE_KrkAhXKuVkKHU B2D5MQFjAAegQIABAC&url=http%3A%2F%2Fsivicoff.cnf.gob.mx%2FcontenidoPublico%2FmenuPrincipal%2F0 7Fichas%2520tecnicas_OK%2F02Fichas%2520tecnicas%2Ffichas%2520t%25C3%25A9cnicas%2520CONABIO especies%2520ex%25C3%25B3ticas%2Ffichas%2520plantas%2520invasoras%2FD_E%2Feucalyptus%2520ca maldulensis.pdf&usg=AovVaw2uUsjJ1L8cgFTH8Wb2rJVt	3.1, 3.3
97	Quiroz-Carranza, J. and Orellana, R. 2010. Use and management of firewood in dwelling of six localities from Yucatán, México. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1405-04712010000200004	3.3
98	Federal Committee for Protection from Sanitary Risks (COFEPRIS, acronym in Spanish). 2017. Firewood users in Mexico. https://www.gob.mx/cofepris/acciones-y-programas/3-usuarios-de-lena-en-mexico	3.3
99	The International Bank for Reconstruction and Development and The World Bank. 2012. Mexico's natural Disaster fund – a Review. https://openknowledge.worldbank.org/handle/10986/26881	3.4
100	Secretariat of Environment and Natural Resources - SEMARNAT. 2012. National Waters Law and its Regulation. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjnmOOCp7PkAhUMvlkKHazsBtQQFjAAegQIBBAC&url=http%3A%2F%2Fwww.conagua.gob.mx%2FCONAGUA07%2Fpublicaciones%2FSGAA-37-12.pdf&usg=AovVaw1xahm37xYBJeeexOC-xZCx	3.4
101	Mexican biodiversity. N/d. Webpage: https://www.biodiversidad.gob.mx/ecosistemas/bosqueNublado.html Accessed august 2019.	3.4
102	González-Espinosa, M., et al. 2011. The Red List of Mexican Cloud Forest Trees. https://www.iucn.org/es/content/red-list-mexican-cloud-forest-trees	3.4
103	González-Espinosa, M., et al. 2012. Cloud forests of Mexico: conservation and restoration of their tree component. https://www.revistaecosistemas.net/index.php/ecosistemas/article/view/26	3.4
104	Toledo-Aceves, T., et al 2011. Tropical montane cloud forest: Current threats and opportunities for their conservation and sustainable management in Mexico. https://www.researchgate.net/publication/49670610 Tropical montane cloud forests Current threats and opportunities for their conservation and sustainable management in Mexico	3.4
105	Secretariat of Environment and Natural Resources - SEMARNAT. 2010. Statistics on Water in Mexico, 10 years of presenting water in figures.	3.4

	https://www.google.com/url?sa=t&rct=j&g=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwj9xLH47b	
	PkAhWntlkKHUeBA98QFjAAegQIABAC&url=http%3A%2F%2Fwww.conagua.gob.mx%2FCONAGUA07%2Fpubli	
	caciones%2Fpublicaciones%2FSGP-6-10-EAM2010Ingles.pdf&usg=AovVaw0UanDZjK4JoHxev1cSTjmx	
106	National Water commission. 2017. Statistics on Water in Mexico.	3.4
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=2ahUKEwiqkMqY9	
	7TkAhUJy1kKHT08CCcQFjADegQIBRAC&url=https%3A%2F%2Fwww.gob.mx%2Fcms%2Fuploads%2Fattachm	
	ent%2Ffile%2F259374%2F_2008_EAMIngles2008.pdf&usg=AovVaw2xmrqzpQ8YdvwpYjpk3iWP	
107	United Nations Development Programme. 2014. Mexico: Country Case Study. How Law and Regulation Support	3.4
	Disaster Risk Reduction. http://www.drr-law.org/resources/Informe_Estudio_de_Caso_RRD_Mexico-DGGR-21-	
	<u>abr-2015pdf</u>	
108	Forbes, K., and Broadhead, J. 2011. Forest and landslides. The role of trees and forest in the prevention of	3.4, 3.5
	landslides and rehabilitation of landslide-affected areas in Asia. https://reliefweb.int/report/world/forest-and-	
	landslides-role-trees-and-forests-prevention-landslides-and-rehabilitation	
109	Wear, D.N., and Greis, J.G., 2002 Southern forest resource assessment.	3.4, 3.5
	https://www.fs.usda.gov/treesearch/pubs/4833	
110	Inter-American Institute for Cooperation on Agriculture - IICA. 2012. Atlas of Environmental Services and Social	3.5
	Property in Mexico http://repositorio.iica.int/bitstream/11324/2789/1/BVE3254500000e.pdf.	
111	Torrez-Mazuera, G., et al., N/D. Report on the agrarian jurisdiction and human rights of indigenous and peasant	3.5
	peoples in Mexico. http://www.dplf.org/es/resources/informe-sobre-la-jurisdiccion-agraria-y-los-derechos-	
	humanos-de-los-pueblos-indigenas-y Accessed July 2019.	
112	Munro, P.G., and Zurita, M.M., 2011. The Role of Cenotes in the social History of Mexico's Yucatan Peninsula.	3.5
	https://www.researchgate.net/publication/233711857_The_Role_of_Cenotes_in_the_Social_History_of_Mexico's_	
440	Yucatan_Peninsula	0.5
113	Muños, C., et al. N/D. Paying for the Hydrological Services of Mexico's Forest.	3.5
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=2ahUKEwiDmPqTt7vkAhVNtlkKHd-	
	LAPIQFjAJegQIABAC&url=https%3A%2F%2Fwww.cifor.org%2Fpes%2Fpublications%2Fpdf_files%2Fmexico_pa	
114	per.pdf&usg=AovVaw0nVjW5UH_9w3ArTC61X4TX Accessed July 2019.	Overview.
114	National Institute of Statistics and Geography – INEGI. 2014. Forty years of vegetation mapping in Mexico. Land Use and Vegetation Information.	Overview.
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=2ahUKEwiijLTXlpDIAhWC1FkKHRP	
	WBsgQFjAHegQlBxAC&url=https%3A%2F%2Fwww.snieg.mx%2FDocumentacionPortal%2Fgeografico%2Fsesio	
	nes%2Fdoc_22017%2FPresent_Serie_VI_Carta_U_Sue.pdf&usg=AOvVaw1li_AMsE1y5QCN9FXFmbjD	
	Accessed October 2019.	
115	Government of the republic. 2014. National Forestry Program 2013 – 2018.	Overview
	https://www.google.com/url?sa=t&rct=j&g=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjtwKvR9p	
L		

	HIAhVEwVkKHRoLDsAQFjAAegQIAhAC&url=http%3A%2F%2Fwww.conafor.gob.mx%3A8080%2Fdocumentos%	
	2Fdocs%2F4%2F5382Programa%2520Nacional%2520Forestal%25202014-	
	2018.pdf&usg=AOvVaw2Mx6A3xGShj6tZw81-Tik1	
116	Gestiopolis. N/d. Forestry sector in Mexico. https://www.gestiopolis.com/sector-forestal-en-mexico/ Accessed	Overview
	October 2019	
117	CONANP. N/D. Wetlands of Mexico.	3.1
	http://www.conanp.gob.mx/conanp/dominios/ramsar/la_conanp_y_los_humedales.php Accessed October 2019	
118	Mittermeier, R.A. et al. 2002. Wilderness: Earth's Last Wild Places. From Conservation International.	3.1
	https://www.press.uchicago.edu/Misc/Chicago/9686397698.html	
119	Geo-Mexico, the geography and dynamics of modern Mexico. 2014. How similar are Mexico's two major deserts,	3.1
	the Sonora Desert and the Chihuahuan Desert? https://geo-mexico.com/?p=11201	
120	Godoy, H. 2003. Mesoamerican Biological Corridor: Regional Initiative for the Promotion of Forest Conservation.	3.1
	http://www.fao.org/3/XII/MS15-E.htm#P5_132	
121	Butler, R.A. 2013. Hunting, logging could threaten long-term health of Congo forests by wiping out key animals.	3.1, 3.3
	In Mongabay: News & inspiration from nature's frontline. https://es.mongabay.com/2013/10/la-caza-y-la-	
	explotacion-forestal-podrian-amenazar-la-salud-de-los-bosques-del-congo-a-largo-plazo-debido-al-exterminio-de-	
	animales-clave/	
122	Antalia, G.A. 2007. Spatio-temporal distribution of forest extractive activities in Caoba ejido, Quintana Roo.	3.1, 3.3
	http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0188-46112007000100005	
123	Townsend, W.R. et al 2002. The risk of Hunting during forest operations: Impact on Wildlife in a forest concession	3.1, 3.3
	in Santa Cruz. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=12&ved=2ahUKEwi-	
	9obZkZXIAhULd98KHZL9Ce0QFjALegQIBRAB&url=https%3A%2F%2Fwww.researchgate.net%2Fprofile%2FDa	
	mian_Rumiz%2Fpublication%2F228955043_El_riesgo_de_la_caceria_durante_las_operaciones_forestales_Impa	
I	cto sobre la fauna silvestre en una concesion forestal en Santa Cruz%2Flinks%2F00b4953890a5c52f4c00	
	0000%2FEI-riesgo-de-la-caceria-durante-las-operaciones-forestales-Impacto-sobre-la-fauna-silvestre-en-una-	
124	concesion-forestal-en-Santa-Cruz.pdf%3Forigin%3Dpublication_list&usg=AOvVaw3i271nfdne7qljPjCmLmBd	3.1, 3.3
124	Secretariat of Environment and Natural Resources - SEMARNAT. 2013. Illegal wildlife trafficking.	3.1, 3.3
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiegOLsl5	
	XIAhXxUt8KHbVDBZkQFjAAegQIABAC&url=http%3A%2F%2Fbiblioteca.semarnat.gob.mx%2Fjanium%2FDocumentos%2FCiga%2FLibros2013%2FCD001601.pdf&usg=AOvVaw0GrAOZJoDMGNY4e4cypvN9	
125		3.1
123	Rogan, J.E. 2018. Impacts of Habitat Loss and Fragmentation on Terrestrial Biodiversity. https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/forest-fragmentation	3.1
126	Sierra forest Legacy. N/d. Logging impacts.	3.1
120	https://www.sierraforestlegacy.org/FC_FireForestEcology/FFE_LoggingImpacts.php_Accessed_October 2019.	3.1
	<u>intps://www.sierraturestiegacy.org/i C_i iret orestEcology/FFE_Logginginpacts.prip_Accessed_October_2019</u> .	

127	FAO. N/d. Livestock's impact on biodiversity. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiTz-nskKTIAhXRo1kKHfPeD9gQFjAAegQIARAC&url=http%3A%2F%2Fwww.fao.org%2F3%2Fa0701e%2Fa0701e05 .	3.2
	pdf&usg=AOvVaw1ocTXsmml9fMnT-a6v5bjP Accessed October 2019	
128	Secretariat of Environment and Natural Resources - SEMARNAT. 2013 – 2014. The environment in Mexico. https://apps1.semarnat.gob.mx:8443/dgeia/informe_resumen14/02_ecosistemas/2_3.html	3.2
129	De la Luz-Ramírez. 2019. Fire ecology: Can a fire like the one in the Amazon be good for the environment? https://www.tangible-eluniversal.com.mx/ecologia-del-fuego-puede-un-incendio-como-el-de-la-amazonia-serbueno-para-el-ambiente	3.2
130	Echeverría-García. 2016. Are Mexico's new nature reserves a real conservation effort or empty political gesture?. http://theconversation.com/are-mexicos-new-nature-reserves-a-real-conservation-effort-or-empty-political-gesture-70034	3.3
131	García-Frapolli, E. et al. 2009. The complex reality of biodiversity conservation through Natural Protected Area policy: Three cases from the Yucatan Peninsula, Mexico. https://www.researchgate.net/publication/222525699 The complex reality of biodiversity conservation through Natural Protected Area policy Three cases from the Yucatan Peninsula Mexico	3.3
132	Climate ADAPT. 2015. Water sensitive Forest management. https://climate-adapt.eea.europa.eu/metadata/adaptation-options/water-sensitive-forest-management	3.4
133	Ekhuemelo, D.O. et al. 2016. Importance of Forest and Trees in sustaining water supply and Rainfall. https://www.researchgate.net/publication/310458060_IMPORTANCE_OF_FOREST_AND_TREES_IN_SUSTAINING NG WATER SUPPLY AND RAINFALL	3.4
134	WWF and World Bank. 2003. Running Pure: The importance of Forest protected areas to drinking water. http://wwf.panda.org/?8443/Running-Pure-The-importance-of-forest-protected-areas-to-drinking-water	3.4
135	Butler, R.A. 2019. Consequences of Deforestation. https://rainforests.mongabay.com/09-consequences-of-deforestation.html	3.4
136	The Organisation for Economic Co-operation and Development – OECD. 2017. Mexico Report. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjds9r436zlAhUkxVkKHdJoBhAQFjAAegQIABAC&url=https%3A%2F%2Fwww.oecd.org%2Fenv%2Fcountry-reviews%2F2450457.pdf&usq=AOvVaw3iTmd6ARuhyribQtqij8vb	3.4, 3.5
137	Petruzzello, M. 2019. Water scarcity. https://www.britannica.com/topic/water-scarcity	3.5
138	Stratfor. 2015. Industrial Expansion Will Strain Mexico's Water Resources. https://worldview.stratfor.com/article/industrial-expansion-will-strain-mexicos-water-resources	3.5
139	Van Lavieren, H. and Benedetti, L. 2011. Pollutants in aquifers threaten Mexico's Yucatan Peninsula. https://unu.edu/publications/articles/pollutants-in-aquifers-threaten-mexicos-yucatan-peninsula.html	3.5

140	Hogenboom, M. 2018. How a city that floods is running out of water.	3.5
	https://www.bbc.com/future/gallery/20180510-how-a-city-that-floods-is-running-out-of-water	
141	The Climate Reality Proyect. 2018. How is climate change affecting Mexico?.	3.5
	https://www.climaterealityproject.org/blog/how-climate-change-affecting-mexico	
142	Environmental web portal. 2019. Cenotes in Mexico have high levels of pollution.	3.5
	https://www.portalambiental.com.mx/impacto-ambiental/20190525/cenotes-en-mexico-presentan-altos-niveles-de-	
	<u>contaminacion</u>	
143	Excelsior. 2018. They warn of contamination of Cennotes in Yucatan by pig farm.	3.5
	https://www.excelsior.com.mx/nacional/advierten-contaminacion-de-cenotes-en-yucatan-por-granja-	
	porcina/1269909	
144	El Universal. 2012. Pollution of Cenotes by pesticides in Yucatan has caused health problems.	3.5
	http://www.teorema.com.mx/contaminacion_/contaminacion-de-cenotes-por-pesticidas-en-yucatan-ha-	
	ocasionado-problemas-de-salud/	
145	Castillo, F. 2019. Cenotes in Mexico, contaminated and without public policies for their care.	3.5
	https://www.efeverde.com/noticias/cenotes-mexico-contaminados/	
146	Yucatán newspaper. 2018. 70% of Cenotes are contaminated. https://www.yucatan.com.mx/merida/el-70-de-	3.5
	<u>cenotes-contaminado</u>	
147	The Mexican Commission for the Knowledge and Use of Biodiversity. N/d. Conservation program species at risk:	3.1
	list of priority species for conservation in Mexico. https://www.biodiversidad.gob.mx/especies/espPrioritaria.html	
	Accessed July 2019	
148	The National Commission of Protected Natural Areas – CONANP. 2016. The National System of Protected	3.1
	Areas. https://www.gob.mx/conanp/acciones-y-programas/sistema-nacional-de-areas-protegidas-sinap	
149	UNESCO and World Heritage Convention. N/d. World Heritage Forest Programme.	3.1
	http://whc.unesco.org/en/forests/ Accessed November 2019	
150	WWF. N/d. Chihuahuan Desert. https://www.worldwildlife.org/places/chihuahuan-desert Accessed november	3.1
	2019	
151	Areavibes. N/d. A complete Guide To The Sonoran Desert. https://www.areavibes.com/library/guide-to-sonoran-	3.1
	desert/ Accessed November 2019	
152	Gade, M and McCarthy, S. 2016. Mexico's Monarch Butterfly Reserve: 40% Decline in illegal Logging; Threats	3.3
	from Climate Rage on. https://www.worldwildlife.org/press-releases/mexico-s-monarch-butterfly-reserve-40-	
	decline-in-illegal-logging-threats-from-climate-rage-on	
153	Pskowski. 2018. Deforestation and mining threaten a monarch butterfly reserve in Mexico.	3.3
	https://news.mongabay.com/2018/12/deforestation-and-mining-threaten-a-monarch-butterfly-reserve-in-mexico/	
154	Soberane, R. 2018. Illegal cattle ranching deforest Mexico's massive Lacandon Jungle.	3.3
	https://news.mongabay.com/2018/03/illegal-cattle-ranching-deforests-mexicos-massive-lacandon-jungle/	

155	Radwin, M. 2019. Mexican offials battle a tide of fire eating away at a protected reserve.	3.3
155		3.3
450	https://news.mongabay.com/2019/09/mexican-officials-battle-a-tide-of-fire-eating-away-at-a-protected-reserve/	0.4
156	Convention on Biological Diversity. 2015. Wetlands and Ecosystem Services.	3.4
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=20&cad=rja&uact=8&ved=2ahUKEwiyyujmo	
	5fmAhWlzlkKHeadAWkQFjATegQlBxAC&url=https%3A%2F%2Fwww.cbd.int%2Fwaters%2Fdoc%2Fwwd2015%2	
	Fwwd-2015-press-briefs-en.pdf&usg=AOvVaw0-HBphd7gkTQwSmSs8Iw	
157	Convention on Biological Diversity – CBD. N.d. Mexico – Main Details: Biodiversity facts.	3.3
	https://www.cbd.int/countries/profile/?country=mx#facts Accessed 11 December 2019	
158	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2012. Potential regions of	3.4
	landslide of the slopes in Mexico. http://www.conabio.gob.mx/informacion/gis/layouts/rpotdladgw	
159	Diaz, et al. 2019. Landslides in Mexico: their occurrence and social impact since 1935.	3.4
	https://link.springer.com/article/10.1007/s10346-019-01285-6	
160	Sepulveda, S.A. and Petley, D.N. 2015. Regional trends and controlling factors of fatal landslides in Latin	3.4
	America and the Caribbean. https://www.nat-hazards-earth-syst-sci.net/15/1821/2015/nhess-15-1821-2015.html	
161	Lyons, K. and Gartner, T. 2017. 3 Surprising Ways Water Depends on Healthy Forests.	3.4
	https://www.wri.org/blog/2017/03/3-surprising-ways-water-depends-healthy-forests	
162	Colfer, C.J. et al. N/d. Forest and human health in the troppics: some important connections.	3.4
	http://www.fao.org/3/a0789e02.htm Accessed November 2019.	
163	Silva Rodriguez, J.A. 2016. Rural Water Supply in Mexico.	3.5
	http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0122-14502016000200123#B65	
164	National Management Measures to Control Nonpoint Source Pollution from Forestry. N/d. Chapter 2: Water	3.5
	Quiality and Forestry Activities.	
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=2ahUKEwjekbLPn5jmAhWqrFkKH	
	WHtDS4QFjAJegQIAhAC&url=https%3A%2F%2Fwww.epa.gov%2Fsites%2Fproduction%2Ffiles%2F2015-	
	10%2Fdocuments%2Fch2.pdf&usg=AOvVaw3iubrFTI_PsYQblyQVjLhh Accessed November 2019.	
165	The National Commission of Protected Natural Areas – CONANP. 2019. National Protected Areas of Mexico:	3.1
	Federal National Protected Areas and Voluntary destinated areas to Conservation.	
	http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_actualizado_anps_PREVIO.htm	
166	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2018. Municipal political	3.1
	division of the biological corridors in Southeast Mexico.	
	http://www.conabio.gob.mx/informacion/gis/layouts/mun_gw.png	
167	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2015. State, Municipal,	3.1
	Community and Private Protected Natural Areas of Mexico 2015.	
	http://www.conabio.gob.mx/informacion/gis/layouts/anpest15gw	
L		1

168	Critical Ecosystem Partnership Fund. N/d. Explore the Biodiversity Hotspot: Mesoamerica. https://www.cepf.net/node/1996 Accessed 11 December 2019.	3.1, 3.2
169	The National Commission of Protected Natural Areas – CONANP. 2019. https://advc.conanp.gob.mx/infografia-que-son/	3.1
170	IFL Mapping Team. On-line IFL Map. 2017. http://www.intactforests.org/world.webmap.html	3.2
171	World heritage Convention. N/d. World Heritage List. Website: https://whc.unesco.org/en/statesparties/mx Accessed November 2019.	3.2, 3.6
172	The National Commission of Protected Natural Areas – CONANP. 2017. The National System of Protected Areas of Mexico: International Designation http://sig.conanp.gob.mx/website/pagsig/anp/nal/mapasprevios/mapa_anps_designaciones_PREVIO.htm	3.1, 3.3, 3.4, 3.5
173	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2007. Hydrological Administrative Regions of Mexico 2007. http://www.conabio.gob.mx/informacion/gis/layouts/rha250kgw	3.5
174	The Mexican Commission for the Knowledge and Use of Biodiversity - CONABIO. 2008. Main regions and subregions with Cloud Forest in Mexico. http://www.conabio.gob.mx/informacion/gis/layouts/sregbmmgw	3.4
175	Domínguez, M.L., et al. 2016. Analysis of Rain Thresholds that detonate slides and their posible applications in an early warning systems for instability of slopes. <a href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwik2tXRt6vmAhWSxFkKHdgHClEQFjAAegQlBBAC&url=http%3A%2F%2Fwww1.cenapred.unam.mx%2FCOORDINACION_ADMINISTRATIVA%2FSRM%2FFRACCION_XLI_A%2F23.pdf&usg=AOvVaw3nlxz_Rp3JZfPSN5CbJZOI</td><td>3.4</td></tr><tr><td>176</td><td>SEMARNAT – CONAGUA. 2017. Statisticcs on Water in Mexico 2017 Edition. National Water Commission. <a href=" https:="" url?sa="t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjhqbXinqvmAhUowFkKHYyaCYUQFjAAegQIARAC&url=http%3A%2F%2Fsina.conagua.gob.mx%2Fpublicaciones%2FEAM_2017.pdf&usg=AOvVaw3MYTZVSGIDSxtKeu_hCQ82</a" www.google.com="">	3.4
177	WWF. 2012. The Water Footprint of Mexico in the Context of North America. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiugPeVuKvmAhXwt1kKHf CnB2YQFjAAegQIARAC&url=https%3A%2F%2Fwaterfootprint.org%2Fmedia%2Fdownloads%2FWater_Footprint of_Mexico.pdf&usg=AOvVaw35o_ejLSC8mjFxgHmJbwkB	3.4
178	FAO. 2018. The State of The World's Forests. Forest Pathways to sustainable development. http://www.fao.org/state-of-forests/en/	3.4
179	Spring, U.O. 2014. Water security and national water law in Mexico. https://link.springer.com/article/10.1186/2194-6434-1-7#citeas	3.4
180	Kennicutt, M.C. 2017. Water Quality of the Gulf of Mexico. https://link.springer.com/chapter/10.1007/978-1-4939-3447-8_2#Sec31	3.4

181	Vance, E. and Bracco, D. 2016. The Incredible Cloud Forests of Mexico.	3.4
	https://www.atlasobscura.com/articles/the-incredible-cloud-forests-of-mexico	
182	Secretariat of Environment and Natural Resources - SEMARNAT. 2008. Environmental situation report in Mexico.	3.5
	compendium of environmental statistics.	
	https://apps1.semarnat.gob.mx:8443/dgeia/informe_2008/00_intros/pdf.html	
183	IUCN. 2017. World Heritage Outlook: Explore sites. https://worldheritageoutlook.iucn.org/explore-	3.6
	sites?keys=mexico	
184	ParksWatch. 2002. Mexico: Tehuacán-Cuicatlán Biosphere Reserve.	3.6
	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiFzbjPv6zmAhWRjVkKHa	
	d2C0YQFjAAegQIARAC&url=http%3A%2F%2Fwww.parkswatch.org%2Fparkprofiles%2Fpdf%2Ftcbr_eng.pdf&us	
	g=AOvVaw1qes5ZkMSyUe-eve9UnuZC	
185	The Mexican Commission for the Knowledge and Use of Biodiversity – CONABIO. N/d. The Milpa.	3.1
	https://www.biodiversidad.gob.mx/usos/alimentacion/milpa.html Accessed 28 November 2019	
186	Convention on Biological Diversity – CBD. N.d. Latest NBSAPs: Mexico.	3.3
	https://www.cbd.int/nbsap/about/latest/#mx Accessed 11 December 2019	

Controlled wood category 4: Wood from forests being converted to plantations or non-forest use

Risk assessment

Indicator	Source of information	Functional scale	Risk designation and determination
4.1	Legislation	Country	Assessment based on legality
Conversi on of natural	Legislation relevant to the conversion of natural forests to plantations or non-forest use.		Content of law [subsections with translations from Spanish]
forests to plantatio ns or non-forest use in the area	 General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) 2003. Available at: http://www.ordenjuridico.gob.mx/leyes.php Regulation pertaining to the General Law for Sustainable Forest Development. Articles 120 – 127 (Reglamento de la Ley General de Desarrollo Forestal Sustentable) 2005. Available at: http://www.ordenjuridico.gob.mx/leyes.php 		General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable) Article 85. The replacement of current native primary vegetation by commercial forest plantations is prohibited on forest land, except: I. When specific studies prove that it does not pose a risk to biodiversity; or
under assessm ent is	Sources:		II. When specific studies demonstrate that the native vegetation has little commercial or biodiversity value, and it is considered convenient to promote plantations of species from other sites that adapt to the zone and are even
less than 0.02% or 5000 hectares average net annual loss for the past 5 years (whichev er is less), OR Conversi on is illegal at the	 Chapela, Gonzalo (editor) (2018) Social forestry companies in Mexico. Claroscuros and learnings (Las empresas sociales forestales en México. Claroscuros y aprendizajes). [online]. Available at: http://www.ccmss.org.mx/wp-content/uploads/2018/10/Empresas_Sociales_Forestales_CCMSS_20102018.pdf transparency.org (2018) Transparency International's Corruption Perception Index 2018. [online]. Available at: https://www.transparency.org/country/MEX FAO (2015) Forest Global Ressource Assessment [online]. Available at: http://www.fao.org/3/a-i4793e.pdf Global Forest Global Resource Assessment: National Report Mexico [online]. http://www.fao.org/3/a-az275s.pdf Global Forest Watch (2016). Mexico profile. [online]. Available at: https://www.globalforestwatch.org/dashboards/country/MEX PROFEPA (2010) PROFEPA Impounds Timber through State-Level Operations (Asegura Profepa madera en operativos estatales). [online]. Available at: 		beneficial to the fauna and the environmental resources and services. The Ministry (SEMARNAT) shall issue the official Mexican norm that stipulates the exotic forest vegetation species that pose a risk to biodiversity. Article 86. Commercial plantation policies for temporary forest land and potential forest land shall fundamentally promote the use of native species that are technologically and economically viable. The authority shall at all times have the authority to supervise the management of the plantation, with particular attention to possible adverse environmental impacts. Article 117. SEMARNAT may authorise an exception for a change in land use for forest land only after having received the technical opinion of members of the corresponding State Forestry Council (Consejo Estatal Forestal) and based on substantiated technical studies that demonstrate that biodiversity will not be compromised and that it will not result in soil erosion, deterioration of water quality or a decrease in water catchment, and that the alternative land uses proposed will be more productive over the long-term. These studies shall be taken into account as a set and not individually.

national or regional level on public and private land.

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- PROFEPA (2012) Report 2012 (Informe de Profepa)
 [online]. Available at:
 http://www.profepa.gob.mx/innovaportal/file/5322/1/iap_2012
 260813.pdf
- PROFEPA (2015) Annual Report (Informe Annual). [online]. Available at: https://www.gob.mx/cms/uploads/attachment/file/125063/Inf orme Anual de Actividades PROFEPA 2015.pdf
- PROFEPA (2017) Annual Report (Informe Annual). [online]. Available at: https://www.gob.mx/cms/uploads/attachment/file/311596/Informe de actividades profepa 2017.pdf
- profepa.gob.mx (2010) Topics addressed by PROFEPA (Temas que atiende PROFEPA) [online]. Available at: http://www.profepa.gob.mx/innovaportal/v/52/1/mx.wap/principales_temas_que_atiende.html
- profepa.gob.mx (2015) Vigila profepa compliance with the law in the import and export of wood in port progress, Yucatan (Vigila profepa el cumplimiento de la ley en la importacion y exportacion de madera en puerto progreso, Yucatan). News Report [online]. Available at:
 http://www.profepa.gob.mx/innovaportal/v/7805/1/mx/vigila_profepa_el_cumplimiento_de_la_ley_en_la_importacion_yexportacion_de_madera_en_puerto_progreso_yucatan.htm
- SEMARNAT (2014) El medio ambiente en Mexico 2013-2014- Ecosistemas terrestres [online].- Available at: https://apps1.semarnat.gob.mx:445/dgeia/informe_resumen14/02 ecosistemas/2 3.html
- Hernández, T. (2017) Deforestation is reduced in Mexico (Deforestación se reduce en México). [online]. News article. Available at: https://www.eluniversal.com.mx/nacion/sociedad/deforestacion-se-reduce-en-mexico
- Rendón, V. (2017) In a single year, Mexico lost 274 thousand hectares of forests (En un solo año, México perdió 274 mil hectáreas de bosques). [online]. News

For authorisations of land use changes for forest lands, the authority shall provide a properly founded and motivated response to the proposals and observations presented by the members of the State Forestry Council (Consejo Estatal Forestal).

Authorisation of land use changes shall not be granted for burned land until 20 years have passed, unless it has been irrefutably proven to the Ministry that the ecosystem has completely regenerated, through mechanisms in the corresponding regulation that were established for this purpose.

The authorisations of land use changes issued shall include a programme for the rescue and relocation of the forest vegetation species affected and their adaptation to the new habit. These authorisations shall address, when applicable, stipulations contained in the corresponding ecological land management plans, official Mexican norms and other applicable laws and regulations.

SEMARNAT shall coordinate with various public entities to conduct joint actions to harmoniously and efficiently carry out construction programmes involving the electric, hydraulic and communications sectors, in compliance with the corresponding regulations.

Regulation pertaining to the General Law for Sustainable Forest Development (Ley General de Desarrollo Forestal Sustentable)

Establishes the requirements for requesting land use changes. This includes submitting an application using the form issued by SEMARNAT. Along with this request, a Well-Founded Technical Study (Estudio Técnico Justificativo) shall be submitted, as well as other required evidence to prove ownership of the property.

For *ejidos* and communities, the minutes from the assembly meeting documenting the agreement to a land use change shall be submitted in addition to the previous mentioned requirements (application using the form issued by SEMARNAT, a Well-Founded Technical Study and evidence to prove pownership of the property).

PROFEPA issues penalties to reforest areas that have been converted or indicate the species to reforest where it has been detected that there is a non-

article. Available at:

https://news.culturacolectiva.com/mexico/deforestacion-de-bosques-en-mexico/

- Invitado Forbes (2018) Mexico and the worrisome retreat of the forest (México y el preocupante retroceso del bosque).
 [online]. Available at: https://www.forbes.com.mx/mexico-y-el-preocupante-retroceso-del-bosque/
- SEMARNAT (2015) Report on the State of the Environment in Mexico (Informe de la Situatión del Medio Ambiente en México). [online]. Available at:
- https://apps1.semarnat.gob.mx:445/dgeia/informe15/tema/p df/Informe15 completo.pdf
- Quadri G. (2016) Sagarpa, subsidies vs sustainability (Sagarpa, subsidies vs sustentabilidad). [online]. News article Available at: https://www.eleconomista.com.mx/opinion/Sagarpa-subsidios-vs-sustentabilidad-20160527-0002.html

Interviews with experts: Conversations with various experts from civil associations, academy and private and public sector (here in anonymity) during March and April 2016 helped the authors of this report to better understand the applicable legislation and the risks associated with legal rights of land ownership and the use of resources.

Also, consultation in 2016 with FSC auditors in the country was conducted.

compliance. When harvesting is detected by the PROFEPA without the valid authorization granted by SEMARNAT, the penalties can be: prison, economic penalty and restauration (re-plant) the areas harvested. (PROFEPA, 2010, 2012, 2015, 2017; profepa.gob.mx 2010, 2015).

In some cases (listed below), the authorization of the forest management plans, include the number of hectares that need to be reforested / year (depending on the type of management type).

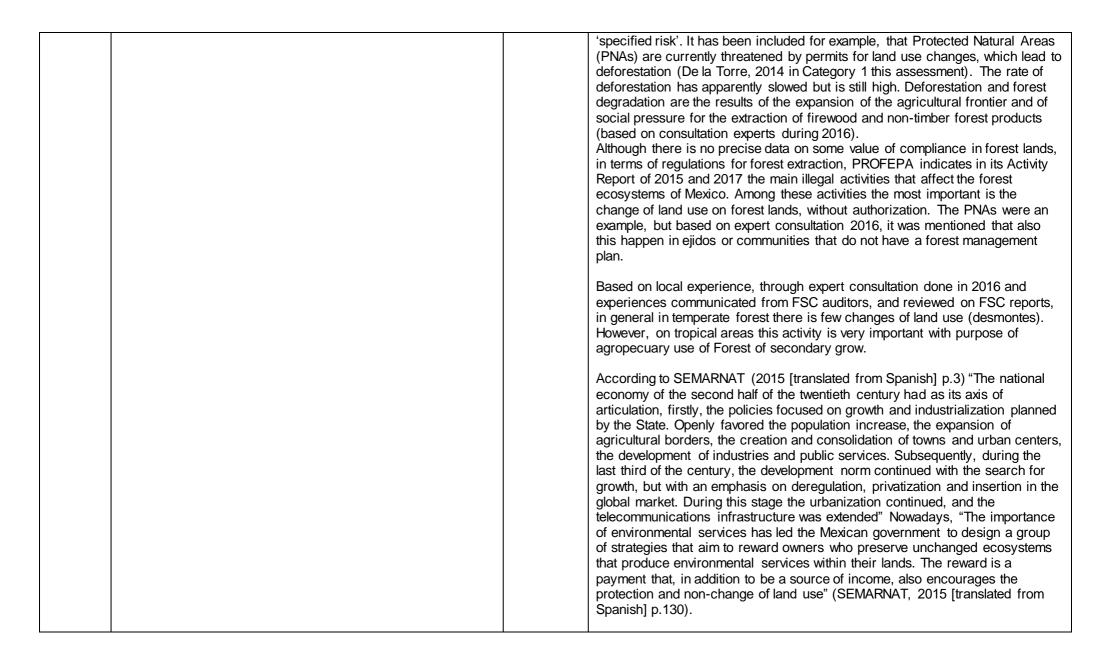
Cases: harvesting in tropical Rainforest, where the "bacadillas" (log yard) are created with a surface of 1/10 hectares. In this area, it's mentionned to re-plant with native species with a density of 3x3.

Is the law enforced?

Data from PROFEPA (2017), showing an increase on the number of inspections done by PROFEPA during 2016, 5195 inspections, 977 surveillance tours, 456 operations in forestry (Hernández, 2017). Regardless the previous evidence on PROFEPA surveillance and law enforcement, a study in Chihuahua, Michoacan, Mexico State, Guerrero, Oaxaca, Campeche and Quitana Roo, it was concluded that "PROFEPA suffers a substantial deficiency in its capacity, evident in the regions... The limited surveillance actions of PROFEPA [see figures above] ...are directed almost exclusively to permit holders, as well as to small transporters and farmers who move small amounts of forest products, bias due to the declared inability of the unit to take care of the territories." (Chapela, 2018, p. 28)

The study of Chapela (2018, p. 26) found also that "Unequivocally, but consistently, in the regions it is perceived that SEMARNAT has failed in its regulatory role by generating a series of heavy, onerous, slow, uncertain, discretionary rules and operated with corruption, as in Michoacán, where bribes are demanded for issue the authorizations for use (Navia-Lorenzana et al., 2018 in Chapela, 2018)." And it is identified aspects from SEMARNAT's inoperability that are to be improved, such as "the deficient quantity and capacity of the personnel in charge of processing forest procedures; the complexity of the procedures, especially when it is required to present environmental impact manifestations and establish wildlife management units; the lack of automated procedures and the centralization of attention to authorizations, which create unmanageable volumes of files; ignorance of the various regional conditions of the nuclei with applications in process; corruption, which distorts the functioning of the governmental apparatus. These

difficulties have been reiterated for more than ten years, but their full resolution is still pending (CCMSS, 2016)." (Chapela, 2018 p. 27) Based on expert consultation in 2016 and notes from newspaper (Rendón, 2017) on the enforcement of this law (General Law for Sustainable Forest Development and regulation) in Quintana Roo, non-compliance of the law is increased due to the lack of substantiated complaints according to Mexican law (the complaints in pratice often lack of these details: who or who did it, photos, witness statements, complaints, appearances, etc.). On the last, article 82; the restrictions that will be imposed to prevent risk to biodiversity are not clear. The meaning of "native vegetation with little commercial value or biodiversity value" is also unclear. In addition, it refers to what is "considered convenient to promote plantations of species from other sites". This favours the establishment of introduced species, raising a question as to whether it actually would benefit the fauna and environmental resources and services. Further, the Law says that "Authorisation for land use change shall not be granted for burned land until 20 years have passed." This also has exceptions, such as when it can be "irrefutably proven to the Ministry that the ecosystem has completely regenerated, through mechanisms in the corresponding regulation that were established for this purpose." This suggests that fallow areas with mature secondary growth or secondary forests could be replaced by other uses, such as plantations. "Agriculture, livestock and fisheries stand out in Mexico because of their profound environmental impacts and because they develop outside of any discernible logic of sustainability. They are economic activities that make extensive use of the territory, with an enormous power of transformation... they remain outside the real scope of environmental policy. Due to its own dynamics and nature, agriculture and livestock are a determining influence on the meticulous deforestation of the national terrestrial territory ... The only instrument of environmental policy that manages to occasionally contain agriculture, livestock and fisheries are natural protected areas ..." (Quadri, 2016 [translated from Spanish]). It can be concluded that the applicable legislation includes laws that prevent conversion, but the evaluation of risk for the indicators in Category 1 confirms



	natural (SEMA the sta	this progress, INEGI reports that the transformation of lands with I vegetation to agricultural uses has slowed down, but persists ARNAT, 2015). Regarding the practice of livestock, this is practiced in all ates of the country, but in the last word decades the amount of livestock
	urban	een reduced (SEMARNAT, 2015). "Although at the national level the area is proportionally small, it is the land use that has grown fastest in regions of the country" (SEMARNAT, 2015 [translated from Spanish]
	"The e subsist public unproceed excharation other excharation of the e	expansion of these activities [agriculture and livestock] in both tence and commercial modes is driven by subsidies, the hard core of agricultural and fisheries policy. They are only constrained by their own ductiveness, by depletion of soils and resources, by new patterns of age, and by emigration of the rural population to urban areas and to economic sectors" (Quadri, 2016 website [translated from Spanish]). if (2016) also mentiones Sagarpa subsidy programs like PROAGRO cive (for agricultural production) and Progan (or Livestock Production am) have similar logic in the sense that they deliver to the producer, and to of money per unit of production (hectare or bovine belly), These ions in PROAGRO oblige the producer to plant on the eligible surface; in the case of subsistence agriculture is equivalent to the obligation to not the or prevent the natural regeneration or ecological succession of the stems, and to link the peasants to the unproductive exploitation of the san implacable vector of deforestation and poverty" (Quadri, 2016 are [translated from Spanish]). The incentives of the Progan "represents ucer of livestock expansion at the expense of natural ecosystems" ri, 2016 website [translated from Spanish]). Quadri (2016 website ated from Spanish]) also state that "the approximate total of Sagarpa lies that decisively gravitate as intense pressure on biodiversity amounts 2000 million pesos annually. In contrast, the budget of the National dission of Natural Protected Areas, almost its only effective antidote of
		nmental policy, is only 1,100 million pesos annually."
		ossible to conclude that the spatial threshold can be met by assessing the rement of legislation?
		e applicable legislation is not enough to assess this indicator with the -based thresholds.
	,	

Background on deforestation I's mentioned that the deforestation rate has decreased, however the data
·
Based on the news published on Rendón (2017) the Global Forest Watch alatform has registered that only in 2016, Mexico lost 274 thousand 183 lectares of forest (figure consistent with Global Forest Watch 2016), thanks to the advance of the livestock and agricultural frontier. Rendón (2017) also mentioned that these figures are worrying because they represent an increase of almost 300 percent in deforestation and at the same time it differs a lot from the 92 thousand annual hectares that the Mexican government registered with the United Nations Food and Agriculture Organization (FAO), in the period from 2010 to 2015. According to Rendón (2017) FAO reported a rate of annual loss in forests and repriod from 1990 to 2015. According to the publication of the Global Forest Resources Assessment (FRA, by its acronym in English), released every five lears, on average it is lost in Mexico 190 thousand 400 hectares of forest per lear in the period 1990 to 2000. In the period from 2010 to 2015 it was secorded an average loss of 91 thousand 600 hectares. However, based on Rendón (2017) the Mexican government has told another version. According to Rendón (2017) the head of the Secretariat of Environment and Natural Resources (Semarnat), Rafael Pacchiano, assures that the data with which the povernment of Mexico evaluates this situation comes from the FAO and they have an average loss of around 90 thousand hectares. It is worth to mention that the National Institute of Statistics and Geography (INEGI) has recognized that agriculture and overgrazing have been the main factors of the loss of wild ora in Mexico (Rendón 2017).
Official data of deforestation provided by SEMARNAT (SEMARNAT, 2014), how that the deforestation per period still persist, and so, this is an evidence of the lack of the enforcement of the law that prohibited the replacement of current native primary vegetation by commercial forest plantations or other uses (with exceptions). The table below describes the estimations of annual deforestation in Mexico (thousand hectares per year) for the different time deriods.
ed ne en

Tabla 2.3.1. Estimaciones de la deforestación anual en México para distintos periodos.

Periodo	Superficie deforestada (miles de hectáreas/año)
1976-2000 ^a	350
1980-1990 ^b	329
1980-1990°	316
Mediados de los ochenta ^d	668
1988-1994°	746
1990-2000 ^f	354
1993-2000 ^a	776
2000-2005 ^f	235
2005-2010 ^f	155

Fuentes

Based on Invitado Forbes (2018), Mexico lost between 2001 and 2017 no less than 3.2 million hectares of forests, or what is the same said loss has accounted for 6% of its forest territory.

Is it possible to conclude that the spatial threshold (0.02% or 5000 ha) is met?

There is an annual deforestation rate of 0.1% in Mexico for the period 2010 to 2015 (mentioned in FAO, 2015). In the National Report for Mexico from the

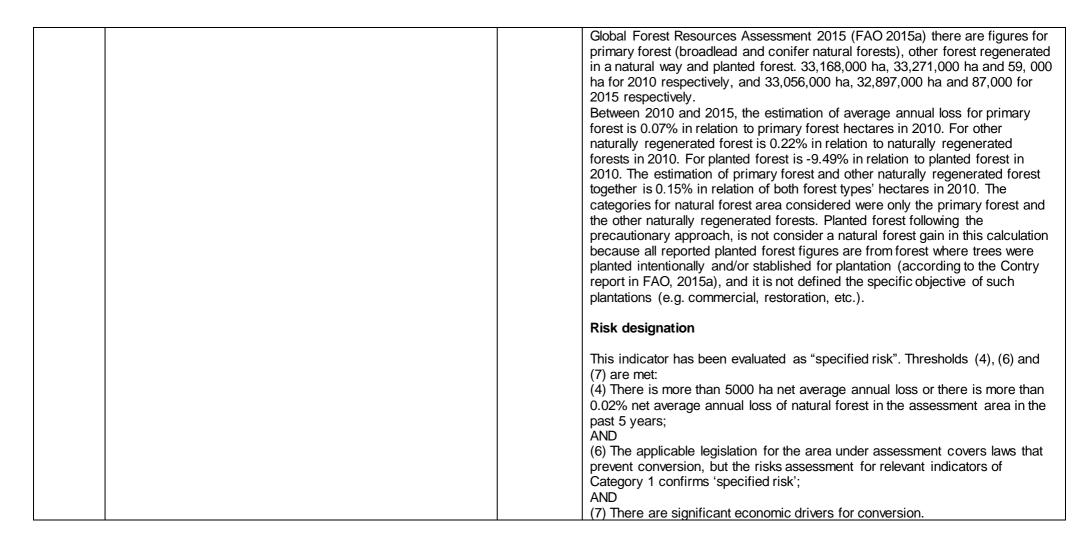
^{*} Velázquez, A., J. F. Mas, G. Bocco, y E. Ezcurra. Patrones y tasas de cambio de uso del suelo en México. Gaceta Ecológica 62: 21-37, 2002.

be SARH. Inventario Nacional Forestal Periódico 1992-1994. México. 1994.

^a Masera, O., M.J., Ordoñez, , y R., Dirzo. Carbon emissions from deforestation in Mexico: Current situation and long-term scenarios. En: W. Makundi y J. Sathaye (Eds.), Carbon emissions and sequestration in forests: Case studies from seven developing countries, Vol. 4. México. (Report no. LBL-32665). Energy and Environmental Division, Climate Change Division and Lawrence Berkeley Laboratory-US Environmental Protection Agency. Berkeley, California. 1992.

Castillo, M., P. Pedernera y E. Peña. Incendios forestales y medio ambiente: una síntesis global. Revista Ambiente y Desarrollo de CIPMA. XIX (3 y 4). 2003.

^{£g} FAO. Global Forest Resources Assessment 2010. FAO. 2010.



Recommended control measures

The recommended control measures here are only indicative in nature, and are not mandatory. Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable

identined in	this hisk assessifient as applicable.
Indicator	Recommended control measures
4.1	Intentionally left blank - Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable.

Controlled wood category 5: Wood from forests in which genetically modified trees are planted

Risk assessment

There is no http://www.diputados.gob.mx/LeyesBiblio/pdf/LBOGM.pdf and http://www.diputados.gob.mx/LeyesBiblio/pdf/LBOGM.pdf and http://www.ordenjuridico.gob.mx/leyes.php Peña, Y. (2014) Genetic transformation of red cedar (Transformación genética del cedro rojo). [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/seminarios-en-bioseguridad-y-biotecnologia-de-ogms/transformacion-genetica-del-cedro-rojo Monárrez, M. (2015) Business opportunities for commercial forest plantations (I) (Oportunidades de negocio para plantaciones forestales comerciales (I)). [online]. News article. Available at: https://www.eleconomista.com.mx/opinion/Oportunidades-de-negocio-para-plantaciones-forestales-comerciales-I-20150715-0007.html CIBIOGEM (Inter-Ministerial Commision in Biosecurity of the Genetically Modified Organisms-Comisión Intersecretarial de Bioseguridad de los Organismos Genéticamente Modificados) (2017) Permits from 2005 to 2017: Release permits to the environment of GMOs issued in Mexico from 2005 to 2017, by crop, in accordance with the Biosecurity Law of Genetically	ion Functional scale Risk designation and determination
de OGMs emitidos en México de 2005 a 2017, por cultivo, conforme a la Ley de Bioseguridad de Organismos Genéticamente Modificados (LBOGM)). [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/permisos-2005-2017 • CIBIOGEM (2018a) Authorizations issued per year (Autorizaciones emitidas por año). [online]. Available at: http://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-anual • CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of the Protection against para la Protección contra the portion of	The Biosafety Law on Genetically Modified Organisms (GMO) Articles 2 and 77 (Ley de Biosaguridad de Organismos (GMO) Articles 2 and 77 (Ley de Biosaguridad de Organismos (GMO) Articles 2 and 77 (Ley de Biosaguridad de Organismos (GMO) Articles 2 and 77 (Ley de Biosaguridad de Organismos (GMO) Articles 2 and 77 (Ley de Biosaguridad de Organismos (GMO) (Delicitation does not have a prohibition for commercial use, but only regulates and control de activities related to GMOs management. There are licenses required for commercial use of GM trees and this is included in Article 32 of the Biosafety Law on Genetically Modified Organisms (GMO). According to CIBIOGEM (Inter-Ministerial Commission in Biosecurity of the Genetically Modified Organisms (GMO). According to CIBIOGEM (Inter-Ministerial Commission in Biosecurity of the Genetically Modified Organisms) (2018b) no forest species were authorized use of GM trees were found. According to CIBIOGEM (2017, 2018a, 2018b) in 2014 and 2016 permits where released for the use of Grops of GM trees of Mexican lemon and Valencia orange, respectively, but their use in both cases is documented for the production of fruits and not for timber or relevant NFTPs. Nevertheless, there is no documentation on the commercial use of genetically modified trees in Mexico (CIBIOGEM, 2018b and Monárrez, 2015). There is ongoing research on the modification of red cedar (Cedrela odorata), but it is in the experimental

https://www.eleconomista.com.mx/opinion/Limon-mexicano-el-nuevo-oro-verde-de-la-	provide information challenging a low risk
citricultura-I-20180618-0084.html	designation.
 CONAFOR (N.Y.) Catalog of timber and non-timber forest resources (Catálogo de recursos 	
forestales maderables y no maderables). [online]. Available at:	This indicator has been evaluated as "low
https://www.conafor.gob.mx/biblioteca/Catalogo_de_recursos_forestales_M_y_N.pdf	risk".
Bioenciclopedia (N.Y.) [online]. Sweet orange (naranjo dulce) [online]. Available at:	Thresholds (2) and (3) are met:
https://www.bioenciclopedia.com/naranjo-dulce/	(2) There is no commercial use of GMO
 GMO Free Europe (2019) News about GMOs in Mexico. Available at: https://www.gmo-free- 	(tree) species in the area under
regions.org/gmo-free-regions/americas/mexico/gmo-news-related-to-	assessment,
mexico.html?tx_sosnews_list%5Bpage%5D=1&cHash=e65eb28e4c9654eadd067ef0f68cad09	AND
	(3) Other available evidence does not
Interviews with experts:	challenge a 'low risk' designation.
Conversations with various experts from the public and private sector and civil society in Mexico	
(here anonymous), carried out during in 2016, helped the authors of this report to better understand	
the applicable legislation and the risks associated with this indicator.	
[Some contents from these sources have been translated from Spanish to include them in this	

	GMO Context Question	Answer	Sources of Information (list sources if different types of information, such as reports, laws, regulations, articles, web pages, news articles etc.).
1	Is there any legislation covering GMO (trees)?	Yes. Biosafety Law on Genetically Modified Organisms (GMO) Articles 2 and 77 (Ley de Bioseguridad de Organismos Genéticamente Modificados (OGM)) 2005.	 Biosafety Law on Genetically Modified Organisms (Ley de Bioseguridad de Organismos Genéticamente Modificados) (2005) Available at: http://www.diputados.gob.mx/LeyesBiblio/pdf/LBOGM.pdf and http://www.ordenjuridico.gob.mx/leyes.php Consultation with experts in 2016.
2	legislation for the area under assessment include a ban for	No. The legislation does not have a prohibition, only regulation and control. Regulates the activities of contained use, experimental release, pilot release, commercial release, commercialization, import and export of genetically modified organisms, in order to prevent, avoid or reduce the possible risks that these activities may cause to human health or to the environment and to biological diversity or to animal, plant and aquatic health.	Biosafety Law on Genetically Modified Organisms (Ley de Bioseguridad de Organismos Genéticamente Modificados) (2005) Available at: http://www.diputados.gob.mx/LeyesBiblio/pdf/LBOGM.pdf and http://www.ordenjuridico.gob.mx/leyes.php Consultation with experts in 2016.

assessment.]

	use of GMO (trees)?		
	Is there evidence of unauthorised use of GM trees?	No. The release and authorization of use of GMOs, from 1995 to 2015, indicates that no forest species were authorized in Mexico (CIBIOGEM, 2018b). A research on the net (including local NGOs) and consultation with experts didn't mention any unauthorised use of GM trees in Mexico, within the scope of this assessment, only agriculture crops are mentioned; this even if commercial plantation could be an interest business opportunity as it was raised by Monárrez, M. (2015).	 CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra Riesgos Sanitarios (COFEPRIS), de 1995 a 2018, con información actualizada al 12 de junio de 2018) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-organismo Monárrez, M. (2015) Business opportunities for commercial forest plantations (I) (Oportunidades de negocio para plantaciones forestales comerciales (I)). [online]. News article. Available at: https://www.eleconomista.com.mx/opinion/Oportunidades-de-negocio-para-plantaciones-forestales-comerciales-I-20150715-0007.html Consultation with experts in 2016.
	Is there any commercial use of GM trees in the country or region?	No. The Inter-Ministerial Commision in Biosecurity of the Genetically Modified Organisms has no documentation on the commercial use of genetically modified trees in Mexico (CIBIOGEM,2018b) and this is also not found in Monárrez, M. (2015) and after an exhaustive research on the net and expert consultation).	 CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra Riesgos Sanitarios (COFEPRIS), de 1995 a 2018, con información actualizada al 12 de junio de 2018) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-organismo Monárrez, M. (2015) Business opportunities for commercial forest plantations (I) (Oportunidades de negocio para plantaciones forestales comerciales (I)). [online]. News article. Available at: https://www.eleconomista.com.mx/opinion/Oportunidades-de-negocio-para-plantaciones-forestales-comerciales-I-20150715-0007.html Consultation with experts in 2016. Exhaustive research on the net including this source: GMO Free Europe (2019) News about GMOs in Mexico. Available at: https://www.gmo-free-regions.org/gmo-free-regions/americas/mexico/gmo-news-related-to-mexico.html?tx sosnews list%5Bpage%5D=1&cHash=e65eb28e4c9654eadd067ef0f68cad09
-	Are there any trials of	Yes. There is research on the modification of red cedar (Cedrela odorata), but it is in the experimental phase and	 Peña, Y. (2014) Genetic transformation of red cedar (Transformación genética del cedro rojo). [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/seminarios-en-
	GM trees in	has not been finished and published (regardless the	bioseguridad-y-biotecnologia-de-ogms/transformacion-genetica-del-cedro-rojo
	the country	summary of the research done in Peña 2014).	 Ribeiro (2015) Genetically modified tres and peasant resistance (Árboles transgénicos y
	or region?	In Ribeiro (2015) it is stated that according to a report	resistencia campesina). [online]. News article. Available at:
		from the Global Forest Coalition, since 2007 there are	

		enterprises experimenting with genetically modified eucalyptus and pine trees in the state of Guerrero. Ribeiro (2015) states that if this is happening, this "which would be environmentally and socially serious, but also illegal, since there is no request in this regard in the records of the Cibiogem" (webpage [translated from Spanish]) which is the Inter-Ministerial Commision in Biosecurity of the Genetically Modified Organisms. No reports from Global Forest Coalition were found online containing the information Ribeiro (2015) refers to, not even reports for Mexico on the topic of GMOs were found issued by this coalition. During the expert consultations in 2016 and exhaustive research online of information related to the topic, no evidence was found on other trials or lack of control on trials using GM trees in the country.	•	https://www.desdeabajo.info/ambiente/item/26072-arboles-transgenicos-y-resistencia-campesina.html Consultation with experts in 2016.
6	Are licenses required for commercial use of GM trees?	Yes. This is included in Article 32 of the Biosafety Law on Genetically Modified Organisms (GMO). Permission to perform the following activities: I. The experimental release to the environment, including importation for that activity, of one or more GMOs; II. The release to the environment in pilot program, including the import for that activity, of GMOs, and III. The commercial liberation to the environment, including the import for that activity, of GMOs (including comercialization). (the import mentioned for the cases of licence I and II is not involving commercialization) Experimental release: The introduction, intentionally and allowed into the environment, of an organism or combination of genetically modified organisms, provided that containment measures have been adopted, such as physical barriers or a combination of these with chemical or biological barriers, for limit its contact with the population and the environment, exclusively for experimental purposes, under the terms and conditions contained in the respective permit. Pilot release: Is the introduction, intentionally and allowed in the environment, of an organism or	•	Biosafety Law on Genetically Modified Organisms (Ley de Bioseguridad de Organismos Genéticamente Modificados) 2005. Available at: http://www.diputados.gob.mx/LeyesBiblio/pdf/LBOGM.pdf and http://www.ordenjuridico.gob.mx/leyes.php Consultation with experts in 2016.

7	Are there any licenses issued for GM trees relevant for the area under assessment? (If so, in what regions, for what species and to which entities?)	combination of genetically modified organisms, with or without containment measures, such as physical barriers or a combination of these with chemical or biological barriers, for limit their contact with the population and the environment, which is the stage prior to the commercial release of said body, within the authorized zones and under the terms and conditions contained in the respective permit. No. The release and authorization of use of GMOs, from 1995 to 2015, indicates that no tree species were authorized in Mexico. By 2017 there were 2 authorizations for the crop of Mexican lemon, which is a tree. But these were only granted 3 permits for release in 2014. Valencia orange, also a tree, had only 3 permits for release in 2016. There is no information regarding the regions were these permits were released. During the expert consultations in 2016 and exhaustive research online of information related to the topic, no evidence was found on other licences for GM trees in the country are known nor cases of ilegal use of GM trees in the country.	•	CIBIOGEM (2017) Permits from 2005 to 2017: Release permits to the environment of GMOs issued in Mexico from 2005 to 2017, by crop, in accordance with the Biosecurity Law of Genetically Modified Organisms (LBOGM). (Permisos de 2005 a 2017: Permisos de liberación al ambiente de OGMs emitidos en México de 2005 a 2017, por cultivo, conforme a la Ley de Bioseguridad de Organismos Genéticamente Modificados (LBOGM)) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/permisos-2005-2017 CIBIOGEM (2018a) Authorizations issued per year (Autorizaciones emitidas por año) [online]. Available at: http://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-anual CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra Riesgos Sanitarios (COFEPRIS), de 1995 a 2018, con información actualizada al 12 de junio de 2018) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-organismo
8	What GM 'species' are used?	Mexican Lemon (<i>Citrus aurantifolia</i>) Valencia orange (<i>Citrus sinensis</i>). These tree species are used for production of their fruits, and their use was not found relevant for timber and other NFTPs. During the exhaustive research, these species were not listed as forest species (for timber) in CONAFOR manuals for agroforestry systems (CONAFOR, 2011) and for the lemon the other documented uses are not implying direct use of timber or CW-relevant NTFPs (Espinoza, 2018; CONAFOR, N.Y.) for the valencia orange, it is stated that its wood can be used to make wooden tools (Bioenciclopedia, N.Y.) but there was not found online nor experts confirmed evidences on this use for Mexico.	•	Consultation with experts in 2016. CIBIOGEM (2017) Permits from 2005 to 2017: Release permits to the environment of GMOs issued in Mexico from 2005 to 2017, by crop, in accordance with the Biosecurity Law of Genetically Modified Organisms (LBOGM). (Permisos de 2005 a 2017: Permisos de liberación al ambiente de OGMs emitidos en México de 2005 a 2017, por cultivo, conforme a la Ley de Bioseguridad de Organismos Genéticamente Modificados (LBOGM)) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/permisos-2005-2017 CIBIOGEM (2018a) Authorizations issued per year (Autorizaciones emitidas por año) [online]. Available at: http://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-anual CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra Riesgos Sanitarios (COFEPRIS), de 1995 a 2018, con información

			•	actualizada al 12 de junio de 2018) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-organismo CONAFOR (2011) Manual agroforestry systems (Manual sistemas agroforestales). [online] Available at:
			•	https://www.conafor.gob.mx/biblioteca/documentos/MANUAL_SISTEMAS_AGROFORESTA LES.PDF Espinoza (2018) Mexican lemon, the new "green gold" of citrus (I) (Limón mexicano, el nuevo "oro verde" de la citricultura (I)). [online]. Available at: https://www.eleconomista.com.mx/opinion/Limon-mexicano-el-nuevo-oro-verde-de-la-
			•	citricultura-I-20180618-0084.html CONAFOR (N.Y.) Catalog of timber and non-timber forest resources (Catálogo de recursos forestales maderables y no maderables). [online]. Available at: https://www.conafor.gob.mx/biblioteca/Catalogo de recursos forestales M y N.pdf
			•	Bioenciclopedia (N.Y.) [online]. Sweet orange (naranjo dulce) [online]. Available at: https://www.bioenciclopedia.com/naranjo-dulce/ Consultation with experts in 2016.
(Can it be clearly determined in which MUs the GM trees are used?	No, this assessment has not identified that GM trees for timber purpose have been used.	•	CIBIOGEM (2018b) Authorizations issued by agency from 1995 to 2018: Authorizations issued by the Federal Commission for the Protection against Sanitary Risks (COFEPRIS), from 1995 to 2018, with information updated to June 12, 2018. (Autorizaciones emitidas por organismo de 1995 a 2018: Autorizaciones emitidas por la Comisión Federal para la Protección contra Riesgos Sanitarios (COFEPRIS), de 1995 a 2018, con información actualizada al 12 de junio de 2018) [online]. Available at: https://www.conacyt.gob.mx/cibiogem/index.php/autorizaciones-emitidas-organismo

Recommended control measures

The recommended control measures here are only indicative in nature, and are not mandatory. Organizations shall evaluate and devise appropriate control measures to mitigate the risks identified in this risk assessment as applicable.

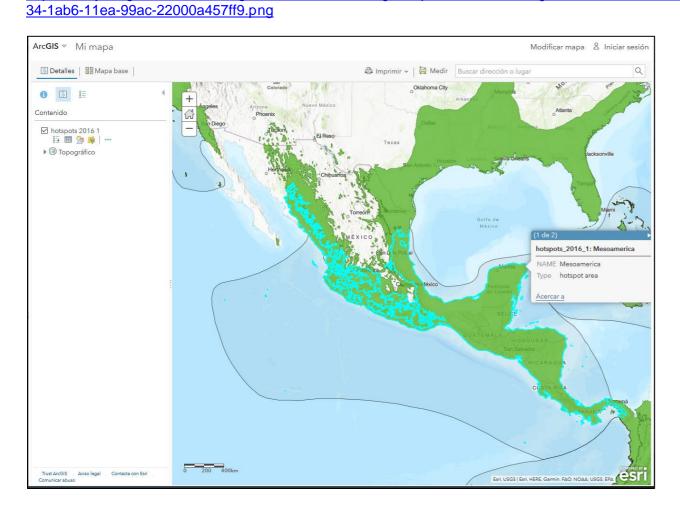
Indicator	Recommended control measures
5.1	N/A

Annex 1

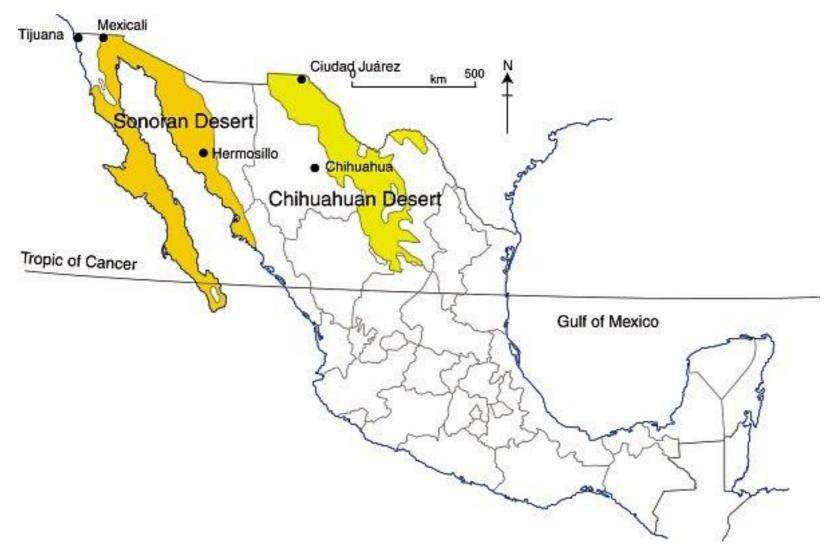
Map 1. Biodiversity Hotspot area: Mesoamerica.

Source: esri - ArcGIS Online. 2016. Self-generated Map of the Biodiversity Hotspots.

https://utility.arcgisonline.com/arcgis/rest/directories/arcgisoutput/Utilities/PrintingTools_GPServer/x_xyrGnNUv1ZiB3czjYFv6cOQ..x_x_ags_e428.08



Map 2 The Sonoran Desert and The Chihuahuan Desert in Mexico. Source: Geo-Mexico, the geography and dynamics of modern Mexic Chihuahuan Desert? https://geo-mexico.com/?p=11201 (119)	co. 2014.	How similar are Mexico's two major deserts, the Sonora Desert and the

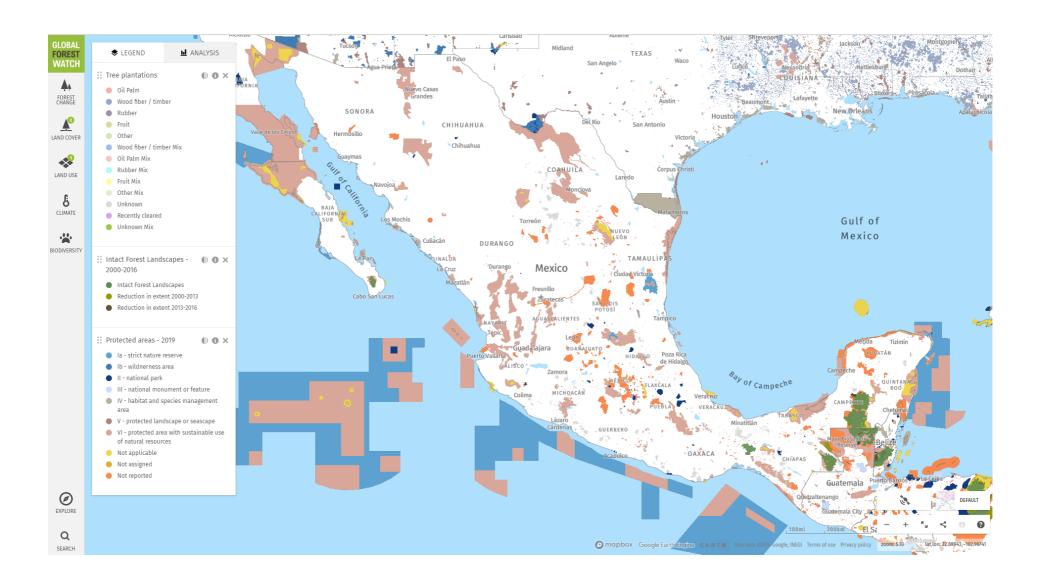


Map 3. Map of Protected Natural Areas, Forest Plantations and Intact Forest Landscapes present in Mexico.

To see the superposition of areas with greater resolution please use the interactive map of the global forest watch. Source: Global Forest Watch. N.d. Interactive Map.

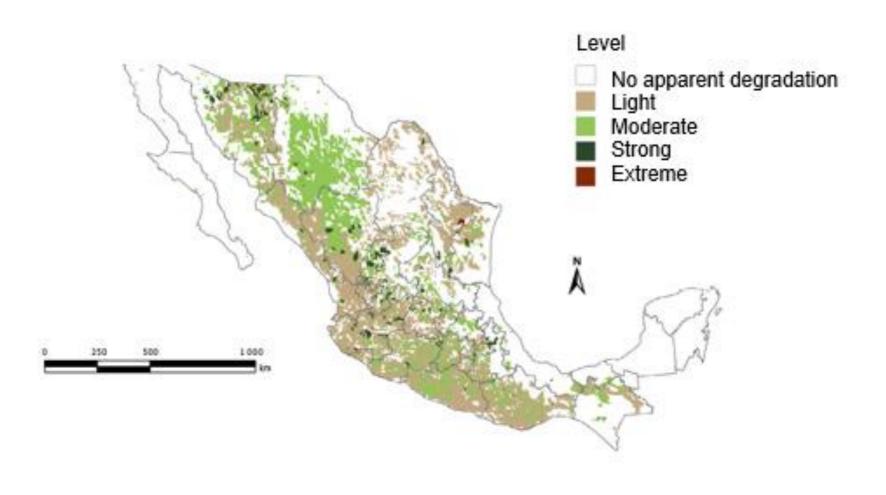
https://www.globalforestwatch.org/map?analysis=eyJzaG93RHJhdyl6ZmFsc2V9&mainMap=eyJzaG93QW5hbHlzaXMiOmZhbHNlLCJoaWRITGVnZW5kljpm YWxzZX0%3D&map=eyJjZW50ZXliOnsibGF0ljoyMy42NzEwNjU2ODkwOTgyOTUsImxuZyl6LTk5LjY4OTA3NzAwNzU4MTd9LCJiZWFyaW5nljowLCJwaXRj

aCl6MCwiem9vbSl6NS4xMDA4MTg0NTAwOTlwNiwiZGF0YXNIdHMiOlt7ImRhdGFzZXQiOiJiYjFkY2VkNC0zYWU4LTQ5MDgt0WYzNi02NTE0YWU2OTcx M2YiLCJvcGFjaXR5ljoxLCJ2aXNpYmlsaXR5ljp0cnVlLCJsYXllcnMiOlsiYjhmYjZjYzgtNjg5My00YWUwLTg0OTktMWNhOWYxYWJhYmY0ll19LHsiZGF0YXNI dCl6ljEzZTl4NTUwLTNmYzktNDVlYy1iYjAwLTVhNDhhODJiNzdlMSlsIm9wYWNpdHkiOjEsInZpc2liaWxpdHkiOnRydWUsImxheWVycyl6WyJmZDQ0Yjk3Ni0 2MmU2LTQwNzltODIxOC04YWJmNmUyNTRIZDgiXX0seyJkYXRhc2V0ljoiM2lxMmNjNWYtNGJmOC00ODU3LTkwOWUtYTg3OTExMjViYmYxliwib3BhY2l0 eSl6MSwidmlzaWJpbGl0eSl6dHJ1ZSwibGF5ZXJzljpbImZkZmQ0MjZiLTExZDAtNDVmYy05MWY0LTM3MDZIYmlwZTc5OCJdfSx7ImRhdGFzZXQiOiJmZGM 4ZGMxYi0yNzl4LTRhNzktYjIzZi1iMDk0ODUwNTJiOGQiLCJsYXllcnMiOlsiNmY2Nzk4ZTYtMzllYy00MTYzLTk3OWUtMTgyYTc0Y2E2NWVIliwiYzVkMWUwM TAtMzgzYS00NzEzLTlhYWEtNDRmNzl4YzA1NzFjll0sIm9wYWNpdHkiOjEsInZpc2liaWxpdHkiOnRydWV9XSwiY2FuQm91bmQiOnRydWUsImRyYXdpbmciO mZhbHNlfQ%3D%3D&mapPrompts=eyJzdGVwc0tleSl6ImFuYWx5emVBbkFyZWEiLCJzdGVwc0luZGV4ljowLCJvcGVuljpmYWxzZSwic3RlcEluZGV4ljowLC Jmb3JjZSl6dHJ1ZX0%3D&menu=eyJkYXRhc2V0Q2F0ZWdvcnkiOiJsYW5kQ292ZXliLCJtZW51U2VjdGlvbil6liJ9 _Accessed July 2019.



Map 4. Map of Water erosion of soils according to level in Mexico.

Source: SEMARNAT. 2002. Environmental Report. https://apps1.semarnat.gob.mx:8443/dgeia/informe15/tema/cap3.html.



Map 5. Map of Classification of ejidos and communities in Mexico

In yellow Ejidal lands and in orange Communal lands. Source: Inter-American Institute for Cooperation on Agriculture. 2012. Atlas of Environmental Services and Social Property in Mexico

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwi3wu2l8rnkAhXiw1kKHQn3AZUQFjADegQIBBAC&url=http%3A%2F% 2Frepositorio.iica.int%2Fbitstream%2F11324%2F2789%2F1%2FBVE3254500000e.pdf&usg=AOvVaw3H822KAtg5y8FG3d-RB9wS Accessed august 2019.



Table 1. Contiguous Protected Natural Areas in Mexico with area > 50,000 ha Source: CONANP. N.d. List of Protected Natural Areas of Mexico (LISTANP) (Listado de las Áreas Naturales Protegidas de México (LISTANP)). http://sig.conanp.gob.mx/website/pagsig/listanp/ Accessed July 2019.

Núm	Nombre del Área	Categoría de Manejo	Estados	Superficie (ha)	Superficie Marina (ha)	Superficie Terrestre (ha)
1	Meseta de Cacaxtla	Área de Protección de Flora y Fauna	Sinaloa	50.862,31	0,00	50.862,31
2	Yum Balam	Área de Protección de Flora y Fauna	Quintana Roo	154.052,25	101.744,63	52.307,62
3	Nevado de Toluca	Área de Protección de Flora y Fauna	Estado de México	53.590,68	0,00	53.590,68
4	Mariposa Monarca	Reserva de la Biosfera	Michoacán y Estado de México	56.259,05	0,00	56.259,05
5	Sierra de Huautla	Reserva de la Biosfera	Morelos, Puebla y Guerrero	59.030,94	0,00	59.030,94
6	Ría Lagartos	Reserva de la Biosfera	Yucatán y Quintana Roo	60.347,83	0,00	60.347,83
7	Lacan-Tun	Reserva de la Biosfera	Chiapas	61.873,96	0,00	61.873,96

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8	Ría Celestún	Reserva de la Biosfera	Campeche y Yucatán	81.482,33	19.555,76	61.926,57
9	Médanos de Samalayuca	Área de Protección de Flora y Fauna	Chihuahua	63.182,33	0,00	63.182,33
10	Islas del Pacífico de la Península de Baja California	Reserva de la Biosfera	Baja California y Baja California Sur	1.161.222,98	1.091.083,35	70.139,62
11	Sierra de San Pedro Mártir	Parque Nacional	Baja California	72.910,68	0,00	72.910,68
12	Complejo Lagunar Ojo de Liebre	Reserva de la Biosfera	Baja California y Baja California Sur	79.328,98	0,00	79.328,98
13	Cuatrociénegas	Área de Protección de Flora y Fauna	Coahuila	84.347,47	0,00	84.347,47
14	Uaymil	Área de Protección de Flora y Fauna	Quintana Roo	89.118,15	0,00	89.118,15
15	Sierra de Álamos- Río Cuchujaqui	Área de Protección de Flora y Fauna	Sonora, Sinaloa y Chihuahua	92.889,69	0,00	92.889,69
16	Barranca de Metztitlán	Reserva de la Biosfera	Hidalgo	96.042,95	0,00	96.042,95
17	Cuenca Alimentadora del Distrito Nacional de Riego 001 Pabellón	Área de Protección de Recursos Naturales	Aguascalientes y Zacatecas	97.699,69	0,00	97.699,69
18	Los Petenes	Reserva de la Biosfera	Campeche	282.857,63	181.991,10	100.866,53
19	Selva El Ocote	Reserva de la Biosfera	Chiapas	101.288,15	0,00	101.288,15
20	Campo Verde	Área de Protección de Flora y Fauna	Chihuahua y Sonora	108.067,47	0,00	108.067,47
21	Sierra La Laguna	Reserva de la Biosfera	Baja California Sur	112.437,07	0,00	112.437,07

22	La Encrucijada	Reserva de la Biosfera	Chiapas	144.868,16	29.215,42	115.652,73
23	El Triunfo	Reserva de la Biosfera	Chiapas	119.177,29	0,00	119.177,29
24	Bala'an K'aax	Área de Protección de Flora y Fauna	Quintana Roo, Yucatán y Campeche	128.390,16	0,00	128.390,16
25	Marismas Nacionales Nayarit	Reserva de la Biosfera	Nayarit	133.854,39	0,00	133.854,39
26	Sierra de Manantlán	Reserva de la Biosfera	Jalisco y Colima	139.577,13	0,00	139.577,13
27	Zona Protectora Forestal los terrenos constitutivos de las cuencas de los ríos Valle de Bravo, Malacatepec, Tilostoc y Temascaltepec	Área de Protección de Recursos Naturales	Estado de México	140.234,43	0,00	140.234,43
28	Los Tuxtlas	Reserva de la Biosfera	Veracruz	155.122,47	0,00	155.122,47
29	La Sepultura	Reserva de la Biosfera	Chiapas	167.309,86	0,00	167.309,86
30	Cumbres de Monterrey	Parque Nacional	Nuevo León y Coahuila	177.395,95	0,00	177.395,95
31	Zona de Protección Forestal en los terrenos que se encuentran en los municipios de La Concordia, Ángel	Área de Protección de Recursos Naturales	Chiapas	177.546,17	0,00	177.546,17

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	Albino Corzo, Villa Flores y Jiquipilas					
32	Cuenca Alimentadora del Distrito Nacional de Riego 026 Bajo Río San Juan	Área de Protección de Recursos Naturales	Coahuila y Nuevo León	197.156,79	0,00	197.156,79
33	Bavispe	Área de Protección de Flora y Fauna	Sonora	200.900,66	0,00	200.900,66
34	Maderas del Carmen	Área de Protección de Flora y Fauna	Coahuila	208.381,15	0,00	208.381,15
35	Papigochic	Área de Protección de Flora y Fauna	Chihuahua	222.763,85	0,00	222.763,85
36	Sierra Gorda de Guanajuato	Reserva de la Biosfera	Guanajuato y Querétaro	236.882,76	0,00	236.882,76
37	Zicuirán-Infiernillo	Reserva de la Biosfera	Michoacán	265.117,78	0,00	265.117,78
38	Cañón de Santa Elena	Área de Protección de Flora y Fauna	Chihuahua	277.209,72	0,00	277.209,72
39	Pantanos de Centla	Reserva de la Biosfera	Tabasco y Campeche	302.706,63	0,00	302.706,63
40	Sierra de Tamaulipas	Reserva de la Biosfera	Tamaulipas	308.888,22	0,00	308.888,22
41	Montes Azules	Reserva de la Biosfera	Chiapas	331.200,00	0,00	331.200,00
42	Mapimí	Reserva de la Biosfera	Durango, Chihuahua y Coahuila	342.387,99	0,00	342.387,99
43	Ocampo	Área de Protección de Flora y Fauna	Coahuila y Chihuahua	344.238,23	0,00	344.238,23
44	Islas del Golfo de California	Área de Protección de Flora y Fauna	Baja California, Baja California Sur, Sonora y Sinaloa	374.553,63	0,00	374.553,63

45	Sian Ka'an	Reserva de la Biosfera	Quintana Roo	528.147,67	153.135,80	375.011,87
46	Sierra Gorda	Reserva de la Biosfera	Querétaro, Guanajuato, San Luis Potosí e Hidalgo	383.567,45	0,00	383.567,45
47	Alto Golfo de California y Delta del Río Colorado	Reserva de la Biosfera	Baja California y Sonora	934.756,25	527.608,70	407.147,55
48	Tutuaca	Área de Protección de Flora y Fauna	Chihuahua y Sonora	436.985,67	0,00	436.985,67
49	Tehuacán- Cuicatlán	Reserva de la Biosfera	Puebla y Oaxaca	490.186,88	0,00	490.186,88
50	Janos	Reserva de la Biosfera	Chihuahua	526.482,43	0,00	526.482,43
51	Laguna de Términos	Área de Protección de Flora y Fauna	Campeche y Tabasco	706.147,67	158.868,96	547.278,71
52	Laguna Madre y Delta del Río Bravo	Área de Protección de Flora y Fauna	Tamaulipas	572.808,61	0,00	572.808,61
53	El Pinacate y Gran Desierto de Altar	Reserva de la Biosfera	Sonora	714.556,50	0,00	714.556,50
54	Calakmul	Reserva de la Biosfera	Campeche	723.185,13	0,00	723.185,13
55	Cuenca Alimentadora del Distrito Nacional de Riego 004 Don Martín	Área de Protección de Recursos Naturales	Coahuila	1.519.385,03	0,00	1.519.385,03
56	El Vizcaíno	Reserva de la Biosfera	Baja California y Baja California Sur	2.546.790,25	287.787,30	2.259.002,95

57	Cuenca Alimentadora del Distrito Nacional de Riego 043 Estado de Nayarit	Área de Protección de Recursos Naturales	Aguascalientes, Jalisco, Durango, Nayarit y Zacatecas	2.329.026,76	0,00	2.329.026,76
58	Valle de los Cirios	Área de Protección de Flora y Fauna	Baja California	2.521.987,61	0,00	2.521.987,61

Table 2. RAMSAR Sites with area > 50,000 ha

Source: CONANP. N.d. List of Protected Natural Areas of Mexico (LISTANP) (Listado de las Áreas Naturales Protegidas de México (LISTANP)). http://sig.conanp.gob.mx/website/pagsig/listanp/ Accessed July 2019.

Rams	Ramsar sites list				
Num	Site name	Superficie (ha)			
1	Área de Protección de Flora y Fauna Laguna de Términos	705.016			
2	Sian Ka'an	652.193			
3	Reserva de la Biosfera Archipiélago de Revillagigedo	636.685			
4	Río Sabinas	603.123			
5	Humedal Los Comondú	460.959			
6	Humedal La Sierra de Guadalupe	348.087			
7	Parque Nacional Arrecife Alacranes	334.113			
8	Laguna Madre	307.894			
9	Reserva de la Biosfera Pantanos de Centla	302.706			

10	Reserva de la Biosfera Los Petenes	282.857
11	Sistema Lagunar Alvarado	267.010
12	Humedales del Delta del Río Colorado	250.000
13	Parque Nacional Bahía de Loreto	206.581
14	Marismas Nacionales	200.000
15	Ecosistema Ajos-Bavispe, zona de influencia Cuenca Río San Pedro	182.623
16	Oasis de la Sierra El Pilar	180.803
17	Área de Protección de Flora y Fauna Yum Balam	154.052
18	Reserva de la Biosfera La Encrucijada	144.868
19	Reserva de la Biosfera Banco Chinchorro	144.360
20	Complejo Lagunar Bahía Guásimas - Estero Lobos	135.198
21	Bala'an K'aax	131.610
22	Sistema de Humedales Remanentes del Delta del Río Colorado	127.614
23	Sistema Ripario de la Cuenca y Estero de San José del Cabo	124.219
24	Lago de Chapala	114.659
25	Sistema Lagunar Agiabampo - Bacorehuis - Río Fuerte Antiguo	90.804
26	Laguna de Tamiahua	88.000

27	Área de Protección de Flora y Fauna Cuatrociénegas	84.347
28	Reserva de la Biosfera Ría Celestún	81.482
29	Sistema Lagunar San Ignacio - Navachiste - Macapule	79.873
30	Sistema Estuarino Puerto Arista	62.138
31	Dzilam	61.707
32	Humedal de Importancia Especialmente para la Conservación de Aves Acuáticas Reserva Ría Lagartos	60.348
		00.040
33	Laguna Playa Colorada-Santa María La Reforma	53.140
34	Parque Nacional Sistema Arrecifal Veracruzano	52.238
35	Reserva Estatal El Palmar	50.177

Table 3. Biosphere Reserves of Mexico.

Source: CONANP. N.d. List of Protected Natural Areas of Mexico (LISTANP) (Listado de las Áreas Naturales Protegidas de México (LISTANP)). http://sig.conanp.gob.mx/website/pagsig/listanp/ Accessed July 2019.

BIOS	PHERE RESERVES	ESERVES DE MÉXICO				
Núm	Nombre del Área	Categoría de Manejo	Estados	Superficie (ha)	Superficie Terrestre (ha)	Superficie Marina (ha)
1	Alto Golfo de California y Delta del Río Colorado	Reserva de la Biosfera	Baja California y Sonora	934.756,25	407.147,55	527.608,70
2	Arrecifes de Sian Ka'an	Reserva de la Biosfera	Quintana Roo	34.927,16	1.361,00	33.566,16
3	Banco Chinchorro	Reserva de la Biosfera	Quintana Roo	144.360,00	585,79	143.774,21
4	Barranca de Metztitlán	Reserva de la Biosfera	Hidalgo	96.042,95	96.042,95	0,00

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5	Calakmul	Reserva de la Biosfera	Campeche	723.185,13	723.185,13	0,00
6	Caribe Mexicano	Reserva de la Biosfera	Quintana Roo	5.754.055,36	28.589,50	5.725.465,87
7	Chamela-Cuixmala	Reserva de la Biosfera	Jalisco	13.141,69	13.141,69	0,00
8	Complejo Lagunar Ojo de Liebre	Reserva de la Biosfera	Baja California y Baja California Sur	79.328,98	79.328,98	0,00
9	El Pinacate y Gran Desierto de Altar	Reserva de la Biosfera	Sonora	714.556,50	714.556,50	0,00
10	El Triunfo	Reserva de la Biosfera	Chiapas	119.177,29	119.177,29	0,00
11	El Vizcaíno	Reserva de la Biosfera	Baja California y Baja California Sur	2.546.790,25	2.259.002,95	287.787,30
12	Isla Guadalupe	Reserva de la Biosfera	Baja California	476.971,20	26.276,97	450.694,23
13	Isla San Pedro Mártir	Reserva de la Biosfera	Sonora	30.165,24	126,99	30.038,25
14	Islas del Pacífico de la Península de Baja California	Reserva de la Biosfera	Baja California y Baja California Sur	1.161.222,98	70.139,62	1.091.083,35
15	Islas Marías	Reserva de la Biosfera	Nayarit	641.284,74	24.295,17	616.989,57
16	Janos	Reserva de la Biosfera	Chihuahua	526.482,43	526.482,43	0,00
17	La Encrucijada	Reserva de la Biosfera	Chiapas	144.868,16	115.652,73	29.215,42
18	La Michilía	Reserva de la Biosfera	Durango	35.000,00	35.000,00	0,00
19	La Sepultura	Reserva de la Biosfera	Chiapas	167.309,86	167.309,86	0,00
20	Lacan-Tun	Reserva de la Biosfera	Chiapas	61.873,96	61.873,96	0,00

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21	Los Petenes	Reserva de la Biosfera	Campeche	282.857,63	100.866,53	181.991,10
22	Los Tuxtlas	Reserva de la Biosfera	Veracruz	155.122,47	155.122,47	0,00
23	Mapimí	Reserva de la Biosfera	Durango, Chihuahua y Coahuila	342.387,99	342.387,99	0,00
24	Mariposa Monarca	Reserva de la Biosfera	Michoacán y Estado de México	56.259,05	56.259,05	0,00
25	Marismas Nacionales Nayarit	Reserva de la Biosfera	Nayarit	133.854,39	133.854,39	0,00
26	Montes Azules	Reserva de la Biosfera	Chiapas	331.200,00	331.200,00	0,00
27	Pacífico Mexicano Profundo	Reserva de la Biosfera	Nayarit, Jalisco, Colima, Michoacán, Guerrero, Oaxaca y Chiapas	43.614.120,19	0,00	43.614.120,19
28	Pantanos de Centla	Reserva de la Biosfera	Tabasco y Campeche	302.706,63	302.706,63	0,00
29	Ría Celestún	Reserva de la Biosfera	Campeche y Yucatán	81.482,33	61.926,57	19.555,76
30	Ría Lagartos	Reserva de la Biosfera	Yucatán y Quintana Roo	60.347,83	60.347,83	0,00
31	Selva El Ocote	Reserva de la Biosfera	Chiapas	101.288,15	101.288,15	0,00
32	Sian Ka'an	Reserva de la Biosfera	Quintana Roo	528.147,67	375.011,87	153.135,80
33	Sierra de Huautla	Reserva de la Biosfera	Morelos, Puebla y Guerrero	59.030,94	59.030,94	0,00
34	Sierra de Manantlán	Reserva de la Biosfera	Jalisco y Colima	139.577,13	139.577,13	0,00

35	Sierra de Tamaulipas	Reserva de la Biosfera	Tamaulipas	308.888,22	308.888,22	0,00
36	Sierra del Abra Tanchipa	Reserva de la Biosfera	San Luis Potosí y Tamaulipas	21.464,44	21.464,44	0,00
37	Sierra Gorda	Reserva de la Biosfera	Querétaro, Guanajuato, San Luis Potosí e Hidalgo	383.567,45	383.567,45	0,00
38	Sierra Gorda de Guanajuato	Reserva de la Biosfera	Guanajuato y Querétaro	236.882,76	236.882,76	0,00
39	Sierra La Laguna	Reserva de la Biosfera	Baja California Sur	112.437,07	112.437,07	0,00
40	Tehuacán- Cuicatlán	Reserva de la Biosfera	Puebla y Oaxaca	490.186,88	490.186,88	0,00
41	Tiburón Ballena	Reserva de la Biosfera	Quintana Roo	145.988,14	0,00	145.988,14
42	Volcán Tacaná	Reserva de la Biosfera	Chiapas	6.378,37	6.378,37	0,00
43	Zicuirán-Infiernillo	Reserva de la Biosfera	Michoacán	265.117,78	265.117,78	0,00
44	Zona marina Bahía de los Ángeles, canales de Ballenas y de Salsipuedes	Reserva de la Biosfera	Baja California	387.956,88	483,20	387.473,68

Update and Revision History

1. Updates

The table below presents the history of corrections and minor edits to the risk assessment. These changes result in second-level version number changes. This table is cleared whenever a new first-level version number is issued (see table 2 below).

Date	Version	Section/indicator	Change

2. Revisions

The table below presents the history of major changes and revisions to the risk assessment. These changes result in first-level version number changes. This table is persistent throughout the lifetime of the risk assessment.

Date	From version	To version	Section/indicator	Change