Part I: Project Information

GEF ID
10869

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Promoting sustainability in the agave-mezcal value chain through restoration and integrated management of biocultural landscapes in Oaxaca

Countries
Mexico

Agency(ies)
UNEP

Other Executing Partner(s)
Pronatura Sur in coordination with the Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO)

Executing Partner Type
CSO

GEF Focal Area
Multi Focal Area

Sector

Taxonomy

Individuals/Entrepreneurs, SMEs, Private Sector, Non-Governmental Organization, Civil Society, Community Based Organization, Stakeholders, Information Dissemination, Type of Engagement, Partnership, Participation, Consultation, Focal Areas, Biodiversity, Species, Threatened Species, Wildlife for Sustainable Development, Plant Genetic Resources, Animal Genetic Resources, Mainstreaming, Agriculture and agrobiodiversity, Forestry - Including HCVF and REDD+, Certification -National Standards, Protected Areas and Landscapes, Productive Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Biomes, Gender Equality, Gender results areas, Awareness Raising, Participation and leadership, Capacity Development, Access to benefits and services, Knowledge Generation and Exchange, Gender Mainstreaming, Beneficiaries, Sex-disaggregated indicators, Gender-sensitive indicators, Capacity, Knowledge and Research, Knowledge Generation, Innovation, Learning, Adaptive management, Indicators to measure change, Theory of change, Academia, Behavior change, Communications, Education, Public Campaigns, Knowledge Exchange, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Indigenous Peoples, Financial intermediaries and market facilitators, Climate Change, Climate Change Adaptation, Ecosystem-based Adaptation, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Land Degradation, Sustainable Land Management, Sustainable Agriculture, Sustainable Livelihoods, Integrated and Cross-sectoral approach, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Income Generating Activities, Ecosystem Approach, Land Degradation Neutrality, Carbon stocks above or below ground, Forest, Forest and Landscape Restoration, Tropical Dry Forests

Rio Markers

Climate Change Mitigation

Principal Objective 2

Climate Change Adaptation

Significant Objective 1

Biodiversity

Principal Objective 2

Land Degradation

Principal Objective 2

Submission Date

2/15/2023

Expected Implementation Start

6/1/2023

Expected Completion Date

5/31/2028

Duration

60In Months

Agency Fee($)

428,216.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
BD-1-1	Loss, fragmentation, and degradation of significant natural habitats, and associated extinction debt is reduced, halted, or reversed, and conservation status of known threatened species is improved and sustained, including through monitoring, spatial planning, incentives, restoration, and strategic establishment of protected areas and other measures.	GET	1,126,884.00	7,968,085.00
BD-2-7	The area of protected areas under effective and equitable management is significantly increased, including development of sustainable financing. The ecological representativeness of protected area systems, and their coverage of protected areas, and other effective area-based conservation measures of particular importance for biodiversity is increased, especially habitats for threatened species.	GET	1,126,883.00	7,968,085.00
LD-1-3	Restoration of degraded production landscapes; enhancing and restoring ecosystem services; improving the living conditions of affected populations; improving soil management and increasing soil organic matter content, increasing tree and vegetation coverage.	GET	1,577,637.00	11,133,413.00

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-1-4	Sustainable Land Management; crop diversification; Land Degradation Neutrality; sustainable supply chains and shifting of degraded lands into production systems for food and commodities	GET	676,130.00	4,804,436.00
		Total Project Cost($)	**4,507,534.00**	**31,874,019.00**

B. Project description summary

Project Objective

To foster sustainable practices in the agave-mezcal value chain in the Oaxaca Mezcal Region through an integrated landscape management approach that privileges non-monoculture cultivation, species protection and the maintenance of ecosystems services.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1: Strengthening of the National Regulatory and Governance Framework	Technical Assistance	Outcome 1.1: Biodiversity, ecosystem services and sustainable practices mainstreamed in national governance and institutional frameworks linked to agave harvesting and the production of Mezcal. **Indicators**: *National regulations and state level strategies updated or created, adopted, and under implementation by project end* **Target**: 1 national regulation, 1 state strategy	Output 1.1.1: National regulations and state level strategies and plans updated or created to safeguard ecosystems services and promote sustainable practices in the production of Mezcal. Output 1.1.2: Multi-stakeholder capacity strengthened for the institutionalization of national regulations and state level strategies and plans for the sustainable production of Mezcal. Output 1.1.3: Governance arrangements strengthened or created to oversee Mezcal production and other commodities in bio-cultural landscapes inclusive of	GET	349,000.00	2,942,304.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			national, state, and local actors.			
		% Increase from baseline in Institutional Capacity Development Scorecard *(see Annex P)* **Target**: 20% increase from baseline				
		Inter-institutional Coordination and Oversight Group for Mezcal Production strengthened or created by project mid-term **Target**: 1 Taskforce established and operational				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Biodiversity Conservation and Integrated Landscape Management (ILM)	Investment	Outcome 2.1: Increase in area of forests protected, ecosystems services restored and maintained, and threatened and keystone species of high biological value conserved. **Indicators**: *# Hectares of dry tropical forests protected through new Areas Voluntarily Destined to Conservation (ADVC)* **Target**: 9,000 ha *# Hectares of dry tropical forests protected*	Output 2.1.1: Dry tropical forests protected through the establishment of 6 Areas Voluntarily Destined to Conservation (ADVC) and other effective area-based conservation modalities. Output 2.1.2: Assessment, management, and monitoring of Pollinator and Keystone Species in bio-cultural landscapes subject to the production and harvesting of agave for Mezcal production.	GET	2,368,000.00	18,588,958.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		through new effective area-based conservation modalities.				
		Target: 41,000 ha -Conservation Management Units: 1,000 ha -Community Management: 25,000 ha -Forest Management Programs: 15,000 ha				
		# Of species of high biological value conserved				
		Target: 7 agave species, 5 feline, 2 birds				
		# Of pollinator				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		species conserved				
		Target: 2 bats, 4 genus of moths, 2 genus of stingless bees, 1 genus of bumblebee, 2 birds	Output 2.2.1: 2 Integrated Management Plans for Bio-Cultural Landscapes developed and under implementation.			
		Outcome 2.2: ILM practices have reduced LD, increased soil, and woody vegetation carbon sequestration, and enabled sustainable agricultural production on degraded lands.	Output 2.2.2: Agave monoculture reversed, soil erosion decreased, carbon sequestration increased through agroforestry production and restoration of degraded lands.			
		Indicators: *# Of integrated landscape*	Output 2.2.3: Development of productive, resilient, and			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		management plans **Target:** 2 *# Of hectares restored and/or under ANR* **Target**: 3,000 ha of agriculture land 3,000 ha of ANR in degraded forests *# Of hectares of agave subject to sustainable harvesting practices* **Target**: 8,000 ha *# Of hectares that have reversed*	equitable food and integrated land management best practices in bio-cultural landscapes subject to agave harvesting.			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		monoculture cultivation **Target**: 4,000 ha *# Metric tCO2e mitigated (direct)* **Target**: *215,352 tCO2e* *# Hectares of bio-cultural landscapes subject to ILM best practices* **Target**: 20,000 ha				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3: Establishing a Sustainable Agave-Mezcal Value Chain and Managing Associated Knowledge	Technical Assistance	Outcome 3.1: Strengthened Mezcal Value Chain based on sustainable practices. **Indicators:** *% Of total Mezcal production subject to sustainability standards* **Target**: 5% *% Of total Mezcal production subject to use of sustainably produced wood included in Forest Management Programmes.* **Target**: 5% *# Of cultural practices linked to agave production, harvesting and mezcal production*	Output 3.1.1: A sustainable Agave-Mezcal value chain is promoted through action targeting the production and demand sides. Output 3.1.2: Promotion of sustainable plantations of wood for use in Mezcal production. Output 3.1.3: Cultural practices that define origin and uniqueness of Oaxacan Mezcal safeguarded. Output 3.1.4: A Knowledge Management Plan on sustainable mezcal production	GET	1,375,890.00	8,364,947.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		supported by the project **Target**: 2 cultural practices 1. Intercropping with the milpa system (traditional form inherited from ancestors) and other agroforestry systems (pitahaya, fruit and woody plants) 2. Artisanal distillation using fermentation without additives	developed and under implementation.			
		# Of Knowledge Management Plans on sustainable mezcal production supported by the project **Target**: 1 -	- - - - - - -			
		<u>Outcome 3.2</u>:	<u>Output 3.2.1:</u> A finance mechanism for			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
		An innovative finance mechanism to upscale sustainable harvesting and processing of agave. **Indicators:** *# of beneficiary institutions (i.e.: companies, community enterprises, cooperatives, and producers) benefitting from the finance mechanism* **Target**: 5 *% Of capitalization from private sector origin* **Target**: 25%	sustainable harvesting and processing of agave designed, formally established and operational			
Monitoring & Evaluation	Technical Assistance			GET	200,000.00	460,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
				Sub Total ($)	**4,292,890.00**	**30,356,209.00**
Project Management Cost (PMC)						
				GET	214,644.00	1,517,810.00
				Sub Total($)	**214,644.00**	**1,517,810.00**
				Total Project Cost($)	**4,507,534.00**	**31,874,019.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	State of Oaxaca Environment, Energy and Sustainable Development Secretariat (SEMAEDESO) Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA) State of Oaxaca Economy Secretariat (SE)	In-kind	Recurrent expenditures	246,750.00
Recipient Country Government	State of Oaxaca Environment, Energy and Sustainable Development Secretariat (SEMAEDESO) Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA) State of Oaxaca Economy Secretariat (SE)	Grant	Investment mobilized	5,675,178.00
Recipient Country Government	Secretariat of Environment and Natural Resources (SEMARNAT - UCAI)	In-kind	Recurrent expenditures	125,000.00
Recipient Country Government	National Commission of Protected Natural Areas (CONANP)	Public Investment	Investment mobilized	413,030.00
Recipient Country Government	Secretariat of Agriculture and Rural Development (SADER)	Public Investment	Investment mobilized	9,500,000.00
Recipient Country Government	Secretariat for Welfare (BIENESTAR)	Public Investment	Investment mobilized	8,200,000.00
Recipient Country Government	National Commission for the Knowledge and Use of Biodiversity (CONABIO)	In-kind	Recurrent expenditures	19,061.00
Civil Society Organization	Pronatura Sur	In-kind	Recurrent expenditures	35,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Civil Society Organization	Certificadora de Productos Sustentables	In-kind	Recurrent expenditures	10,000.00
Donor Agency	Governors Climate and Forest Task Force (GCF TF)	Grant	Investment mobilized	50,000.00
Donor Agency	World Resources Institute (WRI)	In-kind	Recurrent expenditures	300,000.00
Donor Agency	World Resources Institute (WRI)	Grant	Investment mobilized	6,900,000.00
Donor Agency	GIZ	Grant	Investment mobilized	200,000.00
GEF Agency	United Nations Environment Programme (UNEP)	In-kind	Recurrent expenditures	200,000.00
			Total Co-Financing($)	**31,874,019.00**

Describe how any "Investment Mobilized" was identified

The co-financing sources identified above as ?investment mobilized? are time-bound expenditures specifically identified for complementary works to be carried out in the project intervention area, and thus contribute to the delivery of project objectives and global environmental benefits. They have been identified as follows: Investment mobilized from the State of Oaxaca Environment, Energy and Sustainable Development Secretariat (SEMAEDESO), Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA), and the State of Oaxaca Economy Secretariat (SE) refers to State Contribution for the Design and Implementation of Management Strategies in Conserved Areas of Ecological Importance in Low Deciduous Forests of Biocultural Landscapes of Central Valleys and Sierra Sur; the Design and Implementation of Restoration and Recovery Strategies in Degraded Areas due to Agave Cultivation in Biocultural Landscapes of the Central Valleys and Sierra Sur; the construction, equipment and start-up of the "Mezcal Innovation, Training and Business Center" located within the intervention area of the project in the Central Valleys of Oaxaca (Santiago Matatl?n) which will be a strategic space for training, technology development energy efficiency and sustainable practices in the production of mezcal; the acquisition of agricultural implements, promotion of agri-food projects, training and execution of campaigns to combat the agave weevil; and the programs that the Secretaries apply annually and that are considered complementary for 5 years, starting in 2023. In relation to the counterpart proposed by the Government of the State of Oaxaca in the PIF (43,720,000), it was initially estimated based on the annual budget that each Secretariat would contribute to the different components of the project for 5 years, which

represented a global contribution of 14,225,000 USD. In terms of the amount included in the co-financing table above and the letter that is attached to the CEO Endorsement Request where the state contribution amounts to 5,921,928 USD, it was prepared in the context of a change of State Government, since the current administration ends on November 30, 2022. The difference will be agreed with the new cabinet once the 2023 budget is assigned, since by administrative and legal procedure, the current administration cannot commit financing after the above-mentioned date. On the other hand, SEMAEDESO has informed the transition team of the incoming government of the status of the project, so that the new heads of the Secretariats give continuity to the state contributions. On the other hand, the project has the support of various federal agencies such as SEMARNAT and the SHCP; which will facilitate the transition to the new state administration. ? Co-financing from the National Commission of Protected Natural Areas (CONANP) will be investments in community grant programs, technical advice, promotion of community governance for the construction of consensus for the declaration of ADVCs, and the monitoring of priority species. ? The National Commission on Biodiversity (CONABIO) will provide in-kind co-financing to support the integration of biodiversity information in normative frameworks, data gathering and management of biodiversity information in support of restoration efforts, and capacity-building. ? Investments from Pronatura Sur will be investment-readiness efforts connected with the Governors Climate and Forest Task Force (GCF TF ? see below). Co-financing by the Governors Climate and Forest Task Force (GCF TF) are investments in empowerment of sub-national member jurisdictions and their partners to implement innovative programs for sustainable low-emission development, based on better forest governance. The US$6,900,000 investment mobilized from the World Resources Institute (WRI) are linked to a landscape finance programme they are initiating in Mexico with support from USAID and will assist in the capitalization of the Finance Mechanism. ? GIZ will provide funds from the German Ministry of Economic Cooperation and Development (BMZ) for investments in activities related to agave and mezcal production in Oaxaca, including development of training modules for the dissemination of good practices for a sustainable production of mezcal, facilitation of dialogue processes among key stakeholders for a sustainable value chain, building of capacities in producer organizations for an increased offer of sustainable, socially fair mezcal that complies with identified sustainability certifications, and technical advice for key state government stakeholders for the development of better regulations and governance frameworks. ? Investments from SADER will strengthen the capacities and competencies of the Agave-Mezcal Production System National Committee and follow-up on the activities it carries out; provide direct economic incentives to the producers to strengthen their food security while maintaining their autonomy; implement actions within the framework of the national strategy for the conservation and sustainable use of pollinators, which include activities to conserve bats; and based on biodiversity manuals, will help to create labelling of biodiversity friendly practices related to the differentiation of rural products from communities collaborating in the project of agave and mezcal. ? Formal co-financing to the finance mechanism will be secured during project execution once design efforts conclude. National and international financial institutions have shown reservation in providing letters of co-financing but are very much interested in engaging with the project during execution as demonstrated by Letters of Intent in Annex O.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Mexico	Biodiversity	BD STAR Allocation	2,253,767	214,108	2,467,875.00
UNEP	GET	Mexico	Land Degradation	LD STAR Allocation	2,253,767	214,108	2,467,875.00
			Total Grant Resources($)		**4,507,534.00**	**428,216.00**	**4,935,750.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Mexico	Biodiversity	BD STAR Allocation	75,000	7,125	**82,125.00**
UNEP	GET	Mexico	Land Degradation	LD STAR Allocation	75,000	7,125	**82,125.00**
				Total Project Costs($)	**150,000.00**	**14,250.00**	**164,250.00**

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
50,000.00	50,000.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
50,000.00	41,000.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
ADVCs			9,000.00			
Community Management			25,000.00	25,000.00		
Forest Management Programmes			15,000.00	15,000.00		
UMAs			1,000.00	1,000.00		

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	9,000.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
San Bartolome Quialana	NA			530.59			16.00		
San Juan Lajarcia	NA			3,087.17			16.00		
Santa Ana del Valle	NA			1,010.16			16.00		
Santa Maria del Tule	NA			769.43			16.00		
Santa Maria Lachixonace	NA			2,207.56			16.00		
Santa Maria Nizaviguiti	NA			1,395.09			16.00		

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
6000.00	6000.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Cropland	3,000.00	3,000.00		

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
3,000.00	3,000.00		

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
40000.00	20000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
20,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
20,000.00	20,000.00		

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	0	0	0	0
Expected metric tons of CO?e (indirect)	210889	215352	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)	210,889	215,352		
Anticipated start year of accounting	2023	2023		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	21,600	27,191		
Male	54,400	49,987		
Total	76000	77178	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

The target for Core Indicator 1 which includes 9,000 ha of ADVCs, refers to areas that are already on a path to certification as ADVCs by CONANP. There is already community support for the declaration of these areas and develop the necessary studies on the biological importance of these polygons. In these selected sites, there is community buy-in to define polygons with greater precision to be certified as ADVC, which entails preparation of technical assessments and social consensus building. The ADVC are polygons identified by CONANP as areas of biological importance in the region, which present low deciduous

forest vegetation to contain the monoculture of agave and coniferous forest for the maintenance of environmental services, mainly water. The remaining 41,000 hectares are as follows: 1,000 hectares proposed as Environmental Management Units that are in strategic connectivity sites of the dry forest being degraded by poor agricultural practices such as agave monoculture; 25,000 hectares of community-managed areas to be promoted in the region to regulate the land uses of different productive sectors; and 15,000 hectares that correspond to properties with non-timber forest management programs in the two project landscapes. A total of 16,652.49 hectares will be declared during project implementation and 33,347.51 hectares will benefit from improved management effectiveness. Annex O outlines the distribution of areas by protection category, landscape and type of intervention (to be created or to be strengthened). The target for Core Indicator 3 includes 3,000 hectares of agricultural lands selected to implement productive landscape restoration in areas with agave monoculture. An additional 3,000 hectares were selected to undertake Assisted Natural Regeneration (ANR) with basis on opportunities provided by community forest management and land use planning programs. The target for Core Indicator 4 represents two biocultural landscapes identified by the agricultural practices present in each of them. The Valles Centrales is characterized by ?traditional? agriculture that dates to the domestication of wild plants into crops from 12,000 BC. The Sierra de Yautepec is characterized by agriculture supported by technology. The target for Core Indicator 6 was established by the State of Oaxaca (SEMAEDESO) with the technical support of the National Forestry Commission (CONAFOR) using the CONAFOR National Monitoring, Reporting and Verification System (SNMRV)?s methodological approach. Information on activities and their magnitude were provided by SEMAEDESO, while information on carbon densities and rates of change in carbon stocks per unit area were provided by data generated by the CONAFOR SNMRV?s System for Biomass and Carbon Estimation (SEByC). Annex G presents both a brief technical note on the calculation of mitigation benefits and a table quantifying emission reductions and removals per area. The targets for Core Indicator 11 correspond to the population in specific communities within the two biocultural landscapes to be the primary project intervention areas validated through a process of analysing multiple layers of population and GIS data during the PPG. The training activities will benefit mezcal producers in general, that is, beyond the intervention landscapes. The data used correspond to the latest available information from the population census plus new GIS data recently made available. The representation of female beneficiaries went from 28% of total beneficiaries at PIF design stage to 35% at the end of PPG. While this represents a modest increase associated with efforts to enhance prospects for female participation during the PPG phase, the project is mindful of the sustained gender imbalance in the distribution of benefits. Despite women undertaking key roles in family production units, land tenure rights are traditionally assigned to men in Oaxaca?s rural communities. The project seeks to contribute to addressing structural gender imbalances by encouraging and giving visibility to the participation of women and youth on its implementation. Efforts will be made to ensure women have either similar or preferential

access to men to capacity building activities related to biodiversity monitoring, extension services, seed selection and reproduction of agave plants and trees, nursery management, among others. During project preparation, different organized women groups of agave-mezcal producers were identified and mobilized. In some instances, women have strong leadership roles at different stages of the agave-mezcal value chain (mezcal production, marketing, and promotion). While these groups have different levels of consolidation and maturity, the project hopes to strengthen them and foster experience exchanges and trainings. Thus, encouraging peer-to-peer learning and putting a spotlight/ amplifying the voices of strong women leaders. In addition, the project will ensure there is gender balance on beneficiaries from the finance mechanism and promote the sustainability of this approach beyond its duration.

Part II. Project Justification

1a. Project Description

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Overview & Environmental Context

Mexico is the 13th largest country in the world, the 5th for its biological and cultural diversity and is one of the world?s five megadiverse countries inclusive of agrobiodiversity, with at least 118 plants of economic importance partially or fully domesticated by pre-Hispanic farmers. The country has identified 71 Key Biodiversity Areas (KBA) covering 96,887 km2 with 21 trigger species, and with 4 KBAs with identified threats[1]1.

The proposed project?s interventions will concentrate primarily in the state of Oaxaca, which is in the south of Mexico, with a total area of 93,757 km2 and 568 km of coastline. It has 570 municipalities grouped into eight regions and 30 districts. The capital of the state is the city of Oaxaca, located in the region of Valles Centrales and the Centro District[2]2. The state has seven hydrological regions and 14 basins, a significant number of lagoons, mostly located in the Pacific Coast region, and 26 climatic subtypes. It is possible to find warm climates, from humid and sub-humid to arid and very arid, as well as temperate climates with a high degree of humidity, or those where aridity is an important factor, and semi-cold climates from humid to sub-humid. Warm, semi-warm and temperate climates occupy most of the Oaxacan territory. The state of Oaxaca has a great diversity of soils, presenting 16 of the 22 existing soil units in Mexico. This important edaphological wealth is in a clear risk because it?s inappropriate use has adverse effects on biodiversity, agricultural productivity, and the quality of the environment.

In accordance with the Strategy for the Sustainable Use of Biodiversity of the State of Oaxaca, and in terms of flora, 261 families, 1,824 genera and 9,130 species have been registered, of which 722 are endemic species to the state. The state has 309 species of plants with some category of risk, the majority in the group of ?threatened?. Sixty-five percent of the species in risk category are concentrated in seven families, of which the Orchidaceae, Cactaceae and Crassulaceae stand out in terms of number. Of particular importance to this proposed project is the fact that 58 species of agave are found in Oaxaca, of

which 13 are endemic and 3 are classified as threatened[3]3. Regarding diversity of fauna, the state has 3,112 species of invertebrates with endemism of this group in mesophilic and coniferous forests, 1,654 species of vertebrates, 736 species of birds, 262 species of reptiles, 199 species of mammals, 140 species of amphibians, and 275 species of fish. In total there are 128 endemic species of vertebrates, with serious conservation problems, since 33% are in the Mexican Regulation on Threatened Species of Flora and Fauna (NOM-059-SEMARNAT-2010) with some risk category, while 71 species (5%) are included in the lists of Birdlife International and IUCN. Included within the state?s biodiversity and of critical importance for this project are two migratory long-nosed bat pollinator species that feed on nectar and pollen of agave plants and assist in cross-fertilization of agave plants.

The state has a wide variety of ecosystems and vegetation types, from thorny thickets in arid zones, green tropical forests and dry tropical forests, the marine ecosystem: coral reefs and mangroves on the Pacific coast, to fog forests, holm oaks, pine forests and oyamel forests. Of the state territory, 65.56% is covered by a forest area, while the remaining 34.44% are non-forest areas that include agricultural areas, human settlements, urban areas, water bodies and areas devoid of vegetation. The eleven forest formations considered at the national level are present in the state, being widely distributed in the high and medium forests, coniferous, broadleaved, and low forests. It should be said that within Oaxacan territory there are 23 of the 32 types of vegetation described for the country. Of direct relevance to this project are the areas of Tropical Dry Forests (TDF) where monoculture agave and the use of firewood for the mezcal production system are carried out[4]4.

Tropical Dry Forests (TDF) receive less attention than high tropical forests, but they are home to high levels of biodiversity and are endangered by multiple factors such as agriculture, livestock, major tourism developments and global climate change. Nearly half of TDFs have been lost globally and less than 10% are protected. Within the Americas, the distribution of TDF has reduced by nearly 80%. Mexico is home to about 38% of the Neotropical dry forest. More than 70% of Mexico?s dry forests have been converted for other uses, and only 0.2% is under protection. Mexico?s Tropical Dry Forests contain 35% species of mammals, 33-42% of birds, 34% of reptiles and 23% of amphibians. They contain at least 246 endemic vertebrates: 40 mammals, 38 birds, 124 reptiles and 44 amphibians, but at least 47 vertebrates in the dry forest are at risk of global extinction[5]5.

Primary Environmental Problems and Root Causes

One of the main threats to TDF is land use change for agricultural use through slash, grave and burning, which has negative consequences on ecosystem processes. According to Oaxaca?s State REDD+

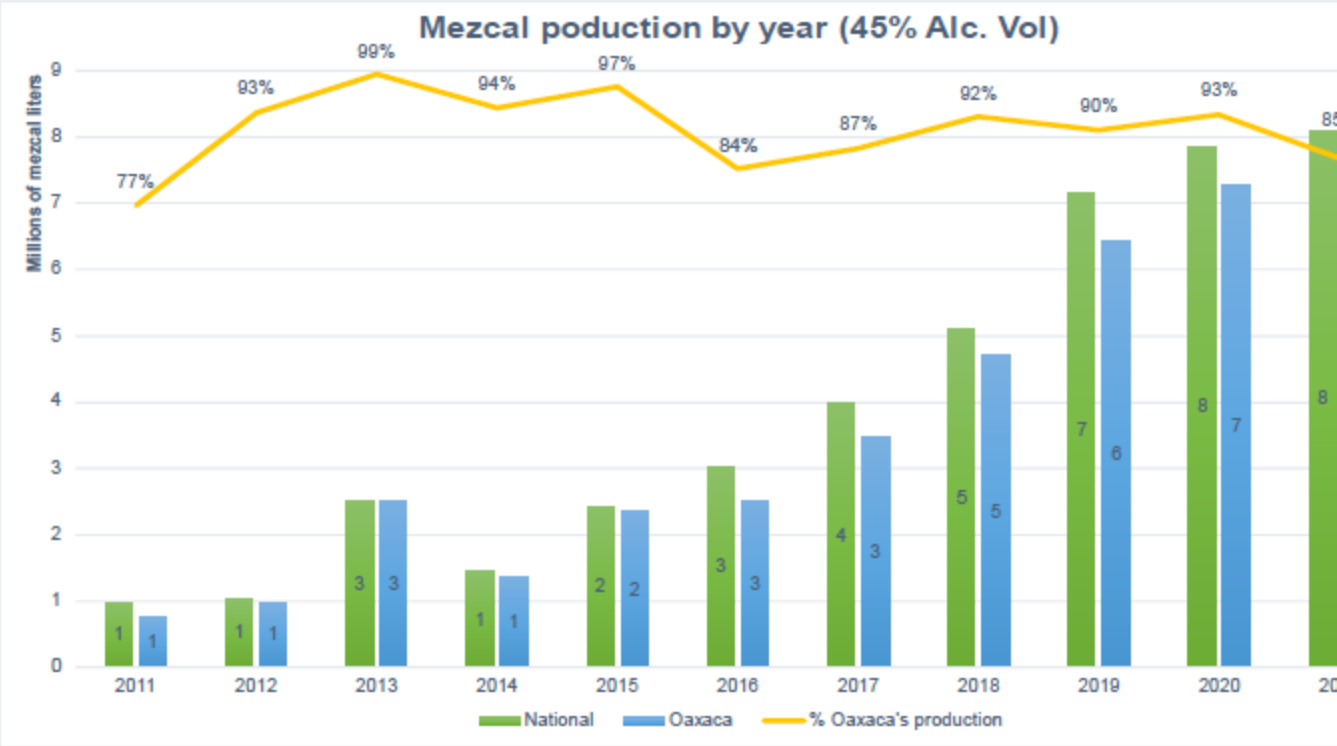
Strategy[6][6], the main direct drivers of deforestation and land use change are expansion of agricultural land, forest fires, pests and forest diseases and illegal logging. In 2018, the main products harvested in Oaxaca were grain corn, pastures, grasslands, coffee, sugar cane, sorghum beans, lemon, mango, and wheat. Against this backdrop, agave monoculture has become an increasingly important driver of deforestation and land degradation alongside the use of firewood for the mezcal production system. In the mezcal production process, firewood is used not only as a source of energy, but also because of the organoleptic characteristics it confers to the finished product, thus the incentive to use firwood is twofold and synonymous to a sustained source of deforestation. Growing national and international demand for mezcal, has only been enhancing this trend and characterizing agave monoculture as both a current and future driver of forest loss and degradation. Mezcal is a protected product with appellation of origin. In the state of Oaxaca, the so-called "Mezcal Region" includes the municipalities of Sol? de Vega, Miahuatl?n, Yautepec, Santiago Matatl?n, Tlacolula, Ocotl?n, Ejutla and Zimatl?n.[7]7 Oaxaca has a high participation in mezcal production at the national level for different aspects: it is the main producer of mezcal with 97.3% of total production in the country; in its interior there is a vast biodiversity of agaves, with 58 species; it is the headquarters of the Mezcal Regulatory Council (CRM) and is also, at the same time, the second poorest state in the country, with a poverty rate of 66.8% of its total population[8]8. The area in Oaxaca that is subject to agave cultivation varies from year to year with 9,000 hectares in 1982, 16,185 hectares in 2006, and 10,000 hectares in 2019, which has caused a high impact on TDF ecosystems and the biodiversity they harbour. In 2019, there was a production of 6,438,000 litres of mezcal in 695 registered palenques[9][9]. In the last five years, total profits of mezcal producers increased 29.7% per year, going from 1.62 to 7.66 million U.S. dollars, due to an increase in production from 1.4 to 6.4 million litres. The demand for mezcal in the national and international market increases year after year, which has had a severe impact on the deforestation of TDFs.

The national production of certified mezcal in 2021 ? _referred to 45% Alc.Vol. ? was equivalent to 8,099,591.00 litres, with Oaxaca being the main producer with 85.40% of the total production. Artisanal mezcal is the main form of mezcal produced (88.92%). (Arellano, et al. 2022), estimate that the real quantity of mezcal produced annually is twice the certified volume. The national bottling of mezcal in 2021 was equivalent to 3,684,458.00 litres, with Oaxaca being the main bottler in the national market with 78.83% (Figure 1).

Figure 1. National Bottling of Mezcal in 2021

Mezcal production by year (45% Alc. Vol)										
Production / Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	202
National	980,375	1,044,696	2,519,568	1,451,718	2,419,175	3,028,000	3,985,221	5,098,667	7,145,039	7,846,25
Oaxaca	758,810	971,567	2,504,451	1,360,260	2,353,857	2,528,380	3,467,142	4,706,070	6,437,680	7,273,47
% Oaxaca's production	77%	93%	99%	94%	97%	84%	87%	92%	90%	93

Source: Consejo Regulador del Mezcal, 2022.



In 2021 the export of mezcal was equivalent to 5,102,520.82 liters, again with Oaxaca being the main exporter with 77.30% of the market (Figure 2).

In Oaxaca, 570 municipalities make up the territory protected by the legal figure of the DOM. In terms of agave, Oaxaca has the first place in number of plots registered nationwide with 86.41% of the 5,659 registered plots; the first place in number of plants registered in the country with 59.59% of the 29,824,414 registered plants; the first place in agave producers registered with 81.76% of the 1,261 registered agave producers; and the fourth place in number of hectares registered nationwide with 14.23% of the 65,636.2 registered hectares. In 2019, the US surpassed Mexico as the world?s largest market for

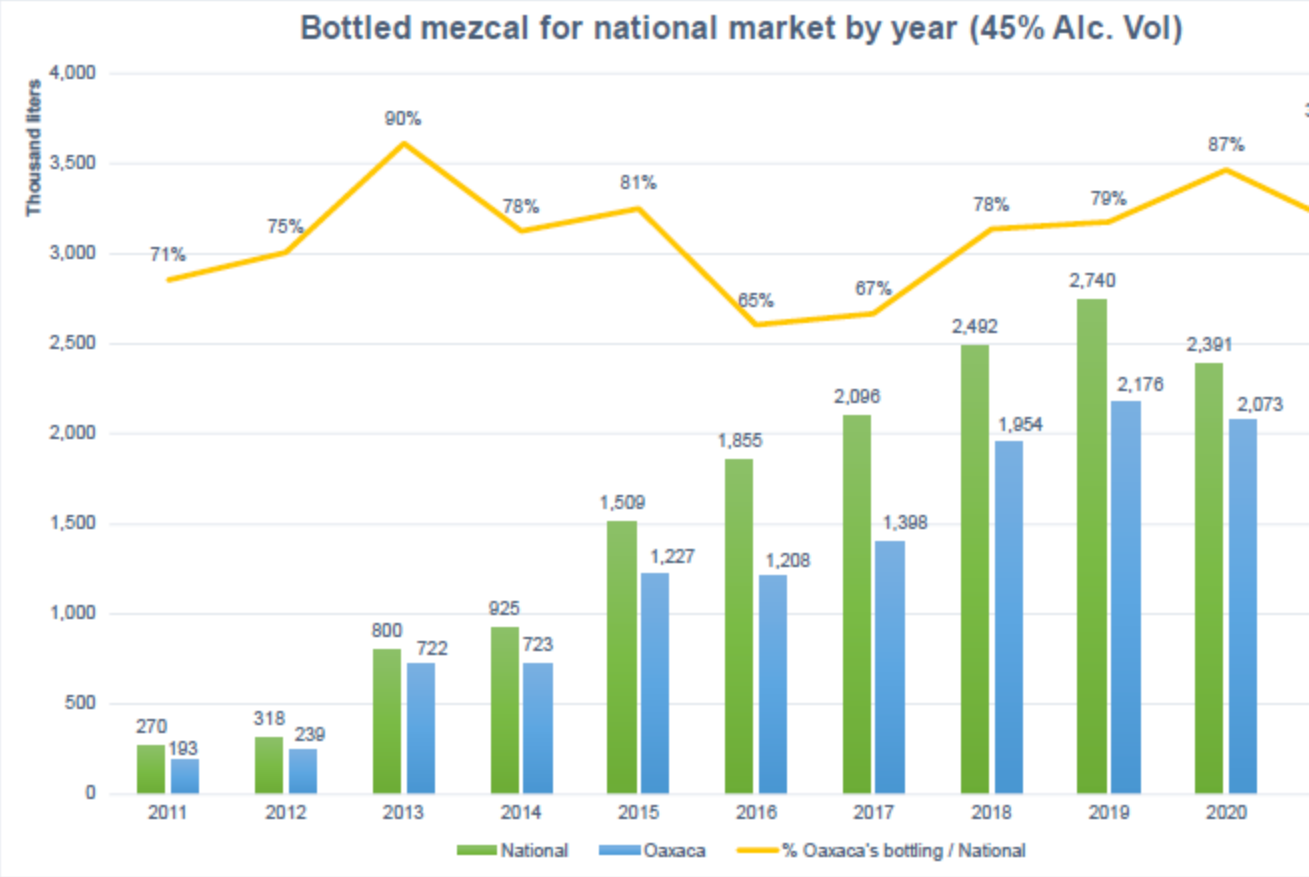
Mezcal. Oaxaca?s share of the exported bottled Mezcal is 77.3% and 60% of Mezcal produced in Oaxaca is sold to the USA.

There is no data on sustainable production of mezcal or agave. However, sustainability is an important marketing strategy in the US. Almost 30% of the mezcal sold in the US is produced by companies with sustainable commitments ranging from using only certified wood, sustainable cultivation of wild and semi wild species, 100% sourcing from sustainable and organic harvested agave (no wild agave) to the use of solar energy.

Figure 2. Exports of Mezcal for 2021

Bottled mezcal for national market (45% Alc. Vol)										
Bottling (national) / Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	
National	270,426	317,803	800,002	924,686	1,508,839	1,854,840	2,095,934	2,491,909	2,740,212	2,391
Oaxaca	193,084	238,988	722,402	723,104	1,226,686	1,207,501	1,397,988	1,953,657	2,175,728	2,073
% Oaxaca's bottling / National	71%	75%	90%	78%	81%	65%	67%	78%	79%	

Source: Consejo Regulador del Mezcal, 2022.



In the early 1980s, tequila producers from Jalisco ventured into the Mezcal Region for two years, extracting and purchasing maguey[10][10] that otherwise would have been used for mezcal, at better prices in relation to those established by mezcal producers, triggering a trend towards agave monoculture to satisfy agave demand for both mezcal and tequila. Agave monoculture is contributing to land and ecosystem service degradation, biodiversity loss, and socio-economic losses. In 2000, the purchase intensified, leading to a recomposition of agriculture through the expansion and increase of maguey planting leading to substantial deforestation, supported by remittances from international migration,

under an economic rationale at the expense of environmental conservation, using inadequate production techniques and triggered by an increase in demand for the elaboration of tequila.

This became a problem of overproduction, causing abandonment and neglect of planting, interrupting the realization of traditional agricultural practices such as reseeding, among others. The foregoing caused the suppression of the ecosystem services offered by the maguey, such as its contribution to the retention of particles, nutrients, and soil moisture through its root system, thus avoiding soil degradation, in addition to the lack of rotation, association and the intercrop with basic crops such as corn, beans, squash that make it impossible to obtain food security in the communities[11]11.

Based on studies carried out by CONAFOR and the Chapingo Autonomous University in 2013, the extent of degraded landscape in the state of Oaxaca was estimated at 1,631,231 ha. The degraded areas represent 18% of the rural territory (not including urban areas, human settlements, and bodies of water) and are distributed between areas of moderate (13.7%) and high (4.3%) degradation; 92.6% of degraded areas are on land for agricultural use, that is, 1.51 million hectares. Considering the percentage of degradation by category of vegetation and current use, it was estimated that 88.4% of agricultural plots are under a state of degradation of their ecosystem functions, of which 23.5% have a high or very high level of degradation; 36.7% of cultivated forests and 8.2% of livestock areas were identified to be in a situation of degradation[12]12.

A study on determinants of deforestation in the state of Oaxaca by USAID in 2016 suggests that deforestation, in part, is associated with conditions of poverty and weak governance, characterized by the weakening of the Assemblies; the absence of instruments for regulating community life or, in other cases, these statutes or regulations are not duly updated; agrarian conflicts and incidences of public policies in the rural sector that encourage the loss of forest cover. However, it should be clarified that these conclusions are in reference to the engines of deforestation in the State in general, that in the case of changes in land use for planting agave, other factors also influence, such as unequal negotiation between private parties (generally large businessmen or those with influence in political power) and the most vulnerable ejidos and communities; the great economic power of the former; the lack of regulations to prevent agave monoculture and other related aspects.

Maps in annex A provide a vivid illustration of the extent of degradation of ecosystem functions in the State of Oaxaca as they relate to sediment retention, water recharge and contribution to base flow functioning, carbon capture and pollination.

Socio-Economic Context

National Level

One-third of Mexico's population lives in rural regions, which means that more than 30 million Mexicans relate to agriculture production areas. Most indigenous communities are established in rural zones and depend greatly on agriculture for their wellbeing. The agriculture sector represents 8% of the Gross Domestic Product (GDP) and in the last decade has been growing at the same rate as the rest of the economy, generating employment and income from exports[13][13]. Due to structural problems and the impact of the Covid-19 pandemic in Mexico, ?between 2018 and 2020, the percentage of the population in a situation of poverty increased from 41.9% to 43.9%, while the number of people in this situation increased from 51.9 to 55.7 million people. The percentage of the population living in extreme poverty increased from 7.0% to 8.5% between 2018 and 2020 and the number of people increased from 8.7 to 10.8 million people. During this period, the percentage of the population living in poverty in rural areas remained at similar levels, changing from 57.7% to 56.8% between 2018 and 2020; in contrast, in urban areas this percentage increased 3.2 percentage points from 36.8% to 40.1% in the same period. In Mexico, poverty and extreme poverty have historically had a rural face?, even though in 2012 the population had been concentrated in cities and metropolitan areas, the population in extreme poverty in rural localities was slightly higher than that in urban localities (5.8 million rural, 5.7 million in urban).

Mexico?s economy is one of the most unequal in the world, where by 2021 the 10% of the richest sector accounted for 57% of total profits, and the poorest 50% around 8-10% (World Inequality Report, 2022)[14][14]. Human development indicators are very worrying in the case of the indigenous population: 7 out of 10 people who speak an indigenous language are in a situation of poverty, almost doubling the respective figure for non-speakers (74.9% compared to 39.4%). In the case of extreme poverty, the data is six times higher (35.6% compared to 5.6%). Despite the country having shown progress in this area from 9.8% in 2012, 9.5% in 2014, to 7.4% in 2018; the situation of indigenous people continues to represent a significant lag, since in 2012 the proportion of speakers of indigenous languages ??in extreme poverty was 38.0%, 39.9% in 2014 and in 2018 it was 35.6%.

State Level

Oaxaca is one of the states in the country with the largest area of ??social property, which reaches 76% of the State's territory (7,200 million ha, of the total 9,390 ha of the State's area), of which 22% are ejidos and 78% communal. On the contrary, Oaxaca is one of the states with the lowest average area per social

owner (5 ha/owner), ranking 21st, demonstrating there is a certain tendency to smallholdings, which in some cases can affect the functionality of productive units. According to the 2020 census, Oaxaca has a population of 4,132,148 inhabitants, of which 52.2% are women and 47.8% are men[15][15], with a population density of 44.1 inhabitants/km2. Of these, 77% live in urban areas and 23% in rural areas, the latter slightly above the national average of 21%. Oaxaca is ranked 4th among the states with the highest levels of poverty at the national level. ?According to the results of the 2018 poverty measurement, 66.4% of the entity's population lived in poverty, that is, approximately 2,714,700 people. Of this universe, 43.1% (about 1,762,800 people) were in a situation of moderate poverty, while 23.3% of the population was in a situation of extreme poverty (about 951,800 people)?. In this way, the total percentage of poverty in Oaxaca is 66.3% (24.4 points higher than the national percentage, which is 41.9%). In the words of the State Government itself, these figures show a great demographic, cultural and political complexity that, framed by the absence of proper planning and orientation of state social policy, has deepened the phenomenon of poverty and generated obstacles for the access to basic goods and services to which the population is entitled[16][16]. Oaxaca has a significant nucleus of black or Afro-Mexican population, whose social, cultural, and demographic parameters are in the process of recognition, definition, and construction. In Oaxaca, 4.94% of the population consider themselves Afro descendant.

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Oaxaca is the state with the greatest ethnic, cultural, and linguistic diversity in the Mexican Republic. Its territory is home to 18 ethnic groups, of the total 68 that exist in the country, which together are 1,691,890 inhabitants and represent around 44.5% of the total population of the state. These settlers are distributed in 2,563 localities of the 12,919 that exist in the Oaxacan territory. In Oaxaca fifteen indigenous languages ??coexist with their variations and it is estimated that there are 1.2 million people aged three and over who speak an indigenous language, representing 32.2%. The most widely spoken indigenous languages ??are Zapotec (33.6%), Mixtec (22.1%), Mazatec (14.9%), Mixe (9.5%) and Chinantec (8.9%), representing ??together 89% of the population that speaks an indigenous language in the state. This positions Oaxaca as the state with the largest number of indigenous language speakers, followed by Chiapas (28.2%), Yucat?n (23.7%), Guerrero (15.5%) and Hidalgo (12.3%). In this sense, it should be noted that of the 2,607,917 people who self-identify as indigenous in Oaxaca, 1,193,229 speak an indigenous language (45.7%), according to the 2020 INEGI Census. It should be noted that Oaxaca presents 5 of the 23 Priority Biocultural Regions taken up and put into practice by the GEF Project *?Strengthening of National Capacities for the implementation of the ?Nagoya Protocol on Access to Genetic resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity?* (ID 00096831), implemented by UNDP and SEMARNAT.

More than 40% of the state?s inhabitants are dedicated to agricultural, fishing and forestry activities, with agriculture being mainly family-based and with the use of very little technology. At the state level there is greater deterioration and increase in the fragmentation of the vegetation within the most populated regions and with the highest growth rates, such as the Coast, Istmo and Valles Centrales. On the other

hand, in regions with a low population rate, it is still possible to observe wild spaces, less deforestation and low pressure on resources and urban areas, as occurs in the Sierra Norte, Papaloapan, Sierra Sur and some areas of the Mixteca. In 2015, the Economically Active Population (EAP) was made up of 1,233,387 employed persons. In sectoral terms, the EAP of ??the services sector was the one with the highest coverage, with 37.9%, followed by that of the primary with 27.1%, then the secondary with 18.8% and at the end that of commerce with 14.5%.

Agave plants have a long history of ethnobotanical importance to the peoples of Mexico. The plants have strong fibrous tissue in their leaves, which makes them useful for ropes, brushes, sandals, nets, sleeping mats, fires, clothing, and other similar items. Fermented agave sap, called ?pulque?, was central to religious rituals and sacrifices in Mexica (Aztec) cultures and mezcal was popular with revolutionaries in cantinas across Mexico during the Mexican War of Independence[17]17. For the Nahuatl, the original inhabitants of Western Mexico, agave was worshipped, representing the goddess Mayaheul?s earthly power of wind, rain, and crops. The plant was already ancient when the Spaniard Conquistadors arrived in 1492, was exported into the Old World in 1520, and was mentioned as a food of the Aztecs and natives in the Florentine Codex of 1580[18]18. Ovens that may have been used to cook maguey cores have been found in archaeological sites across Mexico and in Western Mexico, ceramic vessels with depictions of agave plants have been recovered from several burials dated to the Classic period, highlighting the important role that this plant played in ancient Mexican societies[19]19.

A unique aspect of socioeconomic organization in Oaxaca is the Ejido System of Land Tenure. Ejidos are a form of social and private property that contain a mix of individually parcelled land and some land which is held and used communally, based on Mexico?s agrarian law. Ejidos have small plots of land owned by ?ejidatario? families and a specific area designed as ejido communal land, which is owned by everyone in the ejido. Ejidos establish their own rules and are governed through an Ejido Assembly and ejido governing bodies. Changes within the private plots and common land of ejidos cannot happen without the consent of the Ejido Assembly. All ejido members have voting rights to elect a leader (a comisariado). Ejidos and agrarian communities vary in size depending on the state. Any economic activity can be conducted on ejidos if it is permitted by law. 56.4% of social property in Mexico is used for agriculture and most of the plots of land are considered as smallholdings. Within these agrarian nuclei the main crops are maize, sugar cane and coffee, and many ejidos grow grasslands for livestock. Nevertheless, some ejido communities are engaged with tourism activities, forestry, arts & crafts, fishing, and payment for ecosystem services schemes related to carbon capture and biodiversity conservation. Successful stories of the collective management of natural resources in ejidos and agrarian communities have been reported in Nuevo San Juan Parangaricutiro in Michoac?n, and the Union of Zapotecan and Chinantecan Forestry Communities (UZACHI) in Oaxaca[20]20. Areas being considered by the project for improved land management practices and as potential Areas Destined to Voluntary

Conservation (ADVC) may include ejido-managed land, and as such, the ejido governance structures will play an important role in the project?s implementation.

Socio-economic Context of the Agave-Mezcal Value Chain

During the PPG development an assessment of the socio-economic context linked to the agave-mezcal value chain was conducted[21][21] to better understand the operating environment of the proposed project. In the two proposed biocultural landscapes of the project, the elaboration of mezcal, and even the production of agave, is generally associated with the traditional knowledge of the Zapotecs. It is noteworthy that the agaves are "one of the most important groups of plants for Oaxaca, from the economic and cultural point of view, and that apparently, no other group of plants has had such diverse uses, nor has it been so important for the human history of Oaxaca. These plants are used by the communities for multiple purposes and recognized by the inhabitants of the rural communities of the territories where they are distributed, as part of ?traditional knowledge?.

The socio-economic context linked to the agave-mezcal value chain is summarized below for each link of the value chain.

Table 2. Socio-economic Context of the Agave-Mezcal Value Chain

Owners/operators of agave nurseries	People or families dedicated to the reproduction, growth, and sale of cultivated and semi-wild agaves in a nursery, either in the open or under a shade mesh structure. They are also generally agave producers (link 2). In the case of small producers, they are mainly families that usually dedicate a space for germination and seedlings, usually on the same plot of land (or nearby) since it requires a lot of water. They are generally not certified. Nursery management usually comprises activities carried out by the whole family. In the communities, the nursery work is carried out by women without financial remuneration, under a family economy system. The role of women in this activity is highlighted.

Agave producers	Physical or moral person dedicated to the cultivation of agave. The sowing of the agaves often takes place on land owned by ejidal or communal property (under the permission of the agrarian authority). The planting of agaves is also carried out in plots given in endowment. The practice of ?half-sowing? stands out, in which one person puts the land and the other the plant, splitting expenses and care of agave plantations, to eventually split plantation yields. This is due to the complexity of ejido/communal/private property land in Oaxaca. Polyculture and intercropping are also important; families plant agave, but to survive the 5-8 years that it takes before the agave can be harvested, they plant corn, beans, chickpeas, and other crops for self-consumption between the rows of agave.
Wood providers	Generally informal activity to supply ?palenques? with wood for baking (or ?tapada?) and distillation. The collection of firewood is more frequent in regions with a large quantity of this resource, where the use of dead firewood is common, but in general it is obtained. Often, those who sell wood to the palenques do it as a complement to other subsistence type activities and obtain very little income. Collaboration schemes between palenqueros[22][22] and firewood suppliers with formal forestry companies are few, if not non-existent. In the communities there are people dedicated to the sale of tree trunks, they must have permission from the agrarian authority to fell and cut the trunks, but this only happens when the safeguards (statutes or regulations) are well applied. There are no Forest Management Plans for this extractive activity.
Mezcal producers	These may be small (500 ? 1200 litres/year), medium (5,000 litres/year) or large (12,500 litres/year). One of the main problems mezcal producers face is their lack of organization. They usually dedicate themselves to other subsistence activities, especially milpa[23][23]. Women play an important role in almost the entire production chain, generally not recognized and/or made invisible. There are few palenque mezcal producers who sell mezcal in the formal market, when they sell it, they do it at local fairs, but the containers do not have COMERCAM holograms. Despite being family businesses, many medium-sized mezcal producers still do not obtain the Denomination of Origin permit and the Standard certification or a Brand. Their large volumes sometimes force them to enter contracts with bottlers, where they sometimes have no advantage, but to secure sales. Alcoholism especially affects male producers, because of the work itself, to "taste" the product and know when to make the distillation "cuts". When selling the product, the master mezcalero will share his product with the client, associated with a practice of cordiality and/or welcome.

Bottlers	Natural or legal person, who may be different from the Mezcal producer, with the necessary infrastructure and skills for Mezcal packaging. They are also commonly marketers. Their activity requires investment in bottles, labels, caps, etc., in addition to several workers. In general, it is a manual task, but there are cases of automated chains. Small-scale bottling is carried out by individuals and families, with manual procedures installed in the same palenques, with little capacity. Generally, it is a very repetitive job, done by young women because it requires physical strength, and long hours; they tend to operate without adequate equipment to facilitate the work. In general, they do not have any type of social security and are hired on request, so there in no security of income either. Bottling of larger volumes is carried out by small and medium-sized companies, which normally coincide with ?maquiladoras? or industrial mezcal producers. They usually have semi-automatic or automatic processes. These larger bottlers are in the City of Oaxaca or in large municipalities.
Brand owners and Marketers	These are natural or legal person who are is the owner or licensee of a trademark registered in Mexico before the Instituto Mexicano de Propiedad Industrial in class 33 and who have the documents and warehouse to market mezcal and/or products containing mezcal. Generally, they are not integrated into the other links in the chain, but rather purchase services and products from third parties, mainly maquiladoras. They usually buy the mezcal from the producers directly in their communities. They have a marketer's certification, but usually they do not have the registry of authorized producers; they have brands because the registration does not request any traceability document to obtain the brand registration. Outside the COMERCAM records, the number of producers who sell their mezcal in bulk or packaged without certification and what brand they sell it to is unknown. There is no list of marketers or the destination market for their products.

Regulatory & Institutional Context

In general, Mexico has an elaborate and updated regulatory framework. As it is a federal country, the national legal frameworks (in Mexico it is generally identified with the name of ?general law?) must be complemented with provisions at the subnational level. As a result, there is a complex network of sectoral regulations, with outstanding sources of information, modern public policy instruments, and complex geographic information systems in multiple sectors. On the flip side of this strength, in many cases these modern laws and public policy instruments are not really implemented in the territory, or their objectives are weakened or diverted when they reach the local level. The lack of inter-institutional coordination, insufficient resources assigned to certain sectors, contradictory policies among themselves; added to a very complex social fabric, high levels of corruption, marginality and even a challenging geography, are just some of the obstacles that can be observed when applying the law and public policies in the country.

While there is an extensive list of laws and regulations, this section will only briefly summarize those that are most relevant for the issues to be addressed by this proposed project at the national and state level.

National Level

Constitution of the United Mexican States - Establishes the original property of the Nation over land and water, which has the power to transmit direct ownership to individuals, thus forming the private property of individuals, and the social property of ejidos and communities. In the Political Constitution of the United Mexican States, articles 2 and 27 are those that are most relevant for the adequate development of the proposed project. The main powers of the Mexican State are described below:

Art. 2: Establishes support for sustainable and productive development activities of indigenous communities, this to increase their income and economic opportunities, as well as encourage investments for job creation.

Art. 27?: Highlights the basic principles of land tenure, where the transfer of property from the nation to private property is made, and the specifications of the ejido and communal tenure modalities.

General Law of Ecological Balance and Protection of the Environment - Within the legislative framework in the environmental context of Mexico, the main governing instrument is the General Law of Ecological Balance and Protection of the Environment, which aims to establish the bases to guarantee the right to live in a healthy environment; the preservation, restoration and improvement of the environment; achieve a sustainable use of natural resources, in such a way that it is compatible with conservation and obtaining economic benefits.

General Wildlife Law - The national policy on wildlife and its habitat aims to demand its sustainable use and protection, simultaneously maintain processes of restoration of biological diversity and integrity and, at the same time, increase the well-being of the population. In its sections I and II, it details that genetic diversity and natural habitats must be maintained as the most relevant elements to recover and conserve wildlife. This is accompanied by measures to promote continuity processes in the natural environment and under the consideration that scientific uncertainty or lack of knowledge will not be a reason to postpone taking appropriate measures. It emphasizes the performance of productive activities under a process of sustainable use where jobs are generated, and environmental assets are preserved.

General Law for Sustainable Rural Development - It defines sustainable rural development as the integral improvement of the social welfare of the population and economic activities in rural areas, ensuring the permanent conservation of natural resources, biodiversity, and environmental services of said territory. It mandates the Federal Government so that, in coordination with the governments of the federal and municipal entities, it promotes policies, actions and programs to promote and favour the social and economic well-being of rural producers, of their communities, under equity criteria, social and gender comprehensiveness, productivity, and sustainability.

General Law for Sustainable Forestry Development - The Law establishes the general framework for forest management in the country. Among its objectives, it seeks to promote sustainable forest management and establishes that the ownership of forest resources corresponds to the ejidos, communities, indigenous peoples, and communities, natural or legal persons, and other entities that own the land where they are located. Article 85 establishes that the use of non-timber forest products from "Complete plants of the Agavaceae families" requires authorization from SEMARNAT, according to the regulations established in NOM-007-SEMARNAT-1997. Regarding wild agaves, it establishes that their commercial use by any interested party (including communities and ejidos) must have the authorization of SEMARNAT, through the request of the owner of the forest land, and with the support of a Technical Justification Study that must be reviewed and authorized by that federal agency.

General Climate Change Law ? It establishes the powers of the federation, the states and the municipalities in the elaboration and application of public policies for adaptation to climate change and the mitigation of gas emissions and greenhouse effect compounds, including the reduction of emissions and vulnerability of communities and ecosystems to the effects of Climate Change, and building of national response capacity.

Agrarian Law - This law states that the Executive Power oversees promoting equitable and comprehensive development at the rural level, participatory processes, and actions to increase well-being. Art. 9, Art. 10, and Art. 11 stand out, whose guidelines grant legal personality and their own patrimony to the ejido and communal populations, the operation through an internal regulation with its social and economic organization, the rules of use of their lands and even the implications of collective use for other ejidos. This law establishes a minimum quota of 40% for women in the ejido commission and the surveillance council (art. 37), but in practice there are very few agrarian groups that comply with this. Patriarchal cultural barriers prevent progress, despite legislative reforms.

State Level

Political Constitution of the Free and Sovereign State of Oaxaca ? It recognizes the right to self-determination of indigenous peoples and communities, as well as Afro-Mexicans (art. 16), and their autonomy to decide their social, economic and political organization; apply their regulatory systems; elect their authorities; preserving the integrity of their lands, and the elements that constitute their culture and identity, etc., recognizes the multi-ethnic, multilingual and multicultural composition, sustained by the presence and diversity of the peoples and communities that comprise it (art. 16).

Planning Law of the State of Oaxaca - At the state level, the Executive Power of Oaxaca is empowered to direct the development plan through democratic participation (Art. 6 and 7), where the State Development Plan will specify the needs of the state (Art. 24) and will mark the guiding axis for the elaboration and approval of the plans of each one of the regions that constitute Oaxaca (Art. 25).

Sustainable Rural Development Law of the State of Oaxaca - It seeks to promote the social and economic well-being of producers and communities, especially vulnerable groups (art. 3.1), with a productive approach to sustainable rural development (art. 3.2). It expressly establishes that the programs and actions for sustainable rural development that it executes as goals of the State Service for Training and Integral Rural Technical Assistance (art. 57), provide assistance in terms of preservation and recovery of traditional practices and knowledge for the sustainable use of natural resources (art. 61.4) and establishes the Concurrent State Program for Sustainable Rural Development, which promotes actions to promote the culture and development of the specific forms of social organization and productive capacity of indigenous peoples, for their integration into the sustainable rural development of the State (art. 16).

Sustainable Forest Development Law of the State of Oaxaca ? It recognizes the ownership of forest resources to those who are legitimate owners or possessors of the land where they are located, and may be ejidos, communities, indigenous peoples and communities, individuals, or legal entities (art. 6).

Climate Change Law of the State of Oaxaca ? It establishes a series of provisions with a clear gender focus, such as that the State must ?promote social participation, guaranteeing the participation of women and men under equal conditions (art. 20.IV); the municipalities, within the scope of their powers, are responsible for ?promoting the participation of society and communities, safeguarding their free, prior and informed consent; guaranteeing the inclusion of women and men in equity and equality of conditions, for the fulfilment of the objectives of this Law (art. 20).

Law on the Rights of Indigenous Peoples and Communities of the State of Oaxaca - It dedicates a chapter VI to indigenous women and instructs the State to promote gender equality measures to achieve

the full participation of women in the political, economic, social, and cultural life of their community (art. 49).

Law of Equality between Women and Men for the State of Oaxaca - It establishes the duty of the different levels of government to promote a gender equality policy, which among others is aimed at "Ensuring the inclusion of all girls and women in the formal education system and promoting the education of women in areas of science and non-traditional technologies? (art. 13.XII).

Law of prior, free, and informed consultation of indigenous and Afro-Mexican peoples and communities for the State of Oaxaca ? The objective of this law is to establish the principles, bases, and procedures to guarantee the right to prior, free, and informed consultation (FPIC), in good faith, and culturally appropriate for the indigenous and Afro-Mexican peoples and communities of the State of Oaxaca.

Since March 2022 the development of a **Draft Agave-Mezcal Law of Oaxaca** was initiated by state-level parliamentarians. This provides a critical opportunity and complementary enabling framework to achieve the objectives of this project.

Institutional Context

Emanating from the above legal and regulatory framework is a series of policy and strategy documents at both the federal and state levels that help to create an enabling framework for the development of project activities and in some cases, a historical baseline upon which the project intervention strategy is supported. Of relevance for this project at the national level are the National Development Plan 2019-2024, the National Strategy on Biodiversity of Mexico (ENBioMex) and Action Plan 2016-2030, the National Strategy for the Implementation of the 2030 Agenda in Mexico, and the National Strategy for the Conservation and Sustainable Use of Pollinators (ENCUSP). At the State of Oaxaca level, the following prioritized policies are applicable and relevant for this project: State Development Plan 2016-2022; State Climate Change Program 2016-2022; Strategy for the Conservation and Sustainable Use of Biodiversity of the State of Oaxaca (ECUSBEO), Investment plan for low-emission rural development in the State of Oaxaca, the Strategic Forest Development Plan of the State of Oaxaca 2016-2022, the State of Oaxaca REDD+ Strategy, and the Transversal Strategic Plan for Equality between Men and Women of the State of Oaxaca. Of specific relevance to the production and harvesting of agave is the Agriculture and Rural Development Sector Plan Derived from the National Development Plan 2019-2024, while for the production and marketing of mezcal there are 28 different regulations, with one of the key ones being Official Regulation of Mexico (NOM-070-SCFI-2016) for the Specifications of Mezcal as Alcoholic Beverages, and the Mezcal Certification Manual of 2019.

Within the context of this proposed project, the key institutions tasked with overseeing biodiversity conservation and management and sustainable agriculture development in rural communities are the Environment and Natural Resources Secretariat (SEMARNAT), the National Commission for Natural Protected Areas (CONANP), the National Forestry Commission (CONAFOR), National Commission for the Knowledge and Use of Biodiversity (CONABIO), Secretariat of Agriculture and Rural Development (SADER), Secretariat for Welfare, State of Oaxaca Environment, Energy and Sustainable Development Secretariat (SEMAEDESO), Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA), State of Oaxaca Secretariat for Women, and Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA). The institutional framework also contains instances for inter-institutional coordination, certification, and stakeholder participation. The primary ones include the Inter-Institutional Roundtable on Productive Landscape Restoration (MIIRP), Oaxaca?s Citizen Council on Biodiversity (COCIBIO), the Mezcal Regulatory Council (CRM), Verificaci?n y Certificaci?n PAMFA, Certificaci?n Mexicana (CMX), Centro de Innovaci?n y Desarrollo Agroalimentario de Michoac?n (CIDAM), and Regional Natural Resources Committees. Institutional oversight and compliance are ensured via a series of instruments including natural protected areas, declaration of wetlands of international importance, the Regional Ecological Ordinance Program of the Territory of the State of Oaxaca, Areas Voluntarily Destined to Conservation (AVDC), Wildlife Conservation Management Units, Payment for Environmental Services (PES), and Community Management of Lands.

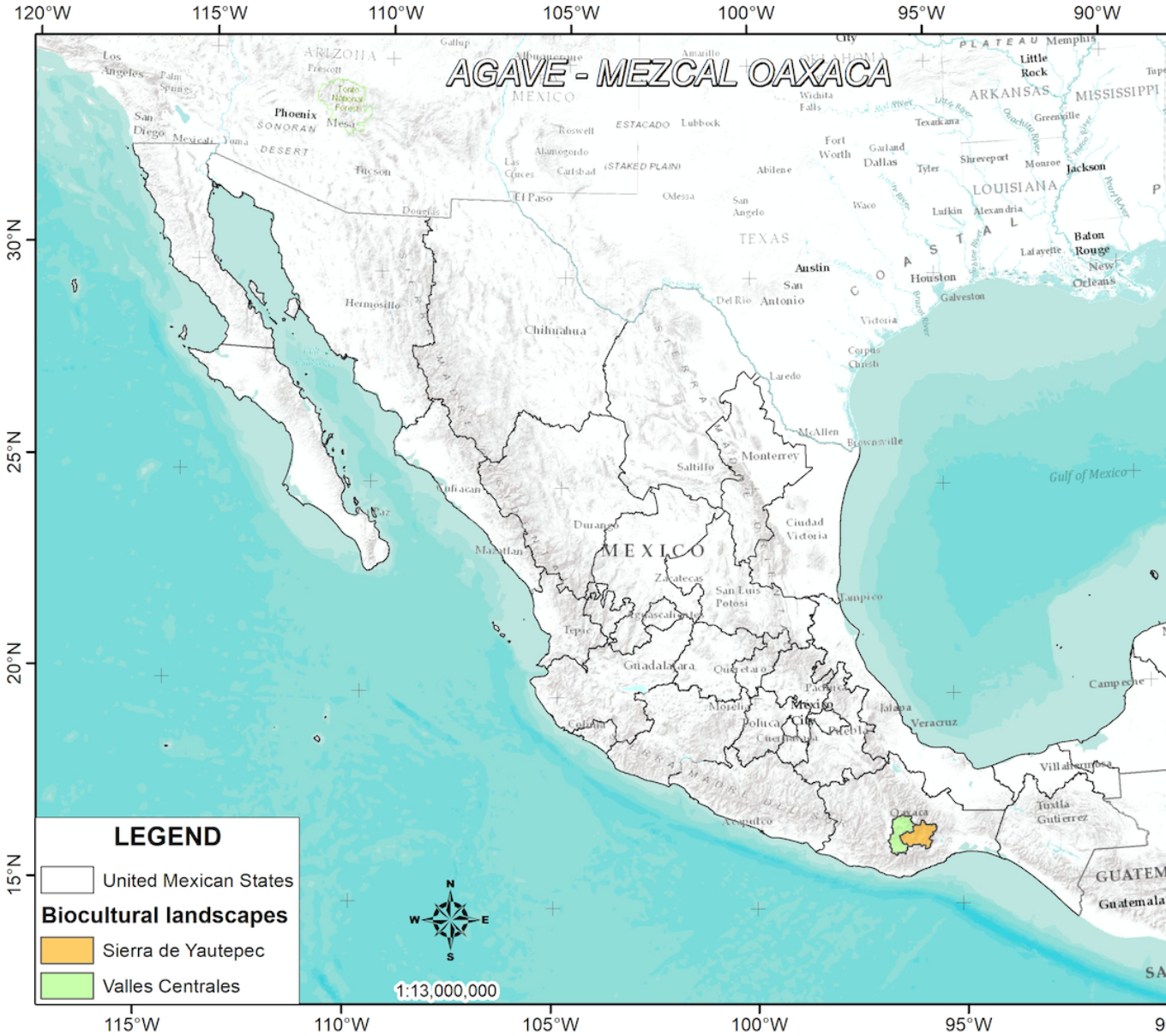
Project Sites

The project will be implemented in the Valles Centrales and Sierra de Yautepec biocultural landscapes located in the State of Oaxaca in the southwest of Mexico (Map 1), and which collectively represent 816,566 hectares (See Annex E). The project?s direct interventions within the two landscapes will concentrate on 76,000 hectares with investments in the establishment of Areas Voluntarily Destined to Conservation, Community Management, Forest Management Programs, Restoration of agave and woody vegetation, Restoration through polyculture of agave with fruit trees and other food crops (milpa), Assisted Natural Regeneration, Ecological Restoration, and carbon sequestration (See Annex E). The area outside the direct intervention area (influence zone) will also benefit from project investments through training, technical exchanges, information and knowledge sharing, and participation in other project events such as consultations on state level policies and strategies, Town Hall Meetings, Annual Project Review Meetings, etc.

To delimit the two biocultural landscapes, the following criteria were used:

- Biodiversity of mezcal agaves (cultivated and wild)
- Chiroptera biodiversity (flying mammals)
- Highly degraded lands with potential for productive restoration
- Conservation of the most important dry forest ecosystem in the state of Oaxaca with mezcal agaves and thus avoid their fragmentation
- Presence of artisanal tradition in the production of agave and mezcal of the municipalities and communities
- Mezcal agave production according to data from the SADER Agricultural Information System
- Declared ADVCs and other newly created ones already considered by CONANP
- General polygons and areas of interest of other GEF projects (SADER and CI).

Map 1. Location of Biocultural Landscapes in Southwest Mexico



The **Valles Centrales Landscape** is in the Central Valleys and Sierra Sur region of the State of Oaxaca. It corresponds to municipalities of the districts of Centro, Tlacolula, Ocotl?n, Ejutla and Miahuatl?n. It forms landscape divisions, of which the Tlacolula valley, the Ocotl?n-Tlacolula mountain range, the Ejutla valley and the Miahuatl?n valley stand out. This landscape covers three hydrographic basins; for the most part the hydrographic network drains towards the Tehuantepec River in the East, in the West it drains towards the Atoyac River and in the North a small fraction drains towards the Papaloapan River basin. The dominant ecosystem is the mountainous temperate forests, such as the Teitipac - Quialana mountain range and the Cerro del Labrador and others that are located at its ends bordering the Sierra Norte and Sierra Sur, followed by the dry forest ecosystem that is located mostly in the Amatlanes in the

district of Miahuatl?n. Another large part of this landscape is occupied by agroecosystems that are the product of ancestral agricultural practices in valleys and hills. Within this landscape many human settlements are scattered with a historical lineage, resulting from a mixture of the Zapotec culture and Europeans who arrived in the time of New Spain and later, forming a unique multicultural expression and identity in this landscape. The total area of this landscape is 415,358 hectares. This landscape contains 596 communities and 48 of the 59 municipalities identified by the project or 81% of the project?s total intervention area. There are 157,073 females and 143,418 males living in this landscape.

The **Sierra de Yautepec Landscape** is in the mountainous region of the Sierra Sur in the State of Oaxaca, with topographic characteristics of complex low and high mountain ranges with a small valley of steep slopes with hills known as the Nejapa Valley through which the main water current, the Tehuantepec River, crosses. It corresponds to the municipalities of the districts of Yautepec and Tlacolula. The dominant ecosystem is the dry forest, which along with the Tehuantepec River form a biological and hydrological corridor. This corridor is adjacent to the temperate forest ecosystem that borders the landscape to the North, East, and South. The agroecosystems are located on the banks of the rivers and mainly in Nejapa de Madero. Except for the Nejapa Valley, most of the human settlements are in a very dispersed manner in the landscape, forming towns whose origin is cantered on the Zapotec and Chontal culture, and as a product of ethnic mixing that occurred during the time of New Spain. The total area of this landscape is 401,208 hectares. This landscape contains 171 communities and 11 of the 59 municipalities identified by the project or 19% of the project?s total intervention area. There are 24,721 females and 23,947 males living in this landscape.

Table 3. Geographic and Demographic Data for Biocultural Landscapes

District	No. of Municipalities	No. of Communities	Women	Men
LANDSCAPE 1: VALLES CENTRALES (415,358 hectares)				
Centro	1	11	4,800	4,139
Ocotl?n	9	79	26,134	23,824
Ejutla	3	62	16,696	15,346
Tlacolula	22	231	64,867	58,681
Miahuatl?n	13	213	44,576	41,428
Sub-total	**48**	**596**	**157,073**	**143,418**

LANDSCAPE 2: SIERRA DE YAUTEPEC (401,208 hectares)

Yautepec	8	92	15,251	14,899
Tlacolula	3	79	9,470	9,048
Sub-total	**11**	**171**	**24,721**	**23,947**
Grand Total	**59**	**767**	**181,794**	**167,365**

Of the 59 municipalities identified for project intervention, 22 have been prioritised consistent with the project?s direct intervention areas, 16 in the Valles Centrales Landscape and 6 in the Sierra de Yautepec Landscape. The prioritization process was conducted based on various environmental, social, and economic parameters. Factors considered for prioritization of municipalities included area of dry tropical forest, area of Agri systems, volume of mezcal produced, number of agave plants, potential beneficiaries, current good practices in agave production, municipalities with proposed ADVCs, and areas with Other Conservation Measures[24][24]. The twenty-two prioritised municipalities and their location in corresponding biocultural landscapes are presented in Table 4.

Table 4. Prioritised Municipalities in Biocultural Landscapes

Prioritised Municipality	**Biocultural Landscape**
Miahuatl?n de Porfirio D?az	Valles Centrales
San Luis Amatl?n	Valles Centrales
Santa Mar?a Zoquitl?n	Sierra de Yautepec
Santiago Matatl?n	Valles Centrales
San Dionisio Ocotepec	Valles Centrales
San Pedro Quiatoni	Sierra de Yautepec
Nejapa de Madero	Sierra de Yautepec

San Carlos Yautepec	Sierra de Yautepec
Coatecas Altas	Valles Centrales
San Pedro Totol?pam	Sierra de Yautepec
San Crist?bal Amatl?n	Valles Centrales
San Juan Lachigalla	Valles Centrales
Heroica Ciudad de Ejutla de Crespo	Valles Centrales
Santa Mar?a Ecatepec	Sierra de Yautepec
Tlacolula de Matamoros	Valles Centrales
San Baltazar Chichic?pam	Valles Centrales
San Pedro Taviche	Valles Centrales
San Pablo Villa de Mitla	Valles Centrales
San Bartolom? Quialana	Valles Centrales
Yaxe	Valles Centrales
Santa Ana del Valle	Valles Centrales
Santa Mar?a del Tule	Valles Centrales

There are three biomes in the two proposed landscapes (Tropical and Subtropical Moist Broadleaf Forest, Tropical and Subtropical Coniferous Forest, and Tropical and Subtropical Dry Broadleaf Forest) and four ecoregions: Oaxacan Montane forests, Sierra Madre de Oaxaca pine-oak forests, Sierra Madre del Sur pine-oak forests, and Southern Pacific dry forests. Based on distribution models developed during the PPG phase[25][25], within the proposed landscapes a total species richness of 1,675 species have been observed in Sierra de Yautepec and 2,655 in Valles Centrales. It is estimated that these values ??represent approximately 58.14% and 75.33% of the animal species and 60.61% and 49.27% ??of the vascular plants potentially distributed in each landscape, respectively. Across the 2 landscapes 38 species and subspecies considered as priorities for conservation are potentially distributed: 30 vertebrates and eight vascular plants. Similarly, there are 17 agave species naturally distributed within the proposed landscapes, 13 of which are used to produce mezcal. Of the total species potentially occurring in the proposed landscapes, 165 are listed in a CITES appendix: five in appendix I, 158 in appendix II and two species in appendix III.

Also included within the project area are the Prehistoric Caves of Yagul and Mitla, a World Heritage Site, in the Valle Central of Oaxaca, in the Political District of Tlacolula. The project is part of three Key Biodiversity Areas (KBA) ?Sierra Norte?, ?Cerro Piedra Larga? and ?Sierra de Miahuatl?n? and the polygon of the Alliance for Zero Extinction (AZE) ?Sierra Norte de Oaxaca II?, where the following species have been identified: *Ceratozamia mixeorum*, *Plectrohyla calthula*, *Plectrohyla psarosema*, *Pseudoeurycea aquatica* and *Pseudoeurycea mystax*. It is also part of the ?Sierra Ju?rez? Area of ??Importance for Bird Conservation (IBA) which contains 485 species of wild birds described as category A1, A2 and A3 by Birdlife International. Three (3) threatened wild agave species (*Agave peacockii*, *Agave Guiengola,* and *Agave Chiapensis*) are found within the project area and will be specifically targeted in project interventions. Keystone species of high biological value such as the jaguar (*Panthera onca*), ocelote (*Leopardus pardalis*), jaguarundi (*Herpailurus yagouaroundi*) and tigrillo (*Leopardus wiedii*).

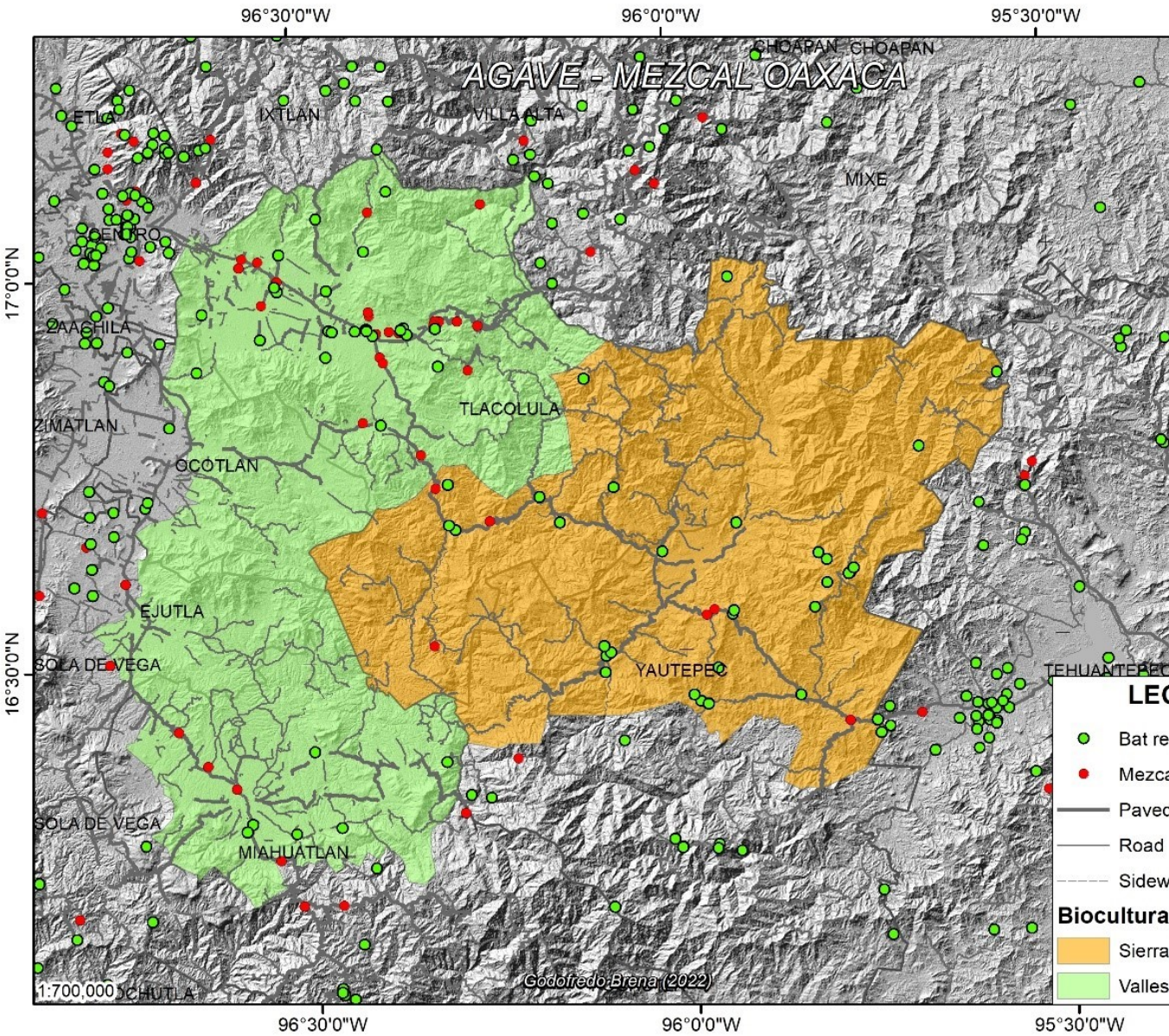
In particular two migratory long-nosed bat pollinator species occur within the project intervention area: (*Leptonycteris nivalis EN and Leptonycteris curasoae VU*) and have been observed through-out the two proposed biocultural landscapes (Map 2). The tongue and muzzle of long-nosed bats are elongate, an adaptation for feeding on the nectar that accumulates in the interior of some flowers. The short ears and the small, triangular nose leaf are signs that these bats rely less on echolocation and probably more on their sense of smell to locate the flowers on which they feed. Nectar and pollen are the main food items for long-nosed bats, and some species of agaves, open their flowers at night and attract bats with copious amounts of nectar. In addition to these two species, *Musonycteris harrisoni* and *Choeronycteris mexicana* are important bat species that can be found in the region and participate in the pollination of the agave. The first is an endemic species to Mexico that lives in lowland forests and is in danger of extinction (P) while the latter, *C. Mexicana*, has been reported as another of the most relevant pollinators of agaves and is listed as a threatened species (A) in Mexican regulations (NOM-059-SEMARNAT-2010). As bats feed on the nectar, their fur gets coated with pollen grains which they transfer to a new flower, assisting in cross-fertilization of the plants. Both the plant and the bat benefit from this relationship, and therefore are said to be mutualists, with a dependence so strong that the plants could not reproduce without the intervention of bats, which would starve to death if the plants were not present. This relationship seemingly is quite sensitive to disturbance[26][26].

Data from the Agrifood and Fisheries Information Service (SIAP) was used by GIZ[27][27] to report on historical trends in the production of agave for mezcal in municipalities located in the Valles Centrales and Sierra de Yautepec landscapes. Of the total number of municipalities with planted area with agave, the districts that stand out in the state of Oaxaca in the production of agave are Miahuatl?n (44.5%), Ejutla (21.6%), and Tlacolula (20.4%), together these three districts produced 87 % (129, 945 tons) for

2019. The municipality of Yautepec for this same year only contributed 4.2% (6,280 tons) of the production, showing a considerable decrease in its production, since in the year 2003 it contributed 60% (178,230 tons) of production.

The districts of Ocotl?n, Tlacolula and Yautepec produced a volume of 103,887.6 tons (69.53% of total production) in 2019. Of these districts, the municipality of Miahuatl?n stands out for producing 26.7% in 2019, followed by San Luis Amatl?n with a production of 12.12%, Sitio de Xitlapehua with 8.6% and Santa Ana with 5.4% (all of them belonging to the district of Miahuatl?n). The remaining 47% (48,898.3 tons) were produced by the other 49 municipalities in these three districts. For the 2021 production year, and based on data reported by SIAP[28][28], agave for mezcal planted and production in the Sierra de Yautepec Landscape were 2,454.70 hectares and 28,825.28 tons, respectively, while agave for mezcal planted and production in the Valles Centrales Landscape were 6,276.77 hectares and 127,021.45 tons, respectively. The municipalities in the two biocultural landscapes that stand out in production as per the most recent data are Miahuatl?n de Porfirio D?az, San Carlos Yautepec, San Luis Amatl?n, Sitio de Xitlapehua, Heroica Ciudad de Ejutla de Crespo, Santa Mar?a Ecatepec, Santiago Matatl?n, and San Dionisio Ocotepec. Map 3 illustrates the density of planted surface with agave for mezcal production in the two biocultural landscapes.

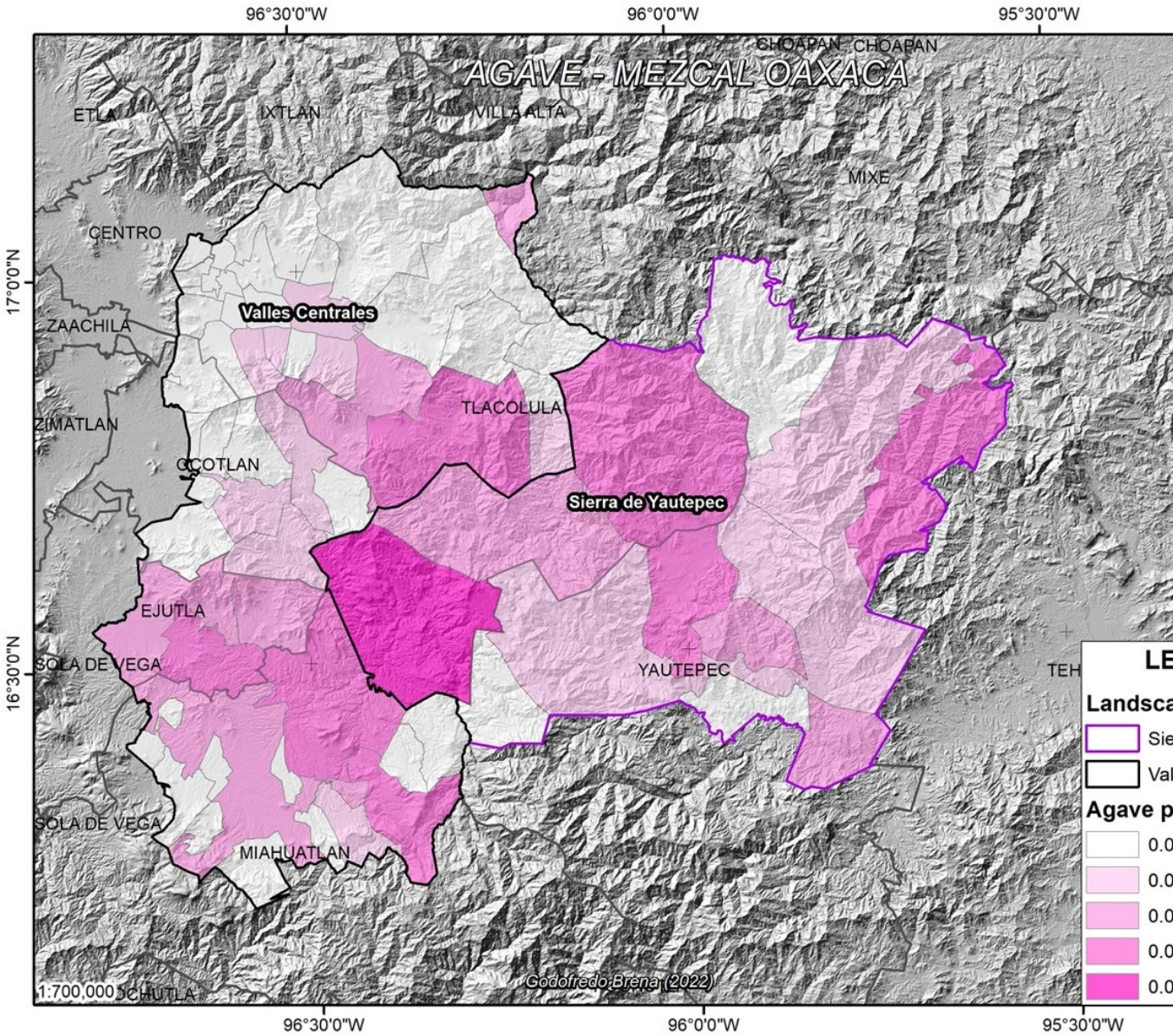
Map 2. Bat Records in the two Biocultural Landscapes



With data from IUCN (2020), a degradation map was prepared, evaluating the ecosystem service of sediment retention to interpret the phenomenon of soil erosion that exists in the Valles Centrales and Sierra de Yautepec landscapes (Map 4). Lands without degradation or soil erosion occupy 67.72% of the total area of both landscapes; lands with low degradation or low soil erosion occupy 4.48%; lands with moderate degradation or moderate soil erosion occupy 25.90%; lands of high degradation or high soil erosion occupy 1.29%; and lands with very high degradation or high soil erosion occupy 0.61%. In the Valles Centrales and Sierra de Yautepec landscapes, lands without degradation or soil erosion occur mainly in areas where the forest cover is still in a good state of conservation or on land with a flat surface that, even when agricultural activities are carried out, have not had a great impact on the integrity of the soil, that is, the soil retention function is still well maintained. Lands with low degradation or low soil

erosion border land without degradation, where there are already signs of degradation of the natural vegetation in some way, where assisted natural regeneration activities could be carried out. Lands with moderate degradation or moderate soil erosion refer to the agricultural areas developed on slopes, where the natural vegetation has been altered, which translates into degraded lands that require restoration actions to contain the phenomenon of erosion with agroforestry systems and soil and moisture conservation works.

Map 3. Density of Planted Surface with Agave for Mezcal Production in Biocultural Landscapes



Lands of high degradation or high soil erosion coincides with steep slopes subject to strong signs of erosion where there are gullies or even ravines and which are generally walls that form on the banks of rivers and streams, and which require major ecological restoration works. This situation occurs in the municipalities of San Luis Amatl?n, San Ildefonso Amatl?n, San Crist?bal Amatl?n, San Jos? del Pe?asco, San Francisco Logueche, San Jos? Lachiguiri, Miahuatl?n de Porfirio D?az, San Juan Lachigalla, Villa Diaz Ordaz, San Pablo Villa de Mitla, San Luis del R?o (Tlacolula de Matamoros) and San Lorenzo Albarradas in the Valles Centrales Landscape, and the municipalities of San Pedro Quiatoni, San Carlos Yautepec, San Juan Juquila Mixes and Nejapa de Madero in the Sierra de Yautepec Landscape**. Lands with very high degradation or high soil erosion** must be addressed with some measure of restoration or erosion control, even though at first glance it could be said that nothing can be done. This situation occurs in the municipalities of San Ildefonso Amatl?n, San Crist?bal Amatl?n, San Jos? del Pe?asco, San Francisco Logueche, San Jos? Lachiguiri, Villa Diaz Ordaz, San Pablo Villa de Mitla, San Luis del R?o (Tlacolula de Matamoros) and San Lorenzo Albarradas in the Valles Centrales Landscape, and in the municipalities of San Pedro Quiatoni, San Carlos Yautepec and Nejapa de Madero in the Sierra de Yautepec Landscape.

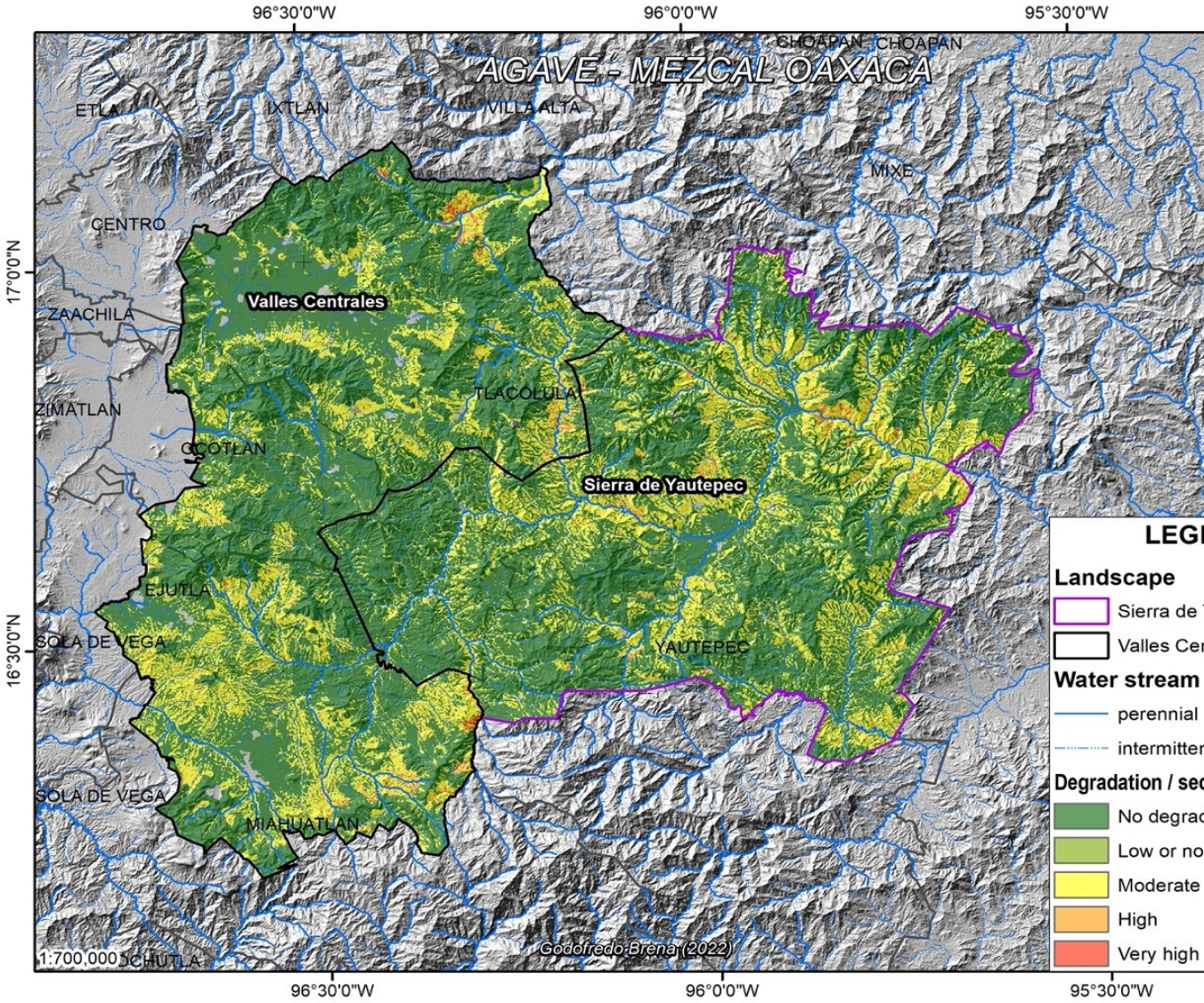
Long-term Solution and Barriers

The long-term solution sought by the project is to reverse deforestation and degradation of dry forests, protect biodiversity and ecosystem services, while improving the sustainability of the mezcal value chain. To achieve this, several barriers must be overcome.

Barrier 1 ? Inappropriate Regulatory and Institutional Framework. The current regulatory framework for biodiversity conservation and management at both the federal and state level is deficient in regulations and accompanying strategies and plans to make them operational and effective on the ground. There are gaps to be filled as well as legislative overlaps that must be resolved to clarify contradictions and duplication of mandates. Sector level regulations do not incorporate biodiversity conservation and management or agroecological models, even though attempts to optimize selection of use have been made through land use plans. The regulatory framework in general, lacks incentives for sustainable agriculture production at the landscape level. A weakness in the regulatory framework that requires particular attention is the Maguey-Mezcal System for artisanal production. The main regulations that govern mezcal today were raised, first for the tequila industry and then for the industrial production of mezcal, and do not conform to the characteristics and specific values ??of sustainable and artisanal production, that is highly demanded by the international market. Regulatory improvements in this regard would have a significant impact for small producers and the entire national industry, and for biodiversity protection and the maintenance of ecosystems services. Weak institutional capacity results in the regulatory framework not being enforced or implemented adequately. Additionally, institutional tools and administrative procedures used to implement the existing framework are cumbersome and not user-

friendly, and some policy instruments are unknown to the targeted population or are presented in culturally insensitive formats.

Map 4. Degradation and Sediment Retention in Biocultural Landscapes



Barrier 2 ? Fragmented approach to the management of productive landscapes. Soaring national and international demand for mezcal has set the industry into an unsustainable growth path. As indicated above, agave monoculture for mezcal production is an important driver of deforestation in Oaxaca?s tropical dry forests, contributing to land and ecosystem service degradation, biodiversity loss, and socio-economic losses to smallholders. Most agaves used for agave distillates are pollinated mainly by bats

and secondarily by moths, birds, and insects[29]29. To meet the demand for agave, management practices have reduced dependence on bat pollination, using instead clonal shoots to replant fields and harvesting plants before flowering, thereby negatively affecting both bats (by decreasing food availability) and agaves (by lowering their genetic diversity)[30]30.

To meet the demand for agave, management practices have reduced dependence on bat pollination, using instead clonal shoots to replant fields and harvesting plants before flowering, thereby negatively affecting both bats (by decreasing food availability) and agaves (by lowering their genetic diversity)[31]31. It is necessary for bat-friendly practices be incorporated into the production system to make it more sustainable. Under degraded conditions, the function of the productive landscape, defined by the set of its ecosystem functions (avoidance of topsoil erosion, water production for downstream communities, pollination of agricultural crops, water regulation, carbon sequestration, clean air, habitat for biodiversity, etc.), fails to provide an adequate level of services to maintain human well-being and the ecological environment. Coupled to this is the scant support for self-subsistence economies, the lack of public policies to take advantage of the productive potential that state biodiversity offers as a development option, and the loss of traditional values ??and cultural knowledge linked to the landscape. Under this scenario, the income and quality of life of the people in agave production areas are compromised in the short and medium term. A functional landscape is an indispensable prerogative to ensure the long-term sustainability of economic activities and to promote favourable conditions for the adaptation and resilience of productive systems.

To reverse the devastating effects of agave monoculture, an Integrated Landscape Management (ILM) approach is necessary with shared or agreed management objectives that encompass the full range of goods and services needed from the landscape including the preservation of traditional knowledge and cultural values; farm and forest practices that are designed to contribute to multiple objectives, including human well-being, food, climate change mitigation, and conservation of biodiver?sity and ecosystem services. Under a properly designed ILM approach, ecological, social, and economic interactions among different parts of the landscape are managed to realize positive synergies among inter?ests and actors or to mitigate negative trade-offs[32]32. Collaborative, community-engaged processes for dialogue, planning, negotiating, and monitoring decisions will need to be developed and made operational, and markets and public policies must be shaped to achieve the diverse set of landscape objectives. Institu?tional and governance arrangements must be strengthened, and necessary strategies and tools must be developed to support ILM implemen?tation through-out the landscape.

Barrier 3 ? Insufficient incentives and limited know how to promote sustainable practices in the mezcal production process. The Agave-Mezcal production chain is the set of operations and actors that intervene in the transformation of the raw material from the maguey into the alcoholic-mezcal beverage, packaging and marketing until the product reaches the consumer. These are consecutive stages throughout a transformation process involving raw materials, technology, knowledge, human resources, forest and non-forest inputs, infrastructure, transportation, and sales venues, all of which interact in links. Five links have been officially identified for the mezcal productive chain, with multiple actors in each link, which vary according to artisanal production or industrial production[33]33. 1) Unsustainable practices in the Agave-Mezcal production chain are linked to the uncontrolled harvesting of wild species of agave, 2) use of non-certified wood for the cooking and distillation process, 3) inefficient energy use leading to excessive use of firewood (8kg for 1 litre of mezcal), 4) inefficient production process requiring excessive use of water (20 litres for 1 litre of artisanal mezcal and 30 litres for 1 litre of industrial mezcal) and 5) escape of alcohol to the atmosphere, and disposal into the environment of the bagasse by-product which heavily pollutes soils and water bodies and is difficult to be degraded biologically due to its excessively high acidic nature. There is a general lack of knowledge of practices that could render the value chain more sustainable. In addition, there are no effective incentive frameworks and financing mechanisms in place to tackle unsustainable agave cultivation and production practices. This issue is further exacerbated by the very low value addition to smallholders and actors at the early stages of the supply chain. Besides, the lack of organization by artisanal producers inhibits their ability to access subsidies and financing to improve production practices and aspire to certification and traceability of cultivated agave. A trend that leads to dire economic consequences for artisanal producers and their families. The cultural characteristics that are linked to the denomination of origin and certification of artisanal mezcal production are not currently protected, are vulnerable, and threaten the sustainability of the ?artisanal mezcal? brand.

2) The baseline scenario or any associated baseline projects

Mexico?s last official report to the UNCCD was submitted in August 2018. The document outlines five strategic objectives, twelve indicators, and voluntary targets for each strategic objective. According to the report, areas covered by trees saw a decrease from 471,388.57 km^2 in 2002 to 458,713.35 km^2 in 2014, while grasslands saw a decrease from 1,099,302.77 km^2 to 1,081,189.5 km^2 for the same period, corresponding to a -12,625.22 km^2 and ? 18,113.27 km^2 net change for areas covered with trees and grasslands, respectively. Deforestation, overexploitation, overgrazing, urbanization, and inappropriate management were flagged as the primary drivers leading to changes in land cover, with dry semi-arid and sub-humid arid zones experiencing the highest negative change. Areas covered by trees, grasslands, cultivated lands, wetlands, and artificial surfaces all saw a decreasing trend in productivity between 2002 and 2014 and are classified as being under stressed conditions. For 2014, wetlands experienced the highest change in organic carbon storage due to land conversion (64.62 t/ha) while grasslands saw the lowest change in organic carbon storage (24.52 t/ha).

The status of LDN implementation in Mexico is not publicly known, since no official report has been published on the performance of the indicators and targets defined in the 2018 report. However, there have been efforts to develop revised national voluntary targets, but Mexico has not made an official submission to the UNCCD, as these are still in the consensus and inter-institutional validation process. The UNCCD liaison agency in Mexico has recently changed from CONAFOR to the National Commission for Arid Zones (CONAZA), which is linked to the Ministry of Agriculture. CONAZA has provided the following data on the proposed revised 2030 national voluntary targets to the project team:

1. Neutralize the deforestation rate of 105,200 hectares of wooded forest per year.

2. Recover, reconvert or restore (Neutralize) 160,000 hectares of shrub forest per year.

3. Increase the productivity of the land in: 478,070 wooded, 504,000 pastures and 423,000 crops: 1,404,570 annually.

4. Stabilize the rate from -12.5 to -60.5% of agricultural and livestock productivity.

5. Balance losses of Soil Organic Carbon stores, in agricultural lands: 10 t / ha in crops and 20 t / ha in pastures.

This proposed project is anchored on a solid baseline. As indicated above, in 2013 the extent of degraded landscapes in the State of Oaxaca was estimated at 1,631,231 ha and landscape functionality deemed to be disturbed to the point of failure to provide adequate ecosystem service levels to support the ecological environment and human wellbeing. The Government of Oaxaca has been leading a series of initiatives to address deforestation, land degradation and biodiversity loss in the state. Many of these were designed under GIZ?s Economics of Land Degradation Initiative and Norway-funded Governors Climate and Forest Task Force (GCF TF) through inclusive multi-stakeholder consultations.

This project?s strategy is to support the implementation of such efforts:

? Investment Plan for Low-Emission Rural Development (Oaxaca, GCF TF, IUCN)

? Study on the Economics of Land Degradation in the Agave-Mezcal Value Chain in Oaxaca (on-going/ Oaxaca, GIZ)

? Study on the economic valuation of soil degradation (Oaxaca, GIZ)

? Restoration of degraded lands through sustainable production for food and commercial purposes study (Oaxaca, GCF TF, IUCN): included the mobilization of an Inter-Institutional Roundtable on Productive

Landscape Restoration (MIIRP), a Restoration Opportunities Assessment Methodology (ROAM) analysis, investment opportunities and financial instruments analyses tailored to the agave-mezcal value-chain.

? Oaxaca?s Citizen Council on Biodiversity (COCIBIO): tabled demands from agave-mezcal producers for a strengthened regulatory framework supportive of conservation and sustainable use.

Oaxaca is currently developing a state-level social and environmental safeguards system (GCF TF) and aims to align it with requirements under the ART-TREES standard for REDD+ emission reductions. Social and environmental impact assessments within the remit of the present project will be aligned with this state-level system. Some of the other primary initiatives constituting the project?s baseline are described below.

Governors for Climate and Forests Working Group (GCF Task Force). This project?s objective is the empowerment of sub-national member jurisdictions and their partners to implement innovative programs for sustainable low-emission development, based on better forest governance, novel technical and finance mechanisms, increased opportunities for local communities and indigenous peoples, and the continued leadership in climate policy forums at the national, regional, and international levels. The project is part of a long-term initiative funded by the Government of Norway with no defined end date and is therefore recurrent. This project provides US$ 30,000 per year to support Oaxaca to manage and implement the ?Investment Plan for low-emission rural development of the State of Oaxaca?, and is implemented by the GCF Task Force Secretariat and Pronatura Sur A.C.

Sembrando Vida Program. This program seeks to turn ejidos and communities into a strategic sector for the development of the Mexican countryside, working together to increase the productivity of rural areas, under a focus on sustainability and regional development in the short, medium, and long term, which contributes to reducing vulnerability of the poor in rural areas. This is a long-term program with no determined end date (guaranteed at least until the end of 2024) and is implemented by the Federal Government of Mexico via the Ministry for Welfare. Under this program, the government plans to invest up to US$250 per farmer/year in sustainable development practices.

Biodiversity Friendly Practices in Magueyes (nationwide). This project seeks to incorporate practices that favor the conservation of species such as, promotion of agroforestry practices, conservation, and propagation of wild maguey species, avoid the use of agrochemicals, integral management of crop residues, harvest, and distillation, among others. This project will be implemented through to November 2024 and key partners include SADER, CONABIO, and GIZ.

Strengthen the ecological connectivity of the North Mountain Range of the Central Valleys of Oaxaca, through the consolidation of community governance and financial strategy, based on the Payment of Environmental Services. This program aims to give continuity to community governance processes, to strengthen ecological connectivity and consolidate a financial management instrument that allows facilitating connectivity strategies between federal and state ANPs. The project is funded by the French Development Agency with an annual budget of US$300,000 and will continue until 2023.

3) The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project

Intervention Logic ? Theory of Change

The intervention logic is guided by the ?drivers?, ?assumptions?, and ?logical pathways? needed to achieve the ultimate objective of the project: *to foster sustainable practices in the agave-mezcal value chain in the Oaxaca Mezcal Region through an integrated landscape management approach that privileges non-monoculture cultivation*, and consequently deliver on anticipated global environmental benefits. The key drivers are those activities and processes that the project can potentially and directly sponsor (inputs), in support of project outputs and outcomes, while the assumptions are those conditions and circumstances that are necessary to achieve the desired project results but are outside the control of the project. The logical or impact pathways are the set of steps, consisting of activities, processes and assumptions that collectively will deliver the desired project objective (see TOC diagram in Figure 3).

The project?s proposed interventions/activities (drivers) build on the baseline conditions which already exist, and which were described above, and seek to drive those additional steps and processes required to achieve further incremental results. The project?s intervention logic also capitalizes on the enabling environment provided by the commitments of the Government of Mexico with respect to various international conventions and agreements, the main one being the Convention on Biological Diversity.

Primary *drivers* include:

? Update or creation of national regulations, state level strategies and plans, and institutional strengthening to safeguard ecosystems services and promote sustainable practices in agave cultivation linked to the production of Mezcal.

? The establishment of Areas Voluntarily Destined to Conservation (ADVC) and other effective area-based conservation; species baseline assessments, management plans, monitoring program, training, Integrated Management Plans for bio-cultural landscapes; and creation and or strengthening of inter-sectoral governance arrangements for decision-making at the landscape level.

The establishment of sustainable plantations of wood for use in mezcal production; safeguarding of cultural practices; water recycling; reforestation; efficiencies to reduce volume of wood, environmentally-friendly disposal of bagasse; legal and institutional structures to protect ancestral and cultural values; a Finance Mechanism to support artisanal agave production; and the development of strategies to create demand for sustainably-sourced mezcal and access high value markets for artisanal mezcal.

The project?s key *assumptions* are:

a) **Outputs to Outcomes:** Drivers of change supported by the project are effective in delivering anticipated outcomes as indispensable inputs to reaching necessary intermediate states.

b) **Outcomes to Intermediate States:** Regulatory authorities embrace the new framework, BFM is appropriately capitalized and demand for artisanal mezcal is maintained.

c) **Intermediate States to Impact/GEBs:** Project?s sustainability strategy holds true to deliver Global Environmental Benefits (GEBs).

The project?s *logical pathways* are summarized below:

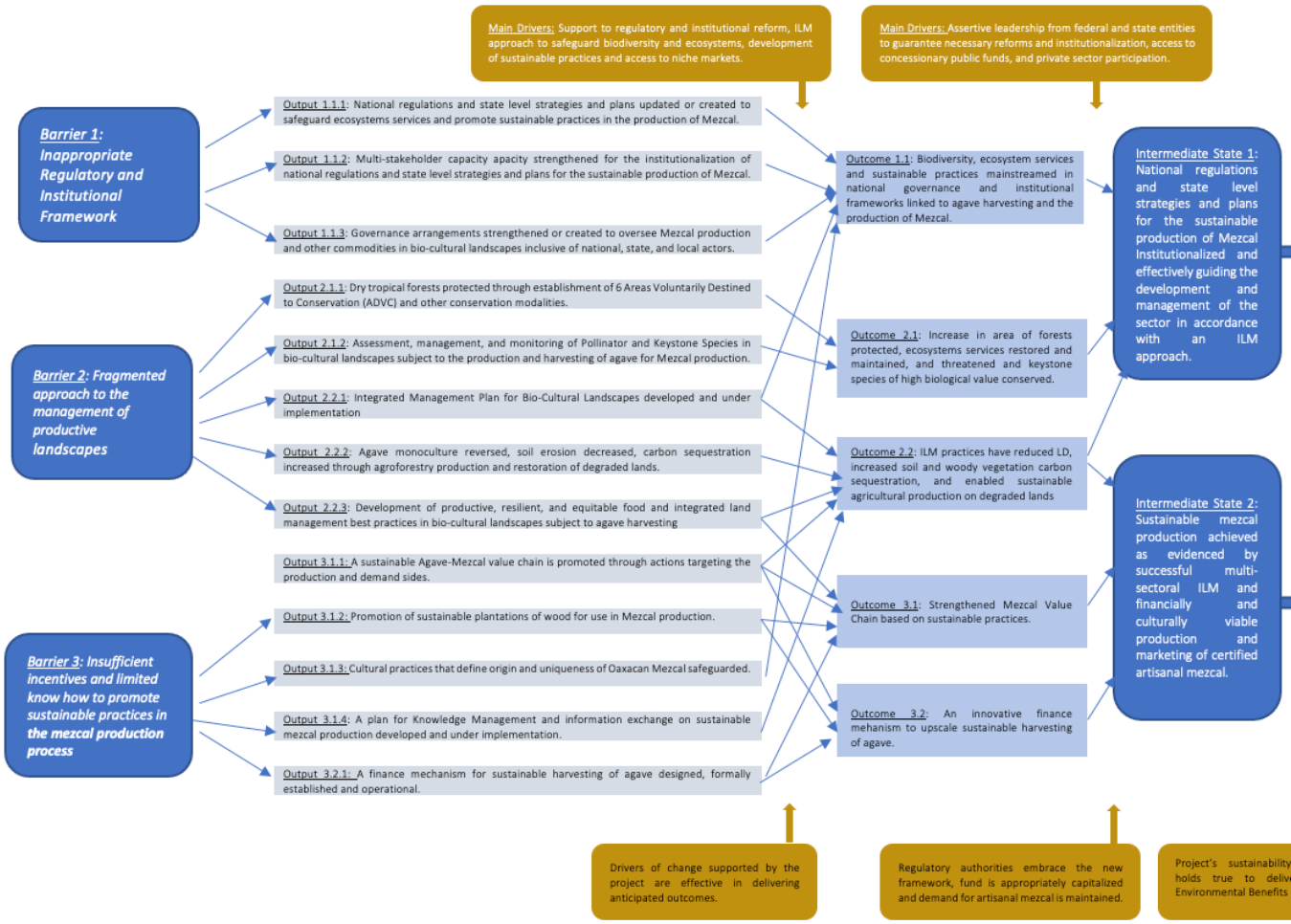
Pathway 1: This logical pathway proposes that if the national regulations and state level strategies and plans are either updated or created where necessary, gaps preventing systematic adoption of sustainable practices will be filled and legislative overlaps will be resolved, contradictions will be clarified, and duplication of mandates will be eliminated.

Pathway 2: This pathway advocates that if an Integrated Landscape Management (ILM) approach is promoted and highly degraded forests are prioritized for productive restoration, ecosystem functions will be enhanced, sustainable agricultural production will improve, dry tropical forests, endemic species and species of high biological value and carbon sequestration will be enhanced in forest woody vegetation and in soils.

Pathway 3: This pathway proposes that if the project invests in sustainable incentives for nature-positive production, the agave-mezcal value chain can be transformed to include biodiversity-friendly polyculture and sustainable incentives via the development and implementation of a Finance Mechanism and the development of strategies to create demand for sustainably-sources mezcal and access high value markets for artisanal mezcal.

The project approach is to deliver necessary activities to achieve its overarching objective via the three components below, that are responsive to the primary environmental problems, root causes and to the barriers identified.

Figure 3. Theory of Change ? Output to Impact Analysis



Project Objective

To foster sustainable practices in the agave-mezcal value chain in the Oaxaca Mezcal Region through an integrated landscape management approach that privileges non-monoculture cultivation, species protection and the maintenance of ecosystems services.

Components ? Outcomes ? Outputs

Component 1: Strengthening of the National Regulatory and Governance Framework *(GEFTF $362,623; Co-financing: $2,871,827)*

Component 1 will seek to make the current regulatory framework for biodiversity conservation and management at both the federal and state level more operational and effective. Project interventions will also support the strengthening of institutional capacity to ensure proper implementation of the laws, regulations, policies, and strategies linked to the agave-mezcal system and the resultant impact on biodiversity and ecosystems services.

Outcome 1.1.: Biodiversity and ecosystem services safeguards and sustainable practices mainstreamed in national governance and institutional frameworks linked to agave harvesting and the production of Mezcal.

This outcome seeks to update or create national regulations and state level strategies and plans to safeguard ecosystems services and promote sustainable practices in the production of Mezcal, strengthen multi-stakeholder capacity for the institutionalization of national regulations and state level strategies and plans for the sustainable production of mezcal, and strengthen or create governance arrangements to oversee Mezcal production and other commodities in bio-cultural landscapes inclusive of national, state, and local actors. In some cases, existing regulations, strategies, and plans may need to be revised and updated to better address biodiversity conservation and protection of ecosystems services, while in other cases totally new ones may be required. This outcome will address regulatory gaps and legislative overlaps that must be resolved to clarify contradictions and duplication of mandates and will seek to create policies and incentives for protected and productive landscapes linked to the cultivation and harvesting of agave species. Biodiversity conservation and management and agroecological models will be incorporated into the regulatory framework and will also complement and strengthen existing state level land use plans. This outcome will particularly seek to address the regulations governing the Agave-Mezcal System for artisanal production, which do not conform to the characteristics and specific values of sustainable and artisanal production, that is highly demanded by the market, inclusive of protection of the cultural values and practices linked to the production of mezcal. Lastly, this outcome will strengthen institutional capacity to enhance enforcement and implementation of the regulatory framework, will develop and improve institutional tools and administrative procedures to make them user-friendly and culturally sensitive, followed by extensive awareness building on the reforms made, new tools and procedures developed, and capacity building in their use.

The project will work closely with sponsors of the Draft Agave-Mezcal Law of Oaxaca to secure inclusion and/or provisions for the diversity of agave species and their varieties in the new law, sustainable practices for agave-mezcal production, protection of the cultural values and practices linked to the production of mezcal, a focus on gender equality, safeguards and interculturality, the establishment of development organizations for women that facilitates the coordination of productive activities, marketing and assistance for the use of natural resources in the production of mezcal, and to secure the full and effective participation of representatives of the indigenous communities involved in the agave-mezcal value chain in the different planning and decision-making activities and/or institutional coordination, such as participation in any agave-mezcal working group or associated "taskforce" and in the Inter-institutional Table for the Restoration of Productive Landscapes (MIRPP).

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This outcome will also develop as a matter of state level policy, a Framework Biocultural Landscape Protocol with the possibility of complementing it with local chapters (municipalities and/or communities), containing safeguards and principles of sustainable practices for the entire agave-mezcal value chain, and which regulates the forms of interaction of indigenous communities with the agave-mezcal value chain. The project will also seek to strengthen the capacity of Communal Land Committees for wild agave harvesting management. At the level of state policy, the project will pursue the creation of a Fund for the Conservation of Wild Agave that captures part of the wild agave mezcal premium and returns it to the communal property authorities to finance conservation activities and strengthening of communal property governance structures. Educational campaigns and training in the new Agave-Mezcal Law of Oaxaca, the Framework Biocultural Landscape Protocol, and the Fund for the Conservation of Wild Agave will be conducted to a wide spectrum of stakeholders of the agave-mezcal value chain, ensuring balanced participation by women and including the participation of indigenous peoples and ejido representatives. Primary activities at the output level to deliver this outcome is presented in Table 5. Key actors listed to be engaged is not an exhaustive list and seeks to highlight those considered indispensable for the delivery of the outcome.

Table 5. Primary Activities for the Delivery of Outcome 1.1

Primary activities to deliver Outcome 1.1	
Outputs	Activities

Output 1.1.1: National regulations and state level strategies and plans updated or created to safeguard ecosystems services and promote sustainable practices in the production of Mezcal.	1.1.1.1 Update the state level regulatory framework to incorporate sustainability of the agave-mezcal value chain 1.1.1.2 Promote the design of a national-level regulation/ norm/ standard that incorporates a definition of sustainability in the agave-mezcal value chain 1.1.1.3 Draft a gender-sensitive Framework Biocultural Landscape Protocol for the Valles Centrales and Sierra de Yautepec biocultural landscapes for voluntary adoption by local community organizations 1.1.1.4 Feasibility Assessment for a Fund for the Conservation of Wild Agave as a state policy subordinate to the Trust Fund for sustainable mezcal in Oaxaca 1.1.1.5 Design, Operational Structure and Implementation Guideline of the Fund for the Conservation of Wild Agave including public consultations
Output 1.1.2: Multi-stakeholder capacity strengthened for the institutionalization of national regulations and state level strategies and plans for the sustainable production of Mezcal.	1.1.2.1 Gender-sensitive training on the content, application, and implications of the new Agave-Mezcal Law of Oaxaca 1.1.2.2 Gender-sensitive training on the content, application, and implications of a national-level regulation/ norm/ standard on sustainable agave-mezcal production. 1.1.2.3 Gender-sensitive training on the content, application, and implications of the Framework Biocultural Landscape Protocol for the State of Oaxaca 1.1.2.4 Gender-sensitive training on the objective, structure, and accessibility of the Fund for the Conservation of Wild Agave.
Output 1.1.3: Governance arrangements strengthened or created to oversee Mezcal production and other commodities in bio-cultural landscapes inclusive of national, state, and local actors.	1.1.3.1 Develop Terms of Reference for the Inter-Agency Coordination Group for Agave-Mezcal through consultative process 1.1.3.2 Biannual Meetings of the Inter-Agency Coordination Group for Agave-Mezcal 1.1.3.3 Establish and/or strengthen the capacity of Communal Land Committees for wild agave harvesting management, including a focus on the development of women organizations.

Key Actors to be engaged in the delivery of this outcome:

Secretariat of Environment and Natural Resources (SEMARNAT), Ministry of Finance and Public Credit (SHCP), Secretariat of Agriculture and Rural Development (SADER), Oaxaca Secretariat of the Environment, Energy and Sustainable Development (SEMAEDESO), Oaxaca Economy Secretariat, Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA), Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA), Mezcal Regulatory Council (CRM/ COMERCAM), Inter-Institutional Roundtable on Productive Landscape Restoration (MIIRP), Mujeres del Agave y del Mezcal, Project Coordinating Unit (PCU), Communal/Ejido Authorities, Associations of communal property authorities, Main mezcal exporting brands.

Component 2: Biodiversity Conservation and Integrated Landscape Management ***(GEFTF $ 2,385,538; Co-financing $18,548,958)***

This component will seek to reverse the primary impacts of land degradation linked to mezcal production, avoid soil degradation, in-situ forests, biodiversity and ecosystems protection, restoration of productive landscapes, the development and implementation of Integrated Landscape Management (ILM) plans, conservation of species of high biological value, and enhanced carbon sequestered in vegetation and soils. During the PPG a comprehensive assessment was conducted to identify firstly the two biocultural landscapes as the primary intervention areas of the project (described above under ?Project Sites?), followed by the identification of ?eligible areas? within which activities to reverse land degradation and enhance biodiversity conservation may be achieved, including the establishment of ADVCs, Community Managed Areas, Forest Management Programs (non-timber), agave polyculture, reforestation, ecological restoration and, Assisted Natural Regeneration. The total area eligible for project intervention is 274,793 hectares and is illustrated in Map 5.

Outcome 2.1: Increase in area of forests protected, ecosystems services restored and maintained, and threatened and keystone species of high biological value conserved

This outcome will protect dry tropical forests through the establishment of Areas Voluntarily Destined to Conservation (ADVC) and other effective area-based conservation modalities. ADVCs are formal agreements between CONANP (federal level) and rural communities in Mexico to establish a No-Go zone for agriculture. ADVCs are formally recognized as protected areas and receive institutional and technical support from CONANP but are voluntarily declared. They have more flexibility of use, promote a broad landscape approach to management based on compatible uses, and incorporate a ?community perspective? of protection, with the community benefitting from the ecosystem goods and services

provided by the ADVC. The project will support the creation of 6 ADVCs covering 9,000 hectares of dry tropical and temperate forests with vegetation consisting primarily of low deciduous forest and holm oaks: 3 in Valles Centrales Landscape and 3 in Sierra de Yautepec Landscape as illustrated in Map 5 and summarized in Table 6.

The project will also support the establishment and management of 1,000 hectares of Units for the Conservation, Management and Sustainable Use of Wildlife (UMA). An UMA can encompass extensive and intensive hatcheries of Wild Fauna, nurseries, and greenhouses as well as all the viable alternatives that allow the propagation of species and the elaboration of products and by-products that can be incorporated into the legal wildlife market. These UMAs are all the properties and facilities that operate in accordance with an approved management plan, and within which monitoring is carried out and they remain in a natural habitat state with the populations or specimens found there[34]34. Also, to be supported are 25,000 hectares of forests under Community Land Management (?Ordenamientos Territoriales Comunitarios?) and 15,000 hectares under Forest Management Programs consisting of timber and non-timber species, in the Districts of Tlacolula and Yautepec with coverage of low deciduous forest to generate connectivity between federal and state protected areas and ADVCs. The new areas to be created and managed under this outcome will contribute 50,000 hectares to GEF 7 Core Indicator 1 ?Terrestrial protected areas created or under improved management for conservation and sustainable use? and are the basis for project estimates of tCO2e consistent with GEF 7 Core Indicator 6 ?Greenhouse Gas Emissions Mitigated?.

This outcome will also support the assessment, management, and monitoring of pollinator and other Keystone Species in bio-cultural landscapes subject to the production and harvesting of agave for mezcal production as well as the ecological interactions therein. Pollinators are considered a multitaxon functional group that are key in ecosystems due to plant-animal interactions that determine their structure and composition by promoting the reproduction of multiple plants. In this case, bats are key to the reproduction of wild agaves, and there is less participation from other taxonomic groups; however, the set of taxa is relevant due to their role, especially considering the agave-mezcal landscape as a socioecosystem, in which these species can also be indicators with which to assess ecosystem integrity and progress in protection and restoration processes. Other key species considered in this project are felines, a monophyletic group of relevance due to their eating habits, which, like pollinators, places them in the ecosystem as species related to their function and as indicators of integrity. The assessment, management, and monitoring of endemic and migratory bird species will also be supported, in addition to the monitoring of the richness and abundance of birds that visit cultivated and wild agaves. This outcome will seek to generate knowledge for decision-making in the agave-mezcal production system through the co-creation of an updated baseline of mezcal production and the agave varieties used in two biocultural regions of Oaxaca, and strengthen capacities related to the implementation of "sustainable practices" in all stages of the agave-mezcal chain.

Emanating from biodiversity assessments and consultations conducted during the PPG, the species, and taxonomic groups to be monitored are listed below:

Agave (Asparagaceae) - endemic species to Mexico and listed as threatened and subject to special protection in NOM-059-SEMARNAT-2010:

Agave peacockii

Agave guiengola

Agave chiapensis

Agave species with different varieties and widely used in the region:

? Agave convalis

? Agave karwinskii

? Agave marmorata

? Agave lyobaa (newly described and rapid growth)

Feline - they fulfill a function of key species requiring protection and considered umbrella species for other species of wild flora and fauna:

Jaguar (*Panthera onca*) listed in danger of extinction in NOM-059-SEMARNAT-2010.

Ocelot (*Leopardus pardalis*) listed in danger of extinction in NOM-059-SEMARNAT-2010.

Margay (*Leopardus wiedii*) listed in danger of extinction in NOM-059-SEMARNAT-2010.

Jaguarundi (*Puma yagouaroundi*) listed as threatened of extinction in NOM-059-SEMARNAT-2010.

Cougar (*Puma concolor*) Second feline in size in Mexico

Map 5. Proposed ADVCs

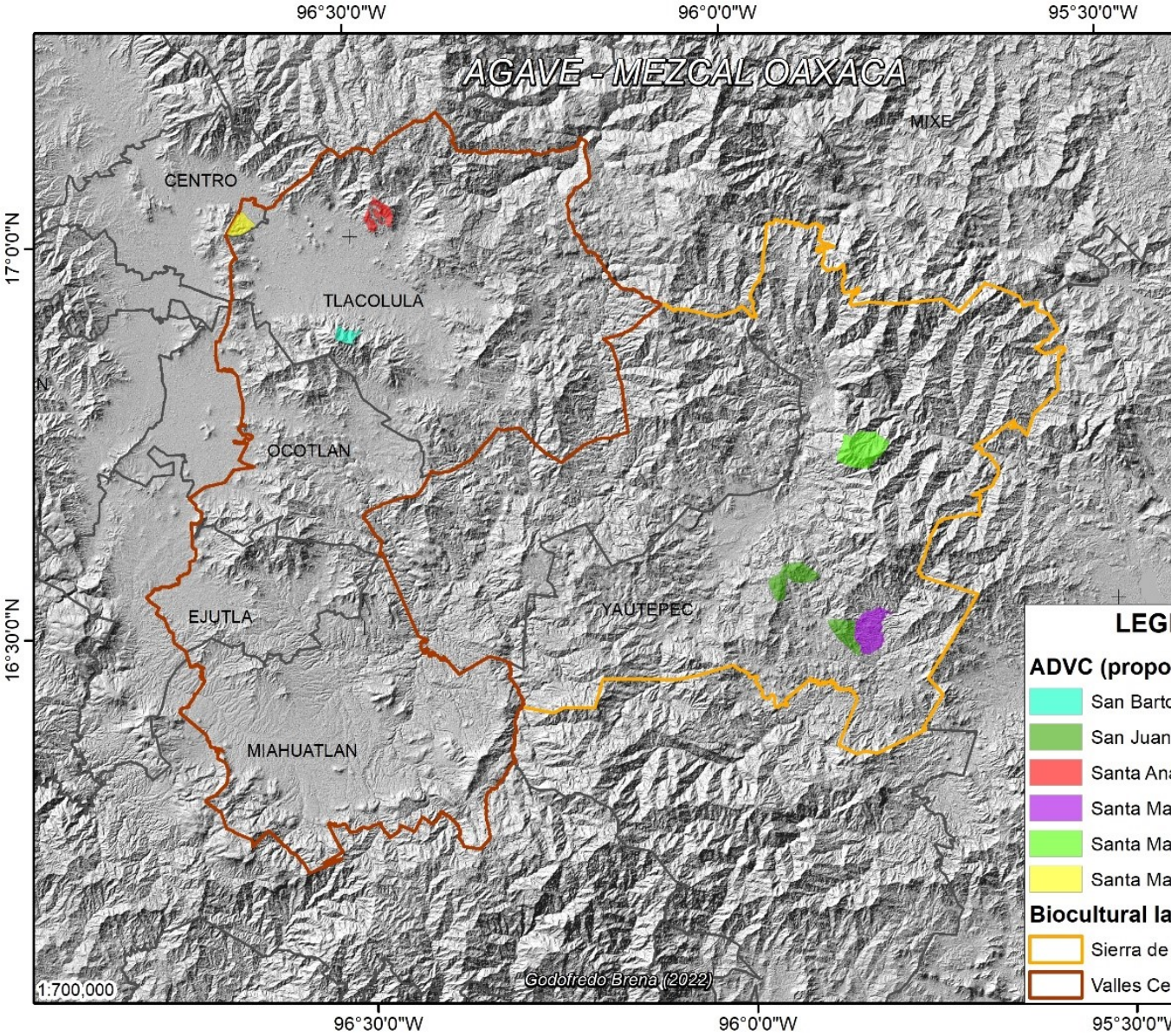


Table 6. Names, Location, and Area of Proposed ADVCs

ADVC	Biocultural Landscape	Area (Ha)
1. Santa Ana del Valle	Valles Centrales	1,010.16
2. Santa Mar?a del Tule	Valles Centrales	769.43
3. San Bartolom? Quialana	Valles Centrales	530.59
4. Santa Mar?a Nizaviguiti	Sierra de Yautepec	1,395.09
5. Santa Mar?a Lachixonace	Sierra de Yautepec	2,207.56
6. San Juan Lajarcia	Sierra de Yautepec	3,087.17
TOTAL AREA		**9,000**

Birds:

Vireo pizarra (*Vireo brevipennis*) listed as threatened in NOM-059-SEMARNAT-2010. Endemic to Mexico. One of the rarest and most inconspicuous vireos.

Lilac-crowned Amazon *(Amazona finschi)* endemic species and listed in danger of extinction in NOM-059-SEMARNAT-2010. Seed dispersal species of dry forest ecosystems.

Magnificent hummingbird (*Eugenes fulgens*). Visitor of several species of agaves.

Broad-billed Hummingbird (Cynanthus latirostris). Pollinator of several species of agaves.

(*C. auriceps, C. canivetti and C. doubledayi* could be other pollinator species of the same genus conservated in the region).

Bats (Chiroptera): in danger of extinction and vulnerable in Mexico, listed in the NOM-059-SEMARNAT-2010, both are pollinators of wild agaves that are distributed in the region.

? *Leptonycteris nivalis*

? Leptonycteris yerbabuenae

Bee (Hymenoptera)

Carpenter bee (Genus *X*ylocopa). Pollinator of several species of plants but some of the species lives inside of the dry inflorescence of agaves. (In the region there are potentially twelve species).

Stingless bee (Genus *Melipona* and *Scaptotrigona*). Pollinator of several species of plants (In the region there are potentially five species).

Bumblebee (Genus *Bombus*). Pollinator of several species of plants (In the region there are potentially 14 species).

Sphingidae

Moth (Genus *Agrius, Erinnyis, Manduca, and Sphinx*). Pollinator of several species of plants (In the region there are potentially 21 species)

The project will support species baseline assessments, development of management plans inclusive of the design of a monitoring program, training and capacity building, the actual implementation of monitoring to be able to report on change in the status of the selected species at the project?s mid-term and at end of project, and participatory workshops for the identification, mapping and prioritization of training needs with an emphasis on priorities for women, in terms of sustainable practices for each of the selected ADVCs. As part of the species monitoring programme, the project will also support the development of Community Biodiversity Monitoring Programmes, while integrating traditional and scientific knowledge, and rescuing and respecting traditional techniques. Primary activities at the output level to deliver this outcome is presented in Table 7. Key actors listed to be engaged is not an exhaustive list and seeks to highlight those considered indispensable for the delivery of the outcome.

Table 7. Primary Activities for the Delivery of Outcome 2.1

Primary activities to deliver Outcome 2.1	
Outputs	Activities

Output 2.1.1: Dry tropical forests protected through the establishment of 6 Areas Voluntarily Destined to Conservation (ADVC) and other effective area-based conservation modalities.	2.1.1.1 Preparation of ADVC management strategies 2.1.1.2 Socialization of ADVC Management Strategies in languages appropriate to local communities 2.1.1.3 Workshops for the identification, mapping, and prioritization of training needs with emphasis on women in 9,000 ha of ADVCs 2.1.1.4 Training to community groups in ADVC monitoring and METT with clearly defined roles and quota for women 2.1.1.5 Acquisition of ADVC monitoring equipment and materials 2.1.1.6 Conduct ADVC monitoring 2.1.1.7 METT Report preparation at Mid-Term and End of Project
Output 2.1.2: Assessment, management, and monitoring of Pollinator and Keystone Species in bio-cultural landscapes subject to the production and harvesting of agave for Mezcal production.	2.1.2.1 Biodiversity Species Baseline Assessments 2.1.2.2 Preparation of Pollinators and Keystone Species Management Plans 2.1.2.3 Develop Biodiversity & Ecological Interactions Monitoring Manual 2.1.2.4 Training to Community Groups in Biodiversity & Ecological Interactions Monitoring with clearly defined roles and quota for women 2.1.2.5 Acquisition of biodiversity monitoring equipment and materials 2.1.2.6 Biodiversity and ecological interactions monitoring 2.1.2.7 Technical Backstopping to monitoring program 2.1.2.8. Monitoring Report preparation and publication online 2.1.2.9. Implement consultation processes and develop declaration instruments for Conservation Management Units, Community Management, and Forest Management Programs

Key Actors to be engaged in the delivery of this outcome:

National Commission of Protected Natural Areas (CONANP), National Forestry Commission (CONAFOR) Comunal/Ejido Authorities, Mujeres del Agave y del Mezcal, Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO), Las Guardianas del Mezcal, Centro de Estudios del Maguey y del Mezcal (CEMMEZ A.C.), *Buin Dannis* A.C, Project Coordinating Unit (PCU), research institutes, and universities.

Outcome 2.2: ILM practices have reduced LD, increased soil, and woody vegetation carbon sequestration, and enabled sustainable agricultural production on degraded lands.

This outcome will support the reversal of agave monoculture, decreased soil erosion, increased carbon sequestration, agroforestry production, and restoration of degraded lands. Integrated Management Plans for bio-cultural landscapes will also be developed and implemented, including productive, resilient, and equitable food and integrated land management best practices and biodiversity mainstreaming in productive bio-cultural landscapes subject to agave production and harvesting. These project interventions will prioritize highly degraded forests with potential for productive restoration and will lead to increased areas of forests and productive landscapes brought under ILM practices, while mainstreaming biodiversity and environmental concerns into the Agave Mezcal sector, with increased participatory governance and planning for landscape connectivity. The project will support the restoration of 1,500 ha of land degraded by agave monoculture in Nejapa de Madero, San Pedro Quiatoni and San Carlos Yautepec and another 1,500 ha in Tlacolula, Ocotlan and Miahuatlan districts through nature-based solutions centred on agroecology and ecosystem functions. The project will also support 3,000 ha of Assisted Natural Regeneration of degraded forests to be distributed as follows: 500 ha in Ocotlan district, 500 ha in Ejutla district, 1,000 ha in Tlacolula district, and 1,000 ha in Miahuatlan district. These project restoration efforts will contribute to the delivery of GEF 7 Core Indicator 3 ?Area of land restored?. The ILM approach will be implemented in two landscapes that have been defined consistent with areas of seasonal agriculture and agave monoculture.

The boundary of the Valles Centrales Landscape encompasses portions of the districts of Centro, Ocotlan, Ejutla, Miahuatlan and Tlacolula, with an estimated area of 415,358 hectares, inclusive of 66,650.28 hectares of tropical dry forests and with 128,318.81 hectares under seasonal agricultural practices. A total of 17,500 hectares in the ?Valles Centrales? Landscape will directly be under Sustainable Land Management (SLM) in production systems because of project interventions. The boundary of Sierra de Yautepec Landscape encompasses portions of the districts of Tlacolula and Yautepec, with an estimated area of 401,208 hectares, inclusive of 183,292.36 hectares of tropical dry forests and with 20,715.60 hectares under seasonal agricultural practices. A total of 17,500 hectares in

the Valles Centrales Landscape and 2,500 hectares in the Sierra de Yautepec Landscape (total of 20,000 hectares) will be directly under sustainable land management in production systems because of project interventions. Project investments in these two landscapes will contribute directly to achieving GEF 7 Core Indicator 4 ?Area of landscapes under improved practices (excluding protected areas)?.

The ILM intervention models to be implemented by the project to carry out the productive functional restoration of degraded lands are sustainable agroforestry systems, Assisted Natural Regeneration, ecological restoration, and the associated monitoring of ILM progress. Two ILM Plans (one for each biocultural landscape) will be developed early in project implementation and will serve as the guiding framework for sustainable agroforestry systems, Assisted Natural Regeneration, ecological restoration. Agroforestry systems are basically a combination of forestry practices with agriculture and/or grazing on the same surface unit, where timber, fruit and agro-industrial species are interspersed, including species critical to pollinators and the broader ecosystem functions necessary for the agave-mezcal production. Sustainable agroforestry systems will include nursery construction, production of agave and woody plants in the nursery, land preparation for planting, planting, fertilization, pruning and thinning, weed and shrub control, control of pests and diseases, boxing, harvesting of agave and interspersed crops, and the provision of technical assistance. Similarly, Assisted Natural Regeneration will require land preparation for reforestation, reforestation (agave and native woody species), fertilization, boxing, harvesting (agave and woody species), monitoring of ANR progress, and the provision of technical assistance. Ecological restoration will include reforestation with native tree species, reforestation with wild native species of agave, monitoring of reforestation progress. The ILM processes will also include soil and water conservation measures such as construction of borders in contour lines, trenching, living/green fences, gabion/natural stone dams, and the provision of technical assistance. In the development of Integrated Land Management Plans, the project will ensure integration of traditional knowledge and practices of indigenous communities in initiatives to implement agroforestry systems and other sustainable agricultural practices in the project intervention areas. Through-out the development of this outcome project principals will implement the project's safeguards approach (gender, stakeholder engagement, and indigenous peoples) in the process of consultation, planning, design and execution of integrated ecosystem management plans, land restoration, among other activities to recover the environmental values ??of sites, best practices in biocultural landscapes and sustainable use of agave. In this regard, the project will institute minimum quotas for participation in capacity building processes and other benefits to strengthen the role of women in activities related to nurseries, germination monitoring, pest management and agrochemical-free fertilization.

In addition to the above, it is anticipated that this outcome will support capacity-building efforts and extension services, and the creation or strengthening of inter-sectoral governance arrangements for decision-making at the landscape level. Primary activities at the output level to deliver this outcome is presented in Table 8. Key actors listed to be engaged is not an exhaustive list and seeks to highlight those considered indispensable for the delivery of the outcome.

Table 8. Primary Activities for the Delivery of Outcome 2.2

Primary activities to deliver Outcome 2.2	
Outputs	Activities
Output 2.2.1: 2 Integrated Land Management Plans for Bio-Cultural Landscapes developed and under implementation.	2.2.1.1 Prepare gender-sensitive Integrated Land Management (ILM) Plans for the Valles Centrales and Sierra de Yautepec Biocultural Landscapes 2.2.1.2 Socialization and gender-sensitive training in Integrated Land Management Plans for the Valles Centrales and Sierra de Yautepec Biocultural Landscapes
Output 2.2.2: Agave monoculture reversed, soil erosion decreased, carbon sequestration increased through agroforestry production and restoration of degraded lands.	2.2.2.1 Implementation of sustainable agroforestry systems consistent with ILM Plans 2.2.2.2 Implementation of Assisted Natural Regeneration (ANR) consistent with ILM Plans 2.2.2.3 Implementation of ecological restoration consistent with ILM Plans 2.2.2.4 Technical backstopping to sustainable agroforestry, ANR and ecological restoration 2.2.2.5 Monitoring of ILM implementation and production of associated report
Output 2.2.3: Development of productive, resilient, and equitable food and integrated land management best practices in bio-cultural landscapes subject to agave harvesting.	2.2.3.1 Evaluation of Integrated Land Management Best Practices to inform possible approaches for ILM demonstration sites. 2.2.3.2 Develop and implement ILM best practices in at least 2 demonstration sites: one in each biocultural landscape
Key Actors to be engaged in the delivery of this outcome: Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO), Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA), Secretariat of Agriculture and Rural Development (SADER), National Forestry Commission (CONAFOR), Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA), General Coordination of the State Planning Committee for the Development of Oaxaca (CG-COPLADE), Mezcal Regulatory Council (CRM/ COMERCAM), Mujeres del Agave y del Mezcal, (PCU), Communal/Ejido Authorities, private property, Associations of communal property, research institutes and universities.	

Component 3: Establishing a Sustainable Agave-Mezcal Value Chain and Managing Associated Knowledge *(GEFTG $1,344,729; Co-financing $8,324,947)*

Component 3 will seek to address unsustainable practices in the Agave-mezcal production chain by generating business models that enable the commercial viability and market differentiation of the artisanal high-quality mezcal brand linked to a good origin narrative; safeguarding ancestral cultural practices and livelihoods associated with denomination of origin artisanal mezcal; and unlocking financial incentives for sustainable production and agroecological landscape restoration. In particular, the project will produce business models for certification, biolabeling and/ or the use of geographical indication as a mezcal decommodification strategy to generate higher added value to local producers and safeguard cultural practices. Besides, the project will co-finance the creation of a Finance Mechanism to incentivize investment in sustainable production and address uptake and scalability barriers. Thus, demonstrating that the high initial costs of sustainable harvesting and agroecological restoration may lead to medium to long-term cost effectiveness and yield returns.

Outcome 3.1: Strengthened Mezcal Value Chain based on sustainable practices.

This outcome will promote sustainability in the Mezcal Value Chain through the development of sustainable practices at different points along the value chain from production to the creation of demand for sustainable Mezcal. The project?s approach to sustainability will consider certification, bio-labelling and/ or geographical indications linked to decommodification, promote sustainable plantations of wood for use in mezcal production, and safeguard cultural practices that define the origin and uniqueness of Oaxacan Mezcal. Project interventions will support water-use efficiency and water recycling, reforestation (sustainable plantations), access and use of firewood from the residual production of forestry companies, efficiencies to reduce the volumes of harvested wood, environment-friendly disposal, or reuse of bagasse from the mezcal production process, and legal and institutional structures to protect ancestral and cultural values linked to mezcal production.

All reforestation efforts will be conducted using native species known for their nitrogen fixing qualities in soil, wildlife attracting capability, and evidence of successful use in other reforestation efforts in the country. The species to be used are listed below in their local and scientific names:

? Mezquite (*Prosopis laevigata*)

? Huam?chil (*Pithecellobium dulce)*

? Huaje *(Leucaena esculenta)*

? Tepehuaje *(Lysiloma acapulcense)*

? Cucharita (*Quercus conzattii*)

? Encino Blanco (*Quercus glabrescens /Quercus obtusata)*

? Encino Rojo (*Quercus castanea N?e)*

? Ocote (*Pinus montezumae)*

Assessments conducted during the PPG revealed that since 2015, mezcal exports to the U.S. have exploded, growing fivefold to reach over 500,000 cases in 2019, according to an estimate from Impact Databank. The brands with the highest price premium in the U.S are those with origin ties: ?single village?, wild agave, traceability back to the Palenque and maestro mezcalero. In the marketplace ?tradition? is a positive attribute and it along with ?authenticity? are most frequently referenced as positive selling points. The attachment of the spirit to a people, a place, a geology, geography, a history, and a cuisine: this is what makes mezcal so special. Though the overall category in the U.S. is still small, mezcal?s growing presence in the market is generating excitement from retailers and large companies eager to add a brand to their portfolios. The sector is an integral part of America?s growing cocktail culture; the typical mezcal brand on sale in the U.S. retails in the super-premium tier or higher; and the variety of ways to produce the spirit fits neatly into the increasingly artisan-focused marketing used for other booming categories, like Bourbon and Scotch. These findings will be used to inform the conceptualization and implementation of the financing mechanism being proposed in Outcome 3.2.

Business models will be designed to inform the certification process and ensure increased returns from differentiated production and upscale market segments attracted to high-quality mezcal of origin. Efforts to establish a sustainable value chain will promote sustainable agave harvesting, conservation of wild agave and migratory-bat pollinator species, and secure local livelihoods. Biodiversity-friendly agave production centred on migratory and local long-nosed bat pollinator species will be informed by lessons learned from certifications schemes such as ?Bat-Friendly Tequila?, certified coffee (Certified Organic, Certified Fair Trade, Shade Grown, Bird Friendly, etc.), and Sustainable Palm Oil in Mexico. Each of these efforts provides important lessons learned on the creation of niche markets for sustainable and biodiversity-friendly products. These efforts will be closely coordinated with SADER?s and CONABIO? ?BioSello? initiative on labelling biodiversity-friendly production in key Mexican agricultural supply chains, including agave-mezcal. Any attempts by the project at certification will comply with the Official Regulation of Mexico (NOM-070-SCFI-2016) for the Specifications of Mezcal as Alcoholic Beverage and the 2019 Mezcal Certification Manual. Coordination with one or more of the four mezcal certifying bodies approved by the Ministry of Economy and endorsed by the Mexican Accreditation Entity (EMA)

will be crucial. In addition to promoting criteria for sustainable practices, the project will equally design and implement strategies to generate demand and market access for sustainably sourced mezcal (such as the ?Restoration Marketplace? online platform currently being developed by UNEP), a Knowledge Management Plan to guide information exchange and best practice dissemination on sustainable mezcal production. Activities at the output level to deliver this outcome is presented in Table 9. Key actors listed to be engaged is not an exhaustive list and seeks to highlight those considered indispensable for the delivery of the outcome.

Table 9. Primary Activities for the Delivery of Outcome 3.1

Primary activities to deliver Outcome 3.1	
Outputs	Activities
Output 3.1.1: A sustainable Agave-Mezcal value chain is developed and supported through actions targeting the production and demand sides.	3.1.1.1 Design, Operational Structure, and Implementation Guideline of the Sustainable Mezcal Standard which includes conservation of Pollinator and Keystone Species, agave plant sourcing from women-led nurseries, the use of agroforestry agave, bio-labelling, among others 3.1.1.2 Create a website for final consumers to verify Wild Agave Mezcal labels, showcase mezcal brands that comply with the Sustainable Mezcal Standard and disseminate project results 3.1.1.3 Provide technical assistance to artisanal mezcal producers to obtain Denomination of Origin (DOM) certification and Sustainable Mezcal Standard 3.1.1.4 Design and implement market strategies to mobilize demand-side actors in the value chain prepared to pay a price premium for sustainable mezcal
Output 3.1.2: Promotion of sustainable plantations of wood for use in Mezcal production.	3.1.2.1 Establish and support a coordinating body to sustainable wood producers, mezcal producers and other actors in the value chain to prioritize and address the barriers that limit the use of sustainable wood for mezcal production

Output 3.1.3: Cultural practices that define origin and uniqueness of Oaxacan Mezcal safeguarded.	3.1.3.1 Assessment of cultural practices to be considered in ILM approaches, including but not limited to intercropping with the milpa system (traditional form inherited from ancestors) and artisanal distillation using fermentation without additives 3.1.3.2 Preparation of a list of the diversity of names of species (flora and fauna) and of practices that are present in indigenous languages ??and local names 3.1.3.3 Establishment of two demonstrative sustainable wood plantations in Forest Management Programs to be supported by the project
Output 3.1.4: A Knowledge Management Plan on sustainable mezcal production developed and under implementation.	3.1.4.1 Disseminate sustainable mezcal production practices using locally relevant delivery mechanisms with consideration of the gender dimension. 3.1.4.2. Implement biannual town hall meetings in both biocultural landscapes to provide spaces for agave and mezcal producers and ejido and communal authorities to share experiences, test and validate alternatives, and innovate to develop sustainable mezcal production practices that are producer-driven 3.1.4.3 Establish a forum for the training of women-to-women, to share lessons learned and form collaborative ties 3.1.4.5 Conduct Annual Project Review Meetings which should also serve as a feedback mechanism to local communities on the results of community monitoring initiatives
Key Actors to be engaged in the delivery of this outcome: Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO), National Forestry Commission (CONAFOR), Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA), Secretariat of Agriculture and Rural Development (SADER), Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA), Mezcal Regulatory Council (CRM/ COMERCAM), Mujeres del Agave y del Mezcal, (PCU), Communal/Ejido Authorities, Associations of communal property authorities, Main mezcal exporting brands, research institutes and universities.	

<u>Outcome 3.2: Innovative finance mechanism to upscale sustainable harvesting and processing of agave.</u>

Outcome 3.2 will seek to operationalize and implement an innovative Finance Mechanism aimed at incentivizing and upscaling sustainable harvesting and processing of agave, leveraging functional restoration of productive landscapes and sustainable production of mezcal. These efforts will largely build upon preliminary design elements proposed by a State of Oaxaca-commissioned IUCN study[35]35. A Private Trust focused on landscape restoration more broadly and governed by a multi-stakeholder civil association Trustee will be created through a pool of resources, including GEF funds, public finance largely anchored on SEMAEDESO?s multi-year state budget, international partners (UNEP, WRI, and others), and eventually be scaled by private finance. This mechanism will act as a revolving fund that mobilizes public and private resources, contemplates different financial products, and offers a combination of grants and loans with the overarching objective of enabling producers who incorporate sustainable practices and adopt productive landscape restoration models to become investment-ready and access lower cost and more favourable financing. Public funds are expected to play a catalytic role in mobilizing private finance, most notably given the negative returns expected in the initial years of agroecological restoration associated to agave and mezcal production. The idea is that public money, in the form of grants, pays for the risky early development of sustainable solutions and is gradually crowded out by private capital once the profitability has been proven and objective risks are lowered. Besides, an integral part of the finance mechanism will be a capacity-building platform to provide technical assistance to beneficiaries on agronomic, forestry, commercial and financial aspects of the production chain. An investment-sequencing approach will underpin these efforts by identifying and supporting solutions across the investment cycle. The project will therefore identify appropriate distribution mechanisms and associated types of players, structure cultivating plots and cooperatives through targeted technical assistance and market-readiness support, bring commercial agreements to bare through concerted matchmaking with off-takers, impact investors, and other commercial actors. GEF resources will co-finance the spectrum of activities proposed as well as play a strategic role in supporting SEMAEDESO to coherently mobilize the vast array of national and international initiatives in Oaxaca to collaborate by delivering both technical and financial assistance. While GEF funds can only foreseeably support a limited amount of community enterprises and companies during project duration, the Finance Mechanism is expected to be the conduit for sustainability of restoration financing beyond project duration.

During the PPG a feasibility assessment was conducted to identify the business model to differentiate mezcal produced with sustainable practices that generates the highest premium for the end-product and contributes to a fairer distribution of benefits across the supply-chain[36][36]. This feasibility assessment (Annex P) included market analysis, assessment of sustainable and social practices, baseline data analysis and field validation in the proposed project intervention areas, and the identification of possible business models to promote sustainable mezcal. The findings of this feasibility assessment were used to inform the proposed approach and structure of the finance mechanism to be developed by the project under

Outcome 3.2[37][37] as summarized below, and further presented in the activity matrix for the corresponding outcome.

The proposed trust fund will manage a pool of resources aimed at creating different finance mechanisms ad hoc to the agave mezcal value chain in Oaxaca. Some of the most important features of the agave mezcal value chain in Oaxaca that shaped the design of the finance mechanism are:

? Oaxaca is one of the states in the country with the largest area of social property.

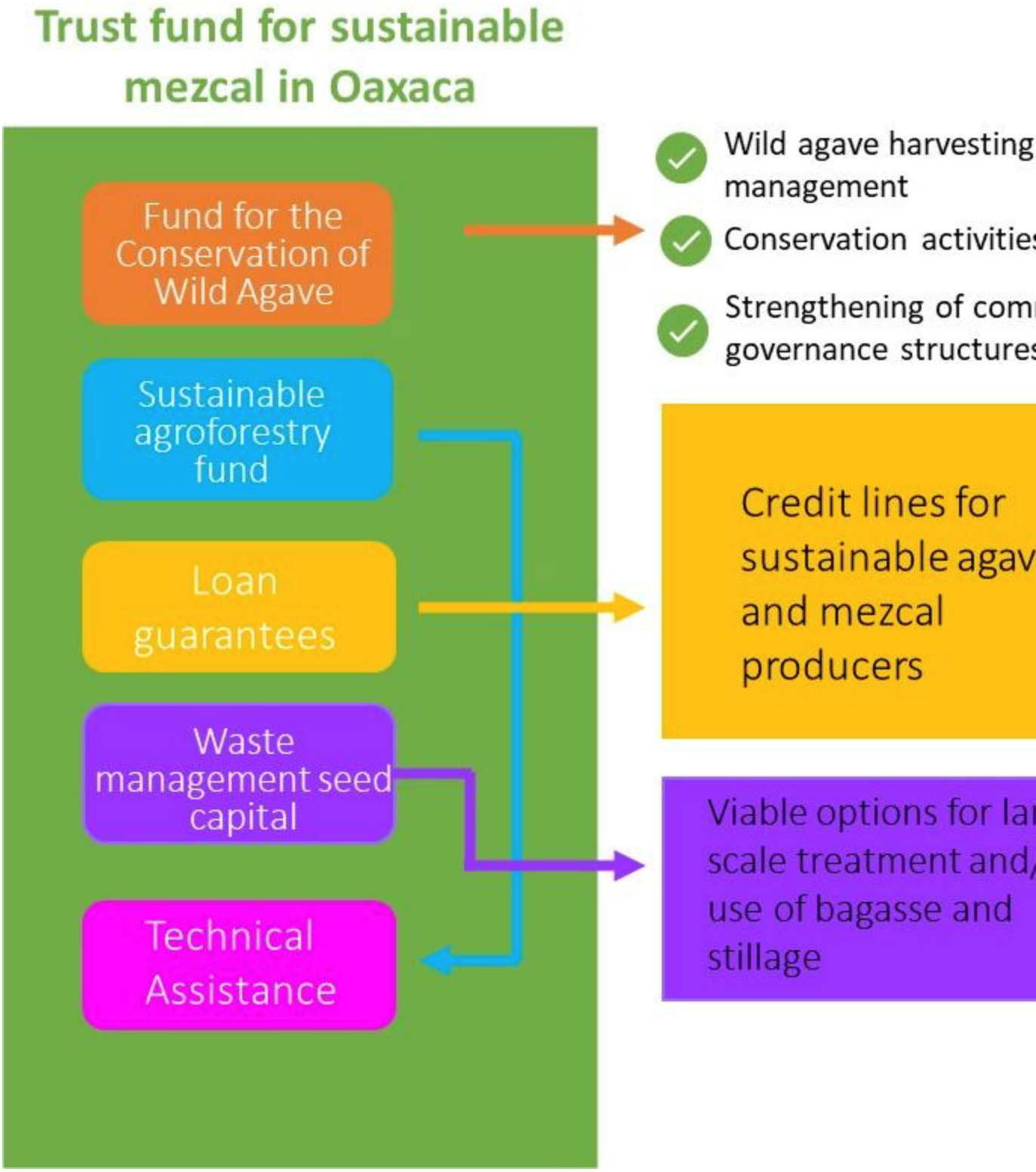
? Mezcal is a protected product with appellation of origin (DOM).

? The U.S. is the largest market for Mezcal. The brands with the highest price premium in the U.S. are those with origin ties: wild agave, traceability back to the Palenque and maestro mezcalero.

? Market premiums are not reaching communities of origin and there are many uncertainties and misinformation about the benefits of DOM certification.

The Trust Fund for Sustainable Mezcal in Oaxaca (Figure 4) and the finance mechanisms within the trust fund must create long term incentives to attract private and public investments for sustainable production of agave, foster a fairer distribution of market premiums, unlock private investments for large scale treatment and/or use of bagasse and stillage innovations, and cultivate long term commercial links between smallholder agave producers, artisanal mezcal producers and mezcal brands.

Figure 4. Main Financial Vehicles of the Trust Fund for Sustainable Mezcal in Oaxaca


Trust fund for sustainable mezcal in Oaxaca
Fund for the Conservation of Wild Agave
Sustainable agroforestry fund
Loan guarantees
Waste management seed capital
Technical Assistance
Wild agave harvesting
management
Conservation activitie
Strengthening of com
governance structures
Credit lines for sustainable agav
and mezcal producers
Viable options for la
scale treatment and/
use of bagasse and stillage

Wild agave harvesting in communal forest land is managed by Communal Land Committees who in most cases have no operating budget and no salaries. If the committee decides to engage in conservation activities, they either must convince the Ejido members for a contribution or apply for grants or subsidies. Communal Land Committees that engage in agave biodiversity preservation should receive part of the premium paid for wild agave mezcal, to be invested in conservation activities and capacity building of Communal Land Committees.

A sustainable Wild Agave Mezcal label, a traceability mechanism, and a fund to manage the resources collected will be set up within the Trust Fund for sustainable Mezcal in Oaxaca and in coordination with the mezcal certifying bodies. Participating Communal Land Committees will provide Sustainable Wild Agave Certificates for the wild agave harvested in accordance with the rules and conservation plans authorized by the **Fund for the Conservation of Wild Agave**. Mezcal producers using the certified wild agave will provide the Mezcal bottler the mezcal in bulk and the wild agave certificate. The Mezcal bottler or mezcal brand will then pay a fee per litre of wild agave received to the Fund for the Conservation of Wild Agave. Finally, to receive the Wild Agave Mezcal labels, the Mezcal brand will provide the certification entity (CMR) with the proof of payment to the Fund and the Wild Agave Certificates.

Two credit products will be implemented to finance the production of agave with agroforestry practices, tailored to possible intermediaries such as FINDECA, which provides access to finance for small-holder producers in Oaxaca, especially in the coffee sector. FINDECA is a non-banking financial institution headquartered in Oaxaca, to provide affordable financing for productive projects that incorporate sustainable use and conservation of environmental areas, focusing on the facilitation of access to finance in rural areas where historically it has been difficult to obtain financing. The project has engaged FINDECA during the PPG on its possible role as a financial intermediary. This intermediary role could entail overseeing the lines of credit to be provided by the finance mechanism, mitigating credit risks, due diligence and monitoring for the successful implementation of the finance mechanism, and reporting requirements. In this regard, FINDECA has provided a Letter of Intent (Annex O) to collaborate with the project, outlining possible areas of collaboration to successfully implement the finance mechanism. Early in project implementation FINDECA will be further engaged in work sessions to outline the details of a possible collaboration framework. The **Blended Finance Mechanism** for agroforestry agave production will include non-refundable investments (grants), a guarantee fund (financial intermediary), and a credit line. A financial model for this mechanism was developed during the PPG with cost estimates based on 1,500 ha of Coyote and Espad?n agave intercropped with corn, beans, and trees, in addition to technical assistance for the establishment and management of production plots, and financial coaching and capacity building to improve readiness of loan receivers. Income will come from two primary sources: sale of agave fruit (pina) and sale of young agave plants. Based on the models produced during the PPG, required investments have been estimated as follows: non-refundable investments (grants) ? 580USD/Ha, Credit Line ? 7,300 USD/Ha, Guarantee Fund ? 1,400 USD/Ha. A **Sustainable Agroforestry Fund** will

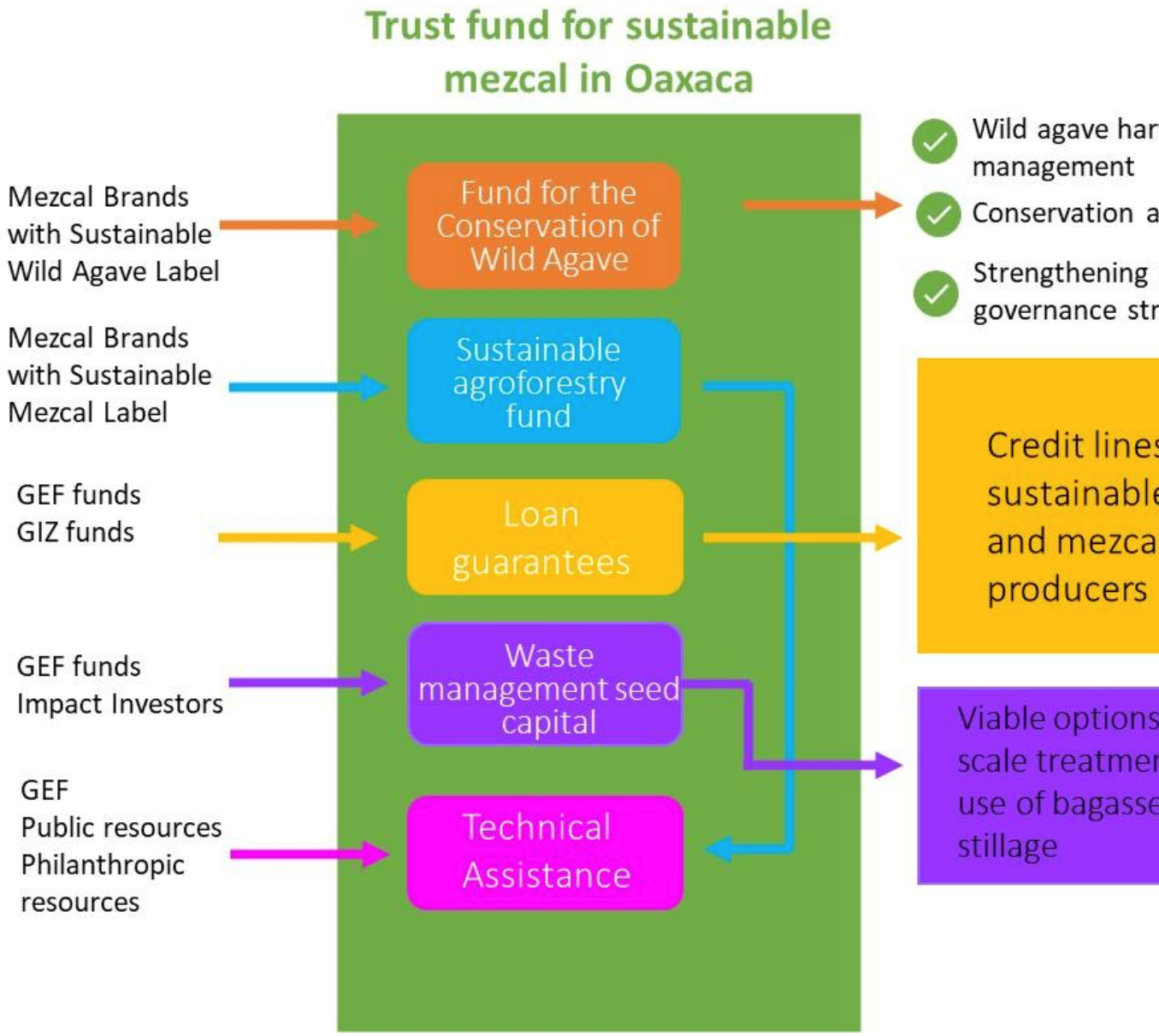
be established to ensure financing beyond the project duration, through the introduction of a fee for each kg of agave sold. These fees will be collected in a fund within the Trust Fund to expand the area of agroforestry agave production. This fund proposes that brands or buyers of the first 1,000 ha of agave pay a fee that will be used to finance the soil preparation of new production areas. It is estimated that a 3% or 3.5% fee per kilo of agave contributed over a period of 3 years to the Sustainable Agroforestry Fund can provide the funds needed to prepare a new Ha of land to be placed under sustainable production practices.

The Trust Fund for sustainable mezcal in Oaxaca will also set up a **Seed Capital Fund** to invest in the technical solutions for mezcal waste management that are already being tested by various companies (bagasse briquets, bagasse and stillage adobe bricks, bagasse textiles, energy generation through anaerobic digestion process of bagasse and stillage, stillage waste treatment plants, and hybrid alternative oven for the smoking of agave ? reduced use of wood). The seed capital fund will attract resources from impact investors and Mezcal Brands to invest in the start-ups working on these solutions and in the implementation of these solutions at large scale. The vision is that in the long run, the loan guarantee fund could also be used to de-risk credits for mezcal producers willing to invest in the solutions developed with the resources from the seed capital fund.

For the proposed finance mechanism to function adequately beyond the life of the project, there are a few actors that will have key roles in the deployment of resources, and their shared interest and their commitment to the project?s long-term goals. The project will work closely with ?Del Maguey? and ?Amaras?, due to their importance in US and local markets respectively, and their ongoing commitments with sustainability. They could be an example to other brands by participating in the Fund for the Conservation of Wild Agave, in the Sustainable Agroforestry Fund, by co-investing in waste management with seed capital, spearheading the Sustainable Wild Agave Label, and establishing long lasting commercial relationships with agave and mezcal producers.

The World Resource Institute (WRI), KFW (German Development Bank), and the InterAmerican Development Bank are interested in providing loan guarantees as well as credit lines directly to financial intermediaries willing to share the risk of financing these new sustainable agave production models. Financiera Nacional de Desarrollo (national rural bank) will also explore how to provide credit lines to intermediaries like FINDECA. Heifer Impact Ventures would be interested in investing in the fund to finance the production of sustainable mezcal and building sustainable palenques. Figure 5 illustrates the Trust Fund for Sustainable Mezcal in Oaxaca, including possible funding source, financial and support mechanisms, and anticipated outflows.

Figure 7. Trust Fund for Sustainable Mezcal in Oaxaca



Primary activities at the output level to deliver this outcome is presented in Table 10. Key actors listed to be engaged is not an exhaustive list and seeks to highlight those considered indispensable for the delivery of the outcome.

Table 10. Primary Activities for the Delivery of Outcome 3.2

Primary activities to deliver Outcome 3.2	
Outputs	Activities
Output 3.2.1: A finance mechanism for sustainable harvesting and processing of agave designed, formally established and operational	3.2.1.1 Design, Operational Structure, and Implementation Guidelines of a Trust Fund for Sustainable Mezcal in Oaxaca 3.2.1.2 Advocate for the guarantees needed for local financial intermediaries to obtain a 10-year credit line to finance the production of agave with agroforestry practices 3.2.1.3 Financial coaching for agave producers (women in particular) to access credit 3.2.1.4 Design, Operational Structure, and Implementation of a contribution/fee from agave producers, mezcal producers and mezcal brands to finance the expansion of agroforestry practices for agave. 3.2.1.5 Feasibility assessment of economically viable options for large scale treatment and/or use of bagasse and stillage 3.2.1.6 Design and implement tools to enhance financial sector engagement with artisanal mezcal producers and their investment needs and potential gains from complying with the Sustainable Mezcal Standard 3.2.1.7 Design and implement risk mitigation instruments to unlock long term commercial links between smallholder agave producers, artisanal mezcal producers and mezcal brands. 3.2.1.8 Technical assistance to beneficiaries of the finance mechanism on agronomic, forestry, commercial and financial aspects of the production chain, and the building of organizational capacity.

Key Actors to be engaged in the delivery of this outcome:

Mezcal brands with ongoing initiatives for the treatment of vinasse and bagasse, National Finance for Agricultural, Rural, Forestry and Fisheries Development (FND), Trust Fund for Rural Development (FIRA), BanOaxaca, FINDECA, Mezcal Regulatory Council (COMERCAM), Mujeres del Agave y del Mezcal, (PCU), Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO), Del Maguey, Amaras, German Development Bank (KFW), World Resources Institute (WRI), InterAmerican Development Bank (IDB), Heifer Impact Ventures, UNEP LAC Office, UNEP Mexico Office, UNEP Finance Initiative (FI).

4) Alignment with GEF Focal Area Strategies

The project will mainstream biodiversity, ecosystem services, and sustainable practices by updating national regulations and state level strategies and plans to promote sustainable practices in the production of Mezcal. The project will also protect dry tropical forests and restore ecosystem services through the establishment of Areas Voluntarily Destined to Conservation and other effective area-based conservation modalities and will manage and monitor Pollinator and Keystone Species in bio-cultural landscapes subject to the production and harvesting of agave for Mezcal production. In this regard the project is aligned with the GEF BD-1-1 ?Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors? and GEF BD-2-7 ?Address direct drivers to protect habitats and species and improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate?.

The project will reduce land degradation, increase soil and woody vegetation carbon sequestration, and enable sustainable agricultural production on degraded lands through the implementation of Integrated Land Management. Agave monoculture will be reversed, soil erosion decreased, and carbon sequestration increased through agroforestry production and restoration of degraded lands. The project will develop productive, resilient, and equitable food, integrated land management best practices in bio-cultural landscapes subject to agave harvesting, promote sustainable plantations of wood for use in Mezcal production, and will safeguard cultural practices that define origin and uniqueness of Oaxacan Mezcal. Consistent with the above, the project aligns with GEF LD-1-3 ?Maintain or improve flows of ecosystem services, including sustaining livelihoods of forest-dependent people through Forest Landscape Restoration (FLR)? and GEF LD-1-4 ?Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape ? INRM?.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

Scenario with and without GEF funding

This project seeks to mobilize USD 5.1 million of GEF resources split equally between the biodiversity and land degradation focal areas and USD 31.87 million in co-financing. It is incremental in that GEF funds will be used to make the current regulatory framework for biodiversity conservation and management at both the federal and state level more operational and effective, infuse parameters for sustainable production in national-level agave-mezcal regulations, reverse the primary impacts of land degradation linked to mezcal production related to the suppression of the ecosystem services offered by the agave, and address the unsustainable practices of the Agave-Mezcal production chain, inclusive of an innovative finance mechanism and mainstream pollinator conservation in agave farming.

In 2018, 66.4% of the population of Oaxaca lived in poverty of which 23.3% was living in extreme poverty. The deterioration of the environment and rural production systems causes migration, especially of young people due to lack of economic alternatives. In the case of the agave-mezcal production system, artisan producers are represented by adults of advanced ages due to migration of the younger population. GEF funds will be used via this project to promote change in the focus of production and will provide incentives to keep the younger generation nearer their roots in Oaxaca. In this context, the project is incremental in that it will directly contribute to a reduction of poverty and indirectly impact migration to the United States. Similarly, in the Oaxacan tradition, mezcal is more than a drink; it is culture, identity, religion, and worship. Its ancestral production involves entire families. When talking about the production of mezcal, it is essential to talk about the festive and ecological cycle that governs the patronal and Catholic celebrations of the state. Cultural ownership has been lost, by promoting industrial production systems, not personalized in the mezcal teachers. GEF funding via this project will have an impact on this cultural rescue associated with the care of nature, as part of the cultural heritage.

Co-financing

The project has secured US$31,874,019 in co-financing, of which US$935,811 is classified as Recurrent Expenditure and US$30,938,208 as Investment Mobilized. Co-financing sources include several federal and state level agencies, civil society, international cooperation agencies, and UNEP as GEF

Implementing Agency. The co-financing sources identified as ?investment mobilized? are time-bound expenditures specifically identified for complementary works to be carried out in the project intervention area, and thus contribute to the delivery of project objectives and global environmental benefits. These were further outlined above in Section C. Recurrent Expenditures refer primarily to salaries, infrastructure, and other operational expenses of partner agencies.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The project will deliver global environmental benefits through the direct conservation of species of high biological value including at least 7 agave, 5 feline and 2 bird species. Additionally, pollinator species that are essential for crop productivity, ecosystem integrity and biodiversity conservation will be protected, managed, and monitored, including at 4 genus of moths, 2 genus of stingless bee, 1 genus of bumblebee, 2 bird species, and 2 bats species *Musonycteris harrisoni* and *Choeronycteris Mexicana,* classified as being in danger of extinction (P) and threatened (A), respectively, in Mexican Regulation NOM-059-SEMARNAT-2010. Areas Voluntarily Destined to Conservation (ADVC) representing 9,000 hectares will help to protect Tropical Dry Forests while also helping to protect 47 vertebrates in the dry forest that are at risk of global extinction. Biodiversity of global importance will also be protected through the establishment and management of 41,000 hectares of Conservation Management Units, Community Management Areas, and Forest Management Programs.

The project will support the reversal of agave monoculture, decreased soil erosion, increased carbon sequestration, agroforestry production, and restoration of degraded lands. These project interventions will lead to increased areas of forests and productive landscapes brought under ILM practices and will support the restoration of 3,000 ha of land degraded by agave monoculture, 3,000 ha of Assisted Natural Regeneration of degraded forests, thus contributing to the delivery of **GEF 7 Core Indicator 3 ?Area of land restored?**. A total of 20,000 hectares will be directly under sustainable land management in production systems because of project interventions, contributing directly to achieving **GEF 7 Core Indicator 4 ?Area of landscapes under improved practices (excluding protected areas)?**. The project will increase soil and woody vegetation carbon sequestration and expected to mitigate *215,352 tCO2e, thus contributing to* **GEF 7 Core Indicator 6 ?Greenhouse Gas Emissions Mitigated?.**

The project will further strengthen awareness of the importance of globally important conservation areas in the proposed project intervention areas. Included within the project area are the Prehistoric Caves of Yagul and Mitla, a World Heritage Site, in the Valle Central of Oaxaca, in the Political District of Tlacolula. The project is part of three Key Biodiversity Areas (KBA) ?Sierra Norte?, ?Cerro Piedra Larga? and ?Sierra de Miahuatl?n? and the polygon of the Alliance for Zero Extinction (AZE) ?Sierra

Norte de Oaxaca II?, where the following species have been identified: *Ceratozamia mixeorum*, *Plectrohyla calthula*, *Plectrohyla psarosema*, *Pseudoeurycea aquatica* and *Pseudoeurycea mystax*. It is also part of the ?Sierra Ju?rez? Area of ??Importance for Bird Conservation (IBA) which contains 485 species of wild birds described as category A1, A2 and A3 by Birdlife International.

7) Innovation, sustainability, and potential for scaling up

Innovation:

The project will design an Innovative Finance Mechanism structured to provide selective financing to small agave and mezcal producers at different steps along the agave-mezcal value chain. A Trust Fund focused on landscape restoration more broadly and governed by a multi-stakeholder civil association Trustee will be created through a pool of resources, including GEF funds, public finance largely anchored on SEMAEDESO?s multi-year state budget, international partners (UNEP, WRI, and others), and eventually be capitalized by private finance. In this regard, this mechanism will act as a revolving fund that mobilizes public and private resources, contemplates different financial products, and offers a combination of grants and loans with the overarching objective of enabling producers who incorporate sustainable practices and adopt productive landscape restoration models to become investment-ready and access lower cost and more favourable financing. Public funds are expected to play a catalytic role in mobilizing private finance, most notably given the negative returns expected in the initial years of agroecological restoration associated to agave and mezcal production. Additionally, the project will support the creation of an innovative fee structure from agave producers, mezcal producers and mezcal brands to finance the expansion of agroforestry practices for agave.

Sustainability:

The project strengthens the agave-mezcal value chain to make it economically viable for small producers dependent on the land, is based on sustainable agroecological practices and promotes the conservation of associated ecosystems. Therefore, the implementation of the project will trigger, with partner support, enhanced returns associated with certification of sustainable production and access to differentiated markets. GEF financing will be directed to actions that overcome barriers in the value chain that prevent direct benefits to producers and cause ecosystem degradation and biodiversity loss. These barriers are difficult to overcome exclusively through institutional and governance efforts, so the project will also create a finance mechanism to ensure the sustainability of results over time by structuring a finance

facility that, once fully operational and capitalized by public and private resources, will not be depended on the project to remain operational. The project?s investments in strengthening the regulatory and institutional framework will go a long way in ensuring the sustainability of systems and processes needed for sustainable mezcal production. Similarly, the innovative Finance Mechanism will be specifically designed to ensure the sustainability of the agave-mezcal value chain and upscaling of sustainable agave harvesting across the other mezcal-producing states in the country.

Scaling-up:

The finance mechanism is expected to support best practices that can be replicated and scaled-up. Sustainable practices developed and strengthened by the project can be extrapolated and applied to other regions in Oaxaca and the other eight mezcal producing areas of the country. Some of these practices may also be applicable to agave produced for tequila, especially the sustainable practices and intercropping to reverse agave monoculture. The finance mechanism itself will provide numerous opportunities to be upscaled across the country and to other agriculture value chains. Experiences and lessons learned in ADVC establishment and management will be applied to three (3) additional areas already preliminarily identified for ADVCs within the project intervention areas.

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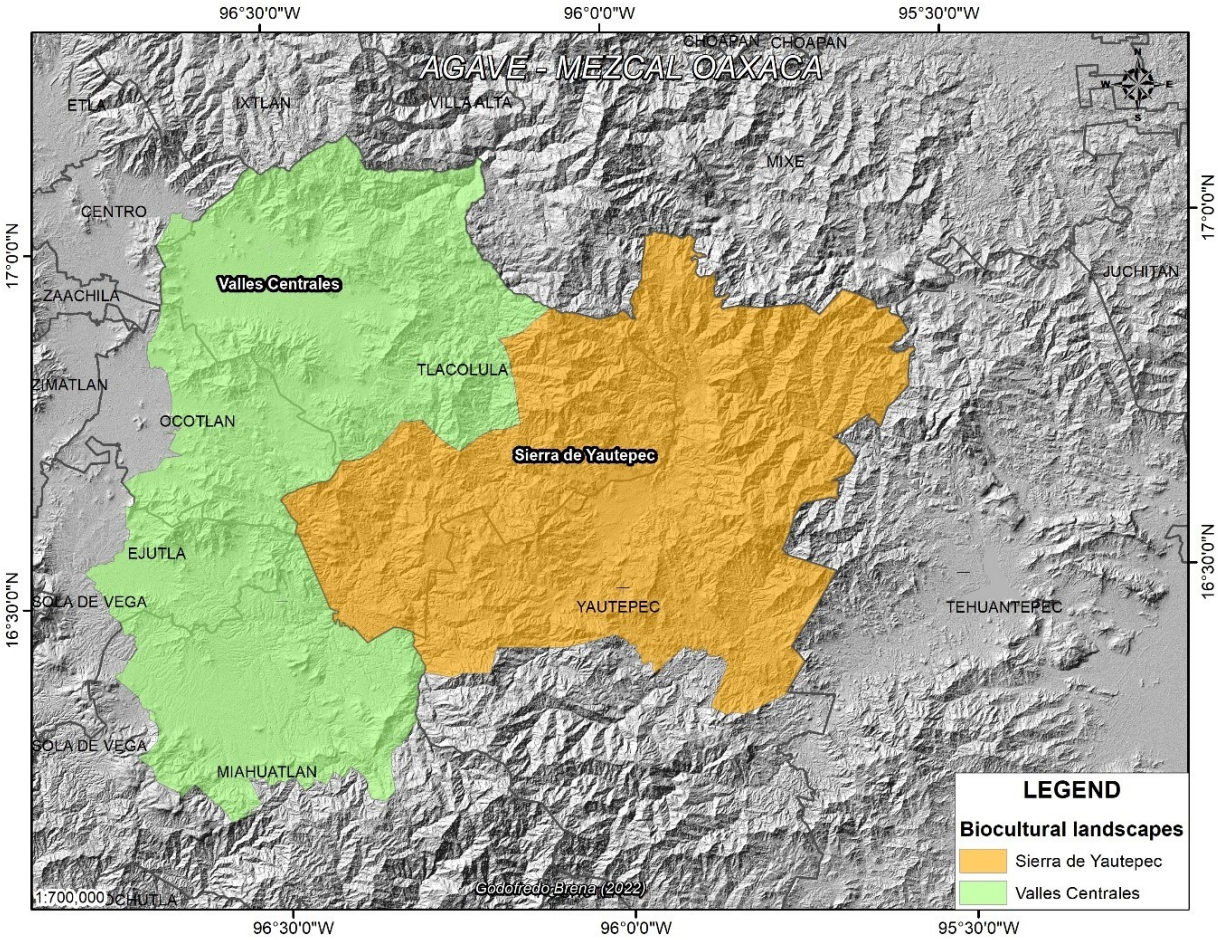
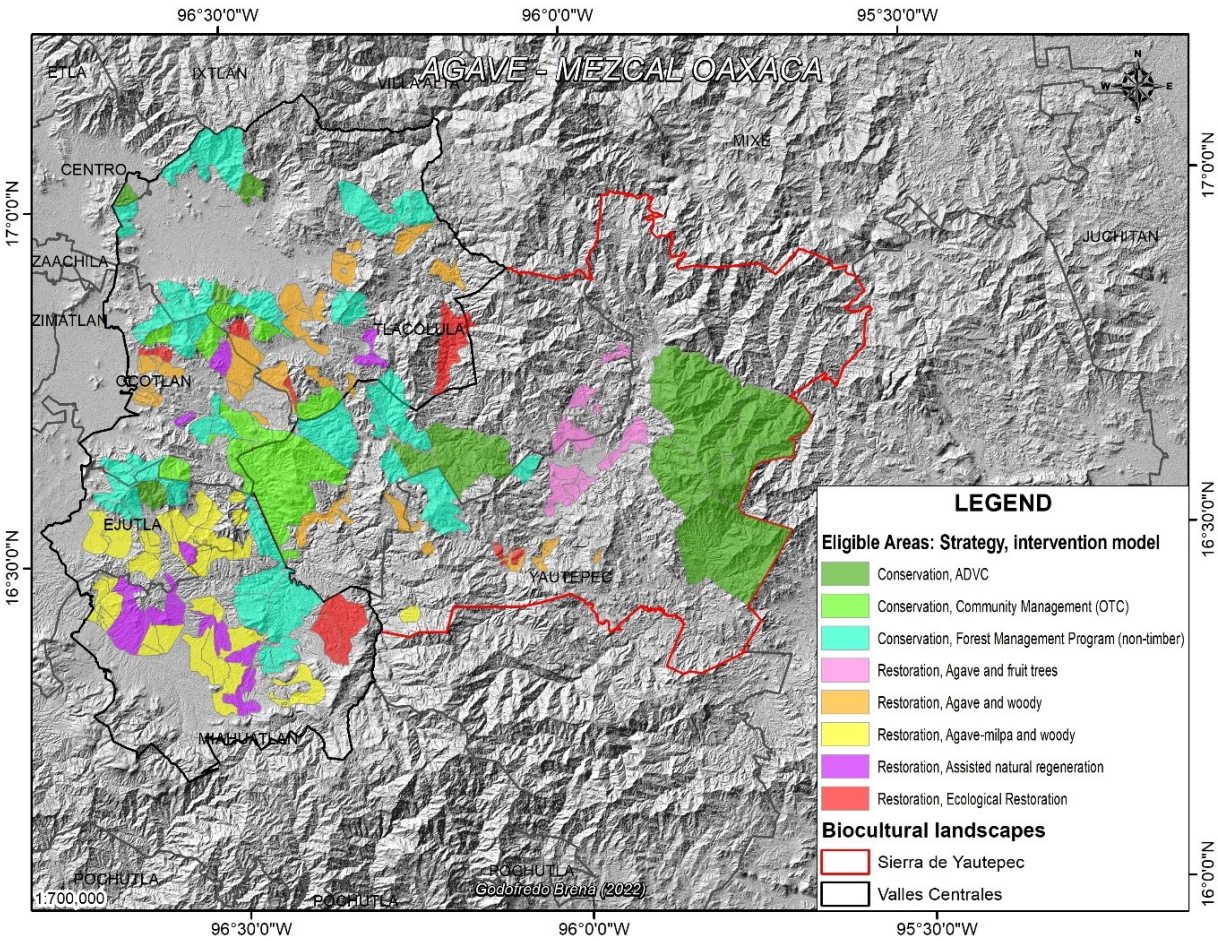
1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Map 1? Biocultural Landscapes Valles Centrales and Sierra de Yautepec



Map 2. Project Intervention Areas



1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

? During the PPG stage an extensive stakeholder engagement process was implemented and following on from the consultations held during the PIF stage. Four technical consultants and a Lead Project Development Consultant were hired to secure inputs for the development of the CEO Endorsement Request, in addition to direct inputs from SEMARNAT, CONANP and SEMAEDESO as the key federal and state agencies involved in project preparation, as well as inputs from Pronatura Sur and UNEP. The project was also presented to the GEF Focal Point (Ministry of Finance and Public Credit), SEMARNAT, CONANP, and SADER in Mexico City to obtain feedback on policy coherence, and to explore opportunities for collaboration and co-financing support.

?

? Stakeholder engagement in the field started with physical visits to numerous agave plantations and palenques across the proposed project intervention areas, and direct one-on-one discussions with male and female producers on the agave-mezcal production process, inputs required, challenges, success stories, and their first initial reaction to the proposed project, its objectives, and anticipated results. A PPG Inception Workshop was held on 5th April 2022 in Santiago de Matatl?n, Oaxaca with the participation of the PPG team, Government institutions, the financial sector, academia, private sector organizations, female and male agave-mezcal producers, women organizations involved in the sector such as ?Mujeres y Mezcal? and ?Mujeres del Mezcal y Maguey?, mezcal distillers, and Cluster Oaxaca, dedicated to promoting the productivity and competitiveness of sectors with high potential in the State of Oaxaca through associative schemes and cooperation between companies, producers and research centres of the entire value chain. This PPG Inception Workshop provided a formal forum for stakeholders to hear first-hand from the PPG team and government, the details of the proposed project including objectives, overall project approach, components, proposed outputs, and anticipated outcomes. The workshop was a full day activity and included eight rounds of ?questions and answers? in which stakeholders were able to seek additional information and clarification, but they also provided valuable information for the project design in terms of key organizations involved, agave and mezcal producer communities, agave and mezcal production dynamics from the perspective of small and large producers, certification, branding, marketing, and access to credit challenges, as well as environmental degradation linked to mezcal including problems with the disposal of the agave bagasse, and the evolving participation of women agave-mezcal producers as organized groups in the State of Oaxaca.

?

? The consulting team, accompanied by Pronatura Sur and SEMAEDESO conducted multiple community visits and local workshops between May and August 2022 in the project?s proposed intervention areas and conducted local consultations with key actors and women?s groups to further develop and understand ideas and suggestions tabled during the Inception Workshop, and to obtain specific recommendations on the boundaries of the two proposed biocultural landscapes, agave and mezcal producers? perspectives on existing regulatory and institutional framework, eligible sites for reforestation, assisted natural regeneration, the establishment of 6 ADVCs, biodiversity species of importance to agave producers, biodiversity species to be considered for monitoring, native species of wood to be used in reforestation efforts, current practices in the agave-mezcal value chain that may be considered ?*sustainable*?, and ?*artisanal*?, current disposal and uses of the agave bagasse, and what communities and organizations should be involved in biodiversity monitoring. Local consultations also

focused on understanding the agave-mezcal value chain within the context of required inputs for developing the financing mechanism being proposed by the project, as well as opportunities for certification, bio-labelling, and capacity building.

?

Within the month of August 2022, several virtual consultations were held specifically for socialization and feedback of the Indigenous Peoples Plan (IPP) and the Gender Action Plan (GAP), with key public entities and civil society. For the IPPI, a virtual workshop was held with the representatives of the National Institute of Indigenous Peoples (INPI), the overall responsible for the national indigenous people?s policy, and the Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA). To facilitate feedback, the IPP was shared with both institutions, obtaining several suggestions and technical aspects included on the final version of such Plan. Regarding to the Gender Action Plan (GAP), a workshop was organized with 20 members of the Las Mujeres del Mezcal in Matatlan, one of the eligible municipalities, to socialize the project gender approach, listen to the voices of the women of the industry and start to draft the GAP activities in accordance. Additionally, two virtual workshops were held with the Secretariat of the Women of Oaxaca (SMO) (August 8th and 15th) and a general virtual workshop with 13 women of the agave-mezcal industry and academia (August 17th). In addition, the GAP document was shared with the SMO experts and workshop attendees for socialization and feedback, which has been included in the final version.

?

? In parallel to the above, meetings and policy consultation were held between the consulting team and numerous government institutions on possible adjustments to the regulatory framework at the national and state levels, the establishment of 50,000 hectares of ADVCs and other conservation management areas, the Indigenous Peoples Framework, and capitalization options of the proposed financing mechanism. Following up from the PIF stage, further consultations were held with GIZ to monitor technical cooperation projects in priority agroforestry systems in Oaxaca and with WRI on technical collaboration and co-financing support for the project. CONAFOR was once again engaged to provide technical support in updating the CO_2 mitigation calculation presented at the PIF stage. The Draft CEO Endorsement Request document was presented for validation by stakeholders in a Project Validation Workshop held in Oaxaca on the 7$_{th}$ of September 2022, with participation from a broad spectrum of stakeholders, representative of those listed below in Table 10. All comments and suggestions received in said workshop were given due consideration in the preparation of this final version of the document.

?

? Information on key actors obtained from field visits, coupled to stakeholder analyses developed by technical consultants and Pronatura Sur were used to develop the stakeholder list presented in Table 11 and classified below for purposes of the Stakeholder Engagement Plan presented in Table 12.

?

This section describes the Stakeholder Engagement Plan (SEP) for the project. The SEP is designed to ensure effective engagement between all stakeholders throughout the lifecycle of the project. The project will aim to maintain dialogue with the relevant government ministries, regional and municipal governments, the private sector, local community groups, NGOs, academia, and international organizations. The SEP embraces the definitions of ?stakeholder? and ?stakeholder engagement? as defined in the GEF Policy on Stakeholder Engagement:

Stakeholder means an individual or group that has an interest in the outcome of a GEF- financed activity or is likely to be affected by it, such as local communities, Indigenous Peoples, civil society organizations, and private sector entities, comprising women, men, girls, and boys

Stakeholder Engagement means a process involving stakeholder identification and analysis, planning of Stakeholder Engagement, disclosure of information, consultation and participation, monitoring, evaluation and learning throughout the project cycle, addressing grievances, and on-going reporting to stakeholders.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Consistent with the definitions above, the SEP seeks to ensure that stakeholders are identified, and their meaningful participation and involvement secured through-out project preparation and implementation; those consultations are gender-responsive and free of manipulation, interference, and/or discrimination; and those stakeholders have access to all relevant project information in an easily accessible and timely manner. Stakeholders were identified and placed in 1 of 3 levels according to their relationship with the project:

Level 1: persons and groups who can influence and decide the outcomes and the manner of the Project implementation or make decisions based on the outputs of the project

Level 2: persons and groups that participate in or influence the project directly or indirectly, but do not directly determine project decisions

Level 3: persons and groups affected directly or indirectly by the outcomes of the Project implementation.

Table 11. Project Stakeholder List, Relevance and Relationship

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
PRONATURA Sur A.C.	Project Executing Agency	Project planning, implementation, monitoring and reporting. Institutional coordination and stakeholder engagement.	Level 1
Ministry of Finance and Public Credit	National GEF Focal Point	National policy direction and alignment with national priorities	Level 1
Secretariat of Environment and Natural Resources (SEMARNAT)	Lead national entity for project execution	National policy direction for project execution and coordination with state level responsible entity	Level 1
National Commission of Protected Natural Areas (CONANP)	Key project collaborating partner under SEMARNAT; indispensable for the delivery of multiple project indicators at the outcome level and for the project?s contribution to at least one GEF 7 Core Indicator.	Confirmation of boundaries of ADVCs and other conservation management areas; technical support in biodiversity monitoring and validation of METTs at project?s mid-term and project?s end.	Level 1
National Commission for the Knowledge and Use of Biodiversity (CONABIO)	Technical collaborating partner.	Technical support in biodiversity assessment and monitoring	Level 2
National Forestry Commission (CONAFOR)	Technical collaborating partner.	Technical support in the conceptualization and costing of reforestation and ANR efforts; technical support in calculation of CO_2 mitigated because of project efforts.	Level 2
Secretariat of Agriculture and Rural Development (SADER)	National collaborating partner in agriculture, value chain integration, and policy at the national and rural landscape level.	Technical support in validation of Integrated Land Management plans in the 2 biocultural landscapes proposed by the project. Instrumental for regulatory change.	Level 1

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
Commission for Arid Zones (CONAZA)	Technical collaborating partner.	Technical support in validation of Integrated Land Management plans in the 2 biocultural landscapes proposed by the project. Instrumental for regulatory change.	Level 2
Oaxaca Secretariat of the Environment, Energy and Development (SEMAEDESO)	State level entity for project execution	State level policy direction for project execution and coordination with national and state level entities critical to the project?s success.	Level 1
Oaxaca Economy Secretariat	State level policy collaborating partner.	Instrumental for regulatory change and promotion of sustainable agave-mezcal value chain.	Level 2
Oaxaca Secretariat of Agricultural Development, Fisheries and Aquaculture (SEDAPA)	State level policy collaborating partner.	Technical support in validation of Integrated Land Management plans in the 2 biocultural landscapes proposed by the project. Instrumental for regulatory change.	Level 2
Oaxaca Secretariat for Indigenous and Afro-Mexican Peoples (SEPIA)	State level policy collaborating partner.	Policy and technical support in ensuring open and close dialogue with indigenous and ejido leaderships in the implementation of the project?s Indigenous Peoples Framework.	Level 2
National Institute of Indigenous People (INPI)	State level policy collaborating partner	Policy and technical support in ensuring open and close dialogue with indigenous and ejido leaderships in the implementation of the project?s Indigenous Peoples Framework.	Level 2
Consultative Council of the National Commission for the Development of Indigenous Peoples (CDI), regional departments in Oaxaca	National level consultancy entity, with representatives at the level of the 2 project?s biocultural landscapes	To be consulted for the implementation of activities of component 1 related to legal arrangements, according to the project?s Indigenous Peoples Management Framework	Level 2

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
General Coordination of the State Planning Committee for the Development of Oaxaca (CG-COPLADE)	State level policy collaborating partner.	Technical support in validation of Integrated Land Management plans in the 2 biocultural landscapes proposed by the project. Instrumental for regulatory change.	Level 2
Secretary of Finance (SEFIN-Oaxaca)	State level policy collaborating partner.	Compliance with SEMAEDESO?s co-financing obligations to the project.	Level 2
Proyecto Mixteca Sustentable A.C.	Local consultative partner.	To be consulted on landscape restoration efforts to be conducted by the project in the two biocultural landscapes.	Level 3
Committee for the Productive Agave Mezcal System A.C.	Private sector collaborative partner.	Critical in biolabeling, possible certification, and the uptake and replication of agave-mezcal sustainable production practices to be promoted by the project.	Level 2
Mezcal Regulatory Council (CRM/ COMERCAM)	Regulatory partner.	Critical in biolabeling, possible certification, and the uptake and replication of agave-mezcal sustainable production practices to be promoted by the project. Instrumental for consultations on strategies for regulatory change.	Level 2
National Institute of Forestry, Agricultural and Livestock Research (INIFAP)	Technical collaborating partner.	Technical source of data for restoration, ANR, and biodiversity monitoring efforts.	Level 3

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
Interdisciplinary Research Center for Integral Regional Development (CIIDIR) - Oaxaca Unit	Academic collaborating partner	Technical source of data for interculturality, gender, restoration, ANR, and biodiversity monitoring efforts.	Level 3
Inter-Institutional Roundtable on Productive Landscape Restoration (MIIRP)	Technical and policy advice partner.	To be consulted on landscape restoration efforts to be conducted by the project in the two biocultural landscapes.	Level 3
Oaxaca?s Citizen Council on Biodiversity (COCIBIO)	State level technical and policy collaborating partner.	Technical support in biodiversity monitoring and validation of reports	Level 3
Union of Agave-Mezcal Producers ?Raices Soltecas?	Local producer partner organization	Key partner to be consulted at the community level and agave plantation level on project interventions relating to capacity building, adoption of sustainable practices, restoration and ANR efforts.	Level 2
Trust Fund for Rural Development (FIRA)	Finance mechanism partner	Possible source of capitalization, distribution, and risk management of finance mechanism to be developed by the project.	Level 2
National Finance for Agricultural, Rural, Forestry and Fisheries Development (FND)	Finance mechanism partner	Possible source of capitalization, distribution, and risk management of finance mechanism to be developed by the project.	Level 2
BanOaxaca	Finance mechanism partner	Possible source of capitalization, distribution, and risk management of finance mechanism to be developed by the project.	Level 2

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
Financing Rural Development (Findeca)	Finance mechanism partner	Possible source of capitalization, distribution, and risk management of finance mechanism to be developed by the project.	Level 2
Governors Climate and Forest Task Force (GCF TF)	Coordinating partner with mutually beneficial objectives	Possible source of data, lessons learnt and best practices, and/or co-financing	Level 2
Conservation International	Coordinating partner with mutually beneficial objectives	Possible source of data, lessons learnt and best practices, and/or co-financing	Level 2
International Union for the Conservation of Nature (IUCN)	Coordinating partner with mutually beneficial objectives	Possible source of data, lessons learnt and best practices, and/or co-financing	Level 2
German Corporation for International Cooperation GmbH (GIZ)	Coordinating partner with mutually beneficial objectives	Possible source of data, lessons learnt and best practices, and/or co-financing	Level 2
Individual Agave Producers	Direct beneficiaries of project interventions.	To be consulted on all proposed project interventions in the field, as well as on matters of a regulatory and/or institutional nature that can affect their involvement in the agave-mezcal value chain.	Level 2

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
Mujeres del Agave y del Mezcal (Agave & Mezcal Women)	Gender mainstreaming partner and direct beneficiaries of project interventions	To be continuously consulted on in the implementation of the project? Stakeholder Engagement Plan and Gender Action Plan. These two documents prioritize women?s interest, needs, opportunities for gender mainstreaming, and the identification of specific actions to be executed by the project.	Level 2
Mujeres y Mezcal	Direct beneficiaries of project interventions.	To be consulted on all proposed project interventions in the field, as well as on matters of a regulatory and/or institutional nature that can affect their involvement in the agave-mezcal value chain.	Level 2
Guardianes del Mezcal	Direct beneficiaries of project interventions.	To be consulted on all proposed project interventions in the field, as well as on matters of a regulatory and/or institutional nature that can affect their involvement in the agave-mezcal value chain.	Level 2
Community organizations	Direct beneficiaries of project interventions.	To be consulted on all proposed project interventions in the field, as well as on matters of a regulatory and/or institutional nature that can affect their involvement in the agave-mezcal value chain.	Level 2
Autonomous University of Chapingo	Academic collaborating partner	Technical source of data for interculturality, gender, restoration, ANR, and biodiversity monitoring efforts.	Level 3

Institution/organization	Relevance to the project	How the project will engage during implementation phase	Level of Relationship
Jard?n Etnobot?nico de Oaxaca	Technical Collaborating Partner	Source of biological and bibliographic material of historical and archaeological relevance that may be of use to the project.	Level 2
United Nations Environment Programme (UNEP)	Project Implementing Partner	Technical advice, project oversight and quality control.	Level 1
United Nations Environment Programme Latin America and the Caribbean Office (LAC Office)	Finance mechanism partner	Technical advice, project oversight and quality control on Component 3 and the Finance Mechanism Contracting and hosting of the Finance Technical Specialist.	Level 1

? During project implementation, stakeholder participation will include the provision of co-financing, a gender-responsive participation of technical staff in workshops, training, and tools development, the facilitation of local project events and processes, the provision of project oversight through participation on the Project Steering Committee (PSC) or Technical Advisory Committee (TAC), as data sources, technical expertise and knowledge management through the institutionalization of project results and lessons learned to allow for up-scaling, replication, and sustainability. The inclusion and engagement of Civil Society Organizations (CSOs) and the public in the implementation of the project will be ensured via their direct participation in the governance and decision-making bodies of the project. Special effort will be made to ensure that CSOs active or present in influence of the project are represented in project decision-making and in interventions which may affect their interests. Stakeholder engagement in project implementation will be gender responsive as evidenced and detailed in the Gender Action Plan. Stakeholder engagement activities are integrated across all project components, and as such, the budget required for implementing the SEP is not a stand-alone budget and is integrated in budgeted project activities.

?

? Consistent with the engagement approach described above, the project?s Stakeholder Engagement Plan is summarized in Table 11 below, while the corresponding monitoring plan in accordance with the minimum standards required by the GEF, is presented in Table 12.

Table 12. Stakeholder Engagement Plan

Stakeholder group	Key expectations	Recommendation	Means of engagement	Rules for communication
National and state government entities	Technical inputs. Support in the call for multi stakeholders. Validation of projects outcomes, especially of Component 1 (legal & institutional arrangements). Facilitate the change of administration at the state level. Improved inter-institutional linkages and data sharing related to the value chain. Sustainability of project outputs	Maintain a close dialogue and joint work with key national a state institution, such as SEMAEDESO, SEMARNAT, SEDAPA, CONANP, SEPIA, INPI, SMO, CONAFOR and others. Engage with existent Interinstitutional Committee, especially the Inter-Institutional Roundtable on Productive Landscape Restoration (MIIRP). Consolidate and regulate the role of the MIIRP as the promotor of the sustainability of the agave-mezcal value chain, especially after the project cycle Put in place measures for sharing data in a transparent manner. When possible, celebrate virtual meetings, for the sake of time and resource efficiency	Progress reporting regularly shared with institutions, according to agreements. Convene consultation meetings with the MIIRP on a regular basis. Capacity building workshops for public entities for state?s appropriation and project exit strategy, with emphasize in the MIIRP. Updated website with project performance	Formal calls through SEMEAEDESO, in accordance with administrative procedure requirements.

Stakeholder group	Key expectations	Recommendation	Means of engagement	Rules for communication
Local representative institutions	All project interventions on the ground validated, according to community institutions, procedures, and practices. Join-decisions related to where and when to work with beneficiaries, according to each specific project?s activities. Coordination between local representative institutions and State entities strengthened. Community decision-taking procedures strengthened, with intercultural and gender approach. Indigenous peoples? meaningful consultation rights strengthened. Gender gap in community decision-taking processes mitigated	Establish and/or strengthen the capacity of Communal Land Committees for wild agave harvesting management (Component 1). When possible, facilitate the role of public entities for the dialogue with local institution, e.g., SEMAEDESO, INPI, SEPIA, SMO, and others, to contribute with public governance and for the project appropriation. Improve the dialogue with the MIIRP and local representative institutions. Ensure the intervention of the Project?s Safeguards Expert in all consultation and workshops planned with local representative institutions. Conduct the consultation and workshops according to The Indigenous Peoples Participatory Plan (IPPP) of the Indigenous Peoples Management Framework (IPMF)	In-person consultation events and capacity building workshops (avoid virtual meetings, except where otherwise indicated). Consultation and report of information in Communal Assemblies and through others local representative institutions, as appropriate. Written information culturally adequate, according to the Project?s Safeguards Expert assessment. Brochures and technical projects document, culturally appropriate Progress reporting, project decisions and data usage decisions	Formal calls through SEMAEDESO, in accordance with administrative procedure requirements. In accordance with the rules for communities? consultation established by the IPPP of the IPMF. With the assessment of the Project?s Safeguards Expert. Culturally appropriated and in local language, if necessary Ensuring the right to free, prior, and informed consultation and consent, when appropriate. Prioritizing traditional practices over those of the project and strengthen them. With a gender approach, with positive measures to strengthen women effective participation

Stakeholder group	Key expectations	Recommendation	Means of engagement	Rules for communication
Stakeholders directly or indirectly affected by Project implementation	Technical inputs. Definition and validation of project interventions. Capacities on sustainable practices, biodiversity monitoring and finance strengthened. Activities tailored to the beneficiaries. Indigenous peoples? meaningful consultation rights strengthened. Gender gap in the value-chain mitigated	Coordinate with the Project?s Safeguards Expert in consultations with beneficiaries and stakeholders. Designate persons authorised to communicate (in general or particular) or/and an authorization procedure to this. Carefully evaluate the days and hours of field visits, considering holidays, availability of women and others, according to people consultations and Project?s Safeguards Expert judgment. Disseminate information (e.g., digital brochure to send by WhatsApp) and capacity building workshop to inform how the Project?s grievance redress mechanism works	In-person consultation events and capacity building workshops (avoid virtual meetings, except where otherwise indicated). Written information culturally adequate, according to the Project?s Safeguards Expert assessment. Brochures and technical projects document, culturally appropriate. Project website. Project?s grievance redress mechanism	With the assessment of the Project?s Safeguards Expert. Culturally appropriate and in local language, if necessary. With positive actions to promote the engagement of most disadvantaged persons. With a gender approach, with positive measures to strengthen women effective participation

Stakeholder group	Key expectations	Recommendation	Means of engagement	Rules for communication
Disadvantaged groups	Living or working conditions of those most vulnerable of the agave-mezcal value chain improved. Gender gap in the value-chain mitigated	Implement the Project's vulnerability approach to predominantly involve and benefit women, youth, the elderly, highly marginalized people, and other disadvantaged groups. Ensure the intervention of the Project?s Safeguards Expert in all consultation and workshops planned	Specific in-person capacity building workshops. Written information culturally adequate, according to the Project?s Safeguards Expert assessment. Brochures and technical projects document, culturally appropriate. Project?s grievance redress mechanism	With the assessment of the Project?s Safeguards Expert. Implement positive actions and strategies to reach the most vulnerable stakeholders With a gender approach, with positive measures to strengthen women effective participation
NGOs, civil society, and academia	Technical inputs. Promotes the State?s appropriation and exit strategy for the sustainability of Project?s results. Project?s outcomes generally known by all stakeholders of the value-chain	Proceed with involvement of those entities that were engaged in the PIG and PPG elaboration processes. When possible, celebrate virtual meetings, for the sake of time and resource efficiency	In-person and virtual consultation events. Project website. Brochures and technical projects document Brochures and technical projects document, culturally appropriate. Project website. Project?s grievance redress mechanism	With a gender approach, with positive measures to strengthen women effective participation

Stakeholder group	Key expectations	Recommendation	Means of engagement	Rules for communication
Project Coordination Unit (PCU) staff	Project implementation as planned. Overall project leadership, aligned with State government political agenda related to the agave-mezcal value chain. Effective team communication and coordination. Sustainability of project outputs	Communicate the labour policy early in the process to the experts hired. Promote and facilitate feedback between Project?s experts and external consultants due to periodical virtual meetings, presentation of results and lesson learnt. Strive to gather all field works from different experts in a single day/visit, for efficiency in the use of resources and not to demand too much time from stakeholders. Provide general training about Project?s results, opportunities, risks, best practices and safeguards, to all Project?s agents external consultants	E-mails WhatsApp Google Drive	According to Project?s coordination procedures and tools established

Monitoring stakeholder engagement is an essential management tool for this project, as it tracks the performance of the consultations developed, giving the opportunity to know whether results are being achieved as planned and where corrective measures are needed. The table below provides the key aspects to be implemented for monitoring of the Stakeholder Engagement Plan.

Table 13. Stakeholder Engagement Monitoring Plan

	Indicator	Objective	Monitoring and reporting responsibility	Reporting period
1	N? of government agencies identified in the Stakeholder Engagement Plan that have been involved in the project implementation phase	100% of entities consulted	PMU & Safeguards Expert	Annual

2	N? of NGO and civil society organizations identified in the Stakeholder Engagement Monitoring Plan that have been involved in the project implementation phase	100% of entities consulted	PMU & Safeguards Expert	Annual
3	N? of interventions or call for Communal Assemblies	To de determined in project inception	PMU & Safeguards Expert	Annual
4	N? of engagement events done with stakeholders (e.g., meeting, in-person and virtual workshops, etc) during the project implementation phase	To de determined in project inception	PMU & Safeguards Expert	Annual
5	N? of men and women that have been involved in project implementation phase	To de determined in project inception	PMU & Safeguards Expert	Annual
6	N? of complaints and information requested	100% of grievances responded	PMU & Safeguards Expert	Annual
7	N? of brochures and guidebooks or other Project?s technical documents published	To de determined in project inception	PMU & Safeguards Expert	Project closure

Stakeholder Response and Grievance Redress Mechanism

The project aims to be stakeholder responsive and relevant, including a dedicated engagement with local communities and indigenous peoples. For any perceived concerns and negative impacts caused by the project to the stakeholders, the project team, government, the UNEP, and the GEF are willing to hear and address them in an impartial and transparent manner. Project information and related safeguard risks and risk management measures are available in htpps://open.unep.org, http://www.pronatura-sur.org/web/, and https://www.oaxaca.gob.mx/semaedeso/. The project?s Grievance and Redress Mechanism can also be found as part of Annex L of this CEO Endorsement Request.

UNEP?s measure to handle complaint-related matters is called the Stakeholder Response Mechanism (SRM). UNEP SRM webpage provides further details on the SRM eligibility and related process. Eligible cases should meet the following criteria:

? Complaints raised for currently proposed or implemented UNEP projects

? Demonstration of the adverse impacts due to UNEP-implemented project activity

? Complaint is related to UNEP?s commitment on safeguards through the ESSF or the project safeguard documents

Complaints can be ideally forwarded to the project team, Pronatura Sur for speedy and informed assessment of the context and the issues. However, complaints can be also registered to UNEP and the Conflict Resolution Commissioner of the GEF. Request for anonymity of the complainers is respected if requested.

Compliance and grievance contact information:

? At the project level

Pronatura Sur, A.C.

San Crist?bal de Las Casas

Chiapas, M?xico. 29230

Telephone / fax: +52 (967) 678 5000

E-mail: romeo@pronatura-sur.org

?

? At the donor level

UNEP Stakeholder Response Mechanism

Complaints can be sent to the UNEP-IOSSR directly by completing the UNEP Online Project Concern Form which is available both online and PDF format. The Form is available in English, Arabic, Chinese, French, Russian or Spanish.) Submission in local languages is welcome. The form can be emailed or mailed to IOSSR. They can also be reached by telephone.

Independent Office for Stakeholder Safeguard-related Response (IOSSR) &

Director of Corporate Service Division

UNEP

P.O. Box 30552, 00100

Nairobi, Kenya

Tel: +254 709 023 421 / +254 207 626 711

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Gender Overview & Inequalities

Situation of Women in Mexico

Mexico has a Gender Inequality Index of ?medium? value (0.322), placing it in 71st place out of 162 countries, according to the 2019 ranking (Brazil and Colombia rank 95th and 101st, respectively). Some figures indicate a trend towards improving opportunities for women in the country in recent years, among them, the educational gap is shrinking: 62.2% of adult women have attained at least a secondary education level compared to 64.2% of their male counterparts; 48.4% of parliamentary seats are held by women; poverty in women reached 44.4% (29.1 million) in 2020, compared to 43.44% in men[1]. However, the progress towards gender equality should not obscure the gaps that persist and that represent a challenge for the country's social development, because of the persistence of many deep-rooted inequalities in the public and private spheres that violate human rights of women[2] and leave them unprotected against different forms of violence and inequality. Among those, the National Council for the Evaluation of Social Development Policy (CONEVAL) highlights "the disparity in the burden of unpaid work"; female participation in the labour market is 44.2% compared to 78.5% of men; and violence against women, which in 2020 cost the lives of 948 women (femicide rate: 1.4 per 100,000

women), according to the ECLAC Inequality Observatory. The gender gap is further aggravated in the rural area where the Project is to be developed, mainly due to an unequal distribution of land ownership based on gender. Women, despite constituting more than 50% of the population, only between 23 and 26% are recognized as agrarian subjects, that is, with legal certainty within social property schemes.

Situation of Women in the State of Oaxaca

This situation of inequality in access to land based on gender is even more accentuated in the case of the State of Oaxaca. In 2018, the percentage of women in poverty in the State of Oaxaca reached 68.6%, 24.4 percentage points above the national percentage, for which Oaxaca ranked 2nd nationally for its percentage of women in poverty. Although Oaxaca is "the state of the country with the largest number of women", the social land headed by women reaches only 28.2% (10th place compared to other states). The high index of inequality in access to land in Oaxaca is explained, in part, because 73% of its municipalities are governed by uses and customs, and therefore, to participate in decision-making on the territory it is necessary to have been accepted by the general assembly once they reach the adult age of 18 years, this being a strongly patriarchal environment in which women have historically been relegated, despite the obligatory female quota of the Agrarian Law. In this regard, the processes of inequality based on gender gain special strength in the case of Oaxaca, to which very serious rates of poverty and social backwardness must be added.

Situation of Women in the Agave-Mezcal Value Chain in the State of Oaxaca

Women play different family roles that are made invisible in the production of mezcal. They participate (with different intensity) in all stages of the Value Chain, but at the same time, these working women are usually wives, sisters, daughters, daughters-in-law of the mezcaleros, with care and other obligations that are culturally assigned to them. Both in this case and with respect to their contribution to the Value Chain, their contribution is not recognized or remunerated despite the invaluable contribution to this value chain.

Women play an important role in practically the entire value chain, but their chances of recognition and visibility differ greatly depending on the different socio-cultural contexts. In cases of more formalized mezcal brands carried out by middle-income families that are registered in COMERCAM and with export possibilities, it can be observed that women, often daughters or granddaughters of the mezcal master with varying degrees of education, participate in processes such as registration, certification, marketing and other relevant spaces for decision-making and interaction with other actors in the Value Chain outside the family unit, something that is not frequently observed in the more informal production and subsistence units. The low participation of women in collective decision-making in communal or ejido assemblies and lacking "citizenship" at the local level in some cases, makes it difficult for them to join

community initiatives because these are considered "things for men" and when women succeed, they may become victims of disqualification or violence. In some cases, participation is incipient without full and effective participation.

When women decide to undertake work or business formally and/or independently from the rest of the family (parents, husbands, in-laws, aunts, or mothers-in-law, etc.) they face considerably greater challenges than men, among which stand out: family conflicts, disqualifications at the community level, the refusal of support by local authorities to carry out procedures, among other types of violence. This phenomenon is not exclusive to a social group or link in the chain and indicates that women who have managed to stand out, work at least twice as much as men to demonstrate their ability and worth. Nevertheless, the new generations of women look for participation spaces or encourage their mothers to join the activities of the agave-mezcal value chain.

Some general reflections emanating from one-on-one consultations with women as part of the gender analysis linked to the agave-mezcal value chain are summarized below:

•Women are interested in improving their knowledge and skills to provide sustainability to the value chain, but challenges such as double or triple roles limit their ability to access these skills.

•Women assume that they can contribute at different stages to strengthen the value chain, since they recognize their strengths as labellers, tasters (for the palate to identify flavours that men do not, coupled with administrative skills), even though sometimes the issue of self-esteem is a challenge.

•Despite their success as mezcal entrepreneurs, some women continue to face violence such as the refusal to be received by local authorities or that job offers are made to male members of the family only.

•It is recognized that the agave - mezcal value chain could be strengthened with the visibility of women's participation, through support for family businesses to reduce alcoholism when a woman oversees the test, sale, etc. This can also improve the quality of mezcal because females have better palates for tasting and determining mezcal quality. Women also tend be more sensitive to issues relating to the environment as well as being more organized than men (writing, data recording, etc.).

•Constant support and continuity are key factors for the recognition and/or incorporation of women in the agave-mezcal value chain.

•Especially in cases of family nuclei with more unsatisfied needs, women assume an important role in looking after the scarce resources of the family. In this sense, it is important to highlight their little or almost zero tendency to alcoholism, which is why they present themselves as better negotiators and try to fulfil their commitments with third parties.

Project Activities to Mainstream Gender Perspectives

The project will be fully compliant with the GEF and UNEP?s Gender Policy. In this regard, the project will have to be genuinely gender mainstreamed through-out implementation and impact evaluation. The Project will seek to institutionalize gender mainstreaming at all levels of intervention and operation of the project. In its efforts to fully integrate gender mainstreaming, the Project will be guided by the principles that gender elements are important drivers and incentives for achieving global environmental benefits, and in ensuring gender equity and social inclusion. The Project also embraces the fact that the needs, interests, and capabilities of women are contextually different from those of men, in relation to the access, use, and management of biodiversity resources within project intervention areas, and thus, must be given special consideration in ensuring equal access to the resources and services of the Project.

The Project has remarkable potential to empower the role of women in the different tasks that they currently carry out in the different links of the Agave-Mezcal Value Chain, but in an invisible way or not duly recognized or paid. The Project will seek to strengthen the role of women in the decision-making processes on the use of the territory related to the activities of conservation and restoration of biocultural landscapes linked to the production of agave-mezcal, development of productive activities and others, through ensuring the safeguards and gender approach when developing tools, training, and financial support for Project activities. For this reason, the Project proposes affirmative actions, sub-activities, and gender-sensitive indicators, which ensure the cross-cutting implementation of the gender perspective in all Project interventions, whenever this is technically possible. The Project is based on the premise that the only way to contribute to sustainability is through the implementation of an effective gender approach, which favours inclusion and reduces vulnerability, with emphasis on those in a disadvantaged situation for different reasons, economic, cultural, social, and even legal.

With a view to this, the Project carried out a detailed analysis of interested parties based on the intervention of different experts, participatory processes, and technical reviews, to understand with a high level of detail the role of women in the different links of the Value Chain, their specific vulnerabilities, and interests, to design gender-sensitive interventions specific to the scope of the Project.

As a result, the **Gender Mainstreaming & Action Plan in Annex H** systematizes all the gender-sensitive activities planned by the Project, organized by components and results. It should be noted that the activities presented in said plan are designed to achieve the mainstreaming of the gender approach and safeguards in all the aspects of the project?s design, execution, and evaluation. In this regard, the cost of all activities proposed in this Gender Action Plan are already considered in the general overall budget of the project.

Responsibility for compliance with the Gender Mainstreaming & Action Plan is first and foremost of the Gender & Safeguards Specialist of the Project Coordinating Unit, with the direct oversight of the National Project Coordinator and ultimately of the Project Steering Committee. Compliance with the Gender Mainstreaming & Action Plan shall be explicitly addressed in the project?s Mid-Term Review and Terminal Evaluation and is considered an integral part of the overall Project Results Framework

Some key strategies to be pursued by the project to address specific needs of women will include, but are not limited to:

•Proposals for reform or new regulations will be made by applying the gender, intercultural and vulnerability approach (?Safeguards Approach?) of the Project, including customary law and cultural sensitivity/relevance.

•Additional efforts to guarantee that, in the case of women in indigenous territories, the establishment of ADVCs guarantees that the indigenous communities participate fully and effectively in the planning, design and conservation of the ADVCs, in accordance with their own mechanisms and customs, ensuring the participation and assignment of special roles for women and youth.

? Promote participation quotas in capacity building processes and other benefits to strengthen the role of women in activities related to nurseries, germination monitoring, pest management and agrochemical-free fertilization.

? Evaluate a label, "women in mezcal" seal, or other strategic instrument, to create value on the product brand for its contribution to gender equity in the Value Chain.

? In terms Knowledge Management, highlight the role and importance of involving women in the Project's tools and good practice guidelines.

•Training for women on financing and access to credit, with emphasis on those of the Finance Mechanism of the Project, ensuring the involvement of female heads of household and/or those that are vulnerable.

•Ensure a minimum quota of women as beneficiaries of specific financial instruments for small producers of agave and/or mezcal.

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[1] INMUJERES. 2021. Las mujeres en situaci?n de pobreza, en ?Desigualdad en cifras?, A?o 7, Bolet?n N? 7, julio de 2021 (http://cedoc.inmujeres.gob.mx/documentos_download/BA7N07-2%20FINAL.pdf)

[2] Cirone, M. and Y. Hernandez. Plan de Accion de Genero. Producto 3. Consultor en G?nero, Salvaguardas e Interculturalidad. Mexico, 22p

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes
Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes
4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

The private sector is a fundamental link in the agave-mezcal value chain, both from a commercial and a financial perspective. A significant part of this sector is linked to the Mezcal Regulatory Council (CRM), which aims to verify and certify compliance with NOM-070 and safeguard the Denomination of Origin (DOM) in Mexico and abroad, guarantee the authenticity and quality of mezcal and generate timely, truthful, and useful information to the maguey-mezcal production chain. The private sector, from small enterprises to large producers, will be able to participate in the finance mechanism that benefits the entire value chain. Financial actors, from impact investors to commercial banks, will represent an important source to the capitalization of the Finance Mechanism.

The project will work closely with key private sector actors such as ?Del Maguey? and ?Amaras?, due to their importance in US and local markets respectively, and their ongoing commitments with sustainability. They could be an example to other brands by participating in the Fund for the Conservation of Wild Agave, in the Sustainable Agroforestry Fund, by co-investing in waste management with seed capital, spearheading the Sustainable Wild Agave Label, and establishing long lasting commercial relationships with agave and mezcal producers. On the financing side, the project has engaged Financiera Nacional de Desarrollo (national rural bank) that will explore how to provide credit lines to intermediaries like FINDECA. The project will also work with Heifer Impact Ventures, interested in investing in the fund to finance the production of sustainable mezcal and building sustainable palenques. Heifer International has also been engaged by the project for exchange of experiences and lessons learned in their ongoing efforts to assist agave-mezcal producers to diversify into more sustainable practices.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Table 14. Identified Risks and Mitigation Measures

Risk	Risk Level	Likelihood of Risk	Proposed mitigation measures

Impacts of the COVID-19 Pandemic	High	Likely	A key risk of COVID-19 is prolonged social distancing measures and recurring national quarantine measures in project landscapes. To guarantee the continuation of the project despite prolonged social distancing requirements, project meetings and the engagement processes could transition on-line or a combination of in-person and virtual participants to minimize contagion risks. Remote technological infrastructure would be used to facilitate this type of engagement including easily accessible videoconferencing services. For those who cannot participate remotely and to ensure effective engagement of small-holders from indigenous groups and local communities, in-person meetings could be held with a reduced number of participants and holding social distancing and hygiene best. The development of the crisis will be closely monitored, and creative responses will be explored and implemented along the way focused on advancing project outcomes through alternative forms of engagement, and flexibility in case meetings and field visits must be rescheduled. Similarly, innovative ways of ensuring co-financing funds can be effectively deployed under a COVID-19 risk scenario may also have to be explored. The project will exercise extreme caution in ensuring that its activities do not increase the risk of transmission and spread. COVID-19 may affect the physical availability of technical expertise to provide in-situ support due to travel restrictions and limitations on physical gatherings imposed by the authorities. As suggested above, virtual means of delivery will be used in such cases and required adjustments to the timeline to accommodate the effects of the pandemic will be given due consideration during the project?s annual planning processes. The project provides an opportunity for green recovery and building back better through the development of sustainable landscape practices linked to agave-mezcal production, which supports biodiversity conservation, ecosystem services, and the livelihoods of rural communities.

Lack of interest in or resistance to conservation actions by local communities	Medium	Moderately Unlikely	The project will use community-based mechanisms as established in the Agrarian Law such as the ?Ejidos? system and will follow the guidance of community level governance frameworks to engage with local communities and secure their input and support. Additionally, consultations conducted during the PPG confirmed the desire and willingness of local communities and ejido authorities to be engaged in polyculture, agroforestry, reforestation, and biodiversity conservation by demonstrating their support for the creation of 9,000 hectares of Areas Voluntarily Destined for Conservation plus another 41,000 hectares using other means of conservation.
Lack of participation of local Indigenous Communities and/or of the financial sector	Medium	Moderately Unlikely	Robust efforts to solicit the participation of Indigenous Communities and the financial sector during the PPG confirmed the desire and willingness of local communities and ejido authorities to engage with the project as direct beneficiaries and partners in implementation. Local communities also participated fully in the development of the project?s Indigenous Peoples Framework Plan presented in Annex L of this CEO Endorsement Request. Interest and participation of the private sector and financial sector was confirmed during the PPG. The project will work closely with key private sector actors such as ?Del Maguey? and ?Amaras?, due to their importance in US and local markets respectively, and their ongoing commitments with sustainability. On the financing side, the project has engaged Financiera Nacional de Desarrollo (national rural bank) that will explore how to provide credit lines to intermediaries like FINDECA. The project will also work with Heifer Impact Ventures, interested in investing in the fund to finance the production of sustainable mezcal and building sustainable palenques. Heifer International has also been engaged by the project for exchange of experiences and lessons learned in their ongoing efforts to assist agave-mezcal producers to diversify into more sustainable practices.

Weak or poor commitment by government agencies	Medium	Moderately Unlikely	Alignment of the project?s objectives with national and state level policies, strategies and plans will mitigate this risk. The project management team will also conduct early exploration of attitudes and reservation on the part of government institutions and will use the mechanism of the Project?s Steering Committee to quickly seek confirmation of commitment acquired under the project. The presence of government agencies on the project?s governing bodies and the inter-institutional coordination group to be supported by the project will minimize any likelihood in terms of lack of government participation.
Climate Change affects the delivery of project impacts	Medium	Highly likely	A comprehensive climate risk assessment was conducted during the PPG for the two biocultural landscapes to be supported by the project to determine if impacts of climate change may be limited, transient or manageable, and whether financial, environmental, and social underperformance or failure is likely, and whether the system has the capacity to manage volatility, shocks, stressors or changing climate trends. The impacts of climate change according to the scenarios assessed and their variations of change, both for temperature and precipitation, are considered manageable if the resistance of the ecosystems of the dry forest, temperate forest, and the agroecosystems are considered, since conservation and restoration actions are being planned for degraded lands that tend to improve the initial or baseline conditions. Dry forests and agroecosystems are naturally very resilient, an ecosystem attribute that will be strengthened with intervention models in the territory by the project such as conservation and protection through ADVC, OTC, Non-Timber Forest Management Programs and UMAs; in addition to assisted natural regeneration, which here is of special relevance in conjunction with the agroforestry systems that are being projected. The agaves are very resistant to low rainfall, although as revealed in the climate change scenarios assessed, a great reduction in rainfall is not expected; arguments that will allow the project to ensure that what is projected will be able to handle the stress of the rain and climate change in the biocultural landscapes of Valles Centrales and Sierra de Yautepec.

Political Corruption	Medium	Moderately Unlikely	While political corruption is an ever-present possibility, the project?s governance arrangements and compliance mechanisms are robust, and will ensure all UNEP and GEF fiduciary standards are met and that all safeguard polices, and standards are complied with.
Gender mainstreaming by the project may be undermined without a proper strategy.	Low	Moderately Unlikely	The project will have to be genuinely gender mainstreamed, from the initial design phase, through the implementation, and impact evaluation. Particular attention must be paid to addressing all possible information gaps that may place women in an unfavourable position. A Gender Mainstreaming Action Plan to ensure that the project is truly gender-sensitive and minimize any potential gender risks was developed during the PPG and is included as Annex H to this CEO Endorsement Request. The said plan is based on a comprehensive gender analysis with the participation and inputs of women groups directly involved in the agave-mezcal value chain. Analysis assessment the situation of women in the specific project landscapes as well as from the perspective of each link in the agave-mezcal value chain.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Institutional Arrangements

Project Implementing Agency ? The United Nations Environment Programme (UNEP) is the GEF?s Implementing Agency for this project. A UNEP Task Manager will be assigned direct oversight for the project. UNEP is tasked with the overall responsibility of ensuring that GEF policies and criteria are adhered to and that the project meets its objectives and delivers on expected outcomes. Other specific Implementing Agency responsibilities include ensuring compliance with GEF policies and standards for results-based M&E, fiduciary oversight, safeguards compliance, project budget approvals, technical guidance and oversight of project outputs, approval of Project Implementation Reports (PIRs), participation in the project?s superior governance structure, conducting the project's mid-term review, and preparation of the project?s Terminal Evaluation. As described above, the Project Steering Committee (of which the UNEP Task Manager is a member) and Pronatura Sur A.C. will also have direct oversight roles, as part of the internal oversight mechanism of the project.

Project Executing Agency ? Pronatura Sur A.C. will perform the role of Executing Agency. Pronatura Sur A.C., before Pronatura Chiapas A.C., is a non-profit civil association founded in 1989 and with legal personality since 1993. The organization maintains close collaboration with the Pronatura organizations in Mexico, with which coordinated actions and national programs are shared. Pronatura Sur A.C. has its own Board of Directors and independent institutional management systems. The organization works to catalyse strategies and experiences of appropriation around the sustainable management and conservation of ecosystems, promoting their functionality and resilience for mitigation and adaptation to climate change, ensuring the active participation of local actors; influence public policies to improve their relevance and

intersectoral coordination; strategically strengthen grassroots organizations, networks and local institutions to improve their technical, governance and organizational capacities aimed at influencing conservation and sustainability; promote a culture of inclusive social participation oriented towards decision-making around sustainable development and conservation; and generate low-emission rural development alternatives, based on integral land management and the promotion of good practices, as well as diversified and alternative markets.

A gender-balanced Project Steering Committee (PSC) will be established by Pronatura Sur A.C., who will perform tasks of Secretariat for the PSC. The PSC will comprise of representatives of SEMAEDESO who will chair the PSC, SEMARNAT, SEDAPA, SADER, CONANP, and the UNEP Task Manager. The PSC is responsible for ensuring that the project meets goals announced in the Project Results Framework by helping to balance conflicting priorities and resources. Conclusions and recommendations produced by the PSC will be used by Pronatura Sur A.C. to modify implementation strategies, annual work plans and resources allocation budget and, when necessary, to adjust the project?s Result Framework in consultation with UNEP, SEMAEDESO and SEMARNAT. The PSC is also responsible for compliance oversight with the project?s Gender Mainstreaming & Action Plan through gender validation of the project?s Annual Work Plans, budget, and periodic reports. This committee will meet every six months, either physically or virtually. The UNEP Task Manager will have a key role in signing off on the Project Coordinating Unit (PCU) to be installed by Pronatura Sur A.C. and the selection of the National Project Coordinator and as further outlined below.

Pronatura Sur A.C. will contract the majority of staff members comprising the Project Coordinating Unit (PCU) to oversee day-to-day project execution. The PCU will be based in the City of Oaxaca, Oaxaca, and in Mexico City, D.F., and is responsible for the fiduciary oversight and reporting of the project, including financial management and procurement consolidation according to the project?s operational manual and procurement plan. It is also responsible for monitoring and evaluation (M&E), provides and coordinates technical advice, and coordinates and assists overall orientation concerning project conception, strategies, criteria, and methodologies. The PCU will hire a **National Project Coordinator** who will be physically based in the City of Oaxaca. Representatives of SEMARNAT either directly or through CONANP, SEMAEDESO, UNEP, and Pronatura Sur A.C. will take part in the recruitment process of the PCU staff and decide about the most suitable candidate for each position according to Pronatura Sur A.C. and UNEP?s recruitment procedures. The Project Coordinator will report to Pronatura Sur A.C. The administrative support and financial management and procurement services will be provided directly by Pronatura Sur A.C., and technical delivery of project outputs will be complemented by backstopping, other relevant national and state government agencies, and specialist consultants on an as needed basis.

The staff complement of the PCU shall consist of the National Project Coordinator, a **Land Use & Climate Change Specialist**, a **Biodiversity Specialist**, a **Safeguards & Gender Specialist**, **Finance Technical Specialist**, and an **Administrative Assistant**. Technical inputs related to agave-mezcal value chain, reforestation, and the finance mechanism will be outsourced on an as needed basis through specialised

technical consultancies. The **Finance Technical Specialist** will be contracted by the UNEP Latin America and the Caribbean (LAC) Office and will be based in the UNEP Mexico Office in the City of Mexico, DF. This arrangement is proposed due to a number of reasons including: to ensure the expertise and networks on land use finance of the UNEP Finance Initiative, LAC Office and Climate Finance Unit (CFU) are channelled through the Finance Technical Specialist and duly tapped on throughout project execution; to ensure appropriate coordination with the largely Mexico City-based sustainable finance ecosystem in Mexico that will be of vital importance to the capitalization of the Finance Mechanism; to facilitate the inclusion of a UN agency in the governance arrangements and provision of fiduciary oversight of the Finance Mechanism?s Trust Fund. Terms of Reference for the PSC and staff of the PCU are presented in Annex N.

A **Technical Advisory Committee (TAC)** will be appointed to provide technical supervision, guidance, and support during project implementation. The TAC is also responsible for reviewing and providing recommendations on the project's methodological processes (technical quality) and activities to the Project Coordinating Unit for their consideration. The specific functions and responsibilities of the Technical Advisory Committee are as follows:

? If requested, review and make recommendations to the PCU and PSC on technical matters related to the Annual Workplans, Procurement Plan, Annual Reports and Project Progress Reports

? When requested by the PCU, review and make recommendations to improve the Terms of Reference for hiring consultants for highly technical matters, ensuring that this review does not constitute an undue delay in the project's procurement processes.

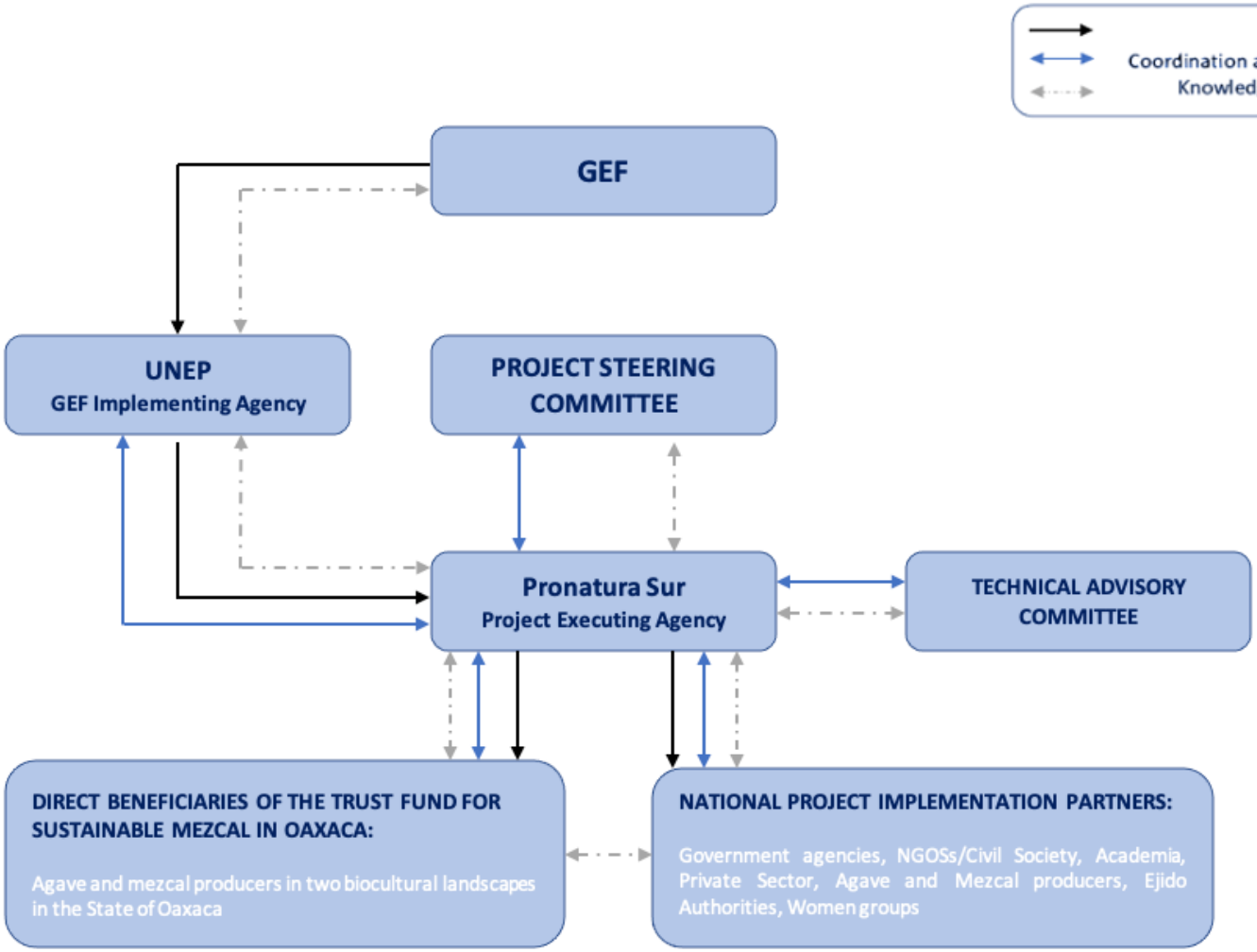
? Participate in key meetings, workshops, consultations, trainings, and other related activities as needed

? Provide the project with access to information, data, and technical advice from specialized areas of competence of the Members

? At the request of the PSC, provide resolution to problems of a technical nature that can be brought to the attention of the project by those interested in the project's intervention area.

The membership of the TAC shall be gender-balanced and will include technical representatives of SEMAEDESO, Pronatura Sur A.C, CONANP, the Inter-Institutional Roundtable on Productive Landscape Restoration (MIIRP), COMERCAM, FIRA, Ministry of Economy-Oaxaca, Secretariat for Women ? Oaxaca, SEPIA, CONAFOR, the Secretariat for Welfare, WRI Mexico, Mujeres del Agave y del Mezcal, COPLADE, and Committee for the Productive Agave Mezcal System A.C. The TAC will be chaired by the National Project Coordinator.

Figure 8. Project Institutional & Implementation Structure



7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

? - National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

? - National Action Program (NAP) under UNCCD

? - ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury

? - Minamata Initial Assessment (MIA) under Minamata Convention

? - National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

? - National Communications (NC) under UNFCCC

? - Technology Needs Assessment (TNA) under UNFCCC

? - National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

? - National Implementation Plan (NIP) under POPs

? - Poverty Reduction Strategy Paper (PRSP)

? - National Portfolio Formulation Exercise (NPFE) under GEFSEC

? - Biennial Update Report (BUR) under UNFCCC

? - Others

The project is aligned with many national policy and strategic priorities at the national level. The key ones of relevance to this project are listed below.

National Biodiversity Strategy of Mexico - The actions detailed in the Strategy are of great relevance to contribute to the fulfilment of international agreements such as the Aichi Targets, the Convention on Biological Diversity and the commitments made at the national and state levels. The lines of action that are specifically relevant in the context of biodiversity and the mezcal sector are found in Objective 2. Conservation and Restoration of section 2.1: In situ conservation, Develop and implement national policies to promote the conservation of genetic resources and their centres of origin and diversity.

The project aligns with Mexico?s commitments to the **Post-2020 Global Biodiversity Framework**. The activities proposed for the biodiversity component seek to contribute at the level of the biocultural landscapes (Central Valleys and Sierra de Yautepec) to the Aichi Goals, through their monitoring and strengthening in the Global Framework for Biodiversity Post 2020, which has as its goal that, by 2050, biodiversity is valued, conserved, restored, and used wisely, maintaining ecosystem services, sustaining a healthy planet, and providing essential benefits for all. This Global Framework for Biodiversity is composed of four main objectives constituted in turn by different milestones, which result in 21 goals focused on reducing threats to biodiversity, meeting the needs of people through sustainable use and distribution of benefits, and in the generation of tools and solutions for implementation and integration. In this context, the tasks under the biodiversity component of the project seek to contribute, at the project scale (biocultural landscapes: Central Valleys and Sierra de Yautepec), to the goals of the Global Framework for Biodiversity Post 2020.

REDD+ Strategy - Since 2010, Mexico has been implementing a national strategy to achieve the REDD+ goals. In Mexico, REDD+ is conceived as a policy to help coordinate mitigation and adaptation actions between different institutions and economic sectors. The goal of REDD+ is to eliminate emissions from land use change by 2030 and improve the quality of carbon reservoirs. At the same time, it focuses on promoting ecological restoration and biodiversity conservation, contributing to food security, and improving the standard of living. Emissions from degradation must be reduced through sustainable use of resources, natural regeneration, controlled use of fire, and incentives for sustainable practices. REDD+ uses a landscape approach that combines conservation and productive activities for sustainable rural development. Mexico adopted seven UNFCCC safeguards to ensure that REDD+ activities do not negatively affect the country's people or environment: a) Complementarity, b) Transparency, c) Respect for the rights of indigenous and local communities, d) Participation, e) Protection of biodiversity and ecosystem services, f) Permanence of carbon and g) Prevention of leakage.

The project is in alignment with **Mexico?s Nationally Determined Contributions (NDC)**. Mexico established two goals in the mitigation component in its NDC updated to 2020: Reduce national greenhouse gas emissions by 22% by 2030 in the ?unconditional? case and by 36% in the ?unconditional? case. conditional? AND reduce black carbon emissions by 52% by 2030 in the ?unconditional? case and by 70% in the ?conditional? case. The AFOLU sector has the potential to achieve emission reduction targets. Mitigation efforts consist of adopting measures to reduce greenhouse gas emissions and black carbon emissions. These measures must be associated with adaptation to climate change, but also promote other social and environmental benefits. Among the mitigation measures that can be implemented in the AFOLU sector, the importance of sustainable land use practices, ecosystem restoration and increased carbon sequestration stand out.

The project aligns with Mexico?s efforts to meet its commitments under the **United Nations Convention to Combat Desertification UNCCD)**. In 2005, the National System to Combat Desertification and Degradation of Natural Resources (SINADES) was created in Mexico and is part of the Sustainable Rural Development Law. This system is coordinated by SEMARNAT, through CONAFOR, and brings together other public institutions, social organizations, and the academic sector. SINADES promotes greater involvement of the population in sustainable land management. It has the following objectives: contain and reverse desertification and land degradation through comprehensive recovery programs and promote sustainable production, promote that producers adopt production practices and systems that conserve and improve natural resources, coordinate public and private efforts against desertification and degradation of natural resources, and promote the creation and strengthening of environmental awareness, emphasizing attention to the problems of desertification and degradation of natural resources.

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization - One of the main objectives of the project is to contribute to a more equitable distribution of the benefits obtained from the economic use of agave, a genetic resource of fundamental importance for the local culture of the biocultural landscapes that make up the project area. In this regard, project activities will directly support the objectives of this international commitment.

The project is also aligned with the proposed revised **2030 National Voluntary Targets for LDN Implementation Mexico**:

1. Neutralize the deforestation rate of 105,200 hectares of wooded forest per year.

2. Recover, reconvert or restore (Neutralize) 160,000 hectares of shrub forest per year.

3. Increase the productivity of the land in: 478,070 wooded, 504,000 pastures and 423,000 crops: 1,404,570 annually.

4. Stabilize the rate from -12.5 to -60.5% of agricultural and livestock productivity.

5. Balance losses of Soil Organic Carbon stores, in agricultural lands: 10 t / ha in crops and 20 t / ha in pastures

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Knowledge Management is designed as a standalone output under Component 3 of the project. The Knowledge Management Plan to be developed under Output 3.1.4 will promote public awareness, learning and continuous improvement, generate documents for upscaling of lessons learned and will aid with strong collaboration among all project actors. The lessons learned will be communicated to the direct and indirect beneficiaries in various ways, mainly: training activities, technical publications, educational material, awareness campaigns, and hands-on management in restoration, ANR and sustainable agave and Mezcal production practices.

The project will help to develop the tools needed to systematize, extract, and organize the acquired knowledge, and disseminate the results, lessons, and good practices. Information will be tailored to different groups so that it is accessible, through online toolkits, webinars and seminars, workshops and trainings, and other awareness and communication strategies using gender-balanced and gender-sensitive messaging and tools. The project will facilitate direct gender-balanced exchanges between agave-mezcal producing communities, and will develop communication tools to assist local governments, state government, producer

organizations, NGOs, and others to successfully disseminate information on sustainable agave and mezcal production, with targeted messages that address the specific circumstances and context of both women and men.

During project implementation and before the end of each project year, knowledge produced by or available to the Project will be consolidated from project stakeholders and exchanged with other relevant projects, programs, initiatives, research institutions, academia, etc. by the PCU. This collected knowledge will be analysed alongside project monitoring and evaluation data at tan Annual Project Review Meeting to be organized by the PCU and the PSC. It is at this meeting that the Theory of Change will be reviewed, and the annual work plan and budget will be drafted. Adjusting based on what works and what does not work should improve project results.

Lessons learned and best practices from the Project will be captured from field staff, biannual Project Progress Reports, and annual Project Implementation Reports (PIR), and from stakeholders at the Annual Project Review Meeting. External evaluations will also provide lessons and recommendations. These available lessons and best practices will then be documented in the semi-annual project progress reports (PPR) (with best practices annexed to the report). The National Coordinator will ensure that relevant stakeholders, such as GEF Operational Focal Point, members of the PSC and TAC, project partners, and other stakeholders are informed of and where applicable invited to the Annual Project Review Meeting, formal evaluations, and any documentation on lessons and best practices. These partners will receive all related documents, such as Project Progress Reports, Evaluation Reports, and all Knowledge Management materials produced by the to ensure the sharing of important knowledge products.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The Results Framework is the logical framework that was developed to define the structure of the project, the relationship between the components, and connects components with activity?specific indicators to track process and achievements. Building on the Results Framework, the M&E Plan is the tool to be used for quarterly, mid?term, and end?of?project monitoring and evaluation.

Responsibilities for monitoring and evaluation are assigned to the various participating institutions, which are identified below, and to different project officers, according to their management functions and responsibilities. Day?to?day management and monitoring of project activities, and any consultants and subcontractors recruited to undertake them, will be the responsibility of Pronatura Sur A.C. The timely preparation and submission of mandatory reports forms an integral part of the monitoring process.

To also evaluate effective operations of the project, the M&E plan will be used simultaneously with the Project Agreement Document signed by UNEP and Pronatura Sur A.C. which includes indicators related to timeliness of progress reports; achievement of performance targets, outputs, and outcomes; promptly implementation of corrective actions when required; timely disbursements; and evidence of sound financial practices in audits reports.

The monitoring and evaluation process is expected to be a key component of each outcome area, within the project, based on a 5-year implementation plan. Monitoring and Evaluation (M&E) will be conducted utilizing the results-based management approach. The Results Framework provides performance and impact indicators for project implementation along with corresponding means of verification. M&E will be an on-going process and is based on the following strategic directions.

The monitoring and evaluation process is participatory, consultative, and aimed at ensuring delivery of project outputs and achievement of associated defined targets. Evaluation will be based on the status of implementation, through identification of gaps, and the measurement of impacts and level of success in the application of best practices.

UNEP?s GEF Biodiversity Land Degradation Unit and UNEP?s Evaluation Office will be responsible for managing the mid-term review/evaluation and the terminal evaluation. The Project Management Unit and partners will participate actively in the process.

The Project Steering Committee will participate in the MTR or MTE and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented. An MTR is managed by the UNEP Task Manager. An MTE is managed by the Evaluation Office of UNEP. The Evaluation Office of UNEP will determine whether an MTE is required, or an MTR is sufficient.

In line with the GEF Evaluation requirements and UNEP?s Evaluation Policy, any project with a duration of 4 years or more will be subject to an independent Mid-Term Evaluation or management-led Mid-Term Review at mid-point. All GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review. In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness, and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget.

The TE will typically be initiated after the project?s operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process.

The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the Project Manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report.

The M&E plan includes an inception workshop and report, project implementation reviews, quarterly and annual review reports, and mid-term and final evaluations. The following sections outline the principal components of the M&E plan and M&E activities. The M&E plan for the project will be presented and finalized in an Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of implementation arrangements related to executing partners and project staff.

The indicative Monitoring and Evaluation Work Plan is provided in the table below. The estimated cost of M&E activities is USD Four hundred and Fifty-Two Thousand Dollars (GEF and co-finance), fully integrated into the project budget, as shown below:

Table 15. Costed Monitoring & Evaluation Plan

Type of M&E activity	Responsible Parties	Budget from GEF	Co-finance	Time Frame
Inception Meeting	National Project Coordinator, Project Team, Steering Committee, UNEP	11,000	22,000	Within 2 months of project start-up
Monitoring of ESS and Indigenous Framework Plan	National Project Coordinator & Project Team; Consultants	40,000	80,000	Quarterly and annually
Project Steering Committee	National Project Coordinator (secretariat) ? A representative of UNEP Implementing Agency ? A senior representative of Pronatura Sur A.C., SEMAEDESO, SEMARNAT, SEDAPA, SADER, CONANP, and the UNEP Task Manager	40,000	100,000	At least once a year, and via electronic media per request and need
Gender Action Plan	National Project Coordinator	25,000	50,000	Within 1 month after PSC meeting
Project supervision and performance monitoring (site visits)	National Project Coordinator; UNEP	30,000	100,000	Quarterly and annually, part of reporting routine
Mid Term Review/ Evaluation	? National Project Coordinator ? PMU ? External consultant(s) ? UNEP	24,000	48,000	At mid-point of project implementation (*Note: If a Mid-Term review is not required for this MSP, these resources will be applied to the Terminal Evaluation)

Terminal Evaluation	UNEP EO	30,000	60,000	Within 6 months of end of project implementation
Total M&E Plan Budget		**200,000**	**460,000**	

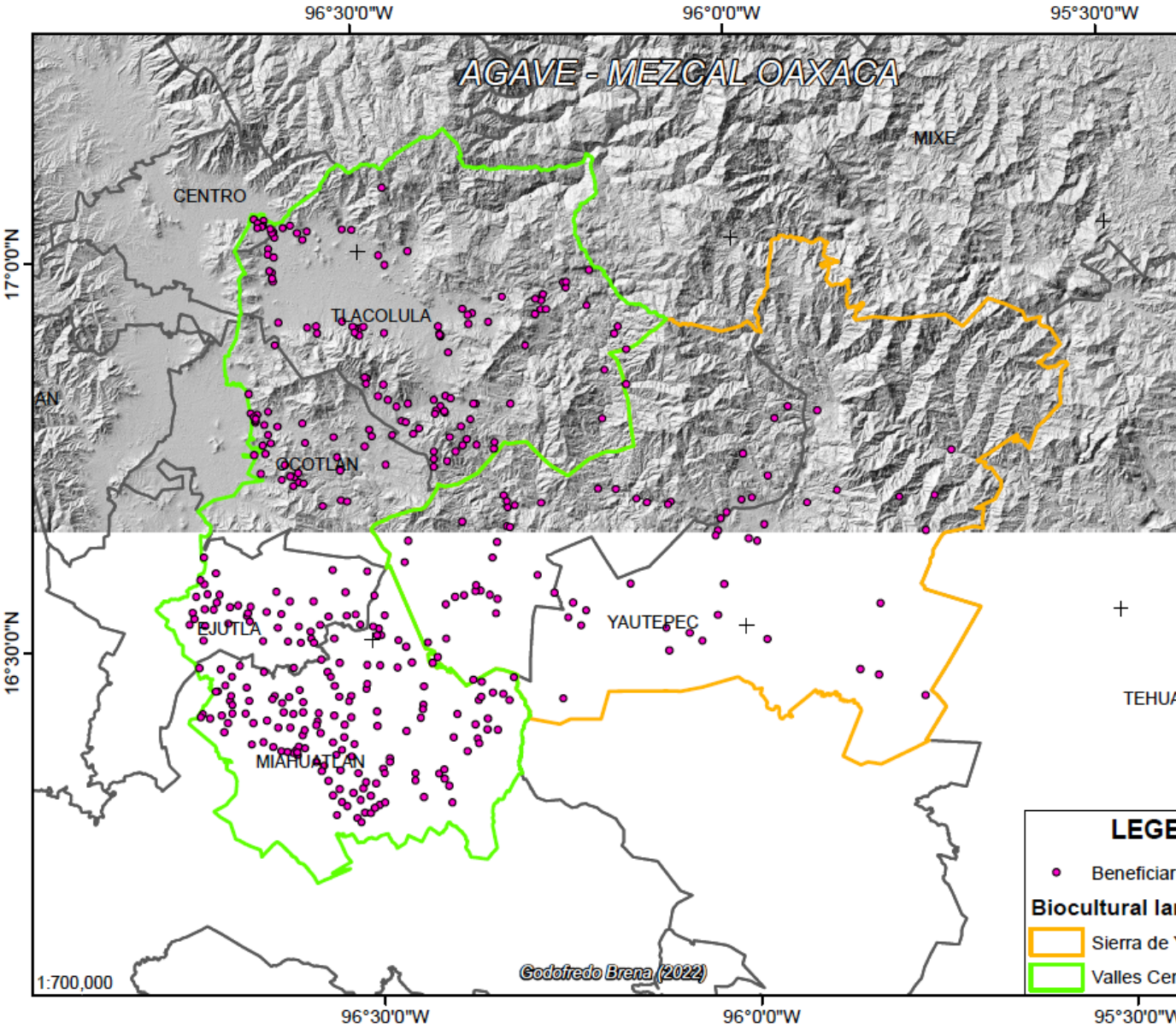
10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

Benefits:

The project will deliver local, national, and global environmental benefits to biodiversity and critical ecosystems, in addition to socio-economic benefits to 27,191 women and 49,987 men across 59 municipalities, in 767 communities, in 7 districts across 2 biocultural landscapes (Map 6). The project will promote those socioeconomically and environmentally friendly and sustainable agriculture practices that will help to maintain and improve the biodiversity value of the project intervention areas and to reduce the pressures from agriculture that affect associated ecosystems while at the same time allowing the agave-mezcal sector and associated communities to maintain and increase its productivity, thereby providing the opportunity for increased incomes.

Map 6. Communities to Benefit Directly from Project Interventions



The project will help to build the capacities of the beneficiaries through training and technical assistance. To ensure effectiveness and ownership, the programming of activities will consider the work schedules of targeted stakeholders and their families, and communities, for minimum interference with the daily chores of men and women to ensure their participation in the activities organized by the project. Capacity building will also consider cultural and traditional knowledge associated with biodiversity management. This will help empower communities and will contribute to the preservation of the cultural and natural heritage and identity of the beneficiary communities.

The project will further strengthen awareness of the importance of globally important conservation areas in the proposed project intervention areas. By conserving the species and sites of global biodiversity importance benefits will accrue to the local community that help ensure long-term conservation and sustainable management of the natural assets that the communities rely on.

Additionally, the project?s gender mainstreaming approach will ensure that women receive their fair share of project benefits with a direct positive impact on their economic independence. Training materials will be gender sensitive and gender balance will be sought through the implementation of the Gender Action Plan developed specifically for the project. The participation and access by indigenous communities will be secured and guided by the implementation of the Indigenous Peoples Framework developed for the project.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:db33e602-fa22-3150-8820-21e8a28eb1e5

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex J - UNEP Safeguards Screening	CEO Endorsement ESS	
Safeguard Risk Identification Form (revised)	Project PIF ESS	
Safeguard Risk Identification Form (SRIF)	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Promoting sustainability in the agave-mezcal value chain through restoration and integrated management of biocultural landscapes in Oaxaca

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Project Objective: To foster sustainable practices in the agave-mezcal value chain in the Oaxaca Mezcal Region through an integrated landscape management approach that privileges non-monoculture cultivation, species protection and the maintenance of ecosystems services.				
GEF 7 Core Indicators (Objective Level and Global Environmental Benefit Indicators)				
Core Indicator 1 - Terrestrial protected areas created or under improved management for conservation and sustainable use (hectares)	Baseline: 0	***Mid-Term***: 15,602.65 ***Project End***: 50,000	Declaration instruments for ADVCs from CONANP ADVC Management Strategy documents Polygons of areas subject to new effective area-based conservation modalities Management Monitoring Reports of new effective area-based conservation modalities	Community authorities and associations of community authorities sustain their support ADVC declaration Community authorities and associations of community authorities see the value of and sustain their support for new effective area-based conservation modalities

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Core Indicator 3 - Area of land restored (Hectares)	Baseline: 0	***Mid-Term***: 1,000 ***Project End***: 6,000	Photographs of areas benefitting from ANR inputs Videos of ANR efforts and monitoring Calculations of $C0_2$ sequestered	The project can secure and sustain community support for ANR efforts
Core Indicator 4 - Area of landscapes under improved practices (excluding protected areas) (Hectares)	Baseline: 0	***Mid-Term***: 3,000 ***Project End***: 20,000	Photographs of polyculture and sustainable harvesting practices Videos ofpolyculture and sustainable harvesting practices and monitoring Reports of agroforestry, ANR, and ecological restoration in the 2 biocultural landscapes	The project can secure and sustain community support for polyculture and sustainable harvesting practices
Core Indicator 6 - Greenhouse Gas Emissions Mitigated (metric tons of CO2e)	Baseline: 0	***Mid-Term***: 50,000 ***Project End***: 215,352 tCO2e	Records of *tCO2e* calculated at mid-term and end of project	Technical skills to conduct CO2 calculations is secured
Core Indicator 11- Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	Baseline: 0	***Mid-Term***: Men: 14,997 Women: 8,158 ***Project End***: Men: 49,987 Women: 27,191	Project Progress Reports Training and workshop reports Mid-Term Review Terminal Evaluation	Patriarchical tendencies do not interfere with the level of female participation. The project?s Gender Action Plan and Stakeholder Engagement Plan are fully implemented

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Outcome 1.1. Biodiversity, ecosystem services and sustainable practices mainstreamed in national governance and institutional frameworks linked to agave harvesting and the production of Mezcal.				

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
National regulations and state level strategies updated or created, adopted, and under implementation by project end	Baseline: 0 policies and regulations that support mainstreaming of biodiversity in agave and mezcal production	***Midterm**:* 2 state policies ***Project End**:* 1 updated state regulation, 2 state policies	Official publication of state regulations and policies	Political support is secured, and producers see benefit of reforms to regulatory and policy framework
% Increase from baseline in Institutional Capacity Scorecard for Environmental Management	Baseline: 60.87%	***Midterm**: 5%* increase from baseline ***Project End**:* 20% increase from baseline	Institutional Capacity Development Scorecard	Relevant institutions wilfully complete survey at mid-term and end of project
Inter-institutional Coordination and Oversight Group for Mezcal Production strengthened or created by project mid-term	Baseline: 0 Taskforce	***Midterm**:* 1 Inter-institutional Coordination and Oversight Group /Taskforce established and operational ***Project End**:* 1 Inter-institutional Coordination and Oversight Group	Terms of Reference of Inter-institutional Coordination and Oversight Group Minutes of meetings of the Inter-institutional Coordination and Oversight Group	Federal and state Institutions and private sector see value of coordination in the agave-mezcal production process Patriarchal tendencies do

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
Indicator: % of participation of women in Inter-institutional Coordination and Oversight Group /Taskforce	Baseline: 0	/Taskforce established and operational Target: 50% women; 50% men	Participants registration forms and meeting minutes	not interfere with gender-balanced participation
***Outputs*:** Output 1.1.1. National regulations and state level strategies and plans updated or created to safeguard ecosystems services and promote sustainable practices in the production of Mezcal. Output 1.1.2. Multi-stakeholder capacity strengthened for the institutionalization of national regulations and state level strategies and plans for the sustainable production of Mezcal. Output 1.1.3. Governance arrangements strengthened or created to oversee Mezcal production and other commodities in bio-cultural landscapes inclusive of national, state, and local actors.				
Outcome 2.1. Increase in area of forests protected, ecosystems services restored and maintained, and threatened and keystone species of high biological value conserved.				

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# Hectares of dry tropical forests protected through new Areas Voluntarily Destined to Conservation (ADVC) **(GEF 7 Core Indiator 1)**	Baseline: 0	***Midterm:* 3,602.65** *Santa Maria Nizaviguiti: 1,395.09* *Santa Maria Lachixonace: 2,207.56*	Declaration instruments for ADVCs from CONANP ADVC Management Strategy documents	Community authorities and associations of community authorities sustain their support ADVC declaration
# Hectares of dry tropical forests protected through new effective area-based conservation modalities. **(GEF 7 Core Indiator 1)**	Baseline: 0	***Project End:*** 9,000 ha ***Midterm:* 12,000** ***Project End:*** 41,000 ha -Conservation Management Units: 1,000 ha -Community Management: 25,000 ha -Forest Management Programs: 15,000 ha	Polygons of areas subject to new effective area-based conservation modalities Management Monitoring Reports of new effective area-based conservation modalities	Community authorities and associations of community authorities see the value of and sustain their support for new effective area-based conservation modalities ILM efforts are successfully designed and implemented
# Of species of high biological value conserved	Baseline: 4 felines		Biodiversity Monitoring Reports	Capacity building of communities is effective to ensure biodiversity monitoring is consistent and systematic

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# Of pollinator species conserved	Baseline: 0	***Midterm:*** 3 agave species, 5 felines, 2 birds ***Project End:*** 7 agave species, 5 felines, 2 birds	Biodiversity Monitoring Reports	ILM efforts are successfully designed and implemented Capacity building of communities is effective to ensure biodiversity monitoring is consistent and systematic
Indicator: % of participation of women in capacity building workshops in ADDVC management and other effective area-based conservation modalities	Baseline: 0	***Midterm:*** 2 bats, 4 genus moths, 2 genus of stingless bee, 1 genus bumblebee, 2 birds ***Project End:*** 2 bats, 4 genus of moths, 2 genus of stingless bees, 1 genus of bumblebee, 2 birds Target: 50% women; 50% men	Participants registration forms and Workshop Proceedings	Patriarchal tendencies do not interfere with gender-balanced participation

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
***Outputs*:** Output 2.1.1. Dry tropical forests protected through the establishment of 6 Areas Voluntarily Destined to Conservation (ADVC) and other effective area-based conservation modalities. Output 2.1.2. Assessment, management, and monitoring of Pollinator and Keystone Species in bio-cultural landscapes subject to the production and harvesting of agave for Mezcal production.				
Outcome 2.2. ILM practices have reduced LD, increased soil and woody vegetation carbon sequestration, and enabled sustainable agricultural production on degraded lands.				

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# Of integrated landscape management plans	Baseline: 0 ILM plans	***Midterm:*** 2 ILM Plans ***Project End:*** 2 ILM plans	Integrated landscape management plan documents	Political, community and private sector support to sustainable practices in the agave-mezcal value chain is secured and sustained The project can secure and sustain community support for ANR efforts
# Of hectares restored and/or under ANR **(GEF 7 Core Indicator 3)**	Baseline: 0	***Midterm:*** **1,000** ***Project End:*** 3,000 ha of agriculture land 3,000 ha of ANR in degraded forests	Photographs of areas benefitting from ANR inputs Videos of ANR efforts and monitoring Calculations of $C0_2$ sequestered	The project can secure and sustain community support for sustainable harvesting practices
# Of hectares of agave subject to sustainable harvesting practices **(GEF 7 Core Indicator 4)**	Baseline: 0	***Midterm:*** **1,000** ***Project End:*** 8,000 ha	Photographs of sustainable harvesting practices Videos of sustainable harvesting practices and monitoring	The project can secure and sustain community support for polyculture

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# Of hectares that have reversed monoculture cultivation **(GEF 7 Core Indicator 4)**	Baseline: 0	***Midterm:* 500** ***Project End:* 4,000**	Photographs of polyculture in agave plantations Videos of polyculture in agave plantations	Technical skills to conduct CO2 calculations is secured
Metric tCO2e mitigated (direct) **(GEF 7 Core Indicator 6)**	Baseline: 0	***Midterm: 50,000*** *tCO2* ***Project End:*** *215,352 tCO2*	Records of *tCO2e* calculated at mid-term and end of project	The project can secure and sustain community support for polyculture
M # Hectares of bio-cultural landscapes subject to ILM best practices **(GEF 7 Core Indicator 4)**	Baseline: 0	***Midterm: 3,000*** ***Project End:*** 20,000 ha	Reports of agroforestry, ANR, and ecological restoration in the 2 biocultural landscapes	
Indicator: % of participation of women in capacity building workshops in agroforestry and land degradation.				Patriarchal tendencies do not interfere with gender-balanced participation

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
	Baseline: 0	Target: 50% women; 50% men	Participants registration forms and Workshop Proceedings	
***Outputs*:** Output 2.2.1: 2 Integrated Management Plans for Bio-Cultural Landscapes developed and under implementation. Output 2.2.2: Agave monoculture reversed, soil erosion decreased, carbon sequestration increased through agroforestry production and restoration of degraded lands. Output 2.2.3: Development of productive, resilient, and equitable food and integrated land management best practices in bio-cultural landscapes subject to agave harvesting				
Outcome 3.1 Strengthened Mezcal Value Chain based on sustainable practices.				

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
% Of total Mezcal production subject to sustainability standards	Baseline: 0%	***Midterm:*** *1%* ***Project End:*** 5%	Sustainability Standards statistical reports	Producers and the broader private sector see value of sustainability standards
% Of total Mezcal production subject to use of sustainably produced wood included in Forest Management Programmes.	Baseline: 0%	***Midterm: 1%*** ***Project End:*** 5%	Reports of Forest Management Programmes Project Progress Reports	Project is successful in its advocacy and promotion of sustainable sourced wood.
# Of cultural practices linked to agave production, harvesting and mezcal production supported by the project	Baseline: 0	***Midterm:*** *1 cultural practice* ***Project End:*** 2 cultural practices 1. Intercropping with the milpa system (traditional form inherited from ancestors) and other agroforestry systems (pitahaya, fruit and woody plants) 2. Artisanal distillation using fermentation without additives	ILM Plans for both biocultural landscapes Project Progress Reports	Local community leaders and producers support implementation of ILM plans
# Of Knowledge Management (KM) Plans on sustainable mezcal production	Baseline: 0	***Midterm:*** 1 KM Plan		Project prioritises KM strategy development and implementation early and

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
supported by the project *Effectiveness of the Knowledge Management Plan as measured through a scaled rating of 1 to 10.* *Indicator: % of participation of women in technical assistance programs to obtain Denomination of Origin certification.*	Baseline: Rating 0 Baseline: 0	***Project End:*** 1 KM Plan ***Midterm*:** Rating 4 ***Project End:*** Rating of at least 8 Target: 50% women; 50% men	KM awareness materials KM Strategy/Plan Document KM gender-specific materials KM Plan Effectiveness Survey Results Technical Assistance Program Reports	through-out project implementation and conducts meaningful KM Plan Effectiveness Surveys. Project ensures a selection criteria gurantees a gender-balanced approach
***Outputs*:** Output 3.1.1 A sustainable Agave-Mezcal value chain is promoted through actions targeting the production and demand sides. Output 3.1.2 Promotion of sustainable plantations of wood for use in Mezcal production. Output 3.1.3 Cultural practices that define origin and uniqueness of Oaxacan Mezcal safeguarded. Output 3.1.4: A Knowledge Management Plan on sustainable mezcal production developed and under implementation				
Outcome 3.2. An innovative finance mechanism to upscale sustainable harvesting and processing of agave.				

Outcome Level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
# Of beneficiary institutions (i.e.: companies, community enterprises, cooperatives, and producers) benefiting from the finance mechanism)	Baseline: 0	***Midterm: 2*** ***Project End:*** 5 institutions	Finance Mechanism Reports Project Progress Reports	The finance mechanism is structured to optimize access to resources Capitalization of the finance mechanism is achieved at satisfactory levels
% Of capitalization from private sector origin	Baseline: 0	***Midterm:*** *10%* ***Project End:*** 25%	Finance Mechanism Capitalization Reports Project Progress Reports	
Indicator: % of women that receive financial advice	Baseline: 0	Target: 50% women; 50% men	Technical Assistance Program Reports	Project ensures a selection criteria gurantees a gender-balanced approach
Outputs: Output 3.2.1. A finance mechanism for sustainable harvesting and processing of agave designed, formally established and operational.				

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

GEF Comments & Observations	Agency Response at CEO Endorsement
GEF Council Comments	

Germany sees potential for synergies with work in the state of Oaxaca supported by German development cooperation and recommends exploring collaboration with the newly started program ?Vida y Campo? (2021.2130.9) implemented by GIZ	The project will coordinate in multiple initiatives and strategies with the GIZ-funded project *?Vida y Campo?*. This project will be executed in the states of Oaxaca and Puebla and seeks to promote transformative processes for a production of sustainable, social, and resilient food to climate change by improving the strategic and technical basis for implementation of sustainable social and production systems resilient to change climate, strengthening the capacities of intermediary organizations for the best inclusion of producer groups in sustainable value chains, strengthening access to digital information relevant for production and integration to markets, and supporting inter-institutional collaboration and intersectoral for the integration of aspects biodiversity and adaptation to change climate in the agricultural sector.
STAP Comments	
The project structure comprises three components, which are well structured and framed in the overall logical context of the project. However, we observed that component 2 was not very well defined, since the activities listed under this, in our view do not correspond with the accepted view of mainstreaming biodiversity and Conservation. **We thus recommend renaming this component as something more suitable (e.g., conservation and restoration) to avoid causing any confusion. We also recommend reclassifying the component as ?investment? rather than technical assistance.**	Component 2 has been renamed ?Biodiversity Conservation and Integrated Landscape Management (ILM)?. The restoration aspect referred to by the STAP is implicit in the ILM approach being developed by the project, and as described in the text for Outcome 2.2 and elsewhere through-out the CEO Endorsement Request.
Yes, the mechanism of change described in the ToC are well articulated, highly plausible, and very convincing. The ToC is very well developed for this stage of the project design and was by far the most advanced and detailed, we reviewed for this whole cohort of projects. It also included a set of assumptions. Overall, this provided an example to follow. The section on reform of the regulatory framework referred only to biodiversity regulations and it is not clear whether commercial use of biodiversity falls only under this legislation. **Given the commercial drivers affecting mezcal production, it would be expected that intended outcomes require review of other types of regulations as well.**	The project will invest in regulatory reforms beyond biodiversity. The project will update or create national regulations and state level strategies and plans to safeguard ecosystems services and promote sustainable practices in the production of Mezcal linked to the production of Mezcal, strengthen multi-stakeholder capacity for the institutionalization of national regulations and state level strategies and plans for the sustainable production of mezcal, and strengthen or create governance arrangements to oversee Mezcal production and other commodities in bio-cultural landscapes inclusive of national, state, and local actors. Regulatory review will cover biodiversity, species protection, agroecological models, land use, sustainability standards, inter-institutional collaboration, and cultural and artisanal values linked to agave-mezcal production.

No, provisions to target this aspect were made in the current version of the PIF. However, **the PIF stated that the project will complete the GEF Climate Risk Screening form during the PPG phase**, it also specifically stated that project design will be adjusted accordingly to mitigate any potential risks.	A comprehensive climate change assessment was conducted during the PPG for the two biocultural landscapes to receive project support. The findings of the assessment are presented in Annex M of this CEO Endorsement Request and is also summarized in the Risk Assessment Matrix for the project.
The PIF includes a section on risk analysis and management, which presents a total of eight risk categories. These provide a reasonable overview for this stage of project development and cover for all main risk categories, although we observed that the narrative for some categories of risks (i.e., COVID 19) was much more developed than others (i.e., climate change). We also noticed there was no mention of ?local political corruption? which in the State of Oaxaca is a particularly relevant problem, nor of competing of conflicting financial interests. Mezcal production is a competitive industry and support for artisanal production may conflict with established forms of production. **Based on our analysis we recommend that the analysis of all risk categories be revised and expanded where needed to include any missing aspects. We also recommend that the risk table be revised by including another column for ?risk likelihood? in addition to the existing one for risk level.**	Risk categories have been revised and/or expanded as necessary. Another column labelled ?Likelihood of Risk? has also been added to the Risk Assessment Matrix. The COVID 19 risks are much more developed intentionally, in response and in compliance with GEF guidance in this regard as described in ?Project Design and Review Considerations in Response to the COVID-19 Crisis and the Mitigation of Future Pandemics, September 2020? by the GEF Secretariat.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

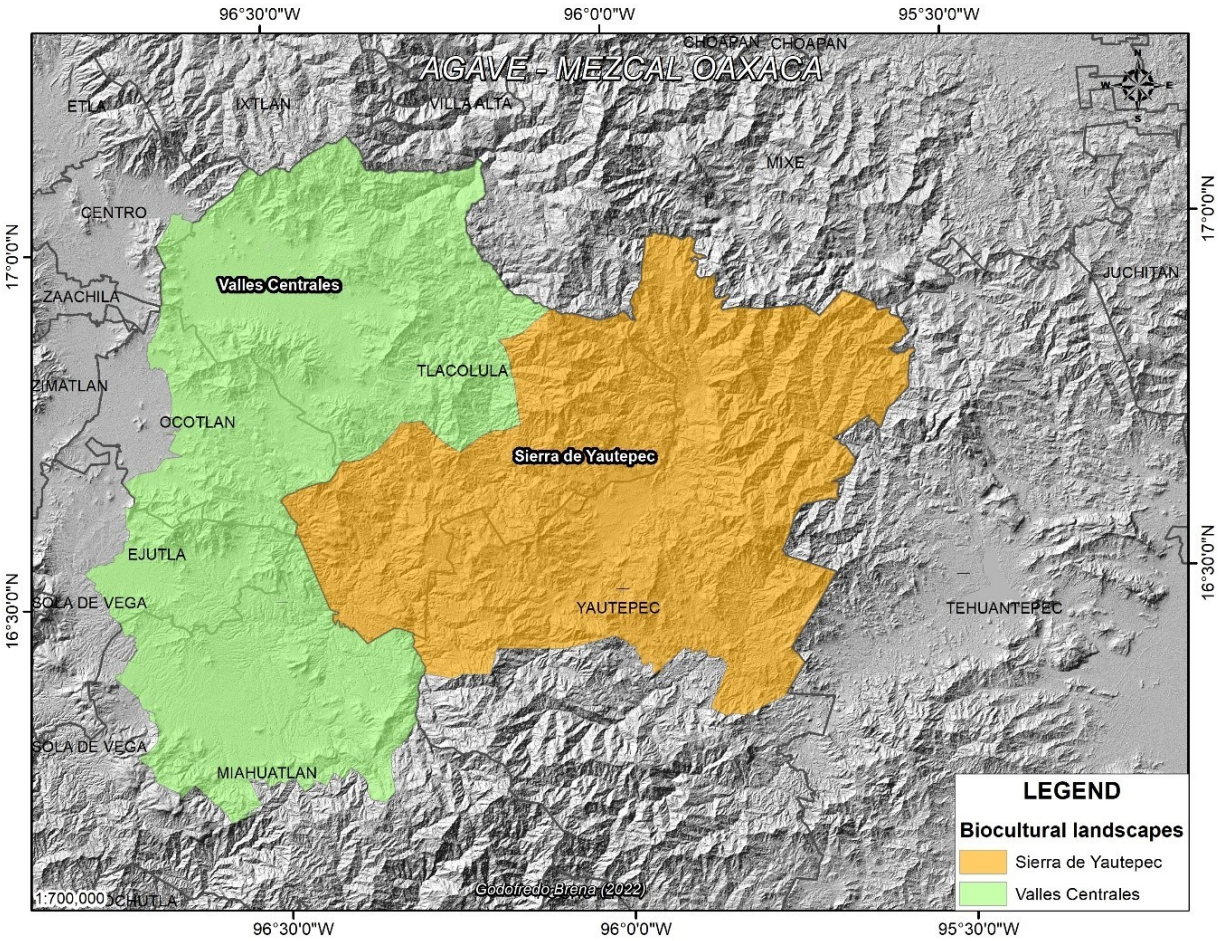
PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Biodiversity Consultant	*9.280*	6.960	2.320
Climate Change & land Use Consultant	9.280	6.960	2.320
Gender, Safeguards and Intercultural Consultant	9.280	7.300	2.434
Value-Chain and Finance Consultant	10.000	7.680	2.320
International Value-Chain and Finance Consultant	20.000	20.000	
Political Advisor	4.000	2.000	2.000

Knowledge Management Consultant	2.000		2.000
Project Development Consultant	36.000	18.000	18.000
Project Coordination by Pronatura Sur	17.960	13.113	4.847
Sundry Operational Costs	15.000	7.614	7.386
International travel on official business	2.500		
National travel on official business	4.500	2.519	1.010
Inception Workshop	2.500	1.675	
Technical Consultation on the Value-Chain Approach and Finance Mechanism	3.000		
Public Consultation on Indigenous Peoples and Gender Approach	2.200		
Validation Workshop	2.500	740	
Total	**150.000**	**94.561**	**44.637**
Total expenditure expected by 31.12.2022	**139.198**		
Total outstanding balance expected by 31.12.2022	**10.802**		

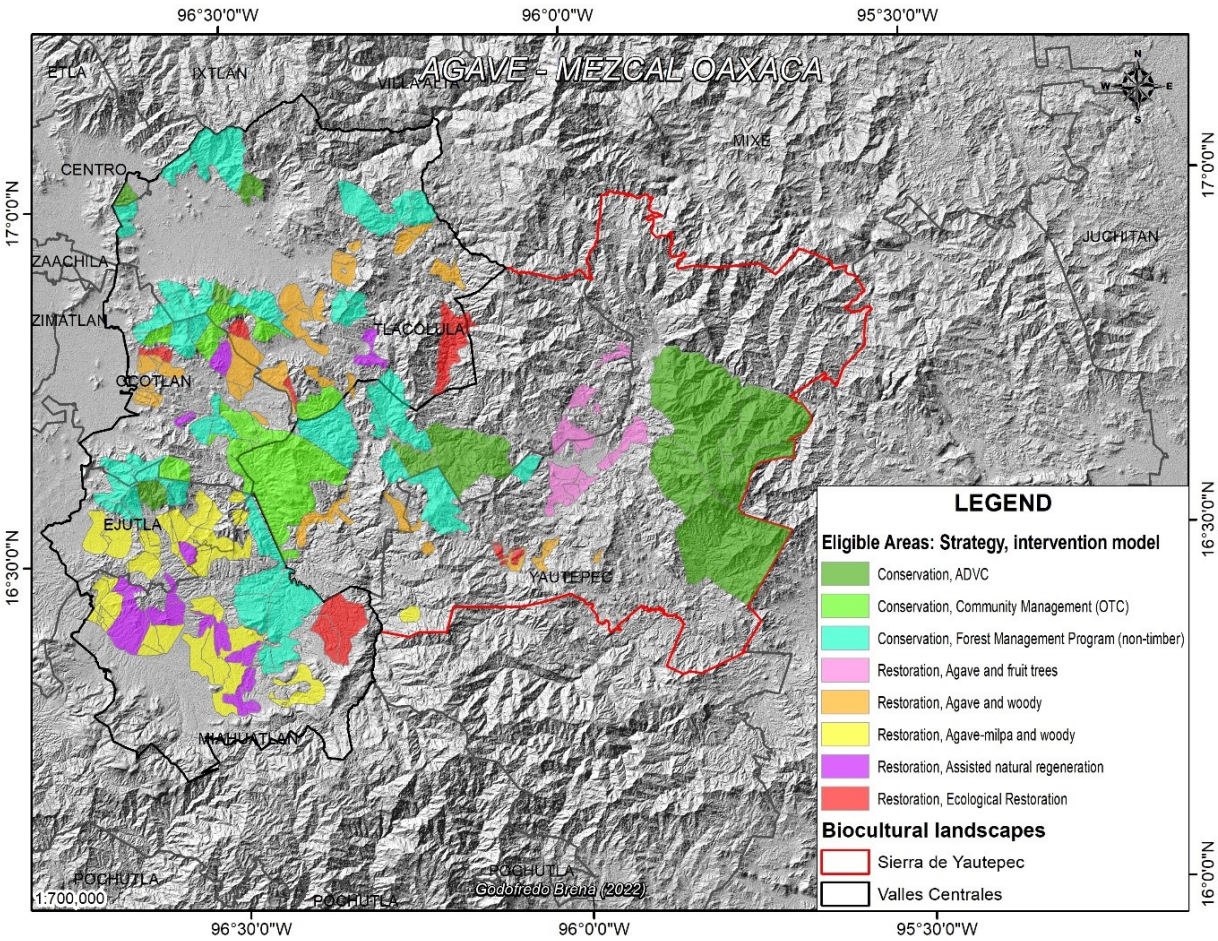
ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Map 1? Biocultural Landscapes Valles Centrales and Sierra de Yautepec



Map 2. Project Intervention Areas



ANNEX E: Project Budget Table

Please attach a project budget table.

Appendix A: Indicative Project Budget Template - Promoting sustainability in the agave-mezcal value chain through restoration and integrated management of biocultural landscapes in Oaxaca

Expenditure Category	Detailed Description	COMPONENT (USDeq.)					Sub-Total	M&E	PMC	Total (USD eq.)	Responsible Entity*
		COMP 1	COMP 2		COMP 3						
		Outcome 1.1	*Outcome 2.1*	*Outcome 2.2*	*Outcome 3.1*	*Outcome 3.2*					
Works											
Goods											

	Camera traps		6,000				6,000			6,000	Pronatura Sur A.C.
	Field measuring tapes		500				500			500	Pronatura Sur A.C.
	Field Markers for Transects		500				500			500	Pronatura Sur A.C.
	Binoculars (day and night vision)		5,000				5,000			5,000	Pronatura Sur A.C.
	Field Nets		500				500			500	Pronatura Sur A.C.
	Field gear (boots, shoes, raincoats, etc.)		3,000	3,000			6,000			6,000	Pronatura Sur A.C.
	Plant bags			5,000			5,000			5,000	Pronatura Sur A.C.
	Seedlings			25,000			25,000			25,000	Pronatura Sur A.C.
	Plant nursery tool sets			20,000			20,000			20,000	Pronatura Sur A.C.
	Field Laptops (rugged protection and waterproof)		10,000				10,000			10,000	Pronatura Sur A.C.
	Office Laptops		10,000				10,000			10,000	Pronatura Sur A.C.
	Desktop computers		9,500				9,500			9,500	Pronatura Sur A.C.
	Manual GPS Units		3,000	3,000			6,000			6,000	Pronatura Sur A.C.
	Field Microspcope		3,000				3,000			3,000	Pronatura Sur A.C.
	Office furniture			7,500			7,500			7,500	Pronatura Sur A.C.
Vehicles											

	Vehicles (2)	10,000	10,000	15,000	15,000	10,000	60,000			60,000	Pronatura Sur A.C.
Grants/Sub grants						630,000	630,000			630,000	Pronatura Sur A.C.
Financial Mechanism											
Revolving Funds, Seed Funds, Equity											
Sub-contract to Executing Entity											
Contractual Services Individual											
Contractual Services Company/Institution											
	Preparation of ADVC management strategies (6)		20,000				20,000			20,000	Pronatura Sur A.C.
	Consultations & declaration instruments for other conservation areas		80,000				80,000			80,000	Pronatura Sur A.C.
	Financial Mechanism Management Services		20,000	20,000		10,000	50,000			50,000	Pronatura Sur A.C.
	Technical Backstopping to monitoring program		15,000	15,000			30,000			30,000	Pronatura Sur A.C.
	Prepare ILM Plans for 2 target Landscapes			100,000			100,000			100,000	Pronatura Sur A.C.

	Sustainable agroforestry systems consistent with ILM Plans			45,000			45,000			45,000	Pronatura Sur A.C.
	Assisted Natural Regeneration (ANR) consistent with ILM Plans			45,000			45,000			45,000	Pronatura Sur A.C.
	Ecological restoration consistent with ILM Plans			45,000			45,000			45,000	Pronatura Sur A.C.
	Technical backstopping: agroforestry, ANR and ecological restoration			25,000			25,000			25,000	Pronatura Sur A.C.
	ILM implementation mointoring and associated report			30,000			30,000			30,000	Pronatura Sur A.C.
	ILM best practices in at least 2 demonstration sites in each biocultural landscape			80,000			80,000			80,000	Pronatura Sur A.C.
	2 sustainable wood plantations in Forest Management Programs			100,000			100,000			100,000	Pronatura Sur A.C.

	Access to credit financial coaching to agave producers (esp. women)		5,000	7,000		5,000	17,000			17,000	Pronatura Sur A.C.
	Tools to enhance financial sector engagement with artisanal mezcal producers		10,000	10,000		5,000	25,000			25,000	Pronatura Sur A.C.
	Risk mitigation instruments to connect a gave smallholders, artisanal mezcal producers and mezcal brands.		10,000	10,000			20,000			20,000	Pronatura Sur A.C.
	TA to finance mechanism beneficiaries (agronomic, forestry, commercial & finance)		10,000	10,000		5,000	25,000			25,000	Pronatura Sur A.C.
	TA to artisanal mezcal producers: DOM certification & Sustainable Mezcal Standard			18,000	2,000		20,000			20,000	Pronatura Sur A.C.
	Construction of plant nurseries			150,000			150,000			150,000	Pronatura Sur A.C.

International Consultants											
	Evaluation of ILM Best Practices to inform ILM demonstration .		30,000				30,000			30,000	Pronatura Sur A.C.
	Economic feasibility assessment: large scale treatment use of bagasse and stillage		15,000	15,000			30,000			30,000	Pronatura Sur A.C.
	Project Monitoring Manual (ANR, agroforestry, BD, reforestation)		40,000				40,000			40,000	Pronatura Sur A.C.
National Consultants											
	Strategy Consultant	20,000					20,000			20,000	Pronatura Sur A.C.
	Design national-level norm/ standard defining sustainability in the agave-mezcal value chain	15,000					15,000			15,000	Pronatura Sur A.C.

	Update state level regulatory framework to include definition of sustainability inf the agave-mezcal value chain	48,000					48,000			48,000	Pronatura Sur A.C.
	Draft a Framework Biocultural Landscape Protocol (2 biocultural landscapes) for community adoption	8,000					8,000			8,000	Pronatura Sur A.C.
	Feasibility Assessment for a Fund for the Conservation of Wild Agave	15,000					15,000			15,000	Pronatura Sur A.C.
	Fund for the Conservation of Wild Agave's Operational Structure, Implementation Guideline, public consultation	25,000					25,000			25,000	Pronatura Sur A.C.
	Biodiversity Species Baseline Assessments		25,000				25,000			25,000	Pronatura Sur A.C.

	Sustainable Mezcal Standard Operational Structure, Implementation Guideline and consultations		17,500	17,500	15,000		50,000			50,000	Pronatura Sur A.C.
	Website showcasing Wild Agave Mezcal labels, Sustainable Mezcal Standard brands and project results			25,000			25,000			25,000	Pronatura Sur A.C.
	Assessment of cultural practices to be considered in ILM approaches			10,000	10,000		20,000			20,000	Pronatura Sur A.C.
	List of diversity of flora & fauna species and practices in indigenous languages/ local names			8,000	2,000		10,000			10,000	Pronatura Sur A.C.

	Trust Fund for Sustainable Mezcal in Oaxaca: Operational Structure-Implementation Guidelines		20,000	20,000		5,000	45,000			45,000	Pronatura Sur A.C.
	Design & Implementation of a contribution/fee from agave producers, mezcal producers and mezcal brands to finance agroforestry practices		10,000	15,000		5,000	30,000			30,000	Pronatura Sur A.C.
	Climate Change Consultant		10,000	20,000			30,000			30,000	Pronatura Sur A.C.
	Systematization Consultant for KM		5,000	10,000	5,000		20,000			20,000	Pronatura Sur A.C.
	Market strategy to mobilize demand-side actors to pay a premium for sustainable mezcal				25,000		25,000			25,000	Pronatura Sur A.C.
Salary and Benefits and Staff costs											
	National Project Coordinator	21,000	51,500	56,500	56,500	56,500	242,000		28,000	270,000	Pronatura Sur A.C.
	Gender & Safeguards Specialist	5,000	43,750	43,750	43,750	43,750	180,000			180,000	Pronatura Sur A.C.

	Biodiversity Specialist	5,000	43,750	43,750	43,750	43,750	180,000			180,000	Pronatura Sur A.C.
	Land Use & Climate Change Specialist	5,000	43,750	43,750	43,750	43,750	180,000			180,000	Pronatura Sur A.C.
	Financial Technical Specialist	35,000	35,000	35,000	50,000	95,000	250,000			250,000	UNEP - LAC
	Administrative Assistant						-		94,000	94,000	Pronatura Sur A.C.
Trainings, Workshops and Meetings											
	Training on content and application of the new Agave-Mezcal Law of Oaxaca	15,000					15,000			15,000	Pronatura Sur A.C.
	Training on content & application of the Oaxaca Framework Biocultural Landscape Protocol	15,000					15,000			15,000	Pronatura Sur A.C.
	Training on the objectives and accessibility of the Fund for the Conservation of Wild Agave.	15,000					15,000			15,000	Pronatura Sur A.C.

	Biannual Meetings of the Inter-Agency Coordination Group for Agave-Mezcal	15,000					15,000			15,000	Pronatura Sur A.C.
	Build capacity of Communal Land Committees for wild agave harvesting management	20,000					20,000			20,000	Pronatura Sur A.C.
	Workshops to identift training needs with emphasis on women in 9,000 ha of ADVCs		20,000				20,000			20,000	Pronatura Sur A.C.
	Training to community groups on ADVC monitoring and METT (roles & quota for women)		20,000				20,000			20,000	Pronatura Sur A.C.
	Socialization and training in ILM Plans for the 2 Biocultural Landscapes			40,000			40,000			40,000	Pronatura Sur A.C.
	Inception Workshop							11,000		11,000	Pronatura Sur A.C.
	PSC Meetings							40,000		40,000	Pronatura Sur A.C.

	Technical Working Group Meetings		5,000	5,000		5,000	15,000			15,000	Pronatura Sur A.C.
	Ad Hoc Technical Meetings		5,000	5,000		5,000	15,000			15,000	Pronatura Sur A.C.
	Training to Community Groups in Biodiversity Monitoring (roles & quota for women)		20,000				20,000			20,000	Pronatura Sur A.C.
	Gender-sensitive training on sustainable agave-mezcal production national-level norm/ standard	15,000					15,000			15,000	Pronatura Sur A.C.
Travel											
	National Travel	5,000	30,000	40,000	2,500	7,500	85,000			85,000	Pronatura Sur A.C.
	International Travel	5,000	10,000	20,000	12,500	7,500	55,000			55,000	Pronatura Sur A.C.
Biodiversity, Restoration, and Regeneration Monitoring											
	Conduct ADVC monitoring		40,000				40,000			40,000	Pronatura Sur A.C.
	METT Report preparation at MTR and Project-End		10,000				10,000			10,000	Pronatura Sur A.C.

	Biodiversity and ANR monitoring		20,000	30,000			50,000			50,000	Pronatura Sur A.C.
Office Supplies											
	Stationery and Software licences								12,644	12,644	Pronatura Sur A.C.
											Pronatura Sur A.C.
Publications & Report Preparation											
	Socialization of ADVC Management Strategies in language appropriate to local communities		10,000				10,000			10,000	Pronatura Sur A.C.
	Monitoring Report and online publication		10,000				10,000			10,000	Pronatura Sur A.C.
	Coordinating body for value chain actors to address barriers to sustainable wood use in mezcal production			20,000			20,000			20,000	Pronatura Sur A.C.
	Gender Action Plan							25,000		25,000	Pronatura Sur A.C.

	Monitoring of ESS & Indigenous Framework Plan							25,000		25,000	Pronatura Sur A.C.
Knowledge Management											
	Develop and implement KM Plan		15,000	10,000	5,000		30,000			30,000	Pronatura Sur A.C.
	Disseminate sustainable mezcal production practices (local and gender-sensitive)		10,000	10,000	1,000		21,000			21,000	Pronatura Sur A.C.
	Biannual town hall meetings in 2 biocultural landscapes: experience-sharing (agave-mezcal producers and ejido and communal authorities		10,000	15,000	5,000		30,000			30,000	Pronatura Sur A.C.
	Women-to-women training to share lessons learned and form collaborative ties		5,000	10,000	5,000		20,000			20,000	Pronatura Sur A.C.

	Annual Project Review Meetings including review of community monitoring initiatives		20,000	20,000			40,000			40,000	Pronatura Sur A.C.
	Advocacy for guarantees / 10-year credit line to finance agave production with agroforestry			10,000			10,000			10,000	Pronatura Sur A.C.
	Support to website to be created by project			6,000			6,000			6,000	Pronatura Sur A.C.
	Design, launch and maintain Project Website			10,000			10,000			10,000	Pronatura Sur A.C.
Other Operating Costs											
	Office Rental								40,000	40,000	Pronatura Sur A.C.
	Office Utilities (electricity, telephone, internet, water)	10,000	10,000	10,000	5,695	5,695	41,390			41,390	Pronatura Sur A.C.
	Annual Audit								40,000	40,000	Pronatura Sur A.C.
	Supervision site visits/ performance monitoring							45,000		45,000	Pronatura Sur A.C.

	Fuel	10,000	10,000	10,000	10,000	10,000	50,000			50,000	Pronatura Sur A.C.
	Vehicle Maintenance	5,000	10,000	10,000	10,000	5,000	40,000			40,000	Pronatura Sur A.C.
	Translation to Indigenous Languages	2,000	2,000	2,000	2,000	2,000	10,000			10,000	Pronatura Sur A.C.
	Insurance	5,000	10,000	10,000			25,000			25,000	Pronatura Sur A.C.
	Mid-Term Review							24,000		24,000	Pronatura Sur A.C.
	Final Evaluation							30,000		30,000	UNEP
Grand Total		**349,000**	**923,250**	**1,444,750**	**370,445**	**1,005,445**	**4,092,890**	**200,000**	**214,644**	**4,507,534**	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as

established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).