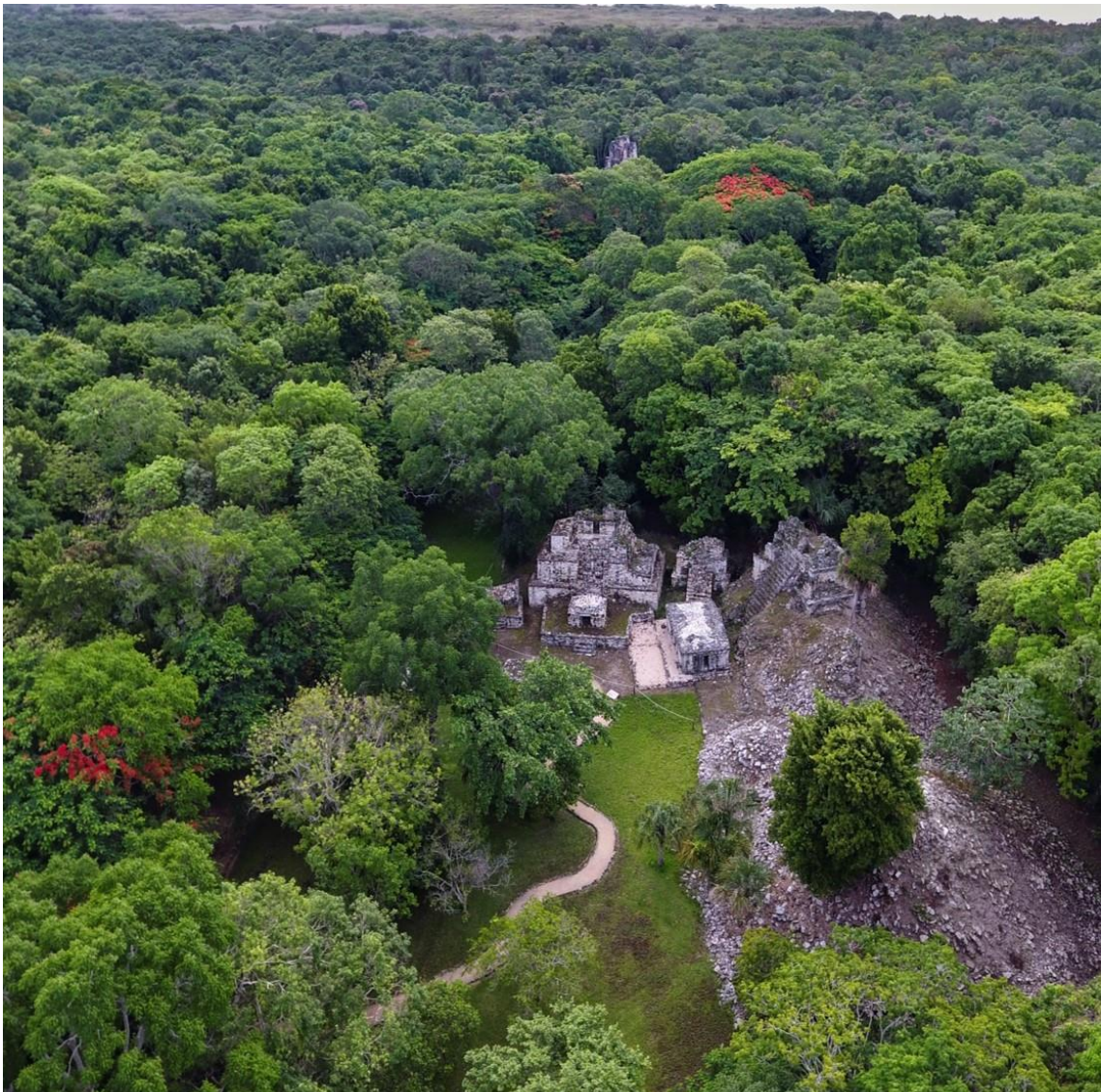




Selva Maya 2030 Comprehensive strategy



Joining efforts for conservation and sustainable

Selva Maya 2030 Comprehensive Strategy

Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development and Immigration of the Government of Belize (MAFFESDI as per its acronym in Spanish)

National Council of Protected Areas of Guatemala (Consejo Nacional de Áreas Protegidas de Guatemala (CONAP)

National Commission of Natural Protected Areas of Mexico (Comisión Nacional de Áreas Naturales Protegidas de México (CONANP, as per its acronym in Spanish)

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Acronyms

ACOFOP	Asociación de Comunidades Forestales de Petén
ADVC	Áreas Destinadas Voluntariamente a la Conservación en México
ALIDES	Alianza Centroamericana para el Desarrollo Sostenible
APAMO	Association of Protected Areas Management Organizations
BAS	Belize Audubon Society
BTB	Belize Tourism Board
CCAD	Comisión Centroamericana de Ambiente y Desarrollo
CECON	Centro de Estudios Conservacionistas de la Universidad de San Carlos de Guatemala
CI	Conservation International
CITES	Convenio sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Silvestres
CMNUCC	Convención Marco de las Naciones Unidas sobre el Cambio Climático
COCODE	Consejos Comunitarios de Desarrollo Urbano y Rural de Guatemala
CODEDE	Consejos Departamentales de Desarrollo Urbano de Guatemala
COMUDE	Consejos Municipales de Desarrollo de Guatemala
CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad de México
CONADUR	Consejo Nacional de Desarrollo Urbano y Rural de Guatemala
CONANP	Comisión Nacional de Áreas Naturales Protegidas de México
CONAP	Consejo Nacional de Áreas Protegidas de Guatemala
CSFI	Corozal Sustainable Future Initiative
DAVCO	District Association of Village Councils Office
DIPRONA	División de Protección a la Naturaleza
DOE	Department of Environment
EISM	Selva Maya Comprehensive Strategy
EMSA	Estrategia Mesoamericana de Sustentabilidad Ambiental (Environmental Sustainability Mesoamerican Strategy)
ERAM	Estrategia Regional Ambiental Marco 2015-2020 (Environmental Regional Strategy Framework)
FCD	Friends for Conservation and Development
FDN	Fundación Defensores de la Naturaleza
FUNDAECO	Fundación para el Ecodesarrollo y la Conservación
GEC	Grupo Estratégico de Coordinación (Coordination Strategic Group)
GIZ	Gesellschaft für Internationale Zusammenarbeit
GOC	Grupo Operativo de Coordinación (Coordination Operations Group)
IDAEH	Instituto de Antropología e Historia de Guatemala
INAB	Instituto Nacional de Bosques de Guatemala
INAH	Instituto Nacional de Antropología e Historia de México
INGUAT	Instituto Guatemalteco de Turismo
INJUVE	Instituto Mexicano de la Juventud de México
INPI	Instituto Nacional de los Pueblos Indígenas de México
MAFFESDI	Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration - Belize

MAGA	Ministry of Agriculture and Livestock of Guatemala
MARN	Ministry of Environment and Natural Resources of Guatemala
MICUDE	Ministry of Culture and Sports of Guatemala
MIDES	Ministry of Social Development of Guatemala
MINECO	Ministry of Finance of Guatemala
PA	Protected Areas
SDG	Sustainable Development Goals
PFB	Programme For Belize
Ramsar	Ramsar Convention on Wetlands of International Importance, especially as Waterfowl Habitat
RBM	Reserva de la Biosfera Maya
SATIIM	Sarstoon Temash Institute for Indigenous Management
SEGEPLAN	Secretaría de Planificación y Programación de la Presidencia de Guatemala
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales de México
SM	Selva Maya
TNC	The Nature Conservancy
IUCN	International Union for the Conservation of Nature
UNESCO	Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura
WCS	Wildlife Conservation Society

Presentation

The Selva Maya, shared by Mexico, Belize and Guatemala, represents one of the most important ecological and cultural systems in the world, with extensive areas of tropical forest, being the second largest block of the Americas after the Amazon jungle, intertwined with a rich historical and cultural heritage. This territory harbors a great diversity of ecosystems and species, being the most northern habitat of many emblematic species such as the jaguar and the tapir, benefiting from a corridor of numerous protected natural areas in which the management categories converge in a geographical continuum. It is also a culturally diverse region with a large majority of indigenous population that keeps its traditions alive, while preserving important archaeological remains of ancestral cultures.

This group of ecosystems, in some cases separated by international boundaries, is united by the conservation efforts and sustainable management of the governments, civil society and cooperation agencies, among other relevant actors. Despite its importance and national and regional efforts, it faces huge threats that compromise its viability and functionality in the mid and long terms, mainly in forest fires, non-sustainable agriculture, felling and illegal trafficking of flora and fauna species and objects of cultural importance. Addressing these threats is a regional challenge that requires joint strategies and therefore it is necessary to promote coordinated efforts between the three countries.

To improve Selva Maya's management there is continuous support to the Strategic Coordination Group (GEC) formed by the government institutions responsible for the management of protected areas in the three countries, the Forestry Department of MAFFESDI, CONAP, CONANP and the CCAD, and the Coordination Working Group (GOC) constituted by the directors of the protected areas of the three countries and other territorial allies.

To strengthen joint and coordinated work among the institutions of protected areas of the three countries, the present Selva Maya Comprehensive Strategy 2030, has been drafted jointly with the relevant actors. During this elaboration process where 65 people participated, 52% were representatives of various bodies of the three States, 34% were representatives of NGOs and foundations, while the remaining 14% were representatives of local communities, the private sector, academia and technical cooperation (See Annex 1).

Visible, integrated and connected

- ✓ A Region with a natural and cultural identity where its ecosystem and historic values are preserved.
- ✓ A Region that promotes the wellbeing of its people and offers globally significant environmental services.
- ✓ A Region that guarantees the conservation and sustainable use of its resources.

Selva Maya

Cultural and natural values and ecosystem services

The Selva Maya region, to date, does not have officially established limits at a national nor regional level. For the drafting of the present strategy, the implementation area of the three projects of the German Government were used via the Central American Commission for Environment and Development (CCAD, for its acronym in Spanish) and the Secretariat of Environment and Natural Resources of Mexico (SEMARNAT, for its acronym in Spanish) to promote a preliminary approximation to the territory in the Region¹. This area extends along southeastern Mexico, which includes parts of the Chiapas, Tabasco, Campeche, Yucatan and Quintana Roo states; the Petén Department in Guatemala, and Belize.

The Selva Maya (SM) is a continuous massif of the most extensive humid and sub-humid tropical forest in Mesoamerica, and the second largest in America. It houses more than 20 types of ecosystems belonging to 5 ecoregions (Olson & Dinerstein, 2002). It is covered with tropical rainforest montane (Lacandon Jungle in Chiapas, Chiquibul and the Maya Mountains in southern Belize) as well as lowland tropical rain forest (Chiapas, the Yucatan Peninsula, Petén in Guatemala and northern Belize) (WWF, 2018; CI, 2004). These ecosystems provide fundamental services in terms of water supply and landscape connectivity, promoting the coexistence of a high biological diversity of representative elements of flora and fauna.

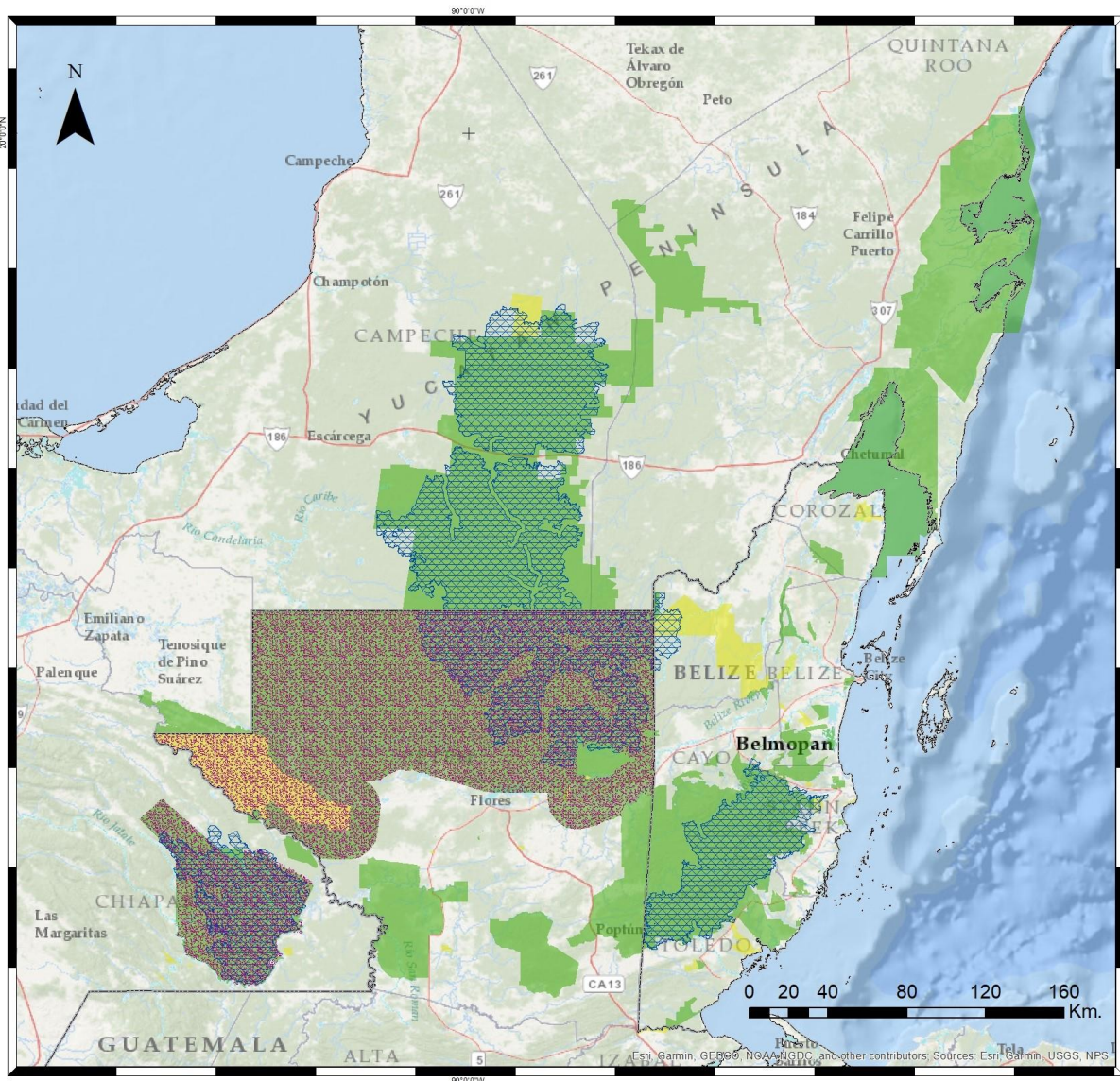
It is the habitat of a large number of threatened and endangered species as well as the more northern populations of many Neotropical species, such as the tapir (*Tapirus bairdii*), the jaguar (*Panthera onca*), the ocelot (*Leopardus pardalis*), white-lipped peccary (*Tayassu pecari*), howler monkey (*Alouatta palliata*), spider monkey (*Ateles geoffroyi*), red macaw (*Ara macao*), harpy eagle (*Harpia harpyja*) and the Moreletii crocodile (*Crocodylus moreletii*). It also presents a high level of endemism with at least 11 species of mammals; 20 species of birds; 39 reptile species, 11 amphibian species and at least 19 endemic fish species (CI, 2004).

This diversity is preserved in 155 protected areas (PA) (61,197 km²)², and 10 of which have an international declaration, including 3 Wetlands of international importance (Ramsar site), 4 Biosphere Reserves and 3 World Heritage Sites (UNEP-WCMC and IUCN, 2019). It also preserves two plant diversity centers (Lacandon Jungle and Petén – Maya Biosphere Reserve) (UNEP-WCMC, 2013) and three continuous blocks classified as intact forest landscape³ which covers 21,392 km² and are located in the Lacandon Jungle, Petén – Clakmul and Chiquibul (Potapov, et al., 2017) (Figure 1 and **Error! Reference source not found.**).

¹ During the participative drafting of the strategic actions, it was agreed upon that one of the fundamental actions would be to establish an agreement between the three countries on the official limits that the Selva Maya region will have for the implementation of the remaining strategic actions.

² Number of protected areas officially established within the limits established for the preparation of this Strategy.

³ An intact forest landscape (IFL) is an uninterrupted extension of natural ecosystems within the current forest extension, with no remote signs of human activity, and large enough so that all native biodiversity can be maintained, including viable populations of broad species (Potapov, et al., 2017).



Legenda

- AP nacionales y comanejadas
- AP privadas, comunitarias y ONG
- Centres of Plant Diversity (2013)
- Intact forest landscapes (2016)

Figure 1. Protected areas, intact forest landscapes and plant diversity centers in Selva Maya. Sources: UNEP-WCMC-IUCN (2019), Potapov, et al. (2017), UNEP-WCMC (2013).

Table 1. Number and area of national and international protected areas in the Selva Maya, by category. Own elaboration based on WDPA (2018).

IUCN Category / Declaration	# PA	Area (km ²)
I - Strict natural reserve	5	5,705
II- National park	27	3,011
III – Natural monument	9	999
IV - Habitat/species management area	24	2,618
V - Protected land/marine landscapes	15	42
VI – Protected area of managed resources	50	32,534
Non-reported category	25	16,289
Ramsar site	3	5,526
Biosphere Reserves	4	42,896
World Heritage Sites	3	9,185

There are many particularities and ecosystem diversities represented in the Selva Maya. Among them for example, are the unique ecosystem relicts such as the oak (*Quercus oleoides*) and pine (*Pinus caribaea*) stands of the Maya Biosphere Reserve in Guatemala, gypsum outcrop areas in the Mirador-Río Azul National Park; and reefs of freshwater bivalve mollusks and mangrove remnants. It also houses the Laguna del Tigre National Park, in Guatemala, which represents the largest freshwater wetland in Mesoamerica (CONAP, 2017). Likewise, there are several enclaves of great importance in terms of biodiversity conservation, such as the Chiquibul Forest Reserve of Belize, which is part of the biological corridor due to its strategic location adjacent to other protected areas of Belize and Guatemala: the Maya Mountains Biosphere Reserve - Chiquibul (RBMMCh), Chiquibul National Park, the Caracol archaeological site considered the largest in Belize and one of the largest in the Region, the Doyle's Delight protected area for being the highest peak in Belize, among others (KFW, 2016).

In Mexico, the Sian Ka'an Complex has an underwater freshwater river system that interconnects with the cenotes and the Petens, unique in the Yucatan Peninsula and the world; being this the most important natural capital of the Reserve and considered an invaluable treasure for future generations. In addition, it provides a habitat for a large number of resident and migratory birds, such as the Jabiru (*Jabiru mycteria*), the largest stork in the American continent, which nests in the area, as well as for four endangered species: the jaguar, the tapir, the manatee and the peccary (SEMARNAT - CONANP, 2014). With more than one million hectares of well-preserved jungles, Calakmul is perhaps the most representative Mexican portion of the Selva Maya. Its landscape is characterized by a carpet of tropical vegetation that includes species such as chewing gum, breadnut (Maya nut), cedar, mahogany and the bloodwood tree among the more than 300 species of trees and it is one of the richest regions in fauna species biodiversity of Mexico. In addition, this forest massif connects with the Guatemalan Petén, strengthening the forestry complex of the Selva Maya (KFW, 2016).

This diversity of ecosystems requires good connectivity for its proper functioning. A global analysis is available that quantifies how well terrestrial protected areas systems are designed in each ecoregion to support connectivity (Saura, et al., 2018). In the SM, only the ecoregions of Belize's pine forests and the wet forest of Petén – Veracruz, have values close to 25% of their surface covered by connected protected areas. The remaining 3 ecoregions of SM present values lower than 20% (Figure 1).

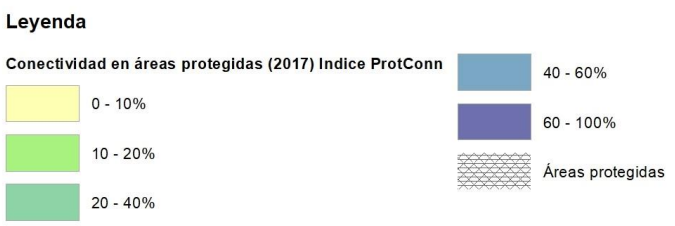
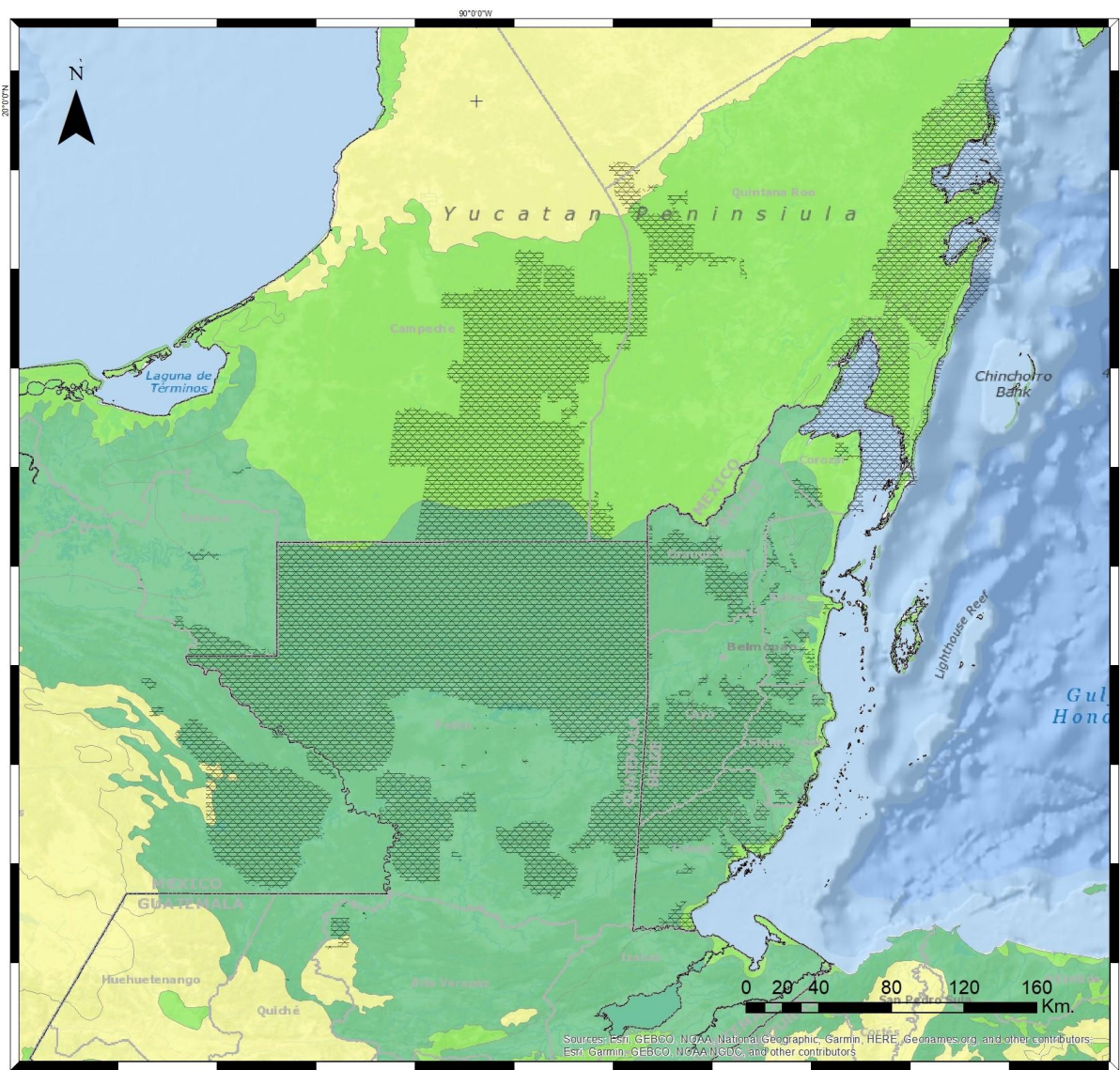


Figure 1. Connectivity in protected areas (2017). Own elaboration based on Saura et al. (2018).

Although the biological corridors are not defined as legal figures (e.g. Belize) or are established from different strategies (e.g., the Volunteer Areas for Conservation (ADVC, for its acronym in Spanish) in Mexico), they are territories where the promotion of conservation and restoration activities of some of the ecosystem functions are essential in allowing the connectivity in the landscape. There are bordering areas that exist that due to their connectivity and coverage ensure the viability and mobility of a large proportion of the shared biodiversity, including the Usumacinta river basin (Mexico and Guatemala), the area between the Maya Biosphere Reserve (Guatemala), Calakmul (Mexico) and Río Bravo (Belize), and the Maya Mountains between Guatemala and Belize (TNC, 2006). In the Yucatan Peninsula, 12 biological corridors have been identified for the jaguar, where 37% are part of the PA

system, which represents a large percentage of protected corridor for these species in Mexico (Ceballos et al.,2018). The sustainability of the ecological viability of these large blocks depends on them staying together as one unit, for which they require a coordinated management among the institutions responsible for the management and conservation of each of the countries involved.

In the SM territory there are different management and administration schemes for natural spaces and productive landscapes. As indicated in Table 1, those spaces with some category of protection amount to more than 60 thousand km² (see **Error! Reference source not found.**). Both inside as well as outside of these protected ecosystems, various productive activities are carried out, among which community forestry, livestock, family farming and tourism stand out.

The weight that the primary sector has on the economy, as well as the cultural roots of agricultural activity and the scarcity of economic alternatives, evidence the need to continue implementing sustainability measures for agricultural activities in order to stop the loss of forest cover, reduce the fragmentation of ecosystems and habitats, and at the same time improve the living conditions and well-being of its inhabitants.

Family farming is based on the establishment of *milpas* (cultivation of corn and beans in association), and family gardens. The latter, more complex and varied, represent an important space for social and cultural cohesion through the activities of biodiversity use and management. Family gardens are an important element in the life strategies of most local communities, even though working in family gardens is generally considered a marginal activity, which is mainly carried out by women and children (Santana, Salvatierra Izaba, Parra Vázquez, & Arce Ibarra, 2013). The use of plants in family gardens are mainly for food, medicine and ornaments. Different studies show a high diversification in family gardens in the area (between 60 to 100 plant species, although a large part have been introduced) (Góngora-Chin, Flores-Guido, Ruenes-Morales, Aguilar-Cordero, & García-López, 2016; Caballero, 1992).

Livestock is one of the main productive activities in SM. It should be noted that farmers usually have access to larger tracts of land to carry out their productive activities than small farmers, and greater purchasing power. The expansion of livestock areas is one of the main causes of deforestation processes in the SM, exerting strong pressure on ecosystems (Herrera 2019, personal communication), with livestock being one of the main engines in the expansion of the agricultural frontier (Carr D. L., 2005; Carr D. , 2007; CONAP, 2015; Elis, Romero Montero, & Hernández Gómez, 2015; Sabido, W., 2018). In this sense, the intensification and improvement in livestock management is key to the recovery processes and restoration of ecosystems in the SM.

There are countless experiences and lessons learned about sustainable production processes in the SM. In the three countries, efforts are being made to reconvert productive ranching towards the adoption of silvopastoral systems and forest plantations; the consolidation of the economy and farmer property through agroforestry systems and diversified family agriculture, technical and credit assistance, and support for the diversification of productive activities friendly with the conservation of biodiversity, such as honey, handicrafts, sustainable tourism among others (Castillo, A.; Corral Verdugo, v.; González Gaudiano, E.; Paré, L.; Paz, MF.; Reyes, J.; Schteingart, M., 2009; SEGEPLAN, 2013; Jolon, Cruz, Manzanero, & Rojas, 2018; CONAP, 2015). In the Maya Biosphere Reserve (RBM) and in the buffer zones of the Calakmul Biosphere Reserve (RBC), for example, local instruments and proposals for intensive silvopastoral systems are being developed, with the participation of the livestock producers of the area, to improve productivity and contribute to the restoration of the landscape (MAGA – Municipality of Petén, 2019).

The impact of these productive transformation processes in the SM landscapes will be greater if the countries succeed in supporting coordinated actions, particularly in terms of sharing lessons learned

and innovative experiences, and in the knowledge management regarding practices and their link to biodiversity conservation and restoration.

It is important to highlight the fact that, although the conversion of natural habitats to agriculture and livestock has generated net benefits in economic terms for local and national economies and for some sectors of the population, it has also produced reductions in other services, such as carbon capture, water provision and floods regulation. Unfortunately, the value of these services and particularly the costs linked to their decrease are not accounted for in public accounts, nor are they taken into account in the planning of the private sector.

There are many ecosystem services that the natural SM ecosystems provide. One of them is the capture and supply of freshwater. The region is comprised of an important and complex superficial and underground water network. As indicated previously, the Sian Ka'an Complex stands out globally for its underground freshwater river system that interconnects with the cenotes and the Petens. In addition, the SM Region includes the mid and lower parts of the Usumancinta river basin, which together with the Grijalva river basin, is one of the most important fluvial systems in Mesoamerica (CI, 2004). For example, more than 50% of the freshwater available in Mexico originates from the SM, while the coastal wetlands of Tabasco, Campeche and Veracruz depend on it and are therefore linked to economic activities such as shrimp farming and fishing (TNC, 2006).

Another service provided by the Selva Maya ecosystems is, of course, its forest resources. Forestry uses timber species of commercial value, among which are the cedar (*Cedrella odorata*), mahogany (*Swietenia macrophylla*), and the almond tree (*Terminalia amazonia*). In addition, non-timber species such as chewing gum (*Manilkara zapota*), xate (*Chamadorea spp.*), pepper (*Pimienta dioica*), the bloodwood tree seed (*Brosimum alicastrum*) and black stick (*Haematoxylon campechianum*) (Briggs, et al., 2013; Jolon, Cruz, Manzanero, & Rojas, 2018).

There are different community forestry and forest concessions experiences, among which the ones implemented by the RBM in Guatemala stand out, which have positioned this country among the first in greed certification worldwide. Similar efforts have been carried out by Mexico (for example, the Nuevo Becal, Calakmul, Campeche Ejido) and in Belize through the forestry certification process carried out in coordination with the Rain Forest Alliance. It is worth mentioning that these community forest concessions of the RBM, for example, have been consolidated in a model based on the exploitation of wood products, non-timber products and tourism services that have supported the diversification of forest products, the articulation and optimization of timber and non-timber value chains, which has generated a strong interest in protecting these areas for the economic benefits they have generated. To strengthen the participation of women and young people, the integral approach to forest management has been promoted, achieving greater participation of these groups in the chains of honey, xate (*Chamaedorea spp.*), pepper (*Pimienta dioica*) and chewing gum (*Manilkara zapota*) (Jolon, Cruz, Manzanero, & Rojas, 2018).

These processes have shown that in a few years it is possible to develop a forest management model with positive impacts on conservation and community livelihood strategies. Reducing the impact of forest fires, eliminating logging and illegal settlements are the main social and environmental achievements of community management. These community concessions, in addition, have been successfully inserted into the certified wood market (Fundación PRISMA, 2006).

In addition to timber and non-timber forest products, communities make use of diverse elements of biodiversity, particularly from humid forests. It is estimated that local people use about 546 species of natural ecosystems (216 of fauna and 330 of flora) (Jolon-Morales, 2008). In the particular case of Calakmul, in the family gardens a high richness of plant species is used, both from the native vegetation and from cultivated species, in total there are 369 species of plants from 85 families

(Perea-Mercado S.L. y Alayón-Gamboa J.A., 2014). In those same spaces, 20 animal species with diverse uses ranging from food, medicine and aesthetics are used (Neulinger K., Alayón-Gamboa J.A., Vogl C.R., 2014). Additionally, on the plot where the milpa polyculture is carried out, 31 cultivated vegetable species are used (Alayón Gamboa J.A., 2006). It is worth mentioning that a study carried out on the local perception of the ecosystem services of the Quintana Roo jungle in Mexico indicate that the local people identified that the greater number of ecosystem services related to their welfare originate in the jungles and the secondary forests with more than 20 years of being established (Infante Ramírez & Arce Ibarra, 2015).

On the other hand, there are multiple cultural services of the Selva Maya, because it housed great Mesoamerican civilizations such as the Olmec and the Maya. The vestiges of these civilizations are conserved in archaeological sites that are located in extensive areas of forest, where the natural and cultural heritage is conserved equally. It is estimated that the Mayan area is one of the regions with the highest density of archaeological sites in the world (TNC, 2006).

The foregoing, conjugated with its natural riches, makes the SM an area of great importance for tourism. Currently, tourism is part of the activities of many local groups providing jobs and income to communities, however, the economic benefits do not yet reach the community as a whole as most of the profits remain in the hands of the agencies and tour operators in the region (Santana, Salvatierra Izaba, Parra Vázquez, & Arce Ibarra, 2013). In fact, for Yucatan it is reported that ecotourism has contributed to the creation of jobs and the permanence of heads of family in their communities, mitigating migration, in addition it has contributed to obtain additional income. In spite of this, there is an unequal relationship in the distribution of economic benefits, where men predominate over women, in addition to the monopoly of tourism operators (Santana, Salvatierra Izaba, Parra Vázquez, & Arce Ibarra, 2013).

In addition to being a potential ally to increase the impact of good practices that are already being used in various sites, the tourism sector can be a source of tension and degradation, if it is not based on adequate and sustainable norms. An example of this in the Sian Ka'an Biosphere Reserve (RBSK) indicates that the main socio-environmental conflicts exist between the set of actors that promotes conservation and another group of stakeholders interested in direct (fishing and hunting) and indirect (tourism) use of natural resources (Brenner & Hüttl, 2007; Toledo-Gallegos, 2013). It is worth mentioning that the main threat originates from the external actors involved in tourism development, who have prominent resources of power, are difficult to influence and also, are able to easily escape from the control and regulatory measures (Brenner & Hüttl, 2007). In spite of this in the RBSK itself, particularly in the Vigía Chico community, tourist cooperatives have been formed that currently make joint decisions and begin to invest in common goods (infrastructure) for tourism services. The collaborative work strategies help them to respond to the threats that the private initiative represents for the possession of their resources and to face both the state interventions and those of the private initiative in the area (Gracia, 2015).

Considering the above elements, the fact of valuing the provision of ecosystem services of the Selva Maya becomes fundamental for an adequate decision making and can feed alternative and innovative financing schemes that support its conservation and restoration, including carbon sequestration. It should be noted that national governments are the largest investors in the area, but they have multiple priorities and do not allocate sufficient funds to the environmental sector according to their relative importance in other sectors (education, health, infrastructure, etc.). On the other hand, the vast majority of companies and the general population do not pay or economically compensate for the ecosystem services they receive, which is why governments, together with some civil society groups, must assume the costs of conservation (TNC, 2006).

The drivers of degradation⁴

The Selva Maya is under high anthropic pressure that results in the loss of its biodiversity, in addition to the effects of climate change, this situation threatens the subsistence of the local population. One of the main causes of the loss and degradation of biodiversity in the Selva Maya is a model of economic development that to date has not been able to lift more than 59% of Guatemalans out of poverty, more than 30% of Belizeans and 43% of Mexicans (World Bank, 2019 ; World Bank, 2019; CONEVAL, 2016). People with limited resources lack access to education, health, credit and property, and have few economic options besides working marginal lands for agriculture. The combination of poverty and lack of health and education have generated problems such as population explosion, high rates of mortality and malnutrition, and lack of capacity to apply strategies of rational management of resources (CI, 2004).

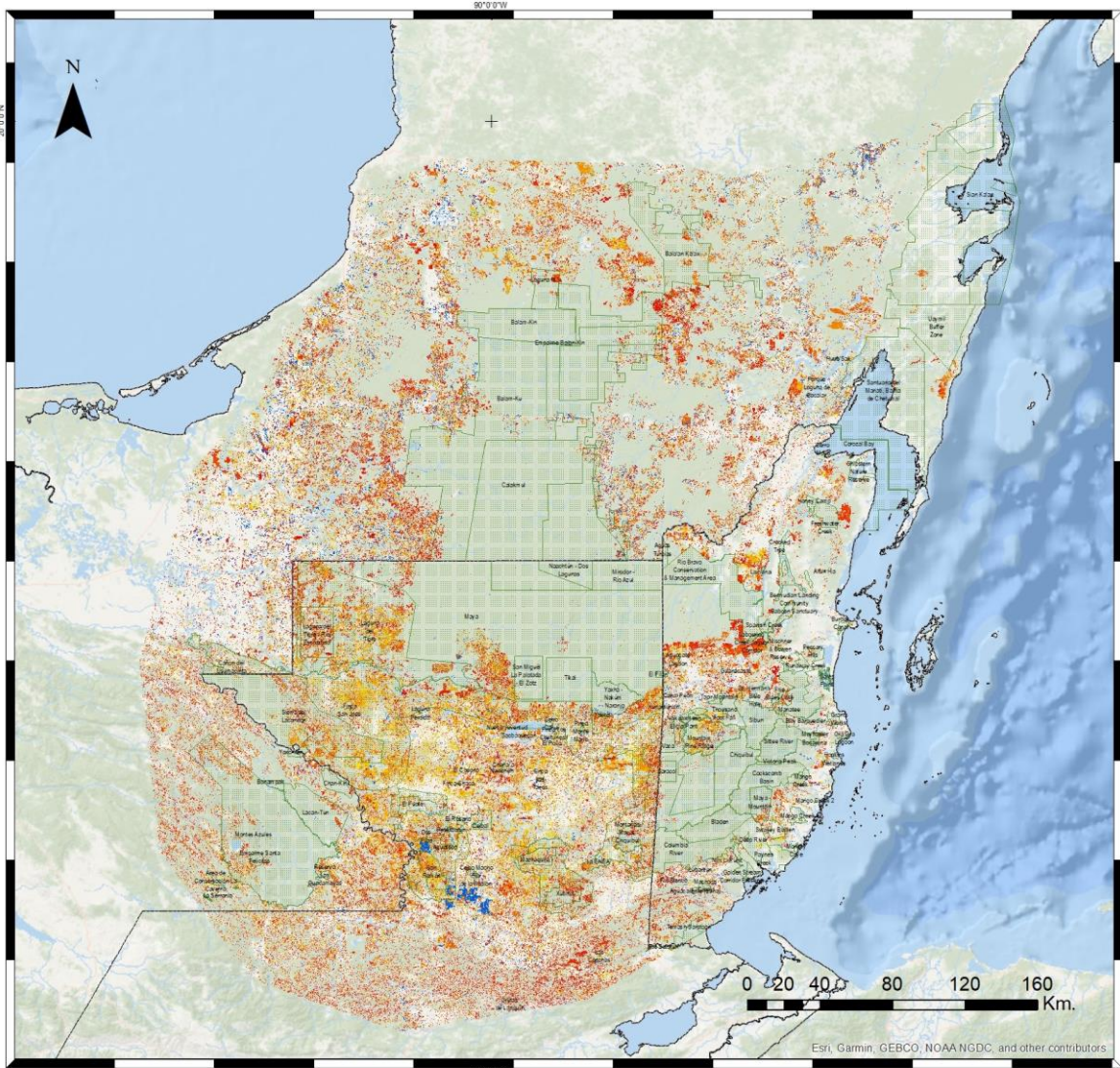
Livestock, the expansion of areas dedicated to subsistence agriculture, and the expansion of the road network are the main causes of deforestation. A study for the period 2001 - 2013 on the causes of deforestation in the Yucatan Peninsula indicates that the largest deforested area is due to livestock (50% of the deforested area) followed by subsistence agriculture (16%), mechanized agriculture (13%) and fires (10%) (Elis, Romero Montero, & Hernández Gómez, 2015). This situation is similar in the rest of the countries of the SM. (Carr D. L., 2005; Carr D. , 2007; CONAP, 2015).

If the last available global data are analyzed, the Selva Maya has recovered approximately 9,000 hectares of forest between 2000 and 2012 and has lost more than 97,000 hectares between 2000 and 2018. The loss has mainly occurred in 2016 and 2017, which has been particularly intense in the buffer zone of the RBM (Guatemala) and the Pas, Bala'an Ka'ax and Calakmul (Mexico) (Hansen, et al., 2013)⁵ (Figure 2).

Deforestation has impacts that extend beyond the forest itself. Logging reduces seedling recruitment and canopy cover, creating light gaps for other plant species, which alters the composition of the species and creates a cascade of effects on forest dynamics (Briggs, et al., 2013). On the other hand, the removal of vegetation leads to erosion, disturbed hydrological cycles and heavy sedimentation in rivers and coasts, thus exacerbating the impact of extreme weather events. There are many examples and cases of deforestation, with the consequent economic losses. In the Chiquibul Forest Reserve in Belize, it is reported that, each year, slash-and-burn agriculture (Briggs, et al., 2013; FLEGT, 2019). The RBM leads to the loss of about US \$ 526,000 in carbon stocks the main agents of deforestation identified were subsistence farmers and small, medium and large-scale farmers, agro-export companies and oil companies (GUATECARBON , 2019).

⁴ In this document degradation will be understood as the deterioration of the quality of the ecosystems, the soil, and / or the water resources in a landscape, caused generally by an unsustainable use, and including the deforestation.

⁵ It should be noted that Hansen, et al., (2013) corresponds to the publication on the analysis methodology, which are updated periodically. For the present strategy, the data updated until 2017 was used. For more information refer to: <http://earthenginepartners.appspot.com/science-2013-global-forest>



Leyenda

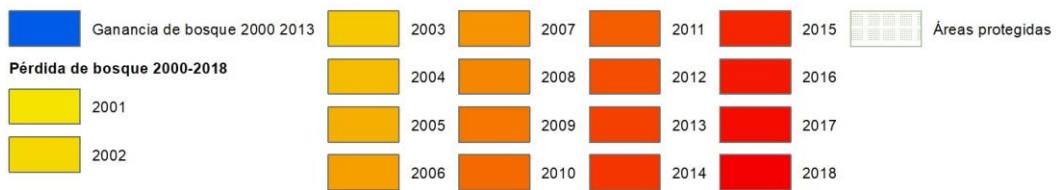


Figure 2. Areas with loss and gain of forest cover in the Selva Maya. Own elaboration based on data Hansen et al. 2013- 2018.

In Guatemala there has been a downward trend in deforestation in the MBR and the net rate of changes in land cover after a record peak in 2008 (CONAP-WCS, 2015) with an average loss of 15,000 ha / year for the period 2000-2017 (CONAP - WCS, 2018) . This trend has coincided with the increase in personnel and infrastructure of territory control, and the areas where the reductions have been most drastic coincide specially with those more patrolled and where territories have been recovered (CONAP-WCS, 2015). Belize preserves 59% (for 2017 according to the analysis by the Forestry Department) of its surface under forest cover (45% primary forests) (Sabido, W., 2018), but it has

experienced high rates of deforestation⁶, illegal logging being one of the drivers of deforestation in Belize (FCD, 2015). To this is added a process of transculturation linked to different forms of biodiversity appropriation. In Yucatan, for example, changes in forest cover have occurred due to mobilization processes of people from other States of the country with different views on the use of ecosystems and biodiversity (Gracia, 2015; Brenner & Hüttl, 2007).

On the other hand, there is evidence of connectivity loss between many of the protected areas of the Selva Maya (CONAP, 2015; Briggs, et al., 2013). This loss of connectivity has been reported between the Chiquibul / Mayan Mountains massif in Belize and the Mayan Biosphere Reserve in Guatemala where illegal gold mining has increased, stripping some areas of vegetation (Briggs, et al., 2013) (Figure 2). Simultaneously, the old archaeological temples and historical remains are removed by looters, fed by the black-market demand of exotic antiquities (Briggs, y et al., 2013).

Wildlife extraction is widespread and represents a serious threat to the stability of specie populations that inhabit the ecosystems of the SM, since hunting is a common practice it is an easy and immediate way to generate monetary income (Jolon-Morales, 2008). A variety of hunting species have been reported, including some that are not usually hunted for consumption, such as the tapir (*Tapirus bairdii*), spider monkeys (*Ateles geoffroyi*), black howler monkeys (*Alouatta pigra*) and scarlet macaws (*Ara macao cyanoptera*), yellow-headed parrots (*Amazona oratrix*), deer (*Odocoileus virginianus*), turkeys (*Crax rubra*, *Meleagris ocellata*, *Penélope purpurascens*) and the lowland paca (*Cuniculus paca*) (Jolon-Morales, 2008; Walker et al. 2008; Brigs et al. 2013). Poor enforcement of the law allows illegal and unsustainable hunting and wildlife trafficking, despite the fact that all three countries have laws that prohibit hunting or gathering of endangered or threatened species, which prohibit hunting within protected areas. protected areas and their buffer zones and that in other areas regulate, through strict permits, capture rates and limit them to specific areas and stations (CI, 2004).

Another one of the pressures on ecosystems is forest fires (Figure 4 and Figure 5). These, in some cases, are a natural factor that creates and maintains ecological systems such as savannas and pine forests, for example. However, in most cases the fires threaten the ecological integrity of other systems, such as the humid and dry tropical forests which are not adapted to fire regimes (Pantoja-Campa, 2009).

Fires affect several critical protected areas and represent a serious threat to the integrity and connectivity of protected areas and biological corridors, particularly in Mexico and Guatemala. Protected areas affected by recurrent forest fires in Guatemala include Laguna del Tigre National Park, Sierra de Lacandón Park, Machaquilá and the Maya Mountains, with a total area of 5,100 km² (CI, 2004). Data for the RBM of 2017 report an area affected by fires of 35,000 hectares (CONAP - WCS, 2018). In Mexico, more than 50,000 affected hectares are reported for the southeastern states and the period January 1 to May 30, 2019 (Figure 4) (SEMARNAT - CONAFOR (a), 2019; SEMARNAT - CONAFOR (b), 2019).

⁶ With a decreasing tendency going from 1% per year in the period 1990-2000, up to 0.4% between 2010 and 2015.

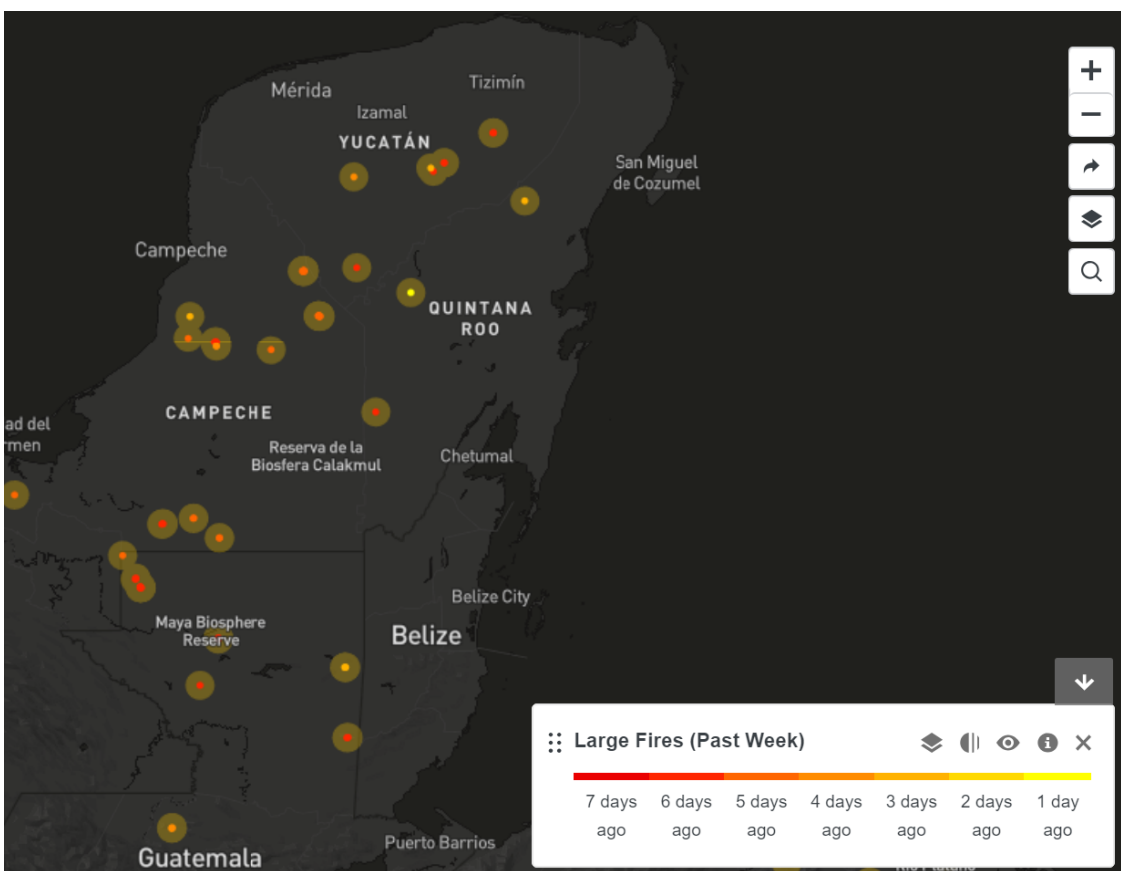
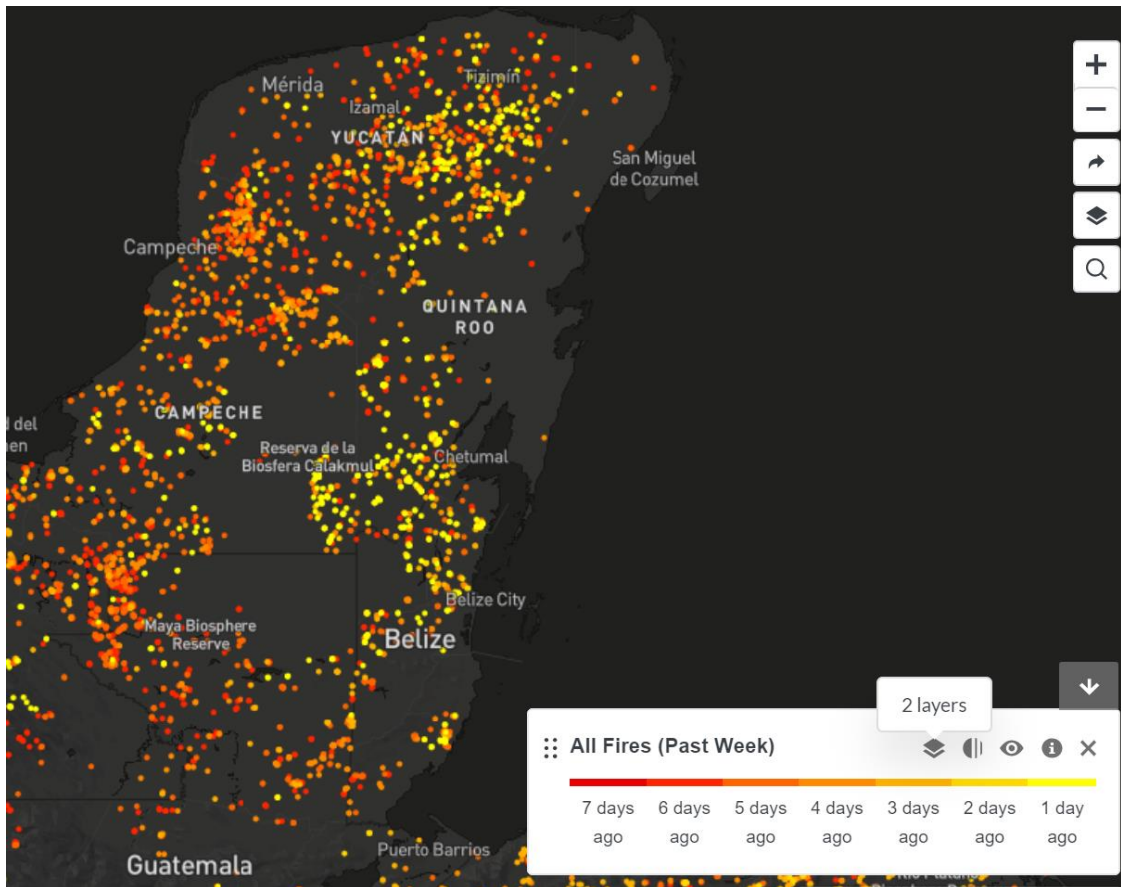


Figure 3 Fires registered in the week of April 8 to 14, 2019. Top: total of fires. Bottom: major fires Data source: NASA - FIRMS (Fire Information for Resource Management System).

Most of the fires are caused by agricultural burning that gets out of control, and by activities associated with the hunting or burning of waste (SEMARNAT - CONANP - Sian Ka'an K'aak'fuego, 2019). This directs attention to the work that must be done with the communities so that fire is used responsibly, while promoting alternatives that reduce the use of fire. Studies show that there is a direct relationship between the areas with the highest recurrence of hot spots and the areas with the highest density of roads (Pantoja-Campa, 2009).

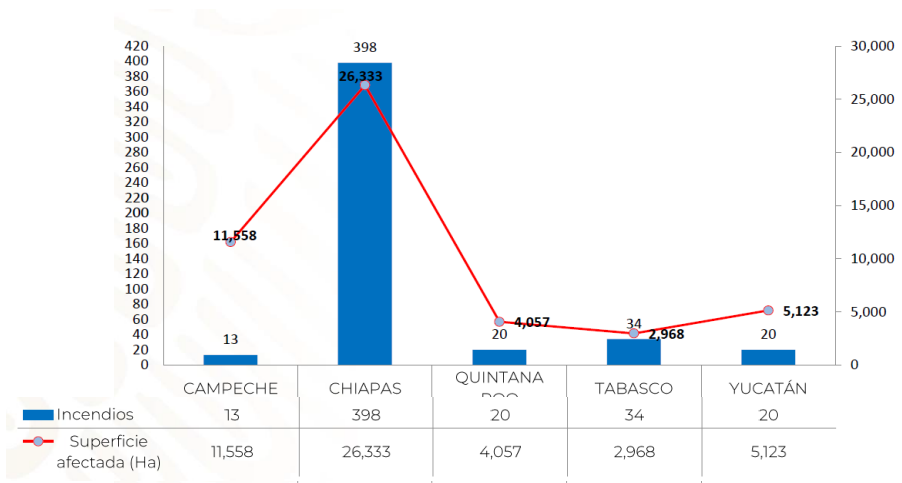


Figure 4. Official statistics on accumulated fires. Taken from SEMARNAT - CONAFOR (2019)

Since 1998, non-governmental organizations (NGOs), international organizations, community organizations and communities have become involved in fire management. Likewise, the three countries have a fire management policy and a series of documents that provide guidelines for fire management. In this sense, the main weaknesses to fire management derives from the scarcity of economic and human resources and their adequate coordination. On the other hand, among fire managers, it is common to see that the underlying causes of forest fires are: on the one hand, the insensitivity of farmers and ranchers about the negative impacts that result from the irresponsible use of fire and , on the other hand, the problems of land tenure, which discourages the promotion of more sustainable production alternatives that could impact on the reduction of practices that use fire (Pantoja-Campa, 2009).

The expansion of roads also affects biodiversity conservation. This expansion is recently linked to improving access for tourists, which has also facilitated the movement of farmers (Walker et al. 2008, Briggs, et al., 2013). In the RBM, for example, it has been reported that 95% of forest losses occurred at distances less than 18 km of roads that were being maintained (CONAP - WCS, 2018). The effects of roads and urban and tourist infrastructure include the fragmentation of forests and the loss of connectivity, damage to forest trees, barriers to the movement of species that affect the dynamics and survival of wildlife populations. They also have an impact on the increase of exotic species and increased human contact with flora and fauna with the potential for greater exploitation, a greater spread of diseases and fires (Briggs, et al., 2013).

The current conservation mechanisms are based on control, and to achieve its effective application, a control framework and an operative and functional judicial framework are essential. However, in the three countries they deprive serious problems of non-compliance with the law due to lack of resources, little personal and in some cases a better political will on the part of the institutions of control and justice for the control and compliance of the laws. Impunity at different levels makes the adequate application of the law increasingly difficult, weakening the governability of the three countries, with the consequent environmental degradation (TNC, 2006; CONAP-WCS, 2015). This weakness in governance and governability is compounded by insecurity in land tenure that has been a propitiator for invasions and changes in land use in forested areas, mainly in protected natural areas (TNC, 2006).

Likewise, insecurity in land tenure generates a considerable disincentive for sustainable use and conservation of resources. A secure title, links farmers to an area instead of pushing them to constantly extend their scope to new forested areas. This dynamic occurs especially in politically sensitive areas, such as Laguna del Tigre in Petén, or in the Lacandon Forest Reserve, where in recent years more than 30 invasions have occurred. Local governments often lack the capacity to provide title to legitimate landowners, which is a contributing factor to unsustainable practices (CI, 2004).

Another impediment to proper management of the SM has been the lack of pertinent information available at the right time for assertive decision-making and to influence topics such as agricultural policies or infrastructure development. In the same vein, civil society groups, especially those that represent indigenous peoples and others in the poorest sectors of the region, lack access to information and have difficulty tracing and analyzing complex technical information. These limitations have resulted in citizens being poorly equipped to participate constructively in making decisions about critical issues that impact biodiversity. The need to strengthen dialogue and collaboration has been repeatedly highlighted in the region (CI, 2004).

Although civil society has contributed significantly to the conservation of biodiversity over the last two decades, current efforts must evolve towards strengthening and unification around more strategic and collaborative actions, and integrated at the regional level, in order to confront the priority threats. This strengthening and integration is essential, particularly if one takes into account that the pressures described will continue unless more sustainable practices are adopted for the management of landscapes, including productive lands and forests.

This is combined with a development paradigm and a political vision that has been based on the extraction of resources in the short term and that has not managed to properly value biodiversity in terms of its contributions to sustainable development and the well-being of current and future generations. In fact, many contradictory policies have been implemented. On the one hand, extensive areas have been reserved for their protection and conservation, and on the other, development policies have promoted the extraction of natural resources, such as extensive agriculture, logging and oil exploitation (CI, 2004). Such policy failures continue to be widespread throughout the region and, therefore, require a citizenship (understood by all the citizens of a nation) involved and participative at local, national and regional levels, to promote a change in favor of the conservation of habitats and species.

The Framework for Action

In order to elaborate the framework for action, the information available on the central themes already defined and agreed by both GEC and the GOC was reviewed in various joint planning meetings held in 2018. Sixty-three (63) instruments generated between 1986 and 2018 were systematized in the three countries and at a regional level. These instruments were selected as the institutional, policy and legal framework that currently serves as a basis to justify the processes of conservation and sustainable use of the Selva Maya resources promoted from each country, as well as to identify the programs, laws or regulations where currently related actions are being promoted. For the most part, they correspond to laws and their regulations (16) and strategies (14), followed by plans (11), programs and projects (13), policies (5) and 4 agreements among which collaboration mechanisms between countries are included; and regional networks (see full list, Annex 2). The main themes addressed by the instruments are shown in the Figure 5⁷.

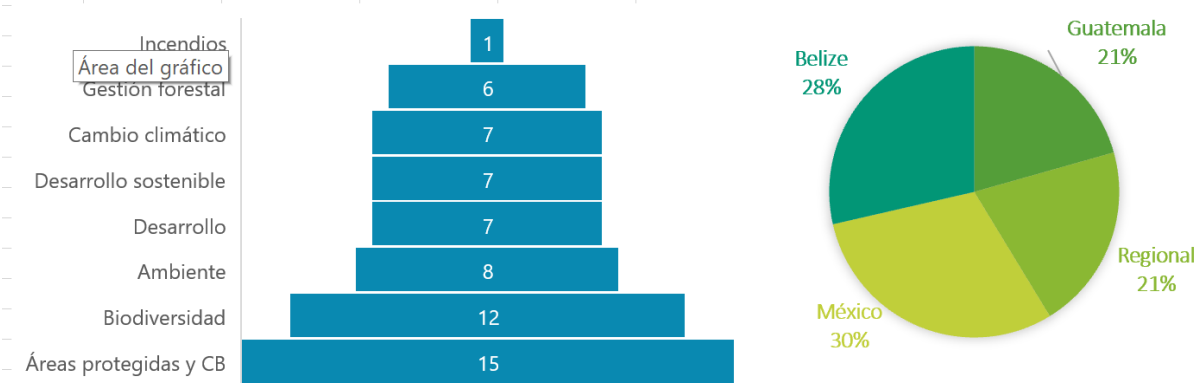


Figure 5. Central themes and application territory of the analyzed tools.

Fires
 Forest management (Graph area)
 Climate change
 Sustainable development
 Development
 Environment
 Biodiversity
 Protected areas and CB

⁷ To evaluate to what extent these instruments will be useful for the strategic planning that is being carried out in the Selva Maya, they were analyzed in light of the following questions:

- Does the instrument develop actions around the management and sustainable use of ecosystems and other resources?
- Does it refer to the theme ecosystem services??
- Does it address negative impacts on natural resources?
- Is the topic of adaptation and / or mitigation of climate change considered as part of the instrument?
- Does it propose measures or actions related to knowledge management for decision making?
- Does it take into consideration social participation for the development of the proposed actions?
- Does it have any type of management and advocacy mandate that promotes the visibility of the Selva Maya and its local, regional or international importance?
- Does the coordination plan for land management between governments?
- Does it reference the financial sustainability of the processes and actions?

Institutionality

The strategic proposal for the Selva Maya is being led by the three government institutions responsible for the administration and management of protected areas in the countries.

In Belize, the Ministry of Agriculture, Fisheries, Forestry, Environment, Sustainable Development and Immigration (MAFFESDI) was created in 2015 from the merger of the Departments of Agriculture and Environment that adhered to the existing Ministry of Forestry, Fisheries and Sustainable Development (MFFSD). The objective of this amalgam was to ensure resource efficiency and to allow the coordination between the departments that lead the administration of natural resources. Among its various functions are some key factors in the context of this process, such as: 1) stimulating and facilitating the growth of the agricultural and fishing sector and reducing rural poverty; 2) improving and conserving the natural and productive resource base to guarantee a long-term sustainable productivity and viability; and 3) improve access to productive resources and services and create economic opportunities for small farmers, women and indigenous people, particularly in marginal areas (MAFFESDI, 2019).

In Guatemala, the National Council of Protected Areas (CONAP, for its acronym in Spanish) is a public, autonomous and decentralized entity that works together with several different actors to conserve protected areas and biological diversity. Created in 1989, it depends directly on the Presidency of the Republic. It is the maximum body of direction and coordination of the Guatemalan System of Protected Areas (SIGAP, for its acronym in Spanish). It has jurisdiction throughout the national territory and its maritime coasts. Among its main functions are the coordination and administration of biodiversity; as well as ensuring that the provisions on the conservation of biological diversity, contained in the international instruments ratified by Guatemala, are applied (Programa Selva Maya, 2019). Its main mission is to ensure the conservation and sustainable use of the biological diversity and protected areas of Guatemala, as well as the natural goods and services that these provide to present and future generations, through designing, coordinating and ensuring the application of policies, norms, incentives and strategies, in collaboration with other actors (CONAP, 2019).

In Mexico, the National Commission of Natural Protected Areas (CONANP) is a decentralized body of the Secretariat of Environment and Natural Resources (SEMARNAT, for its acronym in Spanish). It has existed since 2000 and currently manages 182 Protected Natural Areas (PNA), one of the basic instruments of public policy for the conservation of biodiversity. The CONANP is also responsible for implementing the Sustainable Regional Development Programs not only in Protected Natural Areas but in other Priority Regions for Conservation that do not have a decree of protection; it currently supports 379 Areas Voluntarily Destinated for Conservation⁸ (CONANP, 2014). The CONANP's mission is to conserve the most representative ecosystems of Mexico and their biodiversity, through PAs and other conservation modalities, promoting a culture of conservation and sustainable development of the communities settled in their environment, with inclusion and equity criteria. To support effective management in the environmental sector, CONANP is part of the six pillars of environmental policy: 1) integrity, 2) commitment of all economic sectors, 3) new environmental management, 4) valuation of natural resources, 5) adherence to legality, fight against environmental impunity and social participation and 6) accountability (CONANP, 2019).

⁸ The areas voluntarily destined for conservation (ADVC, for its acronym in Spanish) are natural protected areas of federal character established by certificate, and recognize the initiatives of the indigenous peoples, social organizations, moral persons, public or private, in voluntarily allocating the properties of their ownership and their resources for conservation actions (CONANP, 2018).

Legislation, National and Regional Planning Framework

At the international level, the three countries are signatories to a set of international treaties that are linked to the conservation of biodiversity, among which the Convention on Biological Diversity and particularly its Strategic Plan for Biodiversity 2011-2020 (and its Aichi Targets, specifically target 11), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on the Protection of the World Cultural and Natural Heritage of UNESCO, the Convention on Wetlands of Importance International, especially as Waterfowl Habitat (Ramsar), the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. The implementation of the Selva Maya 2030 Comprehensive Strategy (SMCS) will contribute substantially to the fulfillment of several of the Aichi Targets, as well as to contribute to the fulfillment of the Sustainable Development Goals, as subsequently reflected in the development of the strategic framework.

On the other hand, Guatemala and Belize are signatories of the Central American Alliance for Sustainable Development (ALIDES) and of the Convention for the Conservation of Biodiversity and Protection of Priority Wild Areas in Central America, within the framework of regional integration promoted by the Central American Commission for Environment and Development (CCAD). These agreements have been ratified by the countries, for which they bind the States in a mandatory way to comply with their provisions (KFW, 2016). Likewise, the three countries are part of regional development initiatives such as the Mesoamerica Project, from which derives the Mesoamerican Environmental Sustainability Strategy (EMSA, for its acronym in Spanish). It is worth noting the role of Mexico as an observer of the SICA and CCAD in monitoring agreements such as the Tulum Declaration that allow working on joint initiatives such as regional programs and projects, such as the Selva Maya.

There is a set of bilateral agreements and treaties for the protection and improvement of the environment, and for technical and scientific cooperation, which constitute a framework for action and a legal basis for the joint action of the countries. This, together with the participation of the three countries in international initiatives, such as the RedParques, provide dialogue opportunities for joint strengthening.

At the national level, each of the three countries has a legal, political and strategic framework that supports the processes of conservation and sustainable management of biodiversity, ecosystems and their associated resources. The three countries also have a series of planning tools that make it possible to make effective the instrumentalization of actions around the management and shared conservation of the Selva Maya that have been developed and that can support the EISM. When the 63 instruments are analyzed together, they can be seen, for the most part, developing actions or taking into consideration the issue of management and sustainable use of ecosystems and other resources and their ecosystem services, while addressing related issues such as ways of coping with negative impacts and climate change, both in adaptation and mitigation actions (Figure 6).

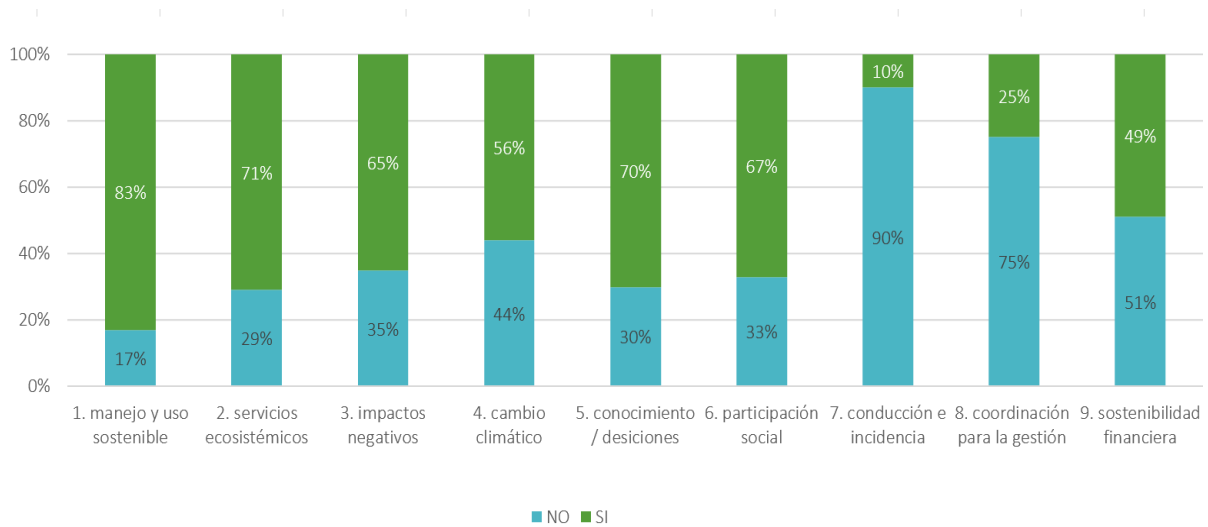


Figure 6. Percentage of tools according to the topics analyzed.

On the other hand, on the topic of decision-making and participation, it can be seen that most of the instruments refer in differently to the necessity to generate and manage information for decision-making in the Selva Maya, while at the same time in many cases, the fundamental value of society's participation, particularly of indigenous peoples and local rural communities, is also recognized within territorial management and its resources (Figure 6). If this theme is analyzed per country, social participation is predominately found integrated in the Guatemalan instruments (Figure 7).

However, there are few instruments that have some type of driving and advocacy mandate that promotes the visibility of the Selva Maya and its local, regional or international importance (10%). The same applies to the issue of specific actions aimed at coordination for territorial management (25%) (see Figure 6). It is at the regional level, particularly at the level of instruments generated by CCAD, where the bases for work are found in the coordination theme for the management of Selva Maya (Figure 7).

Figure 7. Topics analyzed in the tools by country.

Challenges and opportunities

The regulatory framework both at the Mesoamerican level and at the national level not only enables, but also promotes the development of sustainable productive activities and the change of practices towards better adapted models, seeking also to value the ecosystem services, and to promote the conservation and restoration of the ecosystems that provide such services. Therefore, there is a normative and regulatory base to promote a wide range of specific actions for the Selva Maya aligned with the ongoing strategies and regulations in force.

With regard to knowledge management, in the regulatory framework the necessary elements to implement knowledge management actions for decision making are included. There are also incipient efforts to systematize and share this type of knowledge, which can be strengthened and supported from the implementation of the EISM. In this sense, the Strategy defines specific actions around the standardization of protocols and data analysis at a regional level, and the development of a specific platform to share and systematize the data, integrating the results of the “Promotion of Monitoring of Biodiversity and Climate Change in the Selva Maya Region”.

The social participation matter is also well positioned in both the national and regional regulatory framework analyzed, while a great diversity of initiatives has been identified, such as the aforementioned experience of forest concessions, where social participation is key to guaranteeing the conservation and sustainable use of biodiversity. On the other hand, this issue is strongly linked to information and knowledge management for decision-making, and this is made explicit in the regulatory and strategic framework of all countries, although in many cases this is only addressed through support for environmental education processes. In this sense, the EISM demonstrates these links through specific actions in the line of informed participation in decision-making regarding the conservation and sustainable use of ecosystems and biodiversity, strengthening spaces for social participation, with special emphasis in the participation of women and youths, resulting in regional networks to strengthen monitoring, surveillance and production chain nodes processes.

Likewise, to support the coordination and regional management processes, the Mesoamerican Environmental Sustainability Strategy (EMSA) and the Regional Environmental Strategy Framework 2015-2020 (ERAM) are the regional framework that can support the development of conservation actions and sustainable use in the Selva Maya territory in a coordinated manner. In this sense, this EISM is an opportunity to concretely define joint actions of coordination and management.

In this same sense, trinational and binational cooperation experiences have been previously developed⁹, on which the EISM can be based on to propose a trinational Memorandum of Understanding, both in the area of technical and scientific cooperation and in the coordination for the management of the Selva Maya, which are the preamble to make a proposal of the Selva Maya as a Trinational Biosphere Reserve before UNESCO.

Achieving an adequate and effective management of the natural and cultural spaces of the SM from a regional perspective, requires, among other things, to have solid institutions, highly trained personnel,

⁹ Government of Guatemala. (2016). General Government Policy 2016 - 2020. Guatemala City, Guatemala: Government of Guatemala.

Government of Mexico and Government of Belize. (1995). Basic agreement on technical and scientific cooperation between the Government of the United Mexican States and the Government of Belize. Mexico City, Mexico.

Government of Mexico and Government of Guatemala. (1998). Basic agreement on technical and scientific cooperation between the Government of the United Mexican States and the Government Guatemala. Guatemala City, Guatemala.

sufficient and long-term financial resources, as well as common intervention strategies that raise the level of coordination and cooperation between the parties for the protection of the Selva Maya. This must go hand in hand with the development of public policies (translated into programs and projects) that take into account the social dimension in order to promote local and territorial development that facilitate and accelerate regional integration processes in this border area under the principle of selective and differentiated demand of the territory (Uribe, 2019).

Another element to consider is the incorporation of key actors at the local level such as the subnational governments, that is, the border municipalities of the three countries who can play a much more proactive role in the coordination of actions in favor of sustainable development (for example, through the 2030 Agenda) (Uribe, 2019).

One of the central and key challenges for this cross-border region will then be to articulate and implement in a coordinated manner strategies, actions and joint agendas aimed at promoting, on the one hand, the conservation and effective protection of the Selva Maya in the long term, at the same time promoting a border integration approach, seen as a key public policy strategy for economic, social and democratic-environmental governance, which contributes to the reduction of asymmetries in the region and increases social cohesion through integration of actors and the respective political / environmental agendas (Uribe, 2019).

Selva Maya Comprehensive Strategy 2030

Philosophical Framework

The three governments recognize that the Selva Maya is one of the most important areas in the world for its extraordinary biological wealth and long interaction between man and nature, guaranteeing its authenticity and integrity and representing an exceptional testimony of a long-lived civilization.

Being aware that each country is sovereign, government institutions identified the need to create co-responsible schemes for the management of this common cross-border region. For this reason, in May 2015 the strategic workshop was held in Mexico City where representatives of the three countries expressed the interest of creating an "ad hoc" group with a broad mandate to ensure strategies and actions in the Selva Maya, concluding that the institutional representatives of CONANP, CONAP, MAFFESDI, CCAD / SICA would form the tri-national strategic group. Since then, the need for this group to coordinate the development of a strategy to strengthen the Selva Maya as a transnational protected area, where contemplate short, medium- and long-term activities. That same year, the Strategic Coordination Group is officially formed by assigning its representatives and the vision for the Selva Maya and the first strategic objectives to consolidate the joint work of the region, compiled in the declaration of Chicanná. In 2018, this strategic planning work was resumed and taking into account said Declaration, and the GEC requested support for the Selva Maya program financed by the government of Germany, to elaborate this Strategy in a participatory manner with the relevant actors of the region. To this end, 11 workshops have been held with the main actors in the region, including the members of the GEC, the GOC, civil society, other institutions and non-governmental organizations that ensure the conservation and good management of the Selva Maya, among others (see Annex 1).

The present philosophical framework is the set of Strategy guidelines that give clarity and direction to its strategic content. In this context it visualizes that to achieve the integral management of the Selva Maya proposed here, the actors will need at least a lapse of 10 years

The main problem identified during the participatory construction process and that will be addressed from the implementation of this Strategy is the lack of coordination and communication between the actors involved in the management of the Selva Maya territory, which prevents the promotion of cooperation schemes for the conservation of biodiversity and sustainable development (see Annex 3. FODA). From this problem the group of participants agreed on the vision and mission of the Strategy, which are presented below.

Vision

The Selva Maya is, by the year 2030, a region with a natural and cultural identity, where its ecosystemic and historical values are preserved, which promote the welfare of its people and offer environmental services of global importance.

Mission

Position the Selva Maya as a region that guarantees the conservation and sustainable use of its resources, ensuring the welfare of its inhabitants.

Strategic Framework

With the purpose of guiding the actions to fulfill the proposed mission and vision, in a practical and viable way, the strategic framework defines 4 specific objectives and 7 strategic lines that will allow achieving these objectives, as well as facilitating their monitoring and evaluation. In addition, it establishes indicators for compliance with a timeline of 10 years.

Objectives

General objective:

Conserve and contribute to the sustainable development of the Selva Maya region strengthening the strategic and operational coordination.

Specific objectives:

- ✓ Strengthen conservation efforts and sustainable development at the national level through regionalization.
- ✓ Harmonize mechanisms and common work schemes for control, surveillance and monitoring.
- ✓ Promote government recognition of the Selva Maya.
- ✓ Strengthen the dissemination and knowledge generated in the region at a national and international level.

Components, guidelines and strategic actions

During the participatory construction process used for the development of this strategy, it was agreed to develop 7 components with 17 strategic lines (Figure 8).

To develop these components, it will be necessary to implement four main processes focused on 1) knowledge management for decision making, for which it is also necessary to carry out a regional standardization of processes for data collection and generation of information, which already the sustainable management of landscapes is being developed at the national level, 2) integrating at the regional level processes and lessons learned in the three countries in both biodiversity conservation and sustainable production, 3) processes of social empowerment and governance to implement the EISM from the local to the regional and, 4) regional coordination processes that give impetus and visibility to the region of the Selva Maya (Figure 9).

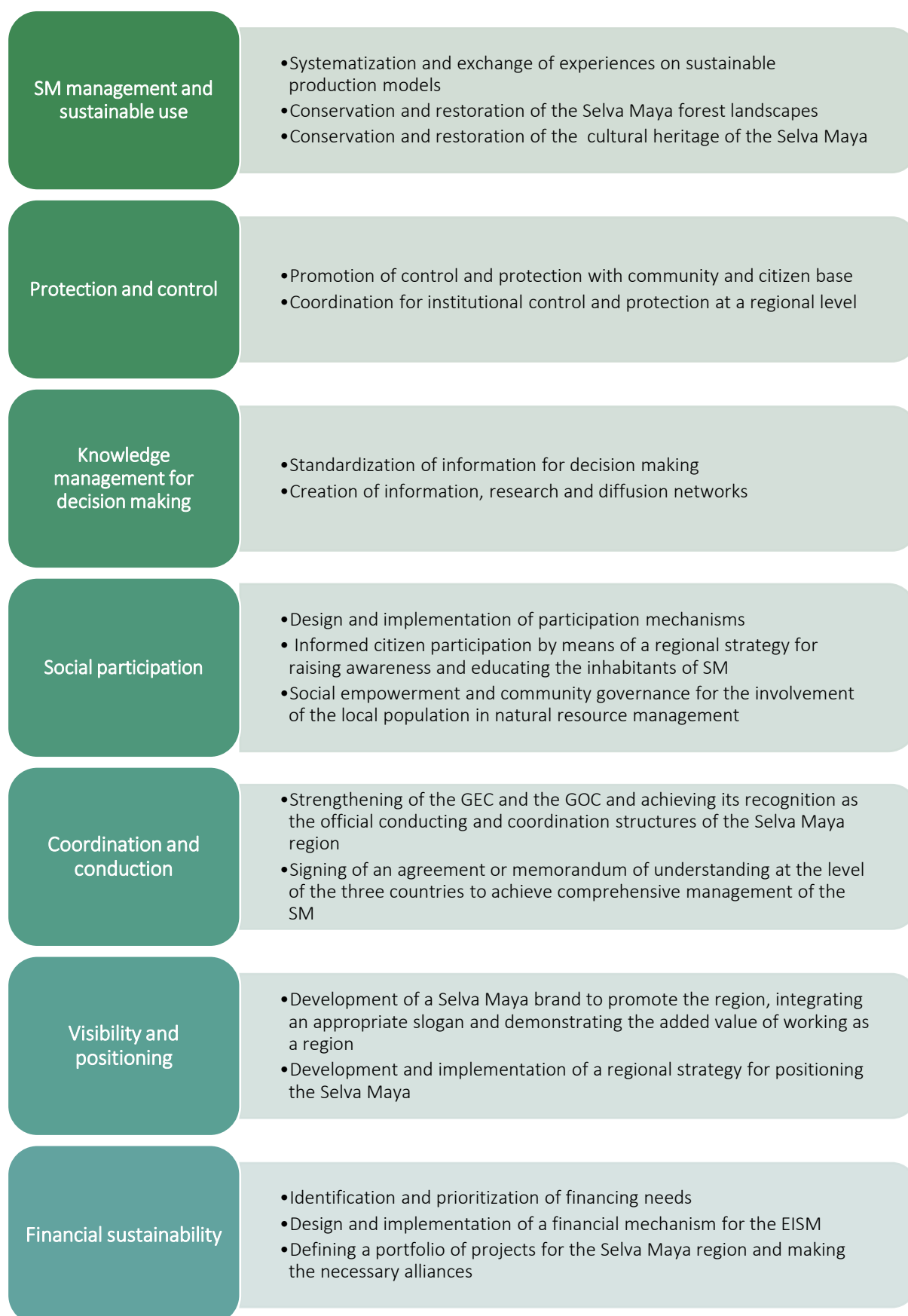


Figure 8. Components y strategic guidelines of the EISM.

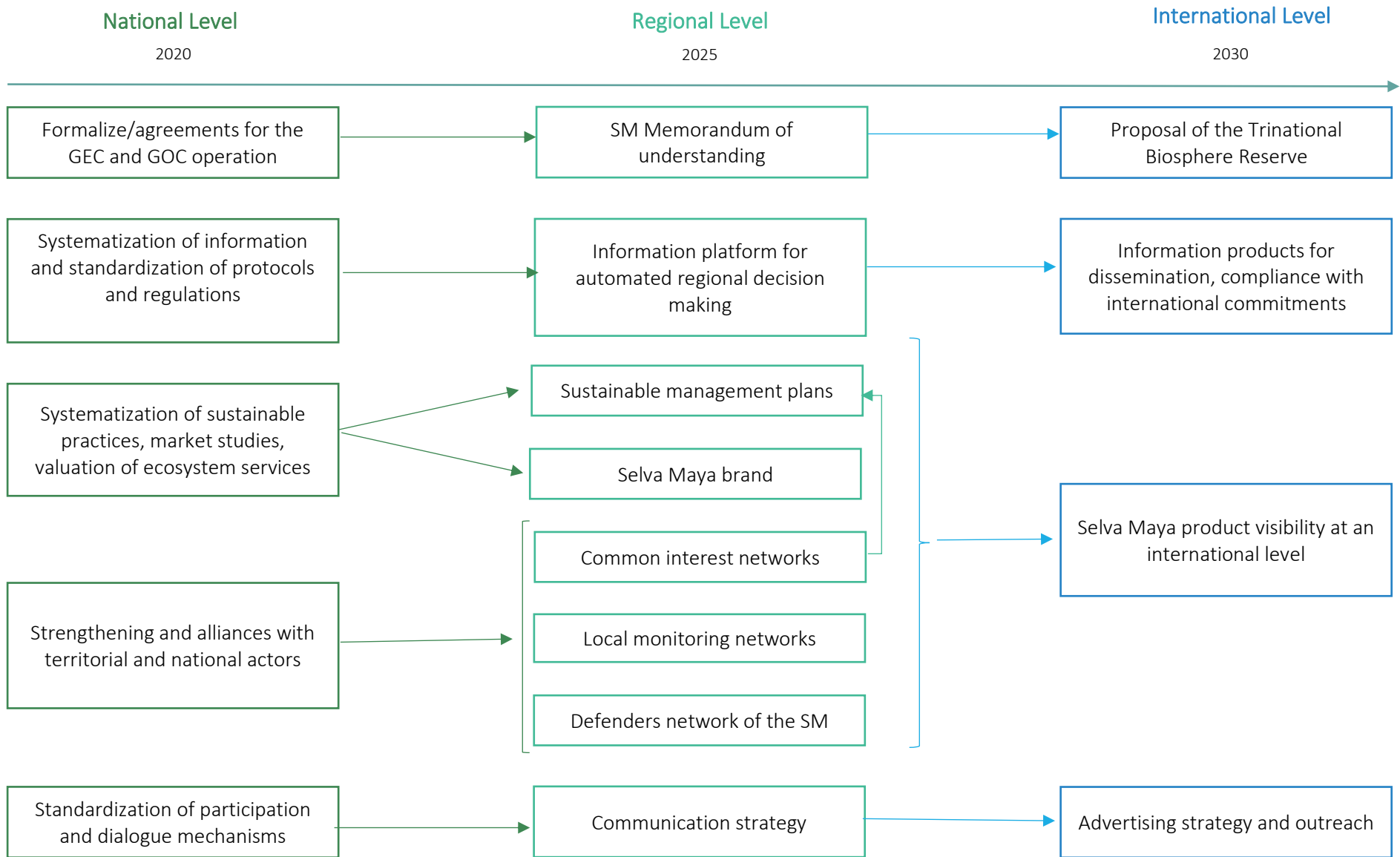


Figure 9. EISM processes and principal milestones.

SM management and sustainable use

Context and objective

As mentioned earlier the Selva Maya represents the second mass of continuous tropical forests of America, and is the northernmost habitat of Neotropical species such as *Tapirus bairdii*, *Panthera onca*, *Leopardus pardalis*, *Tayassu pecari*, *Ateles geoffroyi*, *Ara macao*, *Harpia harpyja* and *Crocodylus moreletii*. Its ecosystems provide essential ecosystemic services to local communities, and they are preserved in a wide network of protected areas, ten of which have a declaration of international importance. It also preserves important archaeological and cultural heritage sites.

This vast natural and cultural diversity faces great threats that compromise its viability and functionality in the medium and long term. It has been shown, for example, that only two of its ecoregions have more than 20% of protected surface adequately connected.

To ensure the conservation of biodiversity, ecosystems and the population that depends on them, it is necessary to establish sustainable use of their resources and intercultural cooperation. For this reason, the first component of this strategy aims to *promote the management and sustainable use of natural and cultural resources, producing goods and services with standards of co-responsibility, good production practices and services, for the benefit of the local and regional economy.*

For this three (3) strategic guidelines were developed:

1. Systematization and exchange of experiences on sustainable production models
2. Conservation and restoration of the Selva Maya forest landscapes
3. Conservation and restoration of the cultural heritage of the Selva Maya

The Selva Maya region has multiple experiences and lessons learned for the development of sustainable productive activities and for the change of practices towards better adapted models that value ecosystem services. Numerous experiences have also been promoted in relation to the conservation and restoration of SM ecosystems. These experiences are made possible and promoted by the regulatory framework at both the regional and national levels:

- ✓ Estrategia Mesoamericana de Sustentabilidad Ambiental (EMSA) (CCAD - SICA, 2008).
- ✓ Estrategia Regional Ambiental Marco 2015-2020 (ERAM) (CCAD - SICA, 2014).
- ✓ Tratados bilaterales para la protección del ambiente y el uso sostenible de recursos (Gobierno de Mexico y Gobierno de Belice, 1995; Gobierno de México y Gobierno de Guatemala, 1998)
- ✓ Estrategias Nacionales de Biodiversidad de los tres países (CONAP, 2012; MFFSD, 2016; Gobierno de la República de México, 2016)
- ✓ Planes de desarrollo nacional y estrategias ambientales de los tres países (CONADUR, 2014; Government of Belize, 2010; SHCP, 2019; Ministry of Economic Development, 2016; CONABIO, 2012).
- ✓ Estrategia 2040 de CONANP (comprehensive management of the landscape governing criteria) (CONANP, 2014).

The implementation of actions under this component will contribute to the fulfillment of SDGs 11, 12 and 15, particularly with regard to the following goals: 11.4) "Redouble efforts to protect and safeguard the world's cultural and natural heritage"; 12.2) "By 2030, achieve sustainable management and efficient use of natural resources"; and 12.8) "By 2030, ensure that people around the world have the information and knowledge relevant to sustainable development and lifestyles in harmony with nature"; 15.2) "By 2020, promote the sustainable management of all types of forests, put an end to

deforestation, recover degraded forests and increase afforestation and reforestation worldwide"; 15.5) "Adopt urgent and significant measures to reduce the degradation of natural habitats, stop the loss of biological diversity and, by 2020, protect endangered species and prevent their extinction"; and 15.9) "By 2020, integrate the values of ecosystems and biological diversity into national and local planning, development processes, poverty reduction strategies and accounting".

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Systematization and exchange of experiences on sustainable production models [UG1]	Systematize by ecoregion, diversified and sustainable productive experiences, as successful models (including the management of secondary forests, the use of native species with commercial potential, of non-timber forest products, sustainable livestock, ¹ agroforestry systems, sustainable tourism, and climate-smart agriculture among others)	At least two sustainable productive experiences systematized by ecoregion (10 experiences in total)	Belize: Ministry of Agriculture and Forestry (Forest Department, Agriculture Department), private sector, NGO. Guatemala: Co-administrators of PA, IDAEH, INGUAT, CECON, MICUDE, CONAP, FDN, INAB, ProPetén, Concessions	Belize: PACT, donors, APAMO, DAVCO, NANCO, indigenous communities. Guatemala: MARN, MINECO, MIDES, MINEDUC, MAGA, International Cooperation, NGO
	Design tools to implement sustainable production models, in areas where they are allowed by law and that respond to the needs of local actors	At least two tools per ecoregion, for the implementation of designed and published sustainable production models (10 tools)		
Conservation and restoration of the Selva Maya forest landscapes	Conduct a regional assessment of the risks and drivers of landscape degradation, including connectivity gaps	Evaluation of drivers of landscape degradation for the Selva Maya region		
	Identify priority sites to develop restoration processes based on sustainable production models that contribute to the increase in connectivity	At least 7 sites identified and prioritized to develop restoration processes		
	Strengthen existing biological corridors and create new areas of connectivity linked to the conservation of regional biodiversity	At least 3 restoration projects for increased connectivity launched		
	Develop sustainable management plans based on sustainable production models and the principles of territorial ecological management	At least 7 sustainable management plans designed and agreed for the Selva Maya region		
	Implement pilot projects within the framework of the developed sustainable management plans, which include the expansion of successful management and sustainable use models of the Selva Maya and the restoration of degraded	At least 3 pilot projects underway		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	areas with emphasis on areas of importance for regional connectivity			
	Simplify environmental norms and procedures within PAs for forest recovery, and for the integration of diverse activities that allow financing of conservation activities			
	Make the relevant changes and inclusions in policies and legal frameworks to include and promote systematized sustainable production models, thus ensuring the sustainable use of resources in the territories under management	Three reports of regulatory revision and proposed changes (one per country)	Belize: Forest Department, communities. Guatemala: Co-administrators of the PAs, IDAEH, INGUAT, CECON, MICUDE, CONAP, FDN, INAB, ProPetén, Concessions	Belize: House of Representatives and Senate. Guatemala: MARN, MINECO, MIDES, MINEDUC, MAGA, International Cooperation, NGO
	Conduct market feasibility studies of products derived from sustainable production models	Conducted at least 10 market feasibility studies for products from sustainable production models		
	Quantify the economic value of the ecosystem services provided in the Selva Maya and link it to a payment system for environmental services	Conducted Valuation study of at least 3 key ecosystem services per ecoregion, (15 ecosystem services valued in total)		
	Prioritize the role of wildlife rescue and rehabilitation centers in the management and sustainable use of the region	Conducted a study with contribution alternatives of the refuge center in wildlife management.		
Conservation and restoration of the cultural heritage of the Selva Maya ^[JG2]	Develop a monitoring program for cultural heritage sites	Monitoring program for cultural heritage sites carried out for SM	Belize: Department of Archeology Guatemala. Co-administrators of the PAs, IDAEH, INGUAT, CECON,	Guatemala: MARN, MINECO, MIDES, MINEDUC, MAGA,
	Develop a preventive conservation program for the cultural heritage of SM	Preventive conservation program for cultural heritage sites designed and financed		
	Develop impact mitigation protocols against	Harm mitigation protocols on cultural		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	looting and other damage to the cultural heritage of the SM	heritage designed and published for the Selva Maya region	MICUDE, CONAP, FDN, INAB, ProPetén, Concessions	International Cooperation, NGO
	Develop protocols for the transfer of archaeological material for safekeeping	Protocols for the transfer of archaeological material designed and adopted by the relevant authorities		
	Advance in the generation of minimum requirements to propose the archaeological sites of the Selva Maya as a World Heritage Site.	Archaeological sites of the Selva Maya have the minimum requirements to be proposed as a World Heritage Site.		

Protection and control

Context and objective

As indicated, the main threats to the Selva Maya region are forest fires, illegal logging, species trafficking and land use change. The deficient application of the law, particularly due to lack of personnel in the field, prevents an improvement in the control of these threats.

For this purpose, it is necessary to strengthen and support specific control and protection actions that the three countries have been carrying out for years, particularly within their systems of protected natural areas. In this sense, coordination at the regional level, and in some cases specifically in cross-border areas, has been demonstrated as fundamental.

The present component has as an objective to *harmonize mechanisms and common work schemes for control, surveillance and monitoring*.

The strategic guidelines defined to meet this objective are:

1. Promotion of control and protection with community and citizen base
2. Coordination for institutional control and protection at a regional level

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Promotion of control and protection with community and citizen base	Maintain and strengthen the participation of the communities in the activities of control and protection of the protected areas of the SM	At least 10 community groups strengthen for the protection and control of the Selva Maya	Belize: Ministry of Agriculture and Forestry (Forest Department, Agriculture Department), Defense Force & Police Department, private sector and NGO Guatemala: Administrators and co-administrators of protected areas, CONAP, MINDEF, CECON, IDAEH, MINGOB	Belize: PACT, donors APAMO, DAVCO, NANCO, indigenous communities. Guatemala: NGO
	Establish work tables to channel intelligence information on illegalities, whose results can be used for control and protection decision making	Work table established per country generating pertinent information		
	Promote capacity building in those who provide justice in environmental matters in the protected areas of the Selva Maya by implementing environmental justice forums in the three countries	At least 3 environmental justice forums developed annually (one per country)		
Coordination for institutional control and protection at a regional level	Design joint plans of action and contingency at a regional level that include the development of protocols and agreements for the immediate attention of environmental emergencies in the SM	At least 7 action plans and contingency of emergencies designed and implemented jointly in border areas	Guatemala: Administrators and co-administrators of protected areas, CONAP, MINDEF, CECON, IDAEH, MINGOB	NGO
	Promote the involvement of the military and police authorities of the three countries, as well as strengthening the communication channels of the protection authorities of the countries	At least 1 annual strengthening and dialogue workshop with military and police authorities focused on joint control and protection	Mexico: Ministry of the Interior	
	Carry out joint patrols and overflights at the regional level to detect threats	At least 10 joint patrols carried out per year		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	Establish a remote surveillance system for the detection and control of intrusions, for the SM.	Remote surveillance system established and functioning		
	Establish a program of permanent personnel strengthening and equipment for the control and protection of the Selva Maya	Strengthening program designed, financed and underway for the Selva Maya region		
	Develop and formalize legal instruments to carry out joint control and protection actions in the SM region	At least 3 instruments formalized for the development of joint control and protection activities.		
	Create distinctive identity of the defenders of the Selva Maya, for the control and protection of their cultural and environmental values	Design of the emblem for the control and protection of the Selva Maya made and put to consideration by the national authorities of the three countries		

Knowledge management for decision making

Context and objective

To develop efficient conservation mechanisms and encourage support at the political level, reliable regional monitoring data are required, offered on a regular basis. There are already many data collected by different organizations, but in general they have a limited geographical focus or little long-term continuity. In addition, few results are freely available and widely communicated with decision makers and the general public (Programa Selva Maya, 2019).

This is why, the strategy proposes actions around the systematization, generation, sharing and availability of regional technical and scientific information of the Selva Maya. In this sense, the component described below aims to *have knowledge and access to most of the technical and scientific information, available through different means for society and use it in decision making*.

To do so, the following guidelines need to be developed:

1. Standardization of information for decision making
2. Creation of information, research and diffusion networks

There are incipient efforts to systematize and share this type of knowledge for decision making, which can be strengthened and supported from the implementation of the EISM, since the regulatory framework allows it in the three countries. Among the tools defined at the regional level on this theme, there are:

- ✓ Mesoamerican Strategy on Environmental Sustainability (EMSA) which has three regional centers destined to knowledge management
 - Center of Virtual Excellence for Forestry Monitoring
 - Regional Center for Fire Management Operations
 - Center of Climate Services for Mesoamerica and the Caribbean.
- ✓ National Biodiversity Monitoring System of Mexico
- ✓ National Forest Monitoring Systems (SNMB, for its acronym in Spanish) the Long-Term Work Plan for Forest Monitoring of EMSA has been established (CONAFOR, 2015):
 - Virtual technological platform for the generation of information from the National Forest Monitoring Systems (SNMB) and monitoring, reporting and verification (MRV).
 - Pilot map of regional coverage
 - Design and support for the implementation of a regional database of emission factors
- ✓ Agreement between the United Mexican States and the Republic of Guatemala on the Protection and Improvement of the Environment in the Border Area
- ✓ Basic Agreement on Technical and Scientific Cooperation between the Government of the United Mexican States and the Government of the Republic of Guatemala
- ✓ Agreement between the United Mexican States and Belize on the Protection and Improvement of the Environment and Conservation of Natural Resources in the Border Area
- ✓ Basic Agreement on Technical and Scientific Cooperation between the Government of the United Mexican States and the Government of Belize
- ✓ Agreement between the Republic of Guatemala and Belize for the protection of the environment and the sustainable use of resources (Mecanismo Conjunto de Coordinación, 2014).
- ✓ Project to Promote the Monitoring of Biodiversity and Climate Change in the Selva Maya Region (Programa Selva Maya, 2019)

- ✓ Various legal tools and projects underway at a national level.

The implementation of the strategic actions of this component will allow the three countries to meet some SDG goals especially the following SDG targets 12 and 16: 12.8) By 2030, ensure that people around the world have the information and relevant knowledge for sustainable development and lifestyles in harmony with nature; 16.10) “Guarantee public access to information and protect fundamental freedoms, in accordance with national laws and international agreements”

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Standardization of information for decision making	Identify and prioritize issues and information needs for management decision making of the Selva Maya	Agreement of the three countries on priority information needs	GEC - GOC	Academia, University of Belize
	Identify sources of available information, existing platforms and information gaps	Study on information sources available to address prioritized information needs		
	Standardize processes for collecting priority information for decision making, defining protocols, users and use permits	Protocols for information recollection, users and use permits for priority information designed and put into operation Information exchange agreement made		
	Establish agreements among the 3 countries for exchange of information based on the protocols defined	Information Exchange agreement carried out		
	Agree on regional information products required for decision-making, including responsible parties and periodicity of publication	Key information products for decision making published biannually		
Creation of information, research and diffusion networks	Establish thematic work networks at the national level linked to the priority themes	At least one regional work network per priority theme established and functioning	GEC - GOC	Academia, University of Belize
	Establish a local monitoring network for the collection of information defined in the protocols	Local monitoring network established and functioning		
	Design data collection tools for local monitors, and provide training for their use	Tools for local data collection designed		
	Define a person responsible within the institution for the entry of data from local monitoring	Information platform for sustained decision making		
	Define necessary lines of research and focus scientific research efforts to support the development of priority activities of the Selva Maya, including the recapture and systematization of local knowledge, the valuation of ecosystem services provided by the Mayan jungle and others.	At least 3 agreement with academia to develop research guideline priorities.		
	Establish agreements with the academia for the			

Guidelines	Strategic actions	Indicators	Responsible	Allies
	development of the identified research lines			
	Improve the dissemination processes of technical – scientific information to the population in general, translating knowledge into colloquial language and committing the scientific community to return knowledge to SM communities	At least 3 scientific information products directed at the general population published per year		
	Analyze the viability of existing information exchange platforms to obtain lessons learned for the development of the platform	Availability of analysis of viability and lessons learned		
	Design and implement an information management platform for decision making in the Selva Maya supplied from national data, and automated for the periodic generation of reports on strategic issues.	Information platform for decision making underway		
	Generate periodic regional reports on information based strategic issues on the platform	At least 10 annual reports on published priority themes		
	Generate specific information products aimed at different audiences (judges and prosecutors, foreign ministries, state institutions, citizens, CCAD, among others)	At least 7 specific publications made and published on the platform		
	Perform periodic analysis of the information generated and systematized for the identification of opportunity niches for SM management	An annual analysis of key information made and published on the platform and other media		
	Include forest department strategy		Forest department	

Social participation

Context and objectives

One of the challenges facing the region is that existing institutions, although they have a legal framework that favors conservation, need to strengthen their response capacity to implement standards in this field, improving participation and justice in environmental matters (CCAD - SICA, 2014). In this sense, the objective of this strategic guideline is to *promote a social and committed participation, capable of participating in the conservation, management, sustainable use and decision-making processes of the Selva Maya*. For which it will focus on three strategic lines:

1. Design and implementation of participation mechanisms considering those in place already
2. Informed citizen participation by means of a Regional Strategy for raising awareness and educating the inhabitants of the Selva Maya
3. Social empowerment and community governance for the involvement of the local population in natural resource management and protection

Through social participation, exchanges and communication in general, the actors that live in the same territory can come to share common traits and perceptions (Toledo-Gallegos, 2013), which are the basis for any socio-environmental transformation. In SM there have been progressive improvements to allow greater participation of the community in decision making. Participation is mentioned in the legal framework in all countries as a citizen's right, it is one of the principles of the Mesoamerican Environmental Sustainability Strategy (EMSA), while in the Regional Environmental Strategy Framework (ERAM) participation actions are identified (CCAD - SICA, 2014).

At a national level, in Belize, the Biological Corridor Action Plan (CBC, for its acronym in Spanish) includes participation as the first of its strategic objectives (University of Belize - MFFSD - GIZ , 2015). In Guatemala, the Maya Biosphere Reserve (RBM) evidences participation in management in a proactive manner and with concrete results with the concessioning of forest reserves, where it shows how community forest management is one of the most effective ways to conservation natural and cultural resources of the RBM (SEGEPLAN , 2013).

In Mexico there are several cases of communities or forest ejidos in which the use of forests is linked to the existence of community forestry companies that operate with self-regulation systems, and are who regulate management practices, use and conservation of forests from rules elaborated and collectively sanctioned. (Castillo, A.; Corral Verdugo, v.; González Gaudiano, E.; Paré, L.; Paz, MF.; Reyes, J.; Schteingart, M., 2009).

A particular and successful case in Selva Maya is the organic and certified beekeeping carried out by the communities surrounding the Calakmul Biosphere Reserve and the Flora and Fauna Protection Area of Bala'an Ka'ax, from the granting of spaces within protected areas for the establishment of apiaries, where the community is committed to forest conservation and therefore to their livelihoods.

Finally, the issue of social participation is strongly linked to information and knowledge management for decision-making, and this is made explicit in the regulatory and strategic framework of all countries¹⁰, although in many cases this is only addressed with the support for environmental education processes. In this sense, the Integral Strategy of the Selva Maya evidences these links based on specific actions, where the spaces for social participation are strengthened, with special emphasis on the participation of women and youths.

Thus, the efforts to be developed during the implementation of this strategy will contribute to the fulfillment of various international commitments related to the issue of society's participation in biodiversity management. Notable among them are SDGs 10, 16 and 17. Particularly in the following goals: 10.2) "By 2030, promote and promote social, economic and political inclusion of all people, regardless of age, sex, disability, race, ethnicity, origin, religion or economic situation or other condition "; 16.7) "Ensure adoption at all levels of inclusive, participatory and representative decisions that respond to the needs" and 17.17) "Promote and promote the establishment of effective partnerships in the public, public-private and civil society spheres, taking advantage of the experience and the strategies of obtaining resources of the alliances "

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Design and implementation of participation mechanisms	Agree and implement a mechanism of dialogue and participation for projects that require environmental impact assessments (EIA) in SM based on regional guidelines that are appropriate to existing national mechanisms	Participation mechanism linked to EIA processes underway in the three countries	Belize: Department of Forestry, Management of Protected Areas; Department of the Environment (DOE). Guatemala: CONAP, local communities, second level organizations, COMUDE, COCODE, CODEDE.	Donors. Guatemala: MINEDU, academia, media, NGO, Tourism Self-Management Committee, Social Pastoral
	Review the social participation plans of various institutions working in the SM	Sustainable management plans of the Selva Maya designed with the relevant institutional participation	Mexico: INPI, SEMARNAT- DGIRA	
	Make institutional planning compatible in a single dialogue and participation mechanism			

¹⁰ The National Environmental Policy of Belize, for example, defines among its principles public participation: to guarantee public access without restrictions to information and the right of the public to participate in environmental decision-making processes; and to provide access to information or decision making (MFFSD, 2014)

Guidelines	Strategic actions	Indicators	Responsible	Allies
	for the Selva Maya			
	Encourage participation in the design of the Sustainable Management Plans of the conservation and restoration guidelines for the forest landscapes of the Selva Maya of this Strategy			
Informed citizen participation by means of a Regional Strategy for raising awareness and educating the inhabitants of the Selva Maya	Systematize the available key information about the Selva Maya and that it is the base of the awareness and education strategy at all levels and that it considers the approach of gender and participation of minority groups	Systematization document of relevant information for awareness and education processes carried out	Belize: Department of Forestry, Management of Protected Areas; Department of the Environment (DOE). Guatemala: CONAP, local communities, second level organizations, COMUDE, COCODE, CODEDE	Donors. Guatemala: MINEDU, academia, media, NGO, MITA, MANMU, Tourism Self-Management Committee, Social Pastoral
	Develop a communication strategy on the Selva Maya supported by social networks and web platform, in order to position in the collective imagination, environmental, social and cultural values of the SM, aiming at the recognition of the region by the State, through all its institutions (ministries of environment, agriculture, tourism)	Communication strategy designed and underway	Mexico: INJUVE	
	Generate experience exchanges in networks of common interest	At least an exchange of experiences every six months		
	Generate capacities of youth groups in sustainable projects	At least 3 groups of young people participating and trained in sustainable projects		
Social empowerment and community	Develop networks of common interest, based on common interests and identity that	At least 3 networks of common interest formed	Belize: Department of Forestry, Management	Donors. Guatemala: MINEDU, academia,

Guidelines	Strategic actions	Indicators	Responsible	Allies
governance for the involvement of the local population in natural resource management and protection	promote empowerment and link social welfare with the use and conservation of SM		of Protected Areas; Department of the Environment (DOE). Guatemala: CONAP, local communities, second level organizations, COMUDE, COCODE, CODEDE	media, NGO, MITA, MANMU, Tourism Self-Management Committee, Pastoral Social (NGO)
	Strengthen community enterprises, with emphasis on management skills	At least 3 community enterprises strengthened (one per country)		
	Generate a mechanism for the distribution of SM benefits at the community level to strengthen community governance	At least 10 agreement processes of benefit distribution at community level facilitated		
	Develop regional exchanges on successful sustainable production models that promote and increase awareness of new techniques, products and sustainable uses.	Two annual exchanges made		
	Create networks of regional nodes to unify productive chains and provide them with financing	At least 3 regional nodes for established production chains, taking into account common interest networks		
	Encourage empowerment processes and create the network of SM advocates (protection, education, community forestry, management of community-based protected areas, community-based organizations, capacity building exchanges)	At least 3 community strengthening processes of the Selva Maya defenders carried out per year		

Coordination and conduction

Context and objectives

In order to support conservation and sustainable use processes in the Selva Maya, it is necessary to strengthen coordination among key actors by raising the level of cooperation, taking advantage of the set of efforts that have already been implemented in the region. The objective of this component is to *position the Selva Maya as a region that guarantees the conservation and sustainable use of their resources, ensuring the welfare of its inhabitants.*

To achieve this objective, the proposal has been to develop two strategic lines:

1. Strengthening of the GEC and the GOC and achieving its recognition as the official conducting and coordination structures of the Selva Maya region
2. Signing of an agreement or memorandum of understanding at the level of the three countries to achieve comprehensive management of the SM

The EMSA and the ERAM constitute the regional foundation that sustains the development of conservation and sustainable use actions in the territory of the Selva Maya in a coordinated manner, it is necessary to define concrete coordination and conduction actions for the area. To carry out the joint coordination and management actions for the area, the Strategic Coordination Group (GEC) (formalized in 2015) and the Coordination Working Group (GOC) have been established. Another important coordination tool is the Agreement between the Republic of Guatemala and Belize for the protection of the environment and the sustainable use of resources. It proposes specific coordination actions between both countries on the following themes and allows joint actions to be carried out. (Mecanismo Conjunto de Coordinación, 2014):

- 1) Environmental security, including protective actions, surveillance and compliance with the laws on PA
- 2) Watersheds protection and management
- 3) Protection of archaeological sites
- 4) Community development associated with the sustainable management of natural resources
- 5) Environmental education focused on the populations located in the PA environment
- 6) Prevention of illicit activities in PAs through information and awareness campaigns
- 7) Training and exchange of information for the management and integrated management of PAs in accordance with their respective national laws
- 8) Promotion of respect and compliance with environmental laws and regulations of the parties
- 9) Identification of critical areas, threats and impacts, as well as strategies to reduce them
- 10) Promotion of good practices for conservation and alternatives for sustainability.

There are also two binational cooperation agreements that are the basis of cooperation and joint work in the management of this area (Gobierno de Mexico y Gobierno de Belice, 1995) (Gobierno de México y Gobierno de Guatemala, 1998).

Finally, between 2005 and 2010, the three countries signed a trinational Memorandum of Understanding, which to date is not in force, but can be resumed as a basis for a new MoU, taking up lessons learned and expanding its application for the implementation of the Selva Maya Comprehensive Strategy.

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Strengthening of the GEC and the GOC and achieving its recognition as the official conducting and coordination structures of the Selva Maya region	Formalize and recognize the GEC and the GOC as the official structures for conducting and coordinating actions in SM.	GOC and GEC officially formalized	Regional: Ministries of Environment of the 3 countries, GOC, GEC. Belize: Department of Forests. Guatemala: CONAP, MIREX Foreign Ministries, MICUDE. Mexico: INAH, CONANP, SEMARNAT	International Cooperation, SICA - CCAD, UNESCO, OEA, FAO, Agricultural sector, tourism sector, communities.
	Create the operating guidelines of the GEC and GOC, ensuring the full participation of society in the GOC structures and strengthening the GEC-GOC communication	GOC and GEC have guidelines for its operations		
	Design a GEC - GOC coordination mechanism with ministries, NGOs, the private sector,	GEC and GOC coordination mechanism with other instances of the three States		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	communities and other relevant bodies at the national level (forestry, agriculture, environment, tourism, others), and clearly defining the levels of coordination and those responsible	designed		
	Sign a national interministerial agreement for the sustainable management of the Selva Maya that points to the planning synchronization for the SM region	An interministerial agreement per country for the coordinated management of the SM signed and operational		
	Encourage the dialogue of the GEC with the Foreign Ministries of the three	3 agenda building workshops held with the Chancelleries of the three		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	countries through workshops to build agendas for the chancelleries based on the guidelines of this strategy	countries, annually		
	Promote permanent rounds of regional coordination around Selva Maya. In Mexico, articulate regional coordination mechanisms between the federal and state agencies that affect SM (INAH, CONANP, SEMARNAT and others)	1 round of regional coordination carried out every 6 months		
Signing of an agreement or	Define and agree to the	Geographic boundaries of		

Guidelines	Strategic actions	Indicators	Responsible	Allies
memorandum of understanding at the level of the three countries to achieve comprehensive management of the SM	geographical limits of the Selva Maya region for the operationalization of the defined strategic actions in this instrument	the Selva Maya region agreed and map published and available on the Selva Maya platform and portal		
	Follow up and update existing binational cooperation agreements	Renewal and update of at least 3 binational agreements		
	Encourage and formalize a binding agreement or memorandum of understanding, that give legal life to the Selva Maya Region	Memorandum of understanding or signed international agreement for the management of the SM		
	Carry out high-level advocacy actions in the three countries and at the regional level that consider	1 high-level advocacy action carried out per year in each country, responding to the needs and		

Guidelines	Strategic actions	Indicators	Responsible	Allies
	<p>the implementation of the EISM (national budget for conservation, donors, etc.)</p> <hr/> <p>Promote an effective approach with the Selva Maya Project (CCAD)</p>	political opportunities of the moment		

Visibility and positioning

Context and objective

Although the Selva Maya is the second continuous wooded mass of America with the consequent benefits associated both to the nations that conserve it and to humanity, its visibility at a regional and global level is scarce. In order to publicize the efforts and achievements in conservation and sustainable use of the Selva Maya, as well as its importance and contribution of its ecosystem services worldwide, the visibility and positioning component proposes to *share the natural and cultural importance of the Selva Maya, through the achievements and results of its integral management, and the sustainable use of its natural resources, enhancing its local, regional and global recognition.*

For this, actions have been proposed in two strategic lines:

1. Signing of an agreement or memorandum of understanding at the level of the three countries to achieve comprehensive management of the SM
2. Signing of an agreement or memorandum of understanding at the level of the three countries to achieve comprehensive management of the SM

When the strategic and regulatory framework of the countries is analyzed, it is evident that there are few instruments that have some type of driving and advocacy mandate that promotes the visibility of the Selva Maya and its local, regional or international importance (only 10% of the instruments analyzed generally mentioned incidence).

Simultaneously, the analysis shows that there are no important elements on visibility in the regulatory framework analyzed, nor obstacles to promote actions that increase visibility, or opportunities that are already being developed and could be used in this context. Therefore, the theme is addressed in an innovative way within the Selva Maya Comprehensive Strategy.

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Development of a Selva Maya brand to promote the region, integrating an appropriate slogan and demonstrating the added value of working as a region	Carry out an approach with the tourism sector to increase the visibility of the Selva Maya region (including the launching of the Selva Maya Challenge)	A sustainable product marketing strategy of SM designed and implemented	Belize: Forestry Department, Ministry of Tourism, Belize Tourism Board (BTB), Ministry of Commerce and Industry, Standards Office, tour guides association. Guatemala: MICUDE, INGUAT, CONAP, MINEDUC	Media, environmental activists, academia, local government
	Design and implement a marketing strategy for sustainable products from the Selva Maya that contains a catalog of SM-friendly products and services to attract international business investment			
	Develop a denomination of origin, collective seal or brand "Selva Maya" for the promotion and marketing of sustainable products	Denomination of origin or brand Selva Maya designed and agreed with the relevant territorial actors		
	Strengthen and promote the identity and sense of belonging from the Selva Maya concept, including the relationship between protected areas and cultural areas with communities and society in general	A publicity strategy implemented with key information		
	Implement an advertising strategy and outreach of the Selva Maya brand and other key information from appropriate and periodic information products that are accessible to a diverse public			
	Link advertising strategy actions with the communication and publicity mechanisms of the tourism sector in the SM to reach a broad audience	Specific publicity actions implemented in Alliance with the tourism sector		
Development and implementation of a regional strategy for positioning the Selva Maya	Integrate the Selva Maya concept as a region in the SICA agenda - CCAD	Mesoamerica Program contemplates at least two actions to be promoted in the SM		
	Give visibility to the contribution of the Selva Maya to the achievement of goals and objectives of conservation and sustainable development of regional and international agreements, including visibility at the SICA level - CCAD			

Guidelines	Strategic actions	Indicators	Responsible	Allies
	To make known to the international community the achievements of successful management and conservation models promoted in the Selva Maya, based on systematization processes of local practices and knowledge	At least two sustainable processes and practices disclosed in international events or reports (COP Biodiversity, COP Climate Change)		
	Give continuity to the Selva Maya portal (hosted at http://selvamaya.info) and define those responsible for its input and monitoring. It is a free-access portal and a basis for communication and dissemination of the strategy impacts implemented in SM, the new challenges. The portal should be linked to the institutional pages and provide relevant information to the media.	Selva Maya portal updated every 6 months	Communication manager of the Forest Department in Belize, CONAP in Guatemala, and CONANP in México	Donors, NGO, others
	Generate conditions to propose the Selva Maya region as a trinational biosphere reserve before UNESCO-MAB (develop the tri-national technical sheet, and manage the endorsement of the Environment, Education and Foreign Ministries)	Biosphere reserve technical file submitted to UNESCO - MAB	Environment, Education and Foreign Ministries of the 3 countries	NGO, co-managers, academia, local governments, others

Financial sustainability

Context and objectives

It is necessary to guarantee the financial resources for the implementation of the Selva Maya Comprehensive Strategy, for which it is necessary to promote a mechanism that guarantees the flow of resources. The objective of the component is *having sufficient resources for the process, management and regional coordination of the Selva Maya*. With this objective, actions were developed for three strategic lines:

1. Identification and prioritization of financing needs
2. Design and implementation of a financial mechanism for the EISM
3. Defining a portfolio of projects for the Selva Maya region and making the necessary alliances

While considerable progress has been made in the adoption of environmental laws in the region, the technological and financial instruments that accompany them, such as the use of economic incentives, must still be developed, strengthened or expanded to promote environmentally sustainable economic development. There are no limitations in the legal frameworks of the countries that may be indicated, but rather opportunities that can be exploited.

At the Central American level, the ERAM defines a specific objective related to the financing mechanism of the Regional Strategy, whose specific actions include: 1) formulating a regional portfolio of projects; 2) promote corporate social responsibility; 3) promote public-private partnerships; 4) promote the design of economic instruments that facilitate sustainable development (CCAD - SICA, 2014), all elements that benefitting the financing process proposed within the Selva Maya Comprehensive Strategy.

Guidelines and strategic actions

Guidelines	Strategic actions	Indicators	Responsible	Allies
Identification and prioritization of financing needs	Analyze public and private actors linked to financing needs and opportunities (sources and beneficiaries)	Mapping of actors carried out in the three countries	Belize: Ministry of Tourism, Ministry of Economic Development, Forestry Department, Ministry of Finance, Co-managers. Agriculture Department – Belize, Office of the Attorney General; Guatemala: MINFIN, CONAP, Congress, INGUAT, MARN	Belize: PACT, Donors, REDD + Office, Office for Climate Change. Guatemala: International development banks, International Cooperation, NGO, Private initiatives, Academia, ROAM identifying agriculture financial mechanism (reforestation, agroforestry)
	Analyze the financial gap to implement the present Selva Maya Comprehensive Strategy	Identified financial gap		
	Design annual budgets for the institutions responsible for implementation	Budgets generated annually		
Design and implementation of a financial mechanism for the EISM	Identify available and potential financing options and sources	Mapping of financial options carried out		
	Agree to and implement the financing mechanism for the EISM, identifying its feasibility and possible barriers (including elements such as: payment for ecosystem services, definition of public-private partnerships, development of the Selva Maya Challenge, development of a trust, promotion of fund solidarity and collective seals, carbon financing, among others)	Mechanisms designed and underway		
	Agree to the benefit sharing mechanisms (including a SM cost center for public and other investments)	Benefits sharing mechanisms agreed upon		
	Identify and propose the necessary changes and adjustments at the legislative level and policies for the implementation of the agreed financial mechanism	Identify the regulations that require modification and proposals of these modifications		
Defining a portfolio of projects for the Selva Maya region and making the necessary alliances	Generate conceptual notes for project management	Concept notes designed		
	Establish national and international alliances necessary to implement the project portfolio (technical assistance, financial assistance,	Conceptual notes presented to national and international allies		

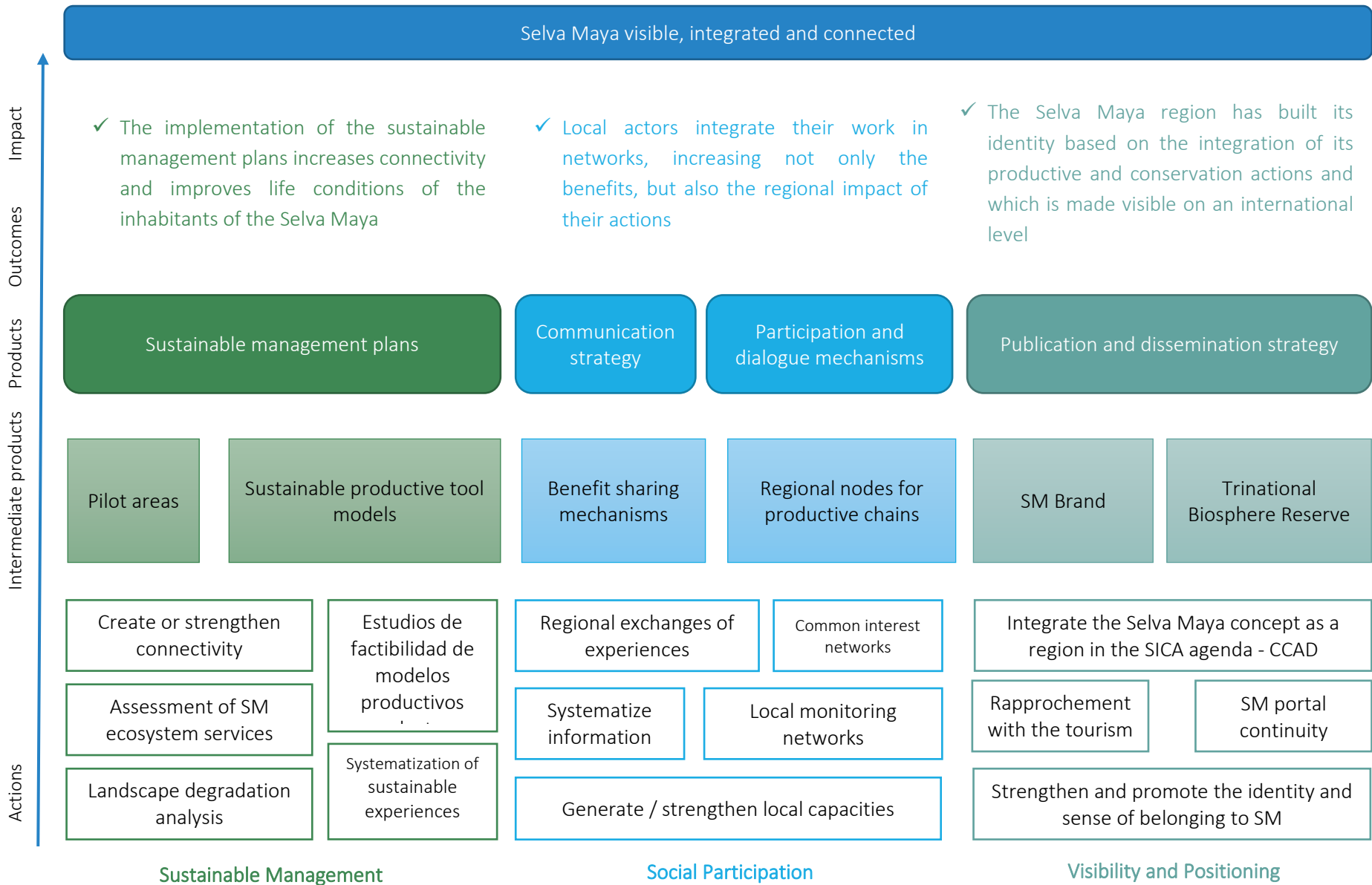
Guidelines	Strategic actions	Indicators	Responsible	Allies
	etc.).			
	Strengthen national capacities for fund management (NGOs, and other allies).	Capacity building workshops conducted with local partners		
	Design a portfolio of specific projects linked to public-private partnerships.	Portfolio for public-private partnerships designed and underway		
	Develop a marketing strategy and business models based on value chains, establishment of productive corridors and promotion of the added value of sustainable products of the Selva Maya	A marketing strategy designed and underway on productive corridors of the Selva Maya		

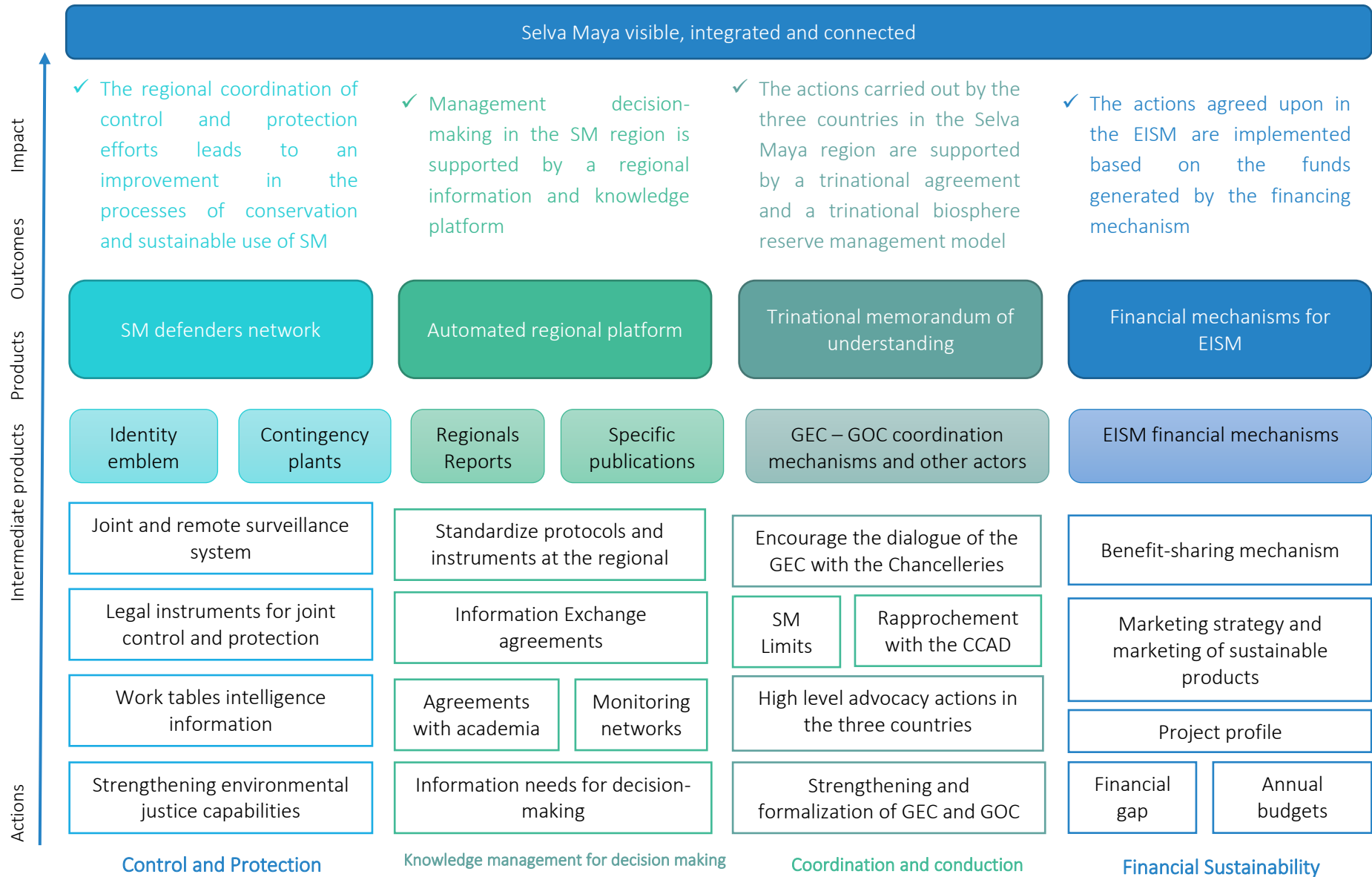
Implementation and Monitoring Mechanisms

For the implementation and monitoring of the activities described, intersectoral actions are required, which are expressed in three levels. At the regional level, the responsible implementers will be the two bodies specifically created to underpin the management of the Selva Maya as a region, that is, the Strategic Coordination Group (GEC) and the Coordination Working Group (GOC). At the national level, other governmental institutions of the three countries with competence in topics such as sustainable production, tourism, cultural aspects, foreign relations and others.

A nivel local, se buscarán alianzas particulares para el establecimiento de redes de interés común, redes de monitoreo, y de protección y control, en este nivel será importante fortalecer las estructuras de gobernanza de los territorios, a través del desarrollo de capacidades, la gestión del conocimiento y el intercambio de experiencias. At the local level, particular alliances will be sought for the establishment of common interest networks, monitoring networks, and protection and control networks. At this level it will be important to strengthen the governance structures of the territories, through the development of capacities, knowledge management and experience exchanges.

The total of the activities of the EISM are expected to be implemented by 2030. The figure below shows the main actions, products and results for each of the components as a basis for monitoring the EISM





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Annex 1. Participants and strategy construction process

The people and institutions involved in the process of participatory construction of this Strategy are listed in the table below.

Name	Organization	Country
Abner V.	Bell Ridge LTD	Belize
Adonai Blanco	Forest Department	Belize
Adriana Velázquez	INAH	Mexico
Ángel Estrada	CONAP	Guatemala
Ángel Ortiz Moreno	CONANP	Mexico
Aquiles Hernández	PANAY	Guatemala
Basilio Silvestre López	CONAP	Guatemala
Carlos Coutiño	CONANP	Mexico
Carlos Zermeño	GIZ	Mexico
Ediberto Romero	PFB	Belize
Fernando Baldizón	CONAP	Guatemala
Fernando Palomo	CONAP	Guatemala
Francis Roimer	Spanish Lookout	Belize
Francisco Asturias	FUNDAECO	Guatemala
Freddy Miranda	UICN	Regional
Froyla Tzalam	SATIIM	Belize
Gabriela Ponce	WCS	Guatemala
Gerbert Perez	DIPRONA	Guatemala
Giselle Borland	University of Belize	Belize
Gliselle Marin	Yáaxche Conservation	Belize
Gonzalo Merediz	Amigos de Sian Ka'an	Mexico
Gustavo Salvatierra	CONAP	Guatemala
Héctor Yurita	UICN	Guatemala
Heron Moreno	CSFI	Belize
Ian Armstrong	Forest Department	Belize
Jennie Garcia Saqui	Forest Department	Belize
Joaquín Antonio López Sosa	SEMARNAT	Mexico
Jon Meerman	GIZ	Belize
Jorge Ortiz	IDAEH	Guatemala
Jorge Uribe	GIZ	Mexico
José Armando Alayan	ECOSUR	Mexico
José Cruz Arjona	Reforestemos México	Mexico
José Medrano	DIPRONA	Guatemala
José Zúñiga	CONANP	Mexico
Julio López	CONAP	Guatemala
Karina González	UICN	Mexico
Lisa Steurer	GIZ	Guatemala
Manual Silva	CONAP	Guatemala
Marcelo Contreras Roldán	Programa Sembrando Vida	Mexico
Marcelo Windsor	Forest Department	Belize
María del Pilar Montejo	CONAP	Guatemala
Marvin Martínez	CONAP	Guatemala
Melibea Gallo	UICN	Regional

Name	Organization	Country
Melinka Nájera	UICN	Regional
Mirna Pomero	FDN	Guatemala
Nallely Hernández Palacios	CONANP	Mexico
Nicolas Feldman	CTA Reserva Calakmul	Mexico
Obed Itoil	FDN	Guatemala
Oscar Zúñiga	CONAP	Guatemala
Rafael Manzanero	FCD	Belize
Ramón Pacheco	PFB	Belize
Raúl Chun	Forest Department	Belize
Rudy Herrera	GIZ	Guatemala
Sam Cruz	Forest Department	Belize
Sandra Flores	CONANP	Mexico
Saul Cruz	Forest Department	Belize
Shane Young	BAS	Belize
Shanelly Carrillo	Forest Department	Belize
Talía Cruz Castañeda	CONANP	Mexico
Teresa Chinchilla	ACOFOP	Guatemala
Victoria Cawich	Forest Department	Belize
Werner Paz	ProPetén	Guatemala
Wilson Aroldo Guzmán H.	CONAP	Guatemala
Ximena Leiva	UICN	Guatemala
Yanira Pop	Forest Department	Belize

Annex 2. Systematized Instruments

Below is a list of the instruments analyzed as part of the preliminary mapping.

Application site	Type of Instrument	Start Date	Title	Responsible for Implementation
	Agreement (collaboration mechanisms and networks)	2014	Acuerdo entre la República de Guatemala y Belice para la protección del ambiente y el uso sostenible de recurso (Agreement between the Republic of Guatemala and Belize for the protection of the environment and the sustainable use of resources)	Ministerios de Relaciones Exteriores (Ministry of Foreign Relations)
		2013	Centro de Servicios Climáticos para Mesoamérica y el Caribe (Center for Climate Services for Mesoamerica and the Caribbean)	CCAD - Proyecto Mesoamérica (Mesoamerica Project)
		2013	Centro de Excelencia Virtual de Monitoreo Forestal (Virtual Excellence Center of Forest Monitoring)	CCAD - Proyecto Mesoamérica (Mesoamerica Project)
		2013	Centro Regional de Operación de Manejo del Fuego (Regional Fire Management Operation Center)	CCAD - Proyecto Mesoamérica (Mesoamerica Project)
	Strategy	2015	Estrategia Regional Ambiental Marco 2015-2020 (Regional Environmental Strategy Framework)	CCAD
	Strategy	2008	Estrategia Mesoamericana de Sustentabilidad Ambiental (Mesoamerican Strategy for Environmental Sustainability)	CCAD
	Law - Regulation	2016	Reglamento interno de funcionamiento del Grupo Estratégico de Coordinación Trinacional para la Selva Maya (GEC - Selva Maya) (Internal rules of operation of the Tri-national Strategic Coordination Group for the Mayan Forest)	MFFSD CONAP CONANP
	Plan	2013	Plan de Acción de la Estrategia Mesoamericana de Sustentabilidad Ambiental (Action Plan of the Mesoamerican Strategy for Environmental Sustainability)	CCAD
		2013	Plan director CBM-2020 Gestión territorial sostenible en el Corredor Biológico Mesoamericano (Master Plan CBM-2020 Sustainable territorial management in the Mesoamerican Biological Corridor)	CCAD - Proyecto Mesoamérica (Mesoamerica Project)
		2015	Plan de Trabajo a Largo Plazo en Materia de Monitoreo Forestal de la EMSA (Long-term Work Plan for Forest Monitoring of EMSA)	CCAD - Proyecto Mesoamérica (Mesoamerica Project)
	Program - Project	2011	Protección de recursos naturales de la Selva Maya (Protection of natural resources of the Selva Maya)	GEC - UICN ORMACC
		2011	Fomento del Monitoreo de Biodiversidad y Cambio Climático en la Región Selva Maya (Promotion of the Monitoring of Biodiversity and Climate Change in the Selva Maya Region)	GIZ - WCS

Application site	Type of Instrument	Start Date	Title	Responsible for Implementation	
		2011	Protección y uso sustentable de la Selva Maya (Programa Selva Maya) (Protection and sustainable use of the Selva Maya (Selva Maya Program))	CCAD - GIZ - BMU	
Belize	Strategy	2014	2014-2024 National Environmental Policy and Strategy	MFFSD	
		2016	National Biodiversity Strategy and Action Plan 2016 - 2020 (Estrategia Nacional de Biodiversidad y su plan de acción 2016 - 2020)	MFFSD	
		2016	Growth and Sustainable Development Strategy (Estrategia de crecimiento y desarrollo sostenible)	Government of Belize Ministry of Economic Development	
		2013	Belize Rural-Area Based Development Strategy	MLLRD	
		2009	Agricultural Development Management and Operational Strategy	MFFSD	
	Law - Regulation	2015	National Protected Areas System Act	MFFSD	
		2015	Protected Areas Conservation Trust (amendment) Act	MFFSD	
		2001	Environmental Protection Act	MFFSD	
		2000	Forest Act	MFFSD	
		2000	Private Forests (conservation) Act	MFFSD	
		2000	Forest Fire Protection Act	MFFSD	
	Plan	2015	Belize's National Environmental Action Plan	MFFSD	
		2015	Belize Central Corridor Conservation Action Plan	MFFSD	
		2010	Horizont 2030 - National Development Framework 2010 - 2030 (Horizonte 2030 - Marco de desarrollo nacional 2010-2030)	Government of Belize	
	Policy	2015	National Protected Areas Policy and System Plan	MFFSD	
		2016	National Climate Change Policy, Strategy and Action Plan	National Climate Change Office	
	Program - Project	2015	Management and Protection of Key Biodiversity Areas of Belize	MFFSD - GEF	
		2018	A holistic approach to effective management of the protected areas system in Southern Belize (Enfoque holístico para el manejo efectivo del sistema de áreas protegidas en el sur de Belice)	Ya'axché Conservation Trust (Ya'axche'), the Belize Audubon Society (BAS) and the Toledo Institute for Development and Environment (TIDE)	
	Guatemala	Strategy	2012	Estrategia Nacional de Diversidad Biológica y Plan de Acción 2012-2022 (National Strategy for Biological Diversity and Action Plan 2012-2022)	CONAP
		Law - Regulation	1986	Ley de Protección y Mejoramiento del Medio Ambiente (Law for the Protection and Improvement of the Environment)	MARN
2016			Ley de Áreas Protegidas y su reglamento (Law on Protected Areas and its regulations)	CONAP	
2013			Ley Marco de Cambio Climático (Framework	Consejo Nacional de	

Application site	Type of Instrument	Start Date	Title	Responsible for Implementation
			Law on Climate Change)	Cambio Climático (National Council on Climate Change)
		1996	Ley Forestal (Forestry Law)	INAB
	Plan	2016	Plan Maestro de la Reserva de la Biósfera Maya (Master Plan of the Maya Biosphere Reserve)	CONAP
		2014	Plan para implementar la Política Nacional de Desarrollo Rural Integral (Plan to implement the National Policy for Integral Rural Development)	Gabinete Específico de Desarrollo Rural Integral (Specific Cabinet for Integral Rural Development)
		2014	Plan Nacional de Desarrollo K'atun: nuestra Guatemala 2032 (K'atun National Development Plan: Our Guatemala 2032)	CONADUR
		2013	Plan de Desarrollo Integral de Petén (Petén Comprehensive Development Plan)	SEGEPLAN
		2012	Política Nacional de Diversidad Biológica (Biological Diversity National Policy)	CONAP
	Policy	2016	Política General de Gobierno 2016 – 2020 (General Government Policy)	Gobierno de Guatemala (Government of Guatemala)
		2013	Política Nacional de Desarrollo Rural Integral (National Policy of Integral Rural Development)	Gabinete Específico de Desarrollo Rural Integral (Specific Cabinet for Integral Rural Development)
	Program - Project	2019	Programa Impulsa (Impulsa Program)	CONAP - IGT - ME
	Mexico	Strategy	2013	Estrategia hacia el 2040 Comisión Nacional de Áreas Naturales Protegidas (Strategy towards 2040 National Commission of Natural Protected Areas)
2016			Estrategia Nacional sobre Biodiversidad de México y su Plan de Acción 2016 – 2030 (National Strategy on Biodiversity of Mexico and its Plan of Action)	Gobierno Federal (Federal Government)
2012			Capital natural de México: Acciones estratégicas para su valoración, preservación y recuperación (Natural capital of Mexico: Strategic actions for its valuation, preservation and recovery)	CONABIO
2011			Planeación para la conservación de la biodiversidad terrestre (Planning for the conservation of terrestrial biodiversity)	
2013			Estrategia Nacional de Cambio Climático: visión 10 - 20- 40 (National Climate Change Strategy: vision 10-20-40)	SEMARNAT
2015			Estrategia de Cambio Climático desde las Áreas Naturales Protegidas (Climate Change Strategy from Protected Natural Areas)	CONANP
Law - Regulation			1998	Ley General de Equilibrio Ecológico y de Protección al Ambiente (General Law of

Application site	Type of Instrument	Start Date	Title	Responsible for Implementation
			Ecological Balance and Protection of the Environment)	SEMARNAT
		2000	Ley General de Vida Silvestre (General Wildlife Law)	Gobierno Federal (Federal Government)
		2012	Ley General de Cambio Climático (General Climate Change Law)	Gobierno Federal (Federal Government)
		2003	Ley General de Desarrollo Forestal Sustentable (General Sustainable Forest Development Law)	Gobierno Federal (Federal Government)
		2001	Ley de Desarrollo Rural Sustentable (Sustainable Rural Development Law)	Gobierno Federal (Federal Government)
	Plan	2015	Plan Municipal de Desarrollo de Calakmul (Calakmul Municipal Development Plan)	Ayuntamiento Calakmul (City Council Calakmul)
	Program - Project	2019	Programa de Conservación para el Desarrollo Sostenible (Conservation Program for Sustainable Development)	CONANP
		2019	Programa para la integración o modificación de los Programas de Manejo de las Áreas Naturales Protegidas competencia de la Federación (Program for the integration or modification of the Programs of Management of Protected Natural Areas, competition of the Federation)	CONANP
		2012	Desarrollo territorial sustentable: Programa especial de gestión en zonas de alta biodiversidad (Sustainable territorial development: Special management program in areas of high biodiversity)	CONABIO
		2019	Programas de Acción para la Conservación de Especies (Action Programs for the Conservation of Species)	CONANP
		2018	Programa de Recuperación y Repoblación de Especies en Riesgo (Recovery and Repopulation of Species at Risk Program)	CONANP
		2018	Soluciones naturales para el cambio climático: Reducción de emisiones por deforestación y degradación forestal (REDD+) (Natural solutions for climate change: Reducing emissions from deforestation and forest degradation)	TNC México
		2013	Programa de Desarrollo de Gran Visión para el Municipio de Calakmul 2013 2040 (Major Vision Development Program for the Municipality of Calakmul)	Ayuntamiento Calakmul – CONANP (City Council Calakmul)

Annex 3. FODA Analysis

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. There are institutions and organizations linked in conservation and sustainable development actions of the SM 2. Power of convocation of governing entities with related actors. 3. There are communication mechanisms (TIC's) available. 4. There are initiatives, programs, and projects linked to management towards the conservation and sustainable development of the SM. 5. Personnel with capacity and experience in the management of protected natural areas 6. Acceptable state of conservation of the RRNN and cultural 	<ol style="list-style-type: none"> 1. Lack of management instruments that articulate regional coordination (such as Trinational Memorandum of Understanding) 2. Lack of political will at various levels 3. Lack of leadership of the regional process at several levels 4. Financing needs 5. Need for empowerment of the use of mechanisms 6. Lack of effective communication between GEC and GOC 7. Lack of commitment in the fulfillment of agreements. 8. Lack of recognition of the co-managers.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Potential involvement of civil society and other groups to participate in actions of conservation and sustainable use of the Selva Maya 2. Potentiate international platforms such as forums, congresses, etc., to disseminate achievements and conservation results for the Selva Maya region. 3. Institutional agreements and commitments (permits and designation of functions) 4. The RRNNs in the Selva Maya region are in relatively good condition. 5. Potential to create incentives or recognitions to the good practices of conservation and sustainable use of the SM. 6. Power of technical incidence 7. Financial support from international cooperation 8. Potential international recognition that can mobilize financial resources. 9. Enhance management instruments that promote work among ANP (including at the transborder level), such as the 2030 Agenda and the SDGs; National and International commitments (Paris Agreement, CBD, COP). 	<ol style="list-style-type: none"> 1. Lack of institutional support 2. Drug trafficking activities 3. Existence of divergent and contradictory laws 4. Highly porous border that promotes transborder migration 5. Extreme weather events 6. Expansive agriculture (like the Mennonites) 7. Geopolitical uncertainty

