

1. General Description:

ID:CN-22022

Project resulting from this CN: N/A

Note: CNs are developed into project proposals following consultation with donor(s).

1.1 Project Title:

Sustainable use of biodiversity by Mayan communities in the tropical forests of the Yucatan Peninsula.

1.2 Submitting Country/ies:

Mexico

1.3 Specific Location & Country/ies/regions/areas benefitting from the project:

Yucatan Peninsula (states of Campeche, Yucatan and Quintana Roo), Mexico

1.4 Endorsement from ITTO Focal Point:

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1.5 Intended Project Duration (in months):

18

1.6 Indicative Budget (in US\$):

| | |
|--------------------|---------|
| ITTO | 194,880 |
| Counterpart | 101,000 |
| Total | 295,880 |

1.7 Programme Line Focus

Conservation of Biodiversity and Ecosystem Services

1.8 Project Type

Capacity Building/Training, Community/field-based project implementation, Analytical work/studies

1.9 Proposal Summary:

The Yucatan Peninsula has a great bio-cultural wealth due to the diversity of its ecosystems and the heritage of the Mayan culture. However, the extent of forests and wetlands, along with their environmental services and the traditional knowledge associated with them, has decreased. Land uses in the region have changed over time, and the current threats are the expansion of industry, agroindustry and large-scale tourism. This is being reinforced by the arrival of the Maya Train megaproject in the region, which will become operational in 2023. This has triggered a property boom around cities and along the coast, increasing the vulnerability of rural livelihoods and traditional knowledge. This project has three main objectives: 1) Carry out research on traditional knowledge about forests, wetlands and solares (Mayan home gardens); 2) Strengthen the local economy based on their sustainable use and management; and 3) Raise awareness in urban areas about the importance of traditional knowledge in the use and management of biodiversity in order to establish links that will promote the conservation of forests, wetlands and solares. Activities will include research and mapping of traditional knowledge and its threats, research on flora and fauna, sharing of traditional and scientific knowledge, training of groups to improve their marketing strategies for non-timber forest products and forest and wetland conservation, and the production of outreach materials for the general public. It is expected that at the end of the project there will be more documentation and geospatial information on the biodiversity of forests, wetlands and solares and on associated traditional knowledge; rural Mayan community groups will have consolidated and improved their economic alternatives based on the conservation of forests and wetlands; and the outreach materials produced will have reached rural and urban areas.

2. Proponent Information:

2.1 Executing Agency Information:

Name of Agency/Organization/Institution:

National School of Higher Education, National Autonomous University of Mexico,
Merida Campus (ENES-UNAM Merida)

Name of main Contact Person:

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2.2 Type of Organization:

University/Research Institute

2.3 Collaborating Agency/ies:

Name of Agency/Organization/Institution:

CONAFOR

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2.4 Relevant experience of EA:

ENES-UNAM Merida has researchers in Natural and Social Sciences, conducting research, teaching and outreach activities. Its experience in the Yucatan Peninsula has consolidated several lines of research that include field work in various communities of the peninsula. In the QS World University Rankings 2021, UNAM is ranked 100th globally and second in Latin America.

3. Relevance:

3.1 Conformity with ITTO objectives (ITTA, 2006) and priorities (current SAP):

Objectives of the International Tropical Timber Agreement (ITTA 2006): •The project will contribute to sustainable development and poverty alleviation through training and consolidation of production projects for non-timber forest products (1c). •It will promote and support research and development... as well as increasing the capacity to conserve and enhance other forest values in tropical forests (1f). •It will support those responsible for developing public policies aimed at conservation of tropical forests by sharing research results (1m). •It will promote better understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests (1q). •It will ensure the recognition of the role of forest-dependent indigenous and local communities in achieving sustainable forest management and will enhance their capacities (1r). Priorities of the Strategic Action Plan (SAP 2022-2026): •Priority 2: the project will help increase the contribution of the tropical forest sector to national and local economies and resilient livelihoods as it will include the consolidation of products derived from traditional knowledge and their introduction to fair-trade markets. •Priority 3: it will promote the reduction of deforestation and tropical forest degradation, while enhancing the resilience of forest ecosystems to climate change and conserving forest biodiversity and ecosystem services, as it will carry out research in conjunction with local communities, will raise awareness on the importance of conserving forests, wetlands and solares as well as their ecosystem services, and will conduct outreach actions among rural and urban communities. •Priority 4: The project will help improve the quality, availability and timeliness of information on tropical forest product markets and supply chains, particularly at the regional level.

3.2 Relevance to the ITTO Programme Lines:

The proposal is consistent with Programme Line 2–Biodiversity conservation and ecosystem services in tropical forests. It will contribute to achieving the objectives of valuing forest landscapes and ecosystem services by collecting and using ecological data for the sustainable management of tropical forests. It will also strengthen the technical skills of Mayan communities to maintain tropical biodiversity and ecosystem services, with special emphasis on forest biodiversity.

3.3 Relevance to the Sustainable Development Goals (SDGs) and the Global Forest Goals (GFGs) and other forest related global agenda:

The project will contribute to achieving several of the Sustainable Development Goals for the 2030 Agenda: 1) end poverty by strengthening the economies of rural Mayan communities; 2) zero hunger by working with the solares and valuing traditional activities that support food security in the communities; 4) quality education by offering the knowledge of rural areas to urban areas and thereby bringing them closer to the values of the land and contact with nature; 5) gender equality by promoting the empowerment of women's groups; 8) decent work and economic growth and 10) reduced inequalities by generating work alternatives where local rural knowledge is valued; 11) sustainable cities and communities by strengthening the link between rural and urban areas and their co-dependence; 12) responsible consumption and production by promoting the production of goods and services directly by rural Mayan communities based on their knowledge and sustainable use of forests, wetlands and solares; 13) climate action and 15) life on land by promoting the conservation and sustainable use of forests, wetlands and solares; and 17) partnerships for the goals as it involves direct collaboration between the academic sector and rural and urban communities. This project addresses all Global Forest Goals by contributing to reducing forest cover loss, improving forest benefits and livelihoods, protecting forests and using sustainable forest products, mobilizing resources, promoting inclusive forest governance, and cooperating and working across sectors. It will contribute to climate change mitigation and adaptation as endorsed by Mexico in the COP26 agreements.

3.4 Relevance to submitting country's policies:

With regard to the National Development Plan (Mexico) 2019-2024, this project is framed within the social policy where sustainable development is an essential element. The project is in line with the first two priority objectives of the National Forestry Programme for Mexico 2020-2024: 1) Promote community forest management for the sustainable and diversified use of forest resources, as well as the integration and development of competitive local value networks that boost local economies to improve the quality of life of the population living in forest areas, and 2) Protect forest ecosystems from the degradation of vegetation cover to maintain the natural heritage and contribute to climate change mitigation, for the well-being of the population living in forest areas and society in general. The project is framed within the General Law on Climate Change, in particular, its strategies to address climate change, by proposing mitigation and adaptation actions by rural and urban communities. This is particularly important in coastal and wetland areas. The project is also consistent with the laws aimed at the protection of indigenous rights in the states of Campeche, Quintana Roo and Yucatan, which safeguard the maintenance of the traditional knowledge of Mayan peoples.

3.5 Linkages to previous/ongoing ITTO and other projects/activities (if any):

Adi Estela Lazos Ruíz was an ITTO fellow in 2014 when she completed a technical internship at the Botanical Gardens of Rio de Janeiro, which later led to an invitation to pursue a post-doctorate degree at the Department of Geography and Environment of the Pontifical Catholic University of Rio de Janeiro. She developed her doctoral thesis and worked as a technician under ITTO project RED-PD 045/11 Rev.2 (M), directed by Dr. Patricia Moreno-Casasola of the Institute of Ecology A.C. This proposal incorporates expertise gained from these activities within the framework of ITTO principles and guidelines that promote conservation and sustainable management of tropical forests.

4. Project synopsis:

4.1 Objectives (reflecting reference to elements within all ITTO Guidelines as applicable):

Main project objectives are: 1. Review the traditional Mayan knowledge about forests, wetlands and solares. 2. Strengthen the local economy based on the knowledge and sustainable use of forests, wetlands and solares. 3. Raise awareness in urban areas about the importance of traditional knowledge in the use and management of biodiversity, in order to establish links that promote the conservation of forests, wetlands and solares. These objectives respond to ITTO guidelines: I. On forest landscape restoration in the tropics. 1. Focus on landscapes—This project considers the landscape of the Yucatan Peninsula as a target site, which contains diverse ecosystems such as forests and wetlands, where the integrating element is the Mayan culture. 2. Engage stakeholders—This project is based on the participation of rural Mayan communities, increasing their skills and promoting participatory processes. 3. Restore multiple functions for multiple benefits—The fundamental basis of the proposal is traditional Mayan knowledge, capitalizing on and recognizing the value of local knowledge. The aim is to improve livelihoods based on biodiversity conservation. 4. Maintain and enhance natural forest ecosystems within landscapes—The proposal promotes the conservation and sustainable use of forests, wetlands and solares, avoiding their conversion to other uses. II. On gender equality and empowering women—The project will strengthen women's integration, capacities and empowerment. III. On environmental and social management—The project considers principles 1, 2 and 3 of environmental sustainability and social sustainability. The proposal follows ITTO's Environmental and Social Management Guidelines, resulting in a project with low environmental and social risk.

4.2 Key problem(s) to be addressed:

The loss of forests and wetlands in Mexico has increased in recent decades, diminishing their environmental services and the traditional knowledge associated with their use and management. The Yucatan Peninsula, in Mexico, has a rich biocultural heritage resulting from the diversity of its ecosystems and their centuries-long management by Mayan indigenous peoples. However, traditional knowledge is threatened by the abandonment of small-scale agriculture, the dwindling of forest areas, migration to urban areas, reduced participation of young people in rural activities, and urban, industrial and tourism expansion. The east coast of the peninsula (Cancun-Tulum) is a center of large-scale tourism that has caused reconfiguration of the social fabric, land tenure, access to resources and distribution of wealth. Given the widespread lack of paid jobs in rural areas, climatic changes affecting agriculture and fishing, industrial and agro-industrial expansion, and the lack of interest in the rural sector by new generations, tourism attracts labour from the villages, offering jobs that do not require knowledge of nature, which is why it has become virtually irrelevant. The operation of the Maya Train megaproject (<https://www.trenmaya.gob.mx/>) in the region starting in 2023 will boost tourism even further, increasing the vulnerability of rural livelihoods and traditional knowledge. The expectation of the train's arrival has triggered a property boom, promoting accelerated changes in land use, and replacing forests and wetlands with urban developments around major cities (Merida, Cancun and Campeche), as well as on the coast, which is particularly exposed to tourism and real estate developments that seek proximity to the beach and to claim land from native vegetation. It is thus urgent to prepare for the transformation of the landscape that is about to occur.

4.3 Main stakeholders and beneficiaries:

Main stakeholders and beneficiaries are: -Rural Mayan communities: Tetiz, Yucatan; Tankuché, Campeche; Punta Laguna, and Quintana Roo. These communities have been selected because of their relative proximity to urban centers and because of the activities that require the conservation of forests and wetlands. Tetiz: a main activity is the growing of oregano in solares, especially by women's groups. Tankuché: known for its proximity to the petenes, a unique type of wetland with high biodiversity; one of the main activities is meliponiculture (raising of native stingless bees). Punta Laguna: devoted to ecotourism activities, but also collecting guano (*Sabal* spp.) leaves for roofs of traditional houses and palapas (open-sided dwellings with thatched roofs). -Researchers and students from ENES Merida Campus, UNAM, who will carry out research, training and production of outreach materials. They will benefit from meeting their academic goals and potential collaborations. - Sustainable Development Directorates of the Municipalities of Merida, Campeche and Cancun. It has been decided to work with these directorates because of their potential to facilitate stronger ties with the urban population and suggest ways for the sustainable management of resources. They will benefit from the availability of scientific information for decision making. -Organizations involved in fair trade of agricultural products in the Yucatan Peninsula. Two organizations have been contacted: Taller Maya and Vida Sustentable, and both have stated their interest in participating. They will benefit from the sale of products under the Maya Na'at brand. -Other secondary stakeholders include the National Forestry Commission and the National Commission for Biodiversity Use and Management, as they will provide information and advice on related issues. Forests and wetlands will benefit because the availability of increased knowledge and sustainable management will promote their conservation.

4.4 Key activities:

1. Research on traditional Mayan knowledge about forests, wetlands and solares through literature review and field work such as interviews, tours and participatory mapping. •Research on the diversity of flora and fauna with a focus on tree species, their diversity, uses and importance for the fauna. •Identification of potential tree seedlings of native species. •Research, localization and mapping of traditional knowledge and threats.

2. Strengthening of local economy •Creating the brand Maaya Na'at (meaning Mayan wisdom), as a symbol of the value and recognition of traditional knowledge for conservation. •Collaboration with organizations involved in fair trade; two of these, Taller Maya and Vida Sustentable, have shown interest in the project. •Training community groups in the systematization of production processes, quality assurance, product delivery procedures and negotiation of prices and payments with marketing organizations.

3. Dissemination to raise awareness about the conservation and sustainable management of forests, wetlands and solares. •Production of an illustrated guide of native tree species by region in Mayan, Spanish and English •Production of an illustrated guide (in Mayan, Spanish and English) for building a Mayan solar at home (highlighting its ecological and traditional importance). •Development of a large-scale campaign in urban areas on the importance of native species and the environmental services of forests, wetlands and solares in Mayan and Spanish. •Development of a podcast and social media in Mayan and Spanish on traditional Mayan knowledge, especially related to forests, wetlands and solares. •Development of a web page.

4.5 Expected outcomes and impacts, including innovation/transformation:

Expected outcomes and impacts by objective are: Obj. 1. Increased documentation and geospatial information on the biodiversity of forests, wetlands and solares and associated traditional knowledge in selected sites. This information will be used to develop outreach materials (e.g. guides), a campaign, and content for podcasts and social media. This will contribute to expanding the body of both academic and traditional knowledge, as well as information that can be used for other research and as scientific support for decision-makers. Obj. 2. Project outputs will promote the conservation and sustainable management of forests, wetlands and solares by Mayan communities. Additionally, a marketing and commercialization strategy will be developed to ensure their economic viability in the medium and long terms, even after project completion. The Maaya Na'at brand will also create a sense of pride in the identity of the Mayan culture in all its complexity, and not only as a tourist curiosity. It is hoped that these economic alternatives will serve as examples for potential replication and improvement, and the incorporation of other communities may even be considered at a later stage of the project. Obj. 3. The publication of illustrated guides will make scientific and traditional knowledge more accessible to the general public. Podcasts and audio programs and the use of social media will make it possible to reach younger audiences in both urban and rural areas. By producing all written, visual and audio materials in Mayan, in addition to Spanish and English, the dissemination of information among Mayan speakers will be ensured and the value of the Mayan language will be recognized in urban, rural and international settings.

4.6 Existing funding for (related) initiative(s)/established contacts to potential donors:

The Executive Agency (EO) will make its contribution to the project in kind, by providing the salary of the main contact researcher and the assistance of technicians and other collaborators. It will also provide university facilities such as offices, work rooms, library, vehicles, computer equipment, software licenses and consumables.

4.7 Any other information deemed necessary/important:

Even though the project will focus on the proposed rural communities, efforts will be made to maintain flexibility in order to incorporate other communities if possible.

4.8 Risk mitigation measures:

All project activities will be carried out in strict compliance with the hygiene protocols in place for the Covid-19 pandemic.

5. Indicative Budget (in US\$):

Indicative Budget (in US\$):

| Description | ITTO | Counterpart | Total |
|--|---------|-------------|---------|
| Personnel | 63,200 | 40,000 | 103,200 |
| Sub-contracts | 1,500 | 0 | 1,500 |
| Travel and DSA | 39,600 | 0 | 39,600 |
| Capital Items | 5,200 | 60,000 | 65,200 |
| Consumables | 9,900 | 1,000 | 10,900 |
| Publication / Dissemination | 15,600 | 0 | 15,600 |
| Miscellaneous | 15,000 | 0 | 15,000 |
| Total | 150,000 | 101,000 | 251,000 |

| | | | |
|---|---------|---------|---------|
| ITTO Project Monitoring & Review | 14,000 | - | 14,000 |
| Annual/Final Audit | 10,000 | - | 10,000 |
| ITTO Programme Support | 20,880 | - | 20,880 |
| ITTO Ex-post Evaluation | 0 | - | 0 |
| GRAND TOTAL | 194,880 | 101,000 | 295,880 |