

**CI-GEF PROJECT AGENCY**

# **GEF Project Document**

Maintaining and Increasing Carbon Stocks in Agro-silvopastoral Systems in Rural Communities of the Selva Zoque-Sumidero Canyon Complex as a Climate Change Mitigation Strategy

Chiapas, Mexico

**August 10, 2015**

PROJECT INFORMATION			
<b>PROJECT TITLE:</b>	Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy		
<b>PROJECT OBJECTIVE:</b>	To maintain and increase carbon stocks (through avoiding deforestation in natural ecosystems) and to reduce greenhouse gas emissions and increase carbon sequestration (adopting sustainable management practices in agro-pastoral systems) in the Selva Zoque – Sumidero Canyon complex.		
<b>PROJECT OUTCOMES:</b>	<p><b>Component 1 outcome:</b> Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration).</p> <p><b>Component 2 outcome:</b> Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage.</p>		
<b>COUNTRY:</b>	Mexico	<b>GEF ID:</b>	5751
<b>GEF AGENCY:</b>	Conservation International	<b>CI CONTRACT ID:</b>	
<b>OTHER EXECUTING PARTNERS:</b>	Cooperativa Ambio S.C. de R.L. (AMBIO), Comisión Nacional de Áreas Naturales Protegidas (CONANP)	<b>DURATION IN MONTHS:</b>	36
<b>GEF FOCAL AREA:</b>	Climate Change Mitigation	<b>START DATE (mm/yyyy):</b>	08/2015
<b>INTEGRATED APPROACH PILOT:</b>	N/A	<b>END DATE (mm/yyyy):</b>	07/2018
<b>NAME OF PARENT PROGRAM:</b>	N/A	<b>PRODOC SUBMISSION DATE:</b>	06/09/2015
<b>RE-SUBMISSION DATE(S):</b>	07/08/2015		

FUNDING SOURCE	AMOUNT (USD)
<b>GEF PROJECT FUNDING:</b>	1,009,174
<b>PPG FUNDING:</b>	45,872
<b>TOTAL GEF GRANT:</b>	<b>1,055,046</b>
<b>Co-FINANCING 1:</b> National Commission of Natural Protected Areas (CONANP) - Regional Directorate in Chiapas	260,000
<b>Co-FINANCING 2:</b> National Commission of Natural Protected Areas (CONANP) - General Directorate for Climate Change	100,000
<b>Co-FINANCING 3:</b> National Forest Commission (CONAFOR)	1,000,000
<b>Co-FINANCING 4:</b> National Commission for Knowledge and Use of Biodiversity (CONABIO)	32,896
<b>Co-FINANCING 5:</b> Secretariat for Environment and Natural History of Chiapas (SEMAHN)	375,021
<b>Co-FINANCING 6:</b> Natural Protected Areas Fund (FANP)	45,000
<b>Co-FINANCING 7:</b> Mexican Fund for Nature Conservation (FMCN)	100,894
<b>Co-FINANCING 8:</b> Cooperativa AMBIO	133,904
<b>Co-FINANCING 9:</b> Ecometrica	229,500
<b>Co-FINANCING 10:</b> Conservation International	210,000
<b>Co-FINANCING 10:</b> Plan Vivo Foundation	45,900
<b>Co-FINANCING 11:</b> State Extension Secretariat (Secretaría del Campo, SECAM)	1,260,923
<b>Co-FINANCING 12:</b> National Commission for the Development of the Indigenous Peoples (CDI)	168,424
<b>TOTAL Co-FINANCING :</b>	<b>3,962,462</b>
<b>TOTAL PROJECT COST:</b>	<b>5,017,508</b>

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## ACRONYMS & ABBREVIATIONS

<b>Acronym</b>	<b>Description</b>
AICA	Área de Importancia para la Conservación de las Aves ( <i>Important Bird Area - IBA</i> )
ANP	Área Natural Protegida (Natural Protected Area)
BAU	Business-as-usual
BD	Biodiversity
CC	Climate Change
CDI	Comision Nacional para el Desarrollo de los Pueblos Indigenas ( <i>National Commission for the Development of the Indigenous Peoples</i> )
CECADESU	Centro de Educación y Capacitación para el Desarrollo Sustentable ( <i>Center for Education and Training on Sustainable Development</i> )
CI	Conservation International
CICC	Comisión Intersecretarial de Cambio Climático ( <i>Inter-Ministerial Climate Change Commission</i> )
CLPI	Consentimiento Libre Previo e informado ( <i>Free, prior and informed consent</i> )
CONABIO	Comisión nacional para el conocimiento y uso de la biodiversidad ( <i>National Commission for Knowledge and Use of Biodiversity</i> )
CONAFOR	Comisión Nacional Forestal ( <i>National Forest Commission</i> )
CONANP	Comisión Nacional de Áreas Naturales Protegidas ( <i>National Commission of Natural Protected Areas</i> )
CO <sub>2</sub> e	Carbon dioxide equivalent
CSA	Climate Smart Agriculture
CSO	Civil Society Organization(s)
D+D	Deforestation and forest degradation
EAP	Economically active population
ECCAP	Estrategia de Cambio Climático para Áreas Protegidas ( <i>Climate Change Strategy for Protected Areas</i> )
ECOSUR	El Colegio de la Frontera Sur ( <i>public scientific research center</i> )
ESMF	Environmental and Social Management Framework
ENACC	Estrategia Nacional de Cambio de Climático ( <i>National Climate Change Strategy</i> ). Vision 10-20-40)
ENAREDD+	Estrategia Nacional REDD+ ( <i>National REDD+ Strategy</i> )
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization of the United Nations
FANP	Fondo para Áreas Naturales Protegidas ( <i>Natural Protected Areas Fund</i> )
FIRA	Fideicomisos Instituidos con Relación a la Agricultura ( <i>Trust Funds for Rural Development</i> )
FIRCO	Fideicomiso de Riesgo Compartido ( <i>Trust Fund for Shared Risk</i> )

FMCN	Fondo Mexicano para la Conservación de la Naturaleza ( <i>Mexican Fund for Nature Conservation</i> )
FPIC	Free, prior and informed consent
GEF	Global Environment Facility
GHG	Greenhouse gases
Ha	Hectares
HDI	Human Development Index
IFAD	International Fund for Agricultural Development ( <i>Fondo Internacional de Desarrollo Agrícola – FIDA</i> )
INE	Instituto Nacional de Ecología ( <i>National Institute of Ecology</i> ); now INECC
INECC	Instituto Nacional de Ecología y Cambio Climático ( <i>National Institute of Ecology and Climate Change</i> )
INEGI	Instituto Nacional de Estadística y Geografía ( <i>National Institute of Statistics and Geography</i> )
LGCC	Ley General de Cambio Climático ( <i>General Climate Change Law</i> )
LULUCF	Land use, land-use change and forestry
MBC	Mesoamerican Biological Corridor
M&E	Monitoring and Evaluation
MRV	Monitoring, Reporting and Verification
NAMA	Nationally appropriate mitigation action
NMX	Norma Mexicana del Carbono ( <i>Mexican Carbon Norm</i> )
NPA	Natural Protected Area
OFP	(GEF) Operational Focal Point
PA	Project Agency
PACCCH	Programa de Acción ante el Cambio Climático de Chiapas ( <i>Climate Change Action Program for the state of Chiapas</i> )
PACMUN	Plan de Acción Climática Municipal ( <i>Municipal Climate Action Plan</i> )
PECC	Programa Especial de Cambio Climático 2014-2018 ( <i>Special Climate Change Program</i> )
PES	Payment for Environmental Services
PIF	Project Identification Form
PIR	(Annual) Project Implementation Report
PVF	Plan Vivo Foundation
PLM	Productive Landscapes Management
PMU	Project Management Unit
PND	Plan Nacional de Desarrollo ( <i>National Development Plan</i> )
POETCH	Programa de Ordenamiento Ecológico y Territorial del Estado de Chiapas ( <i>Ecological land use plan for the state of Chiapas</i> )
PPG	Project Preparation Grant

PSA	Pago por Servicios Ambientales ( <i>Payment for Environmental Services</i> )
PSC	Project Steering Committee
PROCAMPO	Programa de Apoyos Directos al Campo ( <i>Farmers Direct Support Program</i> )
PROGAN	Programa de Producción Pecuaria Sustentable y Ordenamiento Ganadero y Apícola (nuevo PROGAN) ( <i>Sustainable Livestock and Beekeeping Production and Management Program</i> )
PROFEPA	Procuraduría Federal de Protección al Ambiente ( <i>Federal Environmental Prosecutor</i> )
PROMARNAT	Programa Sectorial de Medio Ambiente y Recursos Naturales 2013–2018 ( <i>Sector Programme of Environment and Natural Resources</i> )
RAC	Red de Asesores Científicos de la Reserva de la Biosfera Selva el Ocote ( <i>Network of Scientific Advisors of the Selva El Ocote Biosphere Reserve</i> )
REBISO	Reserva de la Biosfera Selva El Ocote ( <i>Selva El Ocote Biosphere Reserve</i> )
REDD+	Reducing emissions from deforestation and forest degradation ( <i>Reducir emisiones por la deforestación y la degradación de bosques</i> )
SAGARPA	Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación ( <i>Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food</i> )
SECAM	Secretaría del Campo ( <i>State Extension Secretariat</i> )
SEMAHN	Secretaría de Medio Ambiente e Historia Natural ( <i>Secretariat for Environment and Natural History of Chiapas</i> )
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales ( <i>Secretariat of Environment and Natural Resources</i> )
SFM	Sustainable forest management
SHCP	Secretaría de Hacienda y Crédito Público ( <i>Secretariat of Finance and Public Credit</i> )
SNS	Sistema Nacional de Salvaguardas ( <i>National Safeguards System for REDD+</i> )
tCO <sub>2</sub> e	Tons of carbon dioxide equivalent
UGA	Unidades de Gestión Ambiental ( <i>Environmental Management Units</i> )
UNACH	Universidad Autónoma de Chiapas ( <i>Autonomous University of Chiapas</i> )
UNICACH	Universidad de Ciencias y Artes de Chiapas ( <i>University for Sciences and Arts of Chiapas</i> )
UICN	Unión Internacional para la Conservación de la Naturaleza ( <i>International Union for Conservation of Nature</i> )
UMA	Unidad de Manejo para la Conservación de la Vida Silvestre ( <i>Wildlife Conservation Management Unit</i> )
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VER	Plan Vivo Certificate

## **GLOSSARY OF TERMS**

<i>Acahuales or alcahuales</i>	Second-growth semi-deciduous forests
<i>Ejido</i>	Communal lands possessed and used individually or in common
<i>(Biodiversity) Hotspot</i>	Biogeographic region with a significant reservoir of biodiversity that is under threat from humans.
<i>Milpa</i>	Traditional system of planting simultaneously corn, beans and squash, but also other crops like avocados, melon, tomatoes, chilis, sweet potato, jicama and amaranth.
<i>Plan Vivo</i>	Plan providing a market-based mechanism for community projects that deliver verifiable ecosystem, climate & livelihood benefits.
<i>Priority Region for Conservation</i>	Región Prioritaria para la Conservación: Form of conservation used by CONANP
<i>PROSPERA</i>	Government social assistance program (formerly called <i>Oportunidades</i> )
<i>Ramsar site</i>	Wetland protected under the Ramsar Convention on Wetlands of International Importance for biodiversity and ecosystem conservation and sustainable use
<i>Scolel'te</i>	“El árbol que crece”. Stands for AMBIO’s Scolel’te Program of developing carbon sequestration actions and projects.
<i>Tzeltal</i>	Most numerous indigenous group and language in Chiapas
<i>Tzotzil</i>	Second most numerous indigenous group and language in Chiapas

## **SECTION 1: PROJECT SUMMARY**

### **A. Project Context**

- 1.** This climate change mitigation project will be implemented in rural communities of the so-called Selva Zoque-Sumidero Canyon Complex, a contiguous group of five natural protected areas (NPAs) in the northwestern parts of the Mexican state of Chiapas. The project objective is to maintain and increase carbon stocks in the area through avoiding deforestation in natural ecosystems, and to reduce greenhouse gas emissions and increase carbon sequestration by adopting sustainable management practices in agro-pastoral systems.
- 2.** The five NPAs stretch from the Selva El Ocote Biosphere Reserve in the west, passing by the Area Subject to Ecological Conservation “La Pera” and the Protected Forest Zone “Villa Allende” to the Sumidero Canyon National Park in the east; the small Area Subject to Ecological Conservation “Cerro Meyapac” lays in short distance south of La Pera. Three areas are under federal management, while two – La Pera and Cerro Meyapac – are under Chiapas state jurisdiction. The NPAs together cover 155,238 hectares.
- 3.** Most of the project area belongs to the physiographic region called Northern Mountains of Chiapas, with altitudes of up to 1,500 m above sea level. The climate in the project region is predominantly warm and humid, with annual precipitations ranging from 1,500 mm up to 3,000 mm, and mean monthly temperatures from 18 to 25 degrees Celsius. Climate change projections predict an increase in average temperatures and a decrease in total annual rainfalls.
- 4.** More than three quarters of the area are covered by forests, mainly medium semi-deciduous forests, tall and medium evergreen forests and low dry forests. A large (32.8%) portion of the territory is occupied by second-growth semi-deciduous forests (*acahuales*). The third most represented land use type in the area after primary and second-growth forests is pasture land for extensive cattle ranching, covering 11% of the five NPAs. The five NPAs are part of the Mesoamerican Terrestrial Hotspot in south-eastern Mexico and Central America, and particularly of the Mesoamerican Biological Corridor (MBC) in its Selva Maya Zoque portion.
- 5.** The region presents a high diversity of flora and fauna, being home to species such as ocelots (*Leopardus pardalis*), tapirs (*Tapirus bairdii*) and primates, large predators, such as the jaguar (*Pantera onca*) and puma (*Puma concolor*), and some species particularly endangered as the quetzal (*Pharomachrus mocinno*) and the peacock pavón (*Oreophasis derbianus*). A total of 646 terrestrial vertebrate species is reported for the Selva El Ocote reserve, distributed among 24 amphibians, 58 reptiles, 460 birds and 104 mammals representing 45% of vertebrates of Chiapas and 23% of the whole country.
- 6.** A total of 327 rural localities are distributed among the five NPAs, summing up to a population of 47,159 inhabitants. With an annual average of more than 2.5% from 2000 to 2010, demographic growth is still significantly higher than the general figure for the state of Chiapas (2%). Indigenous communities, mostly belonging to the *tzotzil* (and few to the *tzeltal*) linguistic group, make up 12.1% of the population of the complex of NPAs. However, this proportion rises to 48% in the Selva El Ocote Reserve.
- 7.** The proportion of economically active population (EAP) occupied in agriculture amounts to 15.8%, generating income from extensive cattle ranching and, to a lesser extent, from subsistence production of maize and beans, with low yields. In some areas, where climatic conditions allow it, coffee is cultivated; beekeeping and pacaya palm cultivation have recently gained in importance. Communal lands (*ejidos*) cover 33% and public lands, about 28% of the complex as a whole.
- 8.** The climate change policy context in Mexico is now characterized by a long catalogue of strategies, laws, and programs at the federal and state levels. Among them, it is worth emphasizing: The General

Climate Change Law; the National Climate Change Strategy - Vision 10-20-40; the National REDD+ Strategy (ENAREDD+); the Climate Change Strategy for Protected Areas (ECCAP) released by CONANP. At the state level: the Law for Climate Change Adaptation and Mitigation in the State of Chiapas; the Climate Change Action Program for the state of Chiapas (PACCCH), and AMBIO's Scolel'te Program. In the institutional context, CONANP, CONAFOR, SAGARPA, SEMAHN and AMBIO stand out.

## B. Project Justification

9. The project will mainly address the following *key global environmental problems* that are affecting the Selva El Ocote-Sumidero Canyon Complex of protected areas:
  - Deforestation and forest degradation
  - Overexploitation of natural resources and land degradation
  - Increased emissions of GHG
  - Climate change
  - Habitat loss and fragmentation
  - Loss of biodiversity.
10. All these problems are interconnected and therefore are described as a system of related variables, and not presented simply one by one.
11. Current baseline (business-as-usual - BAU) and future scenarios without the project show that the rate of deforestation and forest degradation will continue on a high level in the short and medium terms. Particularly, for the Selva El Ocote Biosphere Reserve which is the biggest NPA of the Selva Zoque-Sumidero Canyon Complex (covering 65% of the total area). The current deforestation rate for tropical forest is 6.7%, equivalent to 3,370 lost hectares per year, and 2.4% for temperate forest, equal to 1,463 hectares per year; while for the overall complex a total of 33,794 hectares of tropical and temperate forests has been lost for the period between 1995-2000.<sup>1</sup>
12. Under BAU scenario, the emissions of CO<sub>2</sub> from deforestation and forest degradation will continue to grow in the future. Land degradation and loss of fertile soils will increase pressure on forest areas as farmer families need to open new land for producing food. The BAU scenario will put at risk the generation and delivery of crucial ecosystem services of local, regional and global significance, among them provision of water and food, climate regulation, and soil retention and formation. The expansion of the agricultural frontier will continue and accelerate the fragmentation of ecosystems and habitats affecting the rich biodiversity of the complex of NPAs.
13. As an alternative to the BAU scenario, and due to its higher political and financial feasibility in comparison to other alternatives, the project will address a combination of institutional and social barriers. These are on one hand, weak institutional capacity to sustainably manage natural resources, and on the other hand, low level of incentives for farmers to conserve forests and for sustainable land management (SLM) in general, weak influence of awareness about consequences and costs of D+D on production practices, and limited smallholder farmers' abilities to sustainably manage forest and land resources.
14. The project will take advantage of and build on current programs and investments in the Selva Zoque-Sumidero canyon complex of five NPAs both from the governmental and non-governmental sectors, mainly CONANP, CONAFOR, and AMBIO. The government of Chiapas has made crucial political, institutional, and financial commitments and investments that provide a solid baseline for this GEF

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<sup>1</sup> More recent data for the whole complex are not available.

project. The Climate Change Action Program for the state of Chiapas (PACCCH), developed in 2011 by SEMAHN in partnership with Conservation International, UNICACH and the British Embassy, must be particularly emphasized.

- 15.** The foreseen project activities are consistent with GEF climate change mitigation focal area objective 2 aiming to promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture. The specific outcome of this program is: “Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration.” The project is also highly consistent with national priorities, plans, and policies, like ECCAP, ENAREDD+, PECC, ECCAP and PROMARNAT; as well as with CI institutional priorities.

### C. Project Strategy

- 16.** The core of the **project objective** is to maintain and increase carbon stocks, and to reduce greenhouse gas emissions and increase carbon sequestration in the project region, through avoiding deforestation in natural ecosystems and adopting sustainable management practices in agro-pastoral systems. Objective *indicators* are:
- 132.298 tCO<sub>2</sub>e avoided to be emitted in the Selva Zoque – Sumidero Canyon complex (by sustainable management of primary and second-growth forests for avoiding carbon emissions)
  - 160.969 tCO<sub>2</sub>e sequestered in the Selva Zoque – Sumidero Canyon complex (by improved production practices contributing to the sequestration of carbon)<sup>2</sup>
- 17.** Corresponding to the identified social and institutional barriers, the project will manage the following components:
- **Component 1:** Field demonstrations for maintaining carbon stocks in forests and increasing carbon sequestration in agropastoral landscapes of the Selva Zoque – Sumidero Canyon complex.
  - **Component 2:** Building institutional and local awareness and capacity on reducing GHG emissions from the LULUCF sector in Chiapas.
- 18.** The **outcomes of Component 1** will be measured and monitored through four **indicators**:
- 6.615 hectares of primary and second-growth forests managed sustainably for maintaining carbon stocks and reducing emissions;
  - 722 hectares of productive landscapes under improved management practices contributing to carbon sequestration;
  - 15 communities maintaining forest cover and/or improving management practices in productive landscapes; and
  - 80% of local processes (field projects, network capacity building processes) are managed with a gender approach.
- 19.** Six **outputs** will together contribute to achieve Component 1 outcomes:
- Intervention communities and local project sites are identified and validated by stakeholders.
  - A gender sensitive sustainable forest management (SFM) strategy for maintaining carbon stocks and reducing emissions is developed and implemented in project area communities.
  - Field projects under improved productive landscapes management (PLM) practices contributing to carbon sequestration are developed and implemented in project area communities.

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<sup>2</sup> For a 25 years period in both cases (avoided emissions *and* carbon sequestration)

- Carbon and greenhouse gas mitigation benefits generated by the project are measured and monitored using internationally accepted protocols throughout project life.
  - A carbon market strategy is developed and implemented, to ensure that a maximum of carbon credits generated through the project are properly issued in the voluntary market and benefits are equitably distributed.
  - An agreed upon strategy for scaling up the demonstration field projects within the Selva Zoque – Sumidero Canyon Complex and the State of Chiapas and beyond is developed and first implementation steps have been initiated.
- 20.** The **outcomes of Component 2** will be measured and monitored through three **indicators**:
- 15 communities and at least 375 farmers (men and women) trained for applying sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective;
  - At least 15 community extension workers trained with a gender perspective for transmitting SFM and PLM practices for climate change mitigation to communities and individual farmers; and
  - At least 35 CONANP and SEMAHN staff members, including some members of NPAs technical committees trained on SFM and improved PLM practices with a gender perspective contributing to carbon capture and storage.
- 21.** The following **outputs** will together contribute to achieve Component 2 outcomes:
- Capacity needs of farmers (men and women), extension workers, and institutional staff members assessed.
  - Capacity building programs and training materials on SFM and improved PLM practices designed.
  - Network of community extension workers established.
  - Capacity building programs implemented (programs will take into account the Strategic Gender Plan).
  - Monitoring and evaluation system to assess acquisition and application of knowledge and skills designed and implemented.
  - Field exchanges to share lessons learned and promote adoption of best practices for climate change mitigation between project and non-project communities carried out.
  - Public awareness and policies are influenced by lessons learned and know-how generated from the project.

#### **D. Project Safeguards Policies**

- 22.** In compliance with CI-GEF project safeguards policies recommendations, the following safeguard plans were developed: An Indigenous Peoples Plan, a Stakeholders' Engagement Plan, and a Gender Mainstreaming Strategy and Action Plan, based to a large extent on the participative consultation held with communities to achieve their free, prior and informed consent (FPIC) with the project.
- 23.** The project will ensure that it is in compliance with the GEF and CI Accountability and Grievance Policy. The grievance mechanism will attend to types of complaints, one at the local level, and the other at the institutional and CSO level.

#### **E. Implementation and Execution Arrangements**

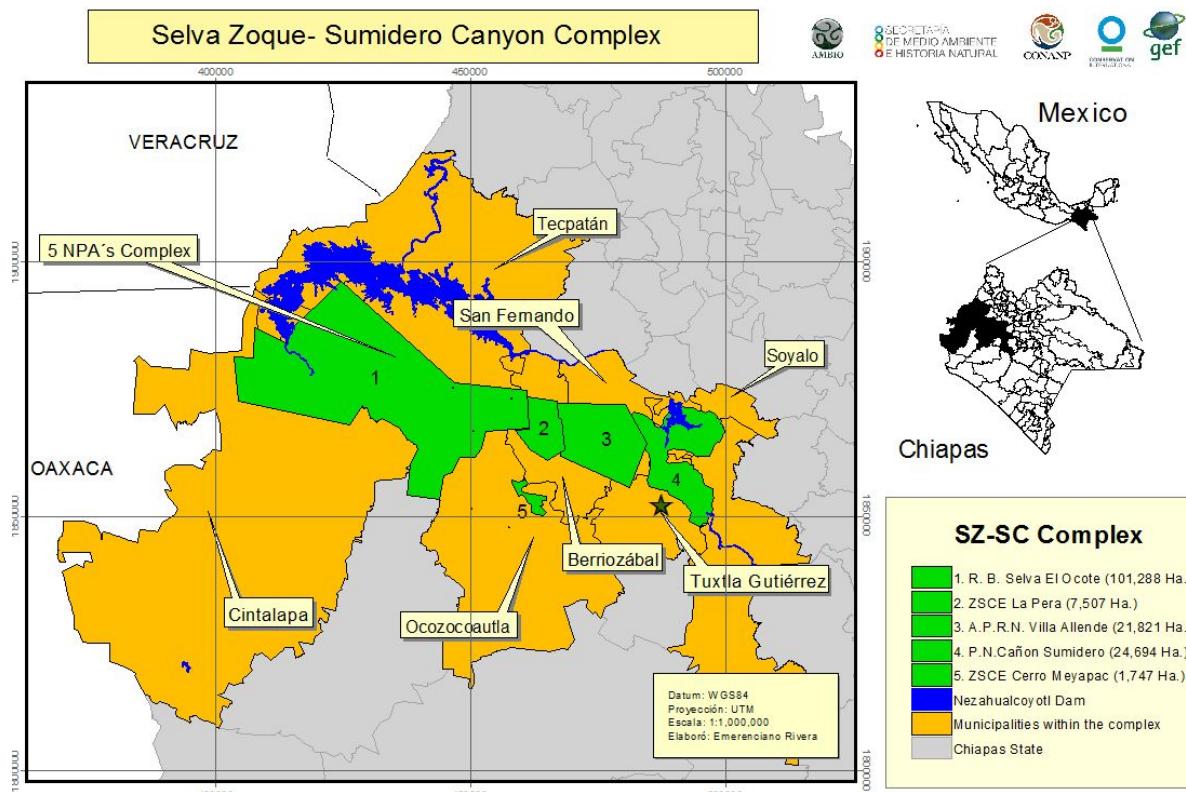
- 24.** Cooperativa Ambio (AMBIO) is the project's Executing Agency that will play the lead role in implementing and monitoring the project. Strategic partner and co-executing agency is the National Commission of Natural Protected Areas (CONANP). Other important partners for project execution are: CONAFOR (National Forest Commission); SEMAHN (Ministry for Environment and Natural History of Chiapas); FMCN (Mexican Fund for Nature Conservation); ECOSUR (El Colegio de la Frontera Sur, a public scientific research center).
- 25.** The project will establish a Project Steering Committee (PSC) composed of AMBIO, CONANP (Federal Climate Change Direction and Regional Direction), FMCN and CI-Mexico (with no voting rights). The Project Management Unit (PMU) will be responsible for operative planning and day-to-day implementation of all project activities under the two project components.

## SECTION 2: PROJECT CONTEXT

### A. Introduction

26. This climate change mitigation project will be implemented in 15 rural communities of the Selva Zoque-Sumidero Canyon Complex in the northwestern parts of the Mexican state of Chiapas (Map 1).
27. The project area is composed of five natural protected areas (NPAs) in Chiapas, Mexico.<sup>3</sup> Situated in the northwestern parts of the state, they constitute the third largest complex of NPA in Chiapas, after the El Triunfo-La Sepultura corridor in the Sierra Madre (south of the state) and the Montes Azules-La Cojolita complex in the southeastern Selva Lacandona region.

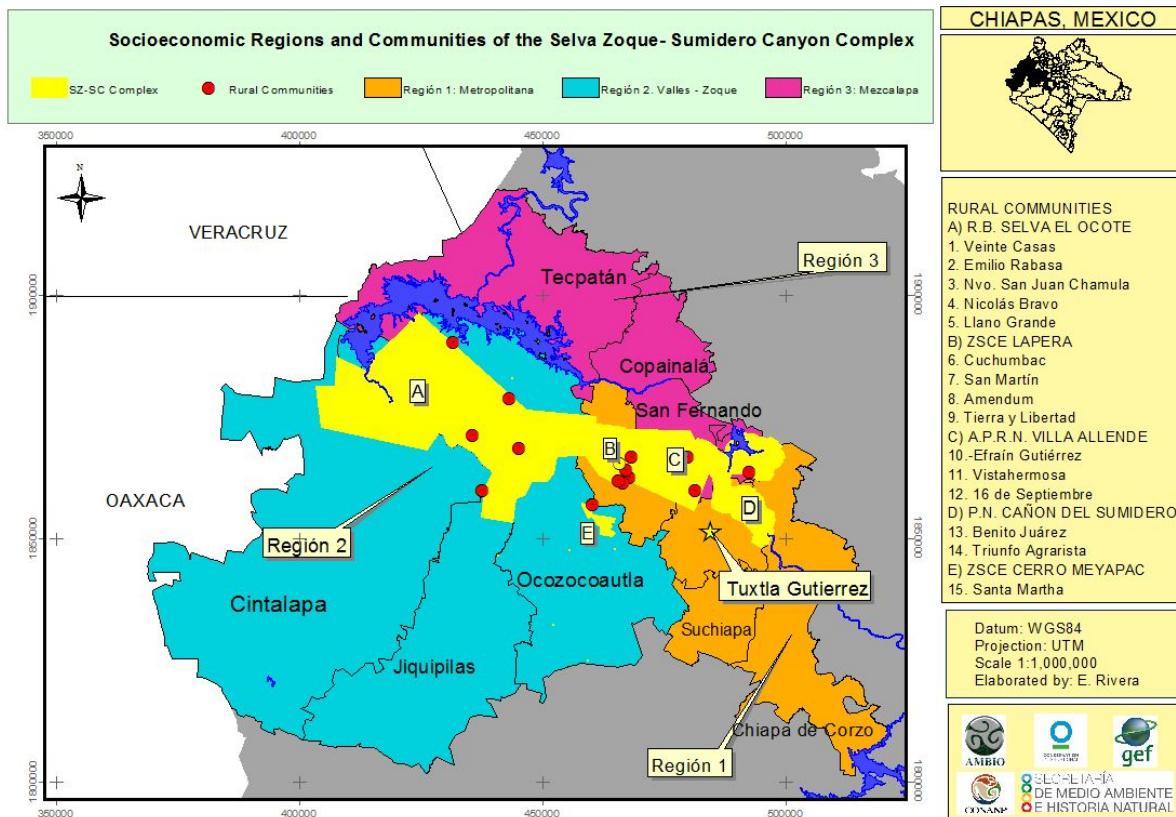
**Map 1: Natural protected areas and municipalities covered by the project**



<sup>3</sup> During the PPG phase, project coverage was enlarged from one (the Selva El Ocote Biosphere Reserve) to five NPA, and from 8 to 15 communities, for the following reasons: CONANP started in 2014 a GEF climate change adaptation project in the Selva Zoque-Sumidero Canyon region and proposed to manage the present GEF climate change mitigation project covering the same area, in order to facilitate exchange of experience and obtain synergy effects like: a) develop strategies for strengthening the connection between the forest areas in the region and its function as biological corridors; b) cooperate for reducing the impacts of deforestation and forest degradation; c) give more attention to rural communities in this region which until now has received less benefits than other protected areas in Chiapas; d) position the Selva Zoque-Sumidero Canyon complex in policy planning and public opinion.

28. Map 1 shows the administrative distribution of this complex of protected areas among the municipalities of Ocozocoautla, Cintalapa, Tecpatán, Soyaló, Berriozabal, San Fernando, Chiapa de Corzo y Tuxtla Gutiérrez.
29. The present project will maintain and increase carbon stocks in 15 rural communities located within or bordering five natural protected areas (NPAs). Four of the five areas form a contiguous zone, stretching from the Selva El Ocote Biosphere Reserve (REBISO, for its acronym in Spanish) in the west, passing by the Area Subject to Ecological Conservation "La Pera" and the Protected Forest Zone "Villa Allende" (Zona Protectora Forestal Vedada "Villa Allende") to the Sumidero Canyon National Park in the east; the Area Subject to Ecological Conservation "Cerro Meyapac" lays in short distance south of La Pera, near the city of Ocozocuautla. Three areas are under federal management, while two – La Pera and Cerro Meyapac – are under Chiapas state jurisdiction. Together they cover 155,238 hectares.
30. The fifteen rural communities selected by the project during the PPG phase are represented in the Map 2

**Map 2: Rural communities selected by the project**



## B. Environmental Context and Global Significance

### Environmental Context

31. Most of the project area belongs to the physiographic region called Northern Mountains of Chiapas, with altitudes of up to 1,500 m above sea level. This mountain range is connected in its south-

eastern part with the Central High Plateau (Altiplanicie Central) and falls gradually down to the Gulf of Mexico coastal plains in the north and to the Chiapan Central Depression in the south. Its karstic geomorphology has shaped unique landscapes and habitats of high aesthetic and ecological value. One of the region's features is its steep cliffs and deep ravines, characteristic for example for El Sumidero and La Venta canyon. An important attraction for nature tourism are its numerous sinkholes, like the Cotorras Abyss (Sima de las Cotorras), an extended cavernous systems, of interest not only for speleologists or hydrogeologists, but also for its special contribution to biodiversity, given the great variety of endemic troglophile and trogloxene species, like scorpions and spiders, found in these sites. In this context, it is important to note that karstic aquifers worldwide are considered the reserves of the third millennium. River La Venta Canyon area has a reserve of 600 million cubic meters of still pure and uncontaminated water.

32. The climate in the project region is predominantly warm and humid, with annual precipitations ranging from 1,500 mm up to 3,000 mm, and mean monthly temperatures from 18 to 25 degrees Celsius. In transition areas to the Central Depression further south, rainfalls are less heavy, with average precipitations of about 1,000 to 1,200 mm.
33. Climate change projections predict an increase in average temperatures and a decrease in total annual rainfalls.
34. More than three quarters of the area is covered by forests, mainly medium semi-deciduous forests and low dry forests (see Table 1 and Map 3). In the more humid parts, roughly the north of the Selva El Ocote and the La Pera reserves, important areas of tall and medium evergreen forests are prevailing. Some fragments of tropical mountain cloud forest are still conserved. Corresponding to decreasing precipitations further south, in areas belonging to the Central Depression, low dry forests are more represented. A significant portion of the territory (32.8%), particularly in the Selva El Ocote Reserve, is occupied by second-growth semi-deciduous forests (*acahuales*) where leguminosae (or fabaceae, mainly Acacia) is the dominant plant family.
35. The third most represented land use type in the area after primary and second-growth forests is pasture land for extensive cattle ranching, covering 11.2% of the five NPAs. However, whereas only 7% of the Selva El Ocote reserve is occupied by cattle pastures, this proportion increases significantly in the Sumidero Canyon (27.6%) and the Villa Allende Protected Forest Zone (15.9%). Together with areas used for production of crops (mainly maize, beans and coffee), these figures reflect an accelerated and ongoing expansion of the agricultural frontier and growing fragmentation of ecosystems and habitats in the region during the past fifty years.

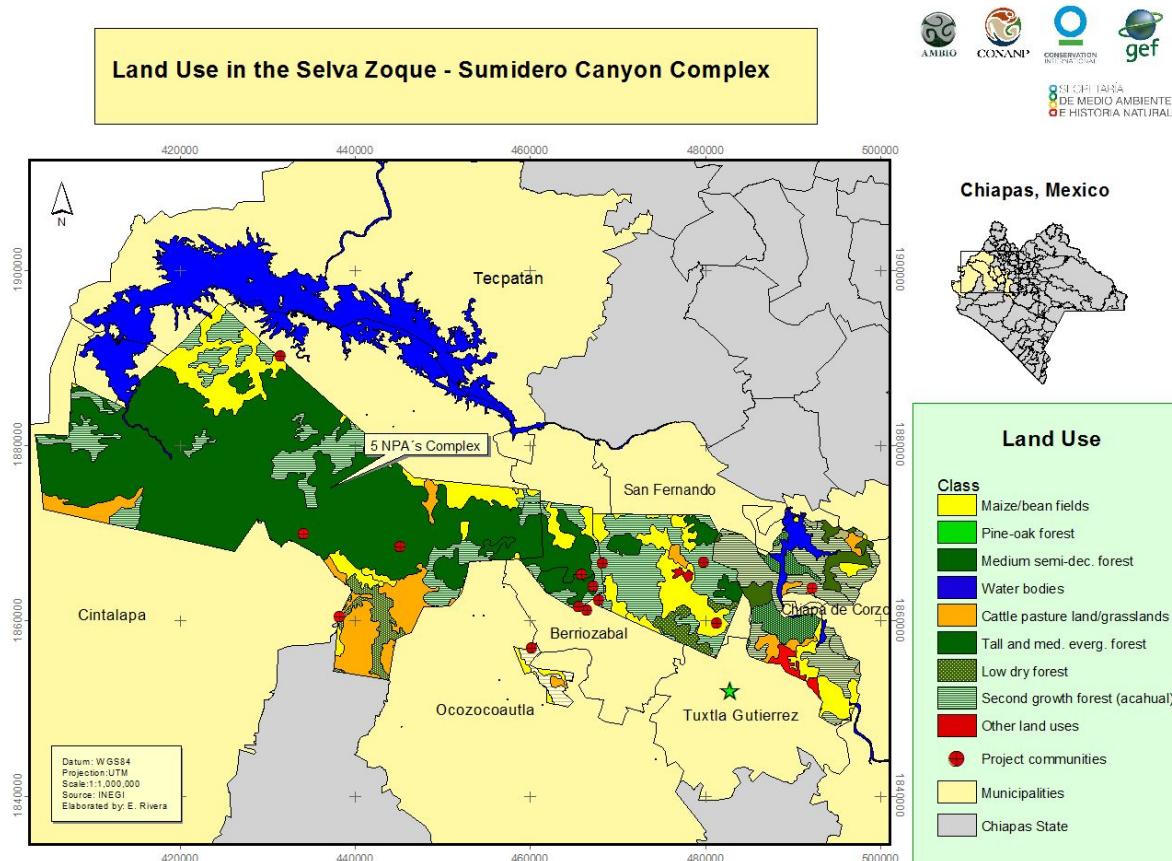
**Table 1: Forest cover/land use in the project area**

Land Use Type	Selva El Ocote		La Pera		Cerro Meyapac		Villa Allende		Cañón El Sumidero		Complex of 5 NPA	
	ha	%	ha	%	ha	%	ha	%	ha	%	ha	%
<b>Primary forests</b>	<b>45,005</b>	<b>44.4</b>	<b>4,403</b>	<b>58.7</b>	<b>599</b>	<b>34.3</b>	<b>5,900</b>	<b>28.1</b>	<b>15,873</b>	<b>64.3</b>	<b>71,780</b>	<b>46.2</b>
Tall and medium evergreen forest	18,138	17.9	2,963	39.5	---	---	---	---	---	---	21,101	13.4
Medium semi-deciduous forest	23,348	23	1,440	19.2	599	34.3	1,100	5.2	11,382	48.0	37,869	24.1
Low dry forest	3,519	3.5	---	---	---	---	4,800	22.9	4,404	18.6	12,723	8.1
Pine-oak forest	---	---	---	---	---	---	---	---	87	0.4	87	0.1
<b>Second-growth semi-deciduous forest (acahual)</b>	<b>39,525</b>	<b>39.0</b>	<b>2,600</b>	<b>34.6</b>	<b>990</b>	<b>56.7</b>	<b>7,600</b>	<b>34.8</b>	<b>195</b>	<b>0.8</b>	<b>50,910</b>	<b>32.8</b>
<b>Non-forest land uses</b>	<b>16,756</b>	<b>16.6</b>	<b>504</b>	<b>6.7</b>	<b>158</b>	<b>9.0</b>	<b>7,505</b>	<b>35.7</b>	<b>7,625</b>	<b>32.2</b>	<b>32,548</b>	<b>21.0</b>
Cattle pasture land/ grasslands	6,981	6.9	500	6.7	8	1.4	3,350	15.9	6,539	27.6	17,378	11.2
Maize/bean fields (milpas)	1,658	1.6	4	0	119	6.8	1,171	5.6	---	---	2,952	1.9
Water bodies	n/a*	---	---	---	---	---	---	---	539	2.3	539	0.3
Other land uses	8,117	8.1	---	---	31	1.8	2,984	14.2	547	2.3	11,679	7.5
<b>TOTAL</b>	<b>101,286</b>	<b>100</b>	<b>7,507</b>	<b>100</b>	<b>1,747</b>	<b>100</b>	<b>21,005</b>	<b>100</b>	<b>23,693</b>	<b>100</b>	<b>155,238</b>	<b>100</b>

*Source:* Own elaboration based on information delivered by: CONANP, 2001 & 2009. *Selva El Ocote Biosphere Reserve Management Plan and Management Plan Modificaction Draft*; CONANP, 2007.

*Estudio previo justificativo para modificar el decreto del área natural protegida Parque Nacional “Cañón El Sumidero”;* BIODIVERSIDAD, MEDIO AMBIENTE, SUELO Y AGUA A.C. 2012 y PEOT 2004 (Gobierno de Chiapas). *Asesoría para la integración del Estudio Técnico Justificativo para la modificación y recategorización del decreto de Villa Allende y promoción de la importancia para su conservación;* SEMAHN (State of Chiapas Environmental Secretariate) internal documents and Management Plans concerning La Pera and Cerro Meyapac Natural Protected Areas. \* Castillo S., M.A., García-Gil, G., March, I.J., Fernández, J.C., Valencia, E., Osorio, M. y A. Flamenco, 1998. *Diagnóstico geográfico y cambios de uso del suelo en la Selva El Ocote, Chiapas.* Informe Final. El Colegio de la Frontera Sur-Fondo Mundial para la Naturaleza WWF-México, Biodiversity Support Program, U.S. AID. San Cristóbal de las Casas, Chiapas, México, 121 pp. + anexo cartográfico.

**Map 3: Land use in the project area**



### Global Significance

36. The forests of this complex of NPAs, along with neighbouring forests of the Chimalapas in Oaxaca and Uxpanapan in Veracruz, are considered the second most important forest formation in the country in terms of extent and biodiversity richness. The protection and sustainable management of these tropical rainforests is allowing the permanence of important ecosystem services among which are the mitigation and adaptation to climate change and the prevention of erosion and sedimentation of nearby large water bodies, like the Chicoasen and Nezahualcoyotl dams. Cloud forests present in the area are particularly important as they constitute an endangered ecosystem in Mexico. Each fragment of these forests contains significant populations of endemic and endangered species which require special attention to ensure its conservation and promote ecological connectivity.
37. The five NPAs are part of the Mesoamerican Terrestrial Hotspot in south-eastern Mexico and Central America, and particularly of the Mesoamerican Biological Corridor (MBC) in its Selva Maya Zoque portion that stretches from the Selva Lacandona in the southeast to the Selva El Ocote in the northwest. The MBC is also undertaking efforts to link conservation actions between the Selva El Ocote Reserve and the chain of protected areas extending across the crest of the Sierra Madre of Chiapas, from La Sepultura Biosphere Reserve down to the reserves of El Triunfo and Tacaná Volcano. The five NPAs of the Selva El Ocote-Sumidero Canyon Complex are also represented in Map 4 of Key Biodiversity Areas in the southeast of Mexico designed by CI in 2009.

**Map 4: Key Biodiversity Areas in the Southeast of Mexico**



38. Underlining the high conservation value of the region, the National Commission for Knowledge and Use of Biodiversity (CONABIO) has declared the corridor Selva El Ocote – La Sepultura as Priority Region for Conservation (Región Prioritaria para la Conservación – RTP) # 132, due to its complex combination of high, medium and low forests and some conserved extensions of cloud forests.
39. The region presents a high diversity of flora and fauna, being home to species such as ocelots (*Leopardus pardalis*), tapirs (*Tapirus bairdii*) and primates, large predators, such as the jaguar (*Pantera onca*) and puma (*Puma concolor*), and some species particularly endangered as the quetzal (*Pharomachrus mocinno*) and the Horned guan (*Oreophasis derbianus*). A total of 646 terrestrial vertebrate species is reported for the Selva El Ocote Reserve, distributed among 24 amphibians, 58 reptiles, 460 birds and 104 mammals representing 45% of vertebrates of Chiapas and 23% of the whole country<sup>4</sup>. It is estimated that some 500 species of butterflies and 3,000 species of beetles live in this priority region. The orchid and bromeliad families are extremely abundant. The rate of endemism of the region is high; for example, 8 species of birds, 15 sub-species of butterflies and at least 3 plant genera are found only here.<sup>5</sup> The region also serves as a biological corridor for germplasm exchange between North and Central America.

<sup>4</sup> CONANP, 2001. *Programa de Manejo de la Reserva de la Biosfera Selva El Ocote*, p.5

<sup>5</sup> CONABIO, 2012. *Listado de regiones terrestres prioritarias*.

<http://www.conabio.gob.mx/conocimiento/regionalizacion/doctos/Tlistado.html>

40. The Sumidero Canyon National Park, together with the Protected Forest Zone “Villa Allende”, form the terrestrial *Priority Region for Conservation # 141* “La Chacona-Cañón del Sumidero”. This region stands out for its great diversity of species in a small area with three types of contrasting vegetation: tropical mountain cloud forest, medium semi-deciduous forest, and low dry forest. The undergrowth of these forests is very diverse, containing a great variety of palms and aroids. Epiphytes are abundant, with many species of orchids and bromeliads. Crasicaule plants grow on the canyon walls.<sup>6</sup>
41. Sumidero Canyon National Park was declared in 2004 as Ramsar site 1344. The Grijalva River cuts a canyon landscape of chalk and basalt rockwalls up to 1.000 meters in height, partially flooded by the Chicoasén dam. Threatened species like the Great curassow (*Crax rubra*), the spider monkey (*Ateles geoffroyi*), the American crocodile (*Crocodylus acutus*) and the ocelot (*Leopardus wiedii*) find refuge in the park. Vegetation types range from deciduous forest to oak-pine forest, grasslands and agricultural areas.<sup>7</sup>
42. The project complex of five NPAs hosts two areas recognized as being *globally important habitat for the conservation of bird populations*: AICA 167 “El Ocote” and AICA 191 “Laguna Bélgica-Sierra Limón-Sumidero Canyon”.<sup>8</sup> In the AICA “Selva El Ocote” 481 species of birds – nearly one half of Mexico’s total bird population – have been counted, 8 of them endemic, 8 quasi endemic and 4 semi endemic. Among the endemic species are: Nava’s wren (*Hylorchilus navai*, IUCN category: Vulnerable), Long tailed sabrewing (*Campylopterus excellens*, Near Threatened), Green parakeet (*Psittacara holochlorus*) and *Citreoline trogon* (Least Concern)<sup>9</sup>. AICA 191 “Laguna Bélgica-Sierra Limón-Sumidero Canyon” has a surface of 64,853 hectares and covers most of the remaining four ANP plus the small state managed NPA “Laguna Bélgica”; the number of its bird species in 2007 was 353 (7 endemic, 10 quasi endemic and 1 semi endemic)<sup>10</sup>.

### C. Socio-Economic and Cultural Context

43. The 2010 population census showed that Chiapas has a total population of 4.8 million people with annual demographic growth of 2.0% (national average is 1.2%). Twelve different ethnic groups make up 27% of the population, the predominant indigenous languages being the Tzeltal, Tzotzil, Chol and Tojolabal. Chiapas ranked 32nd of the 32 states in Mexico for the Human Development Index (HDI), given that 90 of the 118 municipalities have high and very high degrees of marginalization and poverty (UNDP 2012).
44. The complex of five NPAs covers parts of the municipalities of Ocozocoautla, Cintalapa, Tecpatán, Berriozabal, San Fernando, and Tuxtla Gutiérrez but no urban localities (with 2,500 and more inhabitants<sup>11</sup>) are within its limits. Table 2 shows that a total of 331 rural localities are distributed among the five NPAs, summing up to a population of 46,465 inhabitants. A high proportion of localities<sup>12</sup> count with only one or two households; this is an indicator of the high demographic dispersion, and subsequent habitat fragmentation, in extended areas of the complex. Hence, the apparently low population density of 29.7 inhabitants / km<sup>2</sup> in the region does not fully express the magnitude of demographic pressure on its primary forests.

<sup>6</sup> CONANP, 2007. *Estudio Previo Justificativo para Modificar el Decreto del Área Natural Protegida Parque Nacional Cañón del Sumidero*. Chiapas, México, p.17.

<sup>7</sup> List of Wetlands of International Importance: The Ramsar List (PDF). <https://rsis.ramsar.org/ris/1344>

<sup>8</sup> AICA: Área de Importancia para la Conservación de las Aves = Important Bird and Biodiversity Area (IBA)

<sup>9</sup> <http://avesmx.conabio.gob.mx/verzona?tipo=aica&id=167>

<sup>10</sup> [http://avesmx.conabio.gob.mx/lista\\_ave?tipo=aica&zona=191](http://avesmx.conabio.gob.mx/lista_ave?tipo=aica&zona=191)

<sup>11</sup> Definition of urban localities used by INEGI (by its name in Spanish; National Institute of Statistics and Geography)

<sup>12</sup> For example, 29 of the 43 localities of the ANP La Pera have only one or two dwellings.

- 45.** Demographic growth has been high in the region, in large part due to the immigration of indigenous (mostly *Tzotzil*) farmers descending since the sixties of the 20th century from the Central High Plateau of Chiapas to colonize the area.<sup>13</sup> Recently, during the first decade of the 21st century, population growth has diminished, but with an annual average of over 2.5% between 2000-2010, it is still significantly higher than the general figures for the state of Chiapas (2%) and Mexico (1.2%).

**Table 2: Demographic and socio-economic data of the Selva Zoque-Sumidero Canyon complex of five NPA**

Natural Protected Area (NPA)	Number of localities	Number of inhabitants	Inhabitants / km2	Demographic growth 2000-2010	% of EAP in agriculture	Number and % of indigenous population
Selva El Ocote	138	8,017	7.9	2.78	(2405.1) 30	3,848 (48)
La Pera	40	2,087	22.6	2.01	(772.1) 37	397 (19)
Cerro Meyapac	1	110	-	2.61	-	-
Villa Allende	112	29,208+	139.1	2.68	(3505.0) 12	58 (0.2)
El Sumidero Canyon	36	7,737++	32.7	3.60	(773.7) 10	1,393 (18)
<b>Total NPA</b>	<b>327</b>	<b>47,159</b>	<b>30.4</b>		<b>7,456 (15.8)</b>	<b>5,696 (12.1)</b>

Source: Own elaboration with data from INEGI ( National Institute for Statistics and Geography, Mexican Government) and RAN (National Agrarian Register; Mexican Government).

+This figure includes the capital of the municipality of San Fernando, distorting the proportion of non-rural population of the complex.

++Not includes the city of Chiapa de Corzo with 45,077 inhabitants.

- 46.** The proportion of economically active population (EAP) occupied in agriculture amounts to 15.8%<sup>14</sup>, generating income from extensive cattle ranching<sup>15</sup> and, to a lesser extent, from subsistence production of maize and beans, with low yields. In some areas, where climatic conditions allow it, coffee is cultivated; beekeeping and pacaya palm cultivation have recently gained in importance. Other minor activities are public transport, small retail commerce, and construction. Transfer payments from public social programs, in particular the *Progresa* program (formerly called *Oportunidades*), and remittances from relatives working abroad, can represent a considerable part of rural families' incomes. Two *ejidos* (Veinte Casas and Nuevo San Juan Chamula) have received payments for environmental services from CONAFOR's Payment for Environmental Services program (PSA, for its Spanish acronym) in 2014 (some USD 55,000), adding income to small farmers' households.
- 47.** Indigenous communities, mostly belonging to the *Tzotzil* (and few to the *Tzeltal*) linguistic group, make up 15.8% of the population of the complex of NPAs. *Tzotzil* communities are concentrated in the NPA Selva El Ocote whereas *mestizo* farmers are predominant in the other NPAs. The original ethnic group in the region were the *Zoque*. However, this group entered in a process of assimilation

<sup>13</sup> Programa de Manejo Reserva de la Biosfera Selva El Ocote, p. 24

<sup>14</sup> The percentage of EAP occupied in agriculture is relatively low in the two areas situated in the proximity of populous urban centres, Sumidero Canyon National Park and Protected Forest Zone "Villa Allende".

<sup>15</sup> Programa de Manejo Reserva de la Biosfera Selva El Ocote, p. 34

to the Tzotzil and *Mestizo* cultures losing most of its social and cultural characteristics, among them its language.<sup>16</sup>

- 48.** The system of land tenure in the area is a combination of *ejido* land, private property and public occupied and unoccupied lands.

**Table 3: Land Tenure in the complex of five NPAs**

Land tenure type	Selva El Ocote		La Pera		Cerro Meyapac		Villa Allende		Sumidero Canyon		Total complex	
	ha	%	ha	%	ha	%	ha	%	ha	%	ha	%
Communal lands ( <i>ejidos</i> )	26,845	26	1,202	16	---	---	14,968	71	7,975	34	50,989	33
Private landholdings	35,010	34	4,954	66	---	---	5,930	28	13,155	56	58,048	38
Public lands (occupied)	2,759	3	1,351	18	1,747	100	---	---	191	1	4,301	2.5
Public lands (unoccupied)	36,594	37	---	---	---	---	102	0.5	2171	9	40,817	26
Others (water bodies)	80	---	---	---	---	---	---	---	---	---	80	0.5
<b>TOTAL</b>	<b>101,288</b>	<b>100</b>	<b>7,507</b>	<b>100</b>	<b>1,747</b>	<b>100</b>	<b>21,005</b>	<b>100</b>	<b>23,492</b>	<b>100</b>	<b>155,240</b>	<b>100</b>

Source: Own elaboration based on information delivered by CONANP, 2001 & 2009. *Selva El Ocote Biosphere Reserve Management Plan and Management Plan Modification Draft*; CONANP, 2007. *Estudio previo justificativo para modificar el decreto del área natural protegida Parque Nacional “Cañón El Sumidero”*; BIODIVERSIDAD, MEDIO AMBIENTE, SUELO Y AGUA A.C. 2012 y PEOT 2004 (Gobierno de Chiapas). Asesoría para la integración del Estudio Técnico Justificativo para la modificación y recategorización del decreto de Villa Allende y promoción de la importancia para su conservación; SEMAHN (State of Chiapas Environmental Secretariate) internal documents concerning ANP La Pera and Cerro Meyapac and La Pera and Cerro Meyapac Management Plans.

## D. Relevant Policies, Laws, Regulations, Rules, and Standards

### National Policies, Strategies, Laws and Programs Relevant to the Project Activities and Results

- 49.** When seen in an international context, Mexico is at the forefront of climate change policy. So, for example, Mexico was one of the first countries in the world to pass a specific law on climate change. In the same year, the Mexican government published its National Climate Change Strategy, which is to guide policy-making over the next 40 years. The following overview presents an impressive list of climate change policies, strategies, laws and programs designed by different governmental agencies. However, large gaps still remain between policy intentions and their practical implementation.
- 50.** The *General Climate Change Law* (Ley General de Cambio Climático–LGCC, 2012) promotes the alignment and consistency of programs, budgets, policies and actions of the three levels of government to halt and reverse deforestation and degradation of forest ecosystems. Indicative goals are to achieve 30% greenhouse gases (GHG) reductions by 2020 with respect to the business-as-usual scenario; 50% by 2050.

<sup>16</sup> Programa de Manejo Reserva de la Biosfera Selva El Ocote, p. 3

- 51.** *National Climate Change Strategy. Vision 10-20-40* (Estrategia Nacional de Cambio de Climático–ENACC, 2013): Elaborated by the Ministry of the Environment and Natural Resources; with the participation of the National Institute of Ecology and Climate Change (Instituto Nacional de Ecología y Cambio Climático-INECC), the Climate Change Council, and the approval of the Inter-ministerial Commission on Climate Change. One of three strategic axes and lines of action for the adaptation to the effects of climate change is conserve and use ecosystems sustainably and maintain the ecosystem services they provide. Among five mitigation strategies and lines of action is promote best practices in agriculture and forestry to increase and preserve natural carbon sinks.
- 52.** *National REDD+ Strategy* (Estrategia Nacional REDD+ –ENAREDD+, April 2014 draft): Strengthening Mexico’s forest governance in light of preparing for REDD+, with a focus on carbon rights and ownership and land tenure. The target is zero emissions in forestry by 2020.
- 53.** *Special Climate Change Program 2014-2018* (Programa Especial de Cambio Climático, PECC): Policy planning instrument derived from the General Climate Change Law which presents the Federal government’s contribution to the GHG emissions reduction indicative goal prescribed by the LGCC for the period 2014-2018.
- 54.** *Sector Programme of Environment and Natural Resources 2013–2018* (Programa Sectorial de Medio Ambiente y Recursos Naturales 2013–2018, PROMARNAT). Regulates and promotes renewable energy and clean technologies to consolidate the country as a low-carbon economy; encourages government agencies to include environmental green growth in their public policies.
- 55.** *Climate Change Strategy for Protected Areas* (Estrategia de Cambio Climático para Áreas Protegidas - ECCAP) released in 2011 by CONANP. The strategy’s ultimate goals are to increase capacity and adaptation of ecosystems and the people living in them to address climate change, and contribute to the mitigation of GHG emissions and enrichment of carbon stocks. Among its components are: restore degraded ecosystems to increase and enhance carbon stocks; promote systems of agricultural, forestry and fisheries production that favor the reduction of emissions and removal of carbon in buffer zones and zones of influence; and safeguard the interests of local communities and indigenous peoples in implementing *mitigation measures*.
- 56.** *CONANP Strategy towards 2040* (Estrategia hacia 2040 de la CONANP<sup>17</sup>), published in 2014. A key element (among five axes) of this strategy is climate change by contributing to increase the resilience of human communities, ecosystems and environmental services, as well as mitigating climate change in NPAs and other forms of conservation.

### **Sub-national (Chiapas State) Policies, Laws and Programs**

- 57.** *State Development Plan 2013–2018* (Plan Estatal de Desarrollo Chiapas 2013–2018). Strategic axe 4 of this plan is “Sustainable Chiapas”. Two among six policies for sustainable development of Chiapas are: 1) protection, conservation and restoration with forest development; and 2) mitigation and adaptation to climate change.
- 58.** *Law for Climate Change Adaptation and Mitigation in the State of Chiapas* (Ley para la Adaptación y Mitigación ante el Cambio Climático en el Estado de Chiapas, 2013<sup>18</sup>): The law’s objectives include: 1) Encourage state’s climate change education in order to reduce vulnerability; 2) Promote convergence mechanisms between society and government to develop adaptation and mitigation measures to combat climate change; 3) Build adaptation capacity to cope with climate change; 4) Consolidate a number of actions and mitigation activities to ensure energy efficiency and natural resources sustainable management; and 5) Reduce climate change vulnerability. The law

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<sup>17</sup> CONANP, 2014. Estrategia hacia 2040: una orientación para la conservación de las áreas naturales protegidas de México.

<sup>18</sup> The law was published in abril 2013.

also establishes an Interministerial Climate Change Commission for the State of Chiapas. The law promotes the rehabilitation of degraded lands into sustainably managed agro-forestry systems, and the incorporation of forest ecosystems in PES schemes. Additionally, it demands strengthening of programmes to avoid deforestation and degradation of natural ecosystems.

59. *Climate Change Action Program for the state of Chiapas* (Programa de Acción ante el Cambio Climático de Chiapas – PACCCH, 2011): The PACCCH provides a framework to articulate public policies and actions for the state government of Chiapas on issues related to climate change mitigation and adaptation. The program states that Chiapas is particularly vulnerable to climate change due to high poverty levels, as well as deforestation and degradation of forest ecosystems. The program stresses that Chiapas produces 4.82% of all of Mexico's emissions, and that 62% of those emissions are from land use, land use change, and forest ecosystems. The program demonstrates that land-use based mitigation strategies such as REDD+ will be most impactful in this region. Ecosystem-based adaptation initiatives will be equally important to assist local residents to deal with the effects of climate change. PACCCH has provided the institutional, strategic and scientific guidance to achieve the following results among others: The historical, current, and future deforestation and degradation analyses and projections for Chiapas, including preliminary baselines for Reducing Emissions from Deforestation and Degradation (REDD+); and Climate scenarios for historic, present temperature, precipitation, heat waves, and droughts in the state.
60. Since its inception, the PACCCH has provided institutional, strategic and scientific guidance to achieve the following results:
  - a) The enactment of the State of Chiapas Climate Change Mitigation and Adaptation Law;
  - b) The establishment of the Commission for the Inter-Secretarial Coordination of Climate Change that is responsible for defining climate change public policies in Chiapas;
  - c) The creation of the Climate Change and Energy Department housed within the SEMAHN;
  - d) The creation of an institutional link between the government, civil society and academia to work towards understanding and creating solutions to climate change;
  - e) Building capacity at governmental, academic and local civil society organizational levels through the implementation of eight capacity building workshops, two state forums, one public hearing, and nine public consultation workshops;
  - f) The implementation of the first State Greenhouse Gas Inventory for Chiapas based on guidelines provided by the National Institute of Ecology (INE) and the Inter-Ministerial Commission on Climate Change (CICC). The sectors analyzed include: LULUCF, Energy, Industrial Processes, Agriculture, and Waste;
  - g) The historical, current, and future deforestation and degradation analyses and projections for Chiapas, including preliminary baselines for Reducing Emissions from Deforestation and Degradation (REDD+); and
  - h) Climate scenarios for historic, present temperature, precipitation, heat waves, and droughts in the state.
61. *Development of the state-level REDD+ strategy, mechanisms, and projects:* Will include Monitoring, Reporting and Verification (MRV) of GHG inventory; forestry inventories; voluntary market carbon initiatives; community land planning; community training; and sustainable land management.
62. *Ecological land use plan for the state of Chiapas* (Programa de Ordenamiento Ecológico y Territorial del Estado de Chiapas – POETCH, December de 2012): This plan has divided the state territory in Environmental Management Units (UGAs, for its Spanish acronym), which are defined as areas with homogeneous physical and biological traits that can be managed to reduce environmental degradation and conserve ecosystems and biodiversity. The plan classifies the Selva

El Ocote and the Sumidero canyon reserves as particularly suitable for conservation and protection, and less for restoration and sustainable use.

63. *Regional Development Programs* (Programas Regionales de Desarrollo, 2013-2018): During 2014, such programs have been developed for the socioeconomic regions that cover the project area: I Metropolitana, II Valles Zoque, and III Mezcalapa. All programs include projects for sustainable forest management and ecotourism, but their implementation is subject to future availability of funds.
64. *Municipal Development Plans* (Planes Municipales de Desarrollo)<sup>19</sup>: Most plans indicate policies and strategies for sustainable production (“*economía sostenible*”), recovery of forests and liquid and solid waste management, but climate change policies are only explicitly mentioned in the Municipal Development Plan of Tuxtla Gutiérrez. The state capital plans to establish municipal actions to address the effects of climate change by implementing a Municipal Climate Action Plan (PACMUN).
65. *AMBIO’s Scolel’té Program*: To avoid/reduce carbon emissions and sequester carbon in agrosilvopastoral systems and enhance the livelihoods of rural farming communities in Chiapas. It is a registered *Plan Vivo* project (<http://goo.gl/m5fx8L>) that involves hundreds of producers who are implementing *Plan Vivo* technical specifications on their small landholdings.
66. *REDD+ Project* Using the Plan Vivo System in the Selva El Ocote Biosphere Reserve (REBISO), Implemented from 2008 through 2013 by AMBIO, as an extension of its Scolel’té Program in 3 *ejidos* of the REBISO. The objective of the project was to learn about different aspects of implementing REDD+ projects using the *Plan Vivo Standards* with local communities of the REBISO, including developing baselines and reference scenarios, applying environmental and social safeguards, developing and implementing land use plans, and improving governance and local capacity. The know-how acquired throughout the implementation of this pilot project will be applied in the present GEF project.<sup>20</sup>

## E. Institutional Context

### Federal institutions whose national guidelines are relevant for defining local climate change policies

67. *Inter-ministerial Climate Change Commission* (Comisión Intersecretarial de Cambio Climático – CICC): Working groups are designing policies for climate change adaptation and mitigation, and for the reduction of emissions by deforestation and degradation. The Special Climate Change Program 2014-2018 (PECC) was elaborated under the lead of the Commission.
68. *National Institute of Ecology and Climate Change* (Instituto Nacional de Ecología y Cambio Climático – INECC): Participated in drafting the National Climate Change Strategy (ENACC).
69. *Consultative Council on Climate Change* (Consejo Consultivo de Cambio Climático): Advising the Inter-ministerial Climate Change Commission. This Council provides a space for civil society participation in defining climate change policies. The Council reviewed the National Climate Change Strategy (ENACC) and along with the Advisory Councils for Sustainable Development coordinated a public consultation for the Special Climate Change Programme (PECC).

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<sup>19</sup> Municipal Development Plans (2013-2015) of Tuxtla Gutiérrez, Ocozocoautla, San Fernando, Berriozábal, and Cintalapa were reviewed and policies, strategies, programs and projects for mitigation and adaptation to climate change identified.

<sup>20</sup> See Esquivel, E.; Rodríguez, Roselin; Juárez, Gilberto (2013). *Documento de Sistematización de la Experiencia en Campo del Proyecto: Formulación de un proyecto REDD usando el sistema Plan Vivo en la Reserva de la Biosfera Selva El Ocote*. San Cristóbal de Las Casas

## **Federal institutions working on the state and local level**

70. The *National Commission of Natural Protected Areas* (CONANP): As a federal agency in charge of managing three from five NPAs in the Selva Zoque – Sumidero Canyon complex CONANP is a strategic partner and co-executing agency. In the project region, CONANP is engaged in central project issues, like restoring degraded ecosystems to increase and enhance carbon stocks; promoting systems of agricultural and forestry production that favor the reduction of emissions and removal of carbon in buffer zones and zones of influence; and safeguarding the interests of local communities and indigenous peoples in implementing mitigation measures (see paragraph 149 for main CONANP programs in the area). Relevant departments for this project within CONANP are the Direction of Climate Change Strategies at the federal level, the Regional Directorate “Frontera Sur, Istmo y Pacífico Sur” in the Chiapas state capital Tuxtla Gutiérrez and the directorate of the Selva El Ocote Biosphere Reserve (REBISO) and the Sumidero Canyon/Villa Allende Reserves.
71. The REBISO Reserve’s directorate has 10 staff members (1 director, 1 assistant director and 8 professional staff). The Sumidero Canyon and Villa Allende Reserves have together 12 staff members (1 director, 1 assistant director, 4 professional staff and 6 park rangers).
72. *National Forest Commission (CONAFOR)*: Relevant for this GEF project is the *Payment for Environmental Services* (PSA) program. It provides support to owners of forest land, in order to incorporate best management practices to promote the conservation of ecosystems and encourage the provision of environmental services, such as water supply, maintenance of biodiversity and carbon sequestration and conservation, which benefit population centers or development of productive activities. The potential target group includes owners of forest lands that maintain forest cover in good condition and whose forest management plans and uses are legally authorized.
73. *Secretariat of Agriculture (SAGARPA)*<sup>21</sup>: Key programs relevant for climate change mitigation strategies in the project area are PROCAMPO and PROGAN. PROCAMPO consists of the payment per hectare or fraction planted with licit crops or low livestock, forestry or environmental project operating surfaces. It is a highly inclusive program, those receiving the most support being low-income people, whose production is mainly for household consumption. PROCAMPO is one of the main policies for the agricultural sector due to budgetary allocations, and at present, is the federal program with the highest number of rural beneficiaries. PROGAN, the Sustainable Livestock and Beekeeping Production and Management Program, addresses cattle, pig, sheep and goat farming and beekeeping. It is oriented to raise productivity, facilitate technology adoption and support the care and improvement of natural resources in pastoral areas. In order to seek greater equity of benefits, differentiated support for different scales of producers is given.

## **Sub-national (Chiapas State) Institutions**

74. *Ministry for Environment and Natural History of Chiapas* (Secretaría de Medio Ambiente e Historia Natural – SEMAHN): The Government of Chiapas has made crucial political, institutional, and financial commitments and investments that provide a very solid baseline for this GEF project. In 2009, the Ministry for Environment and Natural History of Chiapas in partnership with Conservation International-Mexico, the University for Sciences and Arts of Chiapas (UNICACH, for its acronym in Spanish), and the British Embassy, started a highly participatory process to develop the PACCCH.
75. *Technical Advisory Committee for REDD+*. Established in August of 2011, this Committee is made up of experts from civil society organizations, federal and state governmental agencies, and

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<sup>21</sup> Policy programs present in the REBISO and probably in the whole project area are resumed in: Esquivel, Elsa; Rodríguez, Roselin; Juárez, Gilberto, 2013. *Documento de Sistematización de la Experiencia en Campo del Proyecto: Formulación de un proyecto REDD usando el sistema Plan Vivo en la Reserva de la Biosfera Selva El Ocote*. San Cristóbal de Las Casas, p.48-50

academic institutions, with a wide range of experiences in Monitoring, Reporting and Verification (MRV), forestry inventories, voluntary market carbon initiatives, community land planning, community training, and sustainable land management (including the successful AMBIO's Scolel'te Program established in 1997 using the *Plan Vivo* methodology). The Technical Committee will guide and advise the State Climate Change Commission in the development of the REDD+ strategy, mechanisms, and projects.

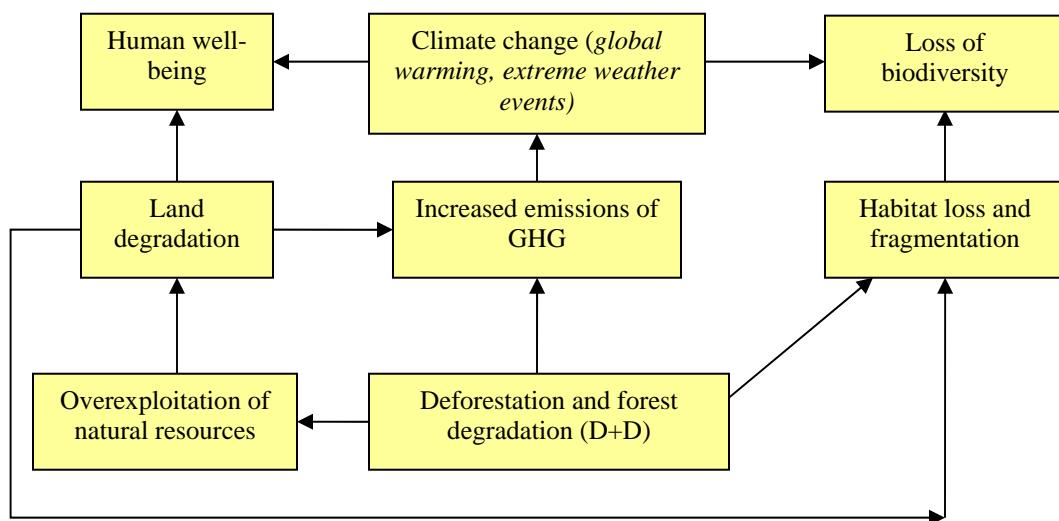
76. *Secretariat for Environment and Natural History of Chiapas* (SEMAHN): The two NPAs under state jurisdiction – the Area Subject to Ecological Conservation “La Pera” and the small Area Subject to Ecological Conservation “Cerro Meyapac” are managed by the Department of the System of Natural Protected Areas in Chiapas. This department has three staff members: a director; a head of department responsible for planning and monitoring conservation activities ensuring the participation of communities in the areas; and an analyst who is implementing and giving follow-up to conservation and sustainable production projects in the two NPAs.
77. *El Colegio de la Frontera Sur* (ECOSUR) has experience in carbon stock estimation and capacity building in CC mitigation topics. This public scientific research centre is realizing biological investigation projects in the Selva El Ocote Reserve about different species of fauna and flora, for example about the effects of ecosystem fragmentation on insects. Recently ECOSUR has begun to analyze the impact of climate change on faunistic and floristic diversity and social vulnerability.
78. Researchers from universities (ECOSUR, UNICACH) and NGOs are participating in the “Network of Cientific Advisors of the Selva El Ocote Biosphere Reserve”, developing research strategies and projects providing cientific information for the conservation management and decision-making in the REBISO.
79. The “Alliance for the Conservation of the Selva El Ocote” is an association comprising five individual NGOs which have come together to support the REBISO in its efforts for conserving the biological diversity and organize social participation in sustainable development actions.

## SECTION 3: PROJECT JUSTIFICATION

### A. Problem Definition: Global Environmental Problems and Root Causes

80. The project will address the following *key global environmental problems* that are affecting the Selva El Ocote-Sumidero Canyon complex of protected areas:
- Deforestation and forest degradation
  - Overexploitation of natural resources and land degradation
  - Increased emissions of GHG
  - Climate change
  - Habitat loss and fragmentation
  - Loss of biodiversity
81. All these problems are interconnected and thus, it is adequate to describe them as a system of related variables, and not presenting them simply one by one. The following graph is a schematic representation of these relationships where deforestation/forest degradation and overexploitation of natural resources appear as causes of the rest of global environmental problems.

**Figure 1: Global environmental problems addressed by the project**



#### Deforestation

82. The estimated annual deforestation rate for the Selva El Ocote Biosphere Reserve (REBISO, for its acronym in Spanish) between 1986 and 1995 was 1.05%. This rate increased more than twofold to 2.54% between 1995 and 2000 (Flamenco-Sandoval et al., 2007)<sup>22</sup>, about three times higher than the deforestation rate of the state of Chiapas which was 0.86% for the 1993 to 2007 period<sup>23</sup> (INEGI, 1993 to 2007). More specifically, the annual deforestation rate of tropical forests in the

<sup>22</sup> Flamenco-Sandoval, A., Ramos, M. M., & Masera, O. R. (2007). *Assessing implications of land-use and land-cover change dynamics for conservation of a highly diverse tropical rain forest*. Biological conservation, 138(1), 131-145.

<sup>23</sup> See also: De Jong, Bernardus H.J. (Coordinador), et.al. (sin fecha). *Modelo de deforestación para el estado de Chiapas. Informe final*. Programa de Acción ante el Cambio Climático del Estado de Chiapas (PACCCH).

[paccc\\_chiapas\\_anexo\\_3a\\_analisis\\_def.pdf](#) This study indicates a deforestation rate in Chiapas of 0.69% for the period 1993 – 2002, and 0.75% for the period 2002 – 2007.

REBISO was 6.67% between 1995 and 2000, equivalent to a loss of 16,850 ha, whereas the same rate for temperate forests was 2.38%, equivalent to a loss of 7,315 ha in five years in the REBISO. Extrapolating the respective deforestation rates to the whole complex of five NPAs, 33,794 ha of tropical and temperate forests have probably been lost in this period.<sup>24</sup>

#### *Root causes of deforestation<sup>25</sup>*

- 83.** The main cause of deforestation in the project area is land use change due to agricultural uses. Opening land for cattle pasture – by clearing forest through slash-and-burn practices – is the leading and most expansive form of land use change in the region. Land use change for subsistence (maize and beans) and other crops (mainly coffee) occur to a lesser extent. An assessment made by Brown *et al.*, (2005)<sup>26</sup> shows that 30% of the REBISO territory is used for cattle ranching (30,000 ha).<sup>27</sup> The PACCCH report (2011)<sup>28</sup> stated that areas with second-growth forests are more prone to deforestation due to their agricultural suitability.
- 84.** Another important cause of deforestation is wild fires due to uncontrolled stubble burning of crops and extreme weather events (impact of hurricanes). For example, Velázquez y Pantoja (2005) estimated that between 1988 and 2008 nearly 31,750 ha of the REBISO were affected by fires.
- 85.** The opening of road infrastructure and other major construction projects have increasingly facilitated access to previously unreachable and well preserved forest areas. For example, the inauguration of the Nezahualcoyotl dam near the REBISO in 1964 and the highway crossing the region from southeast to northwest significantly furthered the creation of new small and even large settlements since 2003. The PACCCH report also estimated that areas with highest forest cover are those within NPAs and those located at least 2.5 km away from roads, with population densities lower than 10 persons/km<sup>2</sup>.
- 86.** Illegal logging seems to have less impact on forest coverage than in other areas of the state of Chiapas which are considered as critical in this respect.<sup>29</sup> Forest areas are mainly threatened by illegal logging on a low self-consumption scale, but its impact in the medium and long-term can affect forests in the region. In the REBISO, this extraction is mostly regulated by community agreements within ejidos. However, enforcement of such rules becomes complicated when illegal logging is performed by persons from outside the ejidos.<sup>30</sup>

#### *Forest degradation*

- 87.** Forest degradation means a reduction of the capacity of a forest to provide goods and services, including biodiversity. It involves a process of change affecting the structural characteristics of forests and its biomass density, not necessarily its coverage. Some elements of these changes are: nearly removal of large live trees and predominance of young ones; genetic impoverishment due to selective logging of the best specimens; reduced density of forest cover; less diverse plant communities, especially orchids, bromeliads, palms and ferns; less stratification complexity (loss of

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<sup>24</sup> More recent data for the whole complex are not available at the moment and will be completed by the project.

<sup>25</sup> Identification of root causes of deforestation is focused on those specifically affecting the project area. For a more complete assessment of causes of deforestation in Chiapas, see: Covaleda, Sara, Susana Aguilar, Alejandro Ranero, (2014). *Diagnóstico sobre determinantes de deforestación en Chiapas*. Alianza México REDD+

<sup>26</sup> Brown, D.G., Page, S., Riolo, R., Zellner, M., Rand, W., (2005). *Path dependence and the validation of agent-based spatial models of land use*. International Journal of Geographical Information Science 19 (2), 153–174.

<sup>27</sup> PIF, p.10

<sup>28</sup> [http://www.conservation.org/global/mexico/Documents/CI\\_Mexico\\_paccch\\_consulta.pdf](http://www.conservation.org/global/mexico/Documents/CI_Mexico_paccch_consulta.pdf)

<sup>29</sup> See Covaleda (2014), op.cit.

<sup>30</sup> See Esquivel, E.; Rodríguez, Roselin; Juárez, Gilberto, (2013). *Documento de Sistematización de la Experiencia en Campo del Proyecto: Formulación de un proyecto REDD usando el sistema Plan Vivo en la Reserva de la Biosfera Selva El Ocote*. San Cristóbal de Las Casas, p.7

- the subcanopy, shrub and herbaceous strata); and small but widespread patches without vegetation cover and even without soil.
88. Symptoms of forest degradation can be observed in many parts of the project area, especially in the Villa Allende and Sumidero canyon areas. Due to the complexity of the concept, costs for assessing coverage of areas affected by forest degradation are high.<sup>31</sup> Nevertheless, the PACCCH report, working with a rather simplified definition of forest degradation, equated it with 10 to 30% forest cover. It is estimated that between 2000 and 2009, approximately 380,480 ha of forests were degraded in Chiapas (Paz et al., 2012).<sup>32</sup>

*Root causes of forest degradation*

89. Direct causes of forest degradation in the state of Chiapas, transferable to the project region, include disordered and illegal timber and firewood extraction, slash-and-burn practices, forest fires, inappropriate use of pesticides and agrochemicals, infrastructure development, and forest pests and diseases (Paz et al., 2012).

*Overexploitation of natural resources*

90. Extensive livestock farming is the factor with the highest impact on land quality in the REBISO and probably in the whole complex of NPAs. Due to the topographical features of that territory, cattle generally graze on slopes with steep gradients. After cutting down primary or secondary forests, pasture lands are covered only by a thin layer of earth; so, the number of cattle tends to exceed the area's carrying capacity and provokes overgrazing and reduction of the overall vegetative coverage. The consequences are poor quality soils with few nutrients and even total loss of fertile land (erosion), together with interferences in the natural water balance. Thus, these forms of unsustainable production are a main driver of land degradation.

*Root causes of overexploitation of natural resources*

91. AMBIO has analyzed the mechanism that sets in when a group of farmers begins to clear a lot of forested land in the region. Once the forest is cut down or suffers some kind of forest fire, the area is at first used for cultivating maize, which in a short time produces high soil degradation. These now unproductive areas are abandoned and left to natural regeneration of secondary forests (acahuales); or they are converted to extensive livestock use with low productivity, due not only to the prevailing topographic and soil conditions, but also to inefficient livestock farming practices. All this accelerates the process of land degradation.<sup>33</sup>
92. Once the process of land degradation is under way, farmer families need to open new land for producing food. When there is enough land, secondary forests are considered by farmers as a sort of buffer zone which, after a certain rest period, can be again used for cultivating maize and other crops. But *ejidos* with less land surface do not count with this possibility and consequently present greater land degradation problems than those with larger areas. Thus, these mechanisms of land use change are associated with practices of unsustainable production which, by not internalizing the value of natural capital, favor overexploitation of land and the loss of vegetation cover.<sup>34</sup>

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<sup>31</sup> The FAO has developed a method for assessing forest degradation. FAO (2011). *Assessing forest degradation - Towards the development of globally applicable guidelines*. Forest Resources Assessment Working Paper 177

<http://www.fao.org/docrep/015/i2479e/i2479e00.pdf>. See also ENAREDD+, November 2014 draft, p.20

<sup>32</sup> See Esquivel (2013), op. cit, p.7

<sup>33</sup> Esquivel (2013), op. cit, p.11

<sup>34</sup> Mechanism analysed by: *Estrategia Nacional para REDD+ (ENAREDD+)*. Draft November 2014, p.20

#### *Increasing emissions of GHG and Climate change*

93. According to the most recent available information (PACCCH, 2011)<sup>35</sup>, in 2005 the state of Chiapas emitted 28,161.08 Gg CO<sub>2</sub>e. The Land Use, Land Use Change and Forestry (LULUCF) sector was identified as the sector that releases the most emissions with 16,182.08 Gg CO<sub>2</sub>e representing 57% of all the GHG emissions. These emissions come primarily from deforestation and forest degradation as forested areas are transformed into pasture for livestock and in a lesser degree into agricultural fields.
94. Other sectors contributing to GHG emissions in Chiapas include the agriculture sector with 5,392.28 Gg CO<sub>2</sub>e (19%); the energy sector with 4,314.16 Gg CO<sub>2</sub>e (15%), primarily from transportation activities; the waste sector with 2,131.62 Gg CO<sub>2</sub>e (8%); and the industry sector with 140.34 Gg CO<sub>2</sub>e (1% of Chiapas' emissions).<sup>36</sup>

#### *Habitat loss and fragmentation, and loss of biodiversity*

95. Nationally and internationally, Chiapas is considered mega-diverse due to its high levels of biological diversity. According to the National Commission for Knowledge and Use of Biodiversity (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, CONABIO) (2013)<sup>37</sup>, Chiapas has about 11,223 species, including algae, fungi, ferns, invertebrates and vertebrates. The State has 49 NPAs, including seven Biosphere Reserves, that cover together about 932,100 ha (12.3% of the state area).
96. Problems of biodiversity loss are reflected in the relative high number of endangered or protected species in the region. For example, the Selva El Ocote management program emphasises the loss of vertebrate populations of biological importance. However, there is a lack of information on decrease in richness and abundance of flora and fauna until now.<sup>38</sup>

## **B. Barriers to Addressing the Environmental Problems and Root Causes**

97. The Climate Change Action Program for the State of Chiapas (PACCCH, 2011), has identified various *main causes* of deforestation and forest degradation. Graph 2 builds on this assessment and groups the main causes into social and institutional barriers.
98. *Weak environmental governance:* In Chiapas, like in Mexico in general, the competent institutions, in first place PROFEPA and SEMARNAT, are insufficiently equipped with personal and material resources. Inspectors have little knowledge on environmental normativity and only limited authority for protecting natural resources. Corruption among authorities and offenders is considered to be an important barrier for law enforcement.<sup>39</sup> Environmental governance on the community level is often hampered by internal conflicts of interest, sometimes under the cover of political, ideological and religious convictions.
99. *Insufficient inter-institutional coordination:* In the region, as in other parts of Chiapas and Mexico, exists strong contradictions between different governmental policies and programs. As the National REDD+ Strategy (ENAREDD+) paper puts it, legislation and coordination among government

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<sup>35</sup> [http://www.conservation.org/global/mexico/Documents/CI\\_Mexico\\_paccch\\_consulta.pdf](http://www.conservation.org/global/mexico/Documents/CI_Mexico_paccch_consulta.pdf)

<sup>36</sup> Information on GHG emissions from the Selva Zoque – Sumidero Canyon complex will be provided during the first project year.

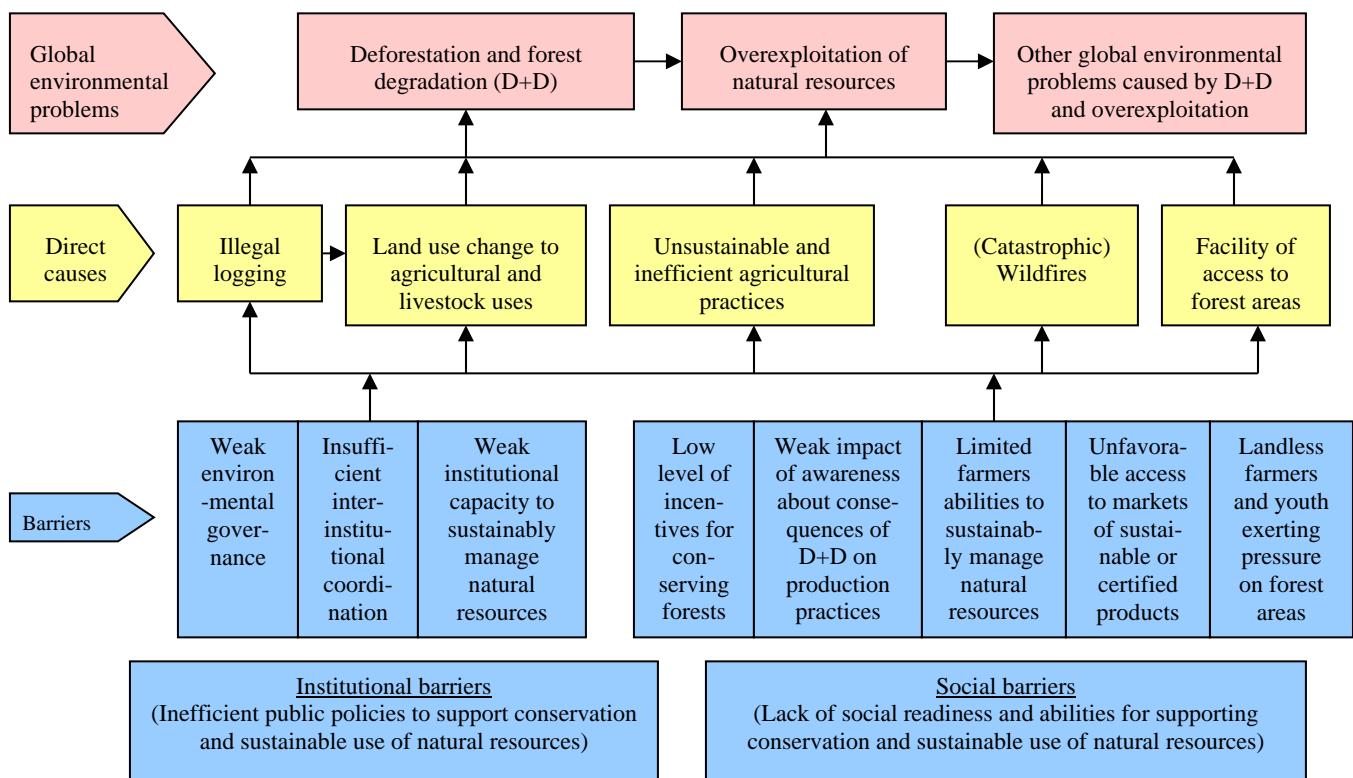
<sup>37</sup> Angón, A. C., Melgarejo, E. D., Rico, F. C., Cordero, K. C. N., Casas, G. A., Fernández, J. M. G., ... & de la Guerra Becerril, S. Primera edición (2013). Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. Liga Periférico–Insurgentes.

<sup>38</sup> CONANP (2007), *Estudio Previo Justificativo para modificar el decreto del Área Natural Protegida Parque Nacional Cañón del Sumidero, Chiapas, México*, p.20

<sup>39</sup> Ver Programa de Manejo El Ocote, p.71

sectors affecting the same territory is ineffective or even totally absent.<sup>40</sup> For example, government subsidies for livestock or agro-energy activities that encourage unsustainable use of natural resources are often more attractive than incentives that favor forestry uses or SLM in general. One of the most impacting programs in this sense is PROGAN (Sustainable Livestock and Beekeeping Production and Management Programme) which pays a fixed subsidy for each head of cattle, no matter how sustainable livestock management may be under the prevailing topographic or soil conditions of a territory.<sup>41</sup>

**Figure 2: Barriers to Addressing the Environmental Problems and Root Causes**



- 100. Weak institutional capacity to sustainably manage natural resources:** Staff of supporting institutions are generally aware of the causes and impacts of climate change but have insufficient information and experience with concrete practices of sustainable natural resources management, especially with climate change mitigation measures; on one hand because research on locally adapted technologies is scarce, or because knowledge on these practices has not been sufficiently transferred to institutional actors. However, the assessment carried out in the project preparation phase has made clear the great interest among CONANP, SEMAHN and CONAFOR staff is to deepen their theoretical and practical knowledge about CC mitigation strategies and actions.

<sup>40</sup> ENAREDD+, draft November 2014, p.20

<sup>41</sup> The “new” PROGAN (in force since 2008) proclaims the vision that natural resources in livestock areas should be cared for and improved. However, until now this did not create a significant impact on livestock management practices.

- 101.** *Low level of incentives for farmers to conserve forests, and for sustainable land management (SLM) in general:* An important barrier is high opportunity costs of SLM in comparison with the usual unsustainable land management practices. Farmers take into account these opportunity costs when they decide to adopt SLM practices for conserving forests and avoiding GHG emissions. For example, agrosilvopastoral practices can be integrated into the local farming systems without negatively affecting crop or pasture yields, thus presenting low opportunity costs, but can sequester non-negligible amounts of carbon. Added benefits from SLM, such as higher crop yield potential due to higher soil organic matter contents, could form part of the reasoning.
- 102.** *Weak influence of awareness about consequences and costs of D+D on production practices:* Many farmers and inhabitants of rural areas are aware of the consequences of deforestation and forest degradation on water quantity and quality, climate, soil fertility and diversity of flora and fauna. Nevertheless, there is a kind of suppression of these unpleasant prospects for the future, as long as people do not see alternatives to common practices that would avoid or mitigate such pessimistic scenarios. So there is a conflict between long-term concerns about sustainability of natural resources on which livelihoods of present and future generations depend, and short-term satisfaction of needs or profit interests.<sup>42</sup> This conflict could be overcome or at least reduced by promoting innovative practices of sustainable natural resources management (see following barrier paragraph 103).
- 103.** *Limited smallholder farmer's abilities to sustainably manage forest and land resources:* Like institutional actors, small farmers have insufficient information and experience with concrete practices of sustainable natural resources management and CC mitigation, as shown in the social and environmental assessment made in the communities in the preparation phase. For example, best management practices for pest control, fertilization, soil protection, etc are generally unknown or inadequately applied; producers are interested in transforming existing unprofitable farming systems into agroforestry models that open the possibility of carbon capture and payments by increasing the forest cover; traditional burning practices are still widespread, due to insufficient understanding of the role of forest fires and fire management for the conservation and restoration of forest ecosystems and soil fertility; transferring this knowledge would help moving from a strategy of fire suppression to one of integrated fire management.<sup>43</sup>
- 104.** *Unfavourable access to markets of sustainable or certified products:* This concerns particularly coffee farmers and beekeepers in the region. Better revenues achieved from organic cultivation of coffee sometimes will not compensate higher costs for labour employed.
- 105.** *Landless farmers and youth exerting pressure on forest areas:* Deforestation, and degradation of local resources in general, are consequences of high demographic growth in the project area. In a growing number of communities, descendants of ejidatarios and avecindados (landless farmers) represent a larger population proportion than the ejidatarios themselves. These groups are demanding land and exert pressure for (the authorization of) land use changes.<sup>44</sup>

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<sup>42</sup> The psychosocial mechanisms acting here could be the subject of studies for orienting policies and programs for implementing sustainable practices in natural resources management.

<sup>43</sup> ENAREDD+, draft November 2014, p.21

<sup>44</sup> Esquivel (2013), op. cit, p.11

## C. Current Baseline (Business-As-Usual Scenario) and Future Scenarios without the Project

106. Based on historic and current information on land use, land-use change, and forest exploitation trends in the region, it is expected that the rate of deforestation and forest degradation will continue on a high level in the short and medium terms. Because current agricultural practices are not very efficient to provide for a growing population, increased demand for land and agricultural goods will necessarily require the expansion of the agricultural frontier to the detriment of native forests.
107. Esquivel *et al.* (2013) have estimated that the communities of the REBISO produce between 50 and 80% of their annual consumption of maize. Additionally, during the PPG phase, it was observed that communities considered for inclusion in the project spend over 50% of their income on subsistence (maize and beans). On the other hand, the cultivation of coffee has a tendency to disappear due to current pest problems (mainly rust and root nematodes). As a consequence, family incomes are complemented by cattle ranching and some minor activities like bee-keeping and non-timber forest products harvesting.
108. To sustain this production level in the future, subsistence farmers will need to deforest about 250 ha of primary and second-growth forests over the next 3 years, which in turn will release at around 142,500 tCO<sub>2</sub>e to the atmosphere. The PPG assessment made clear that the conditions (productive activities, threats) in the other four NPAs of the complex are rather different to the REBISO. Therefore, these parameters cannot simply be extrapolated to the rest of the complex. Nevertheless, the project will work on estimations for the whole complex and include them in its GHG monitoring activities.
109. In addition, there is a current regional trend to turn shade-grown coffee plantations into maize fields and pastures. It has been estimated that this change has the potential to emit at least 106,000 tCO<sub>2</sub>e per 300 ha over a period of 3 years. Conversely, turning traditional sun grown coffee plantation into shade-grown system has the potential to capture 42,900 tCO<sub>2</sub>e per 300 ha over a period of 25-30 years.
110. Under the business-as-usual (BAU) scenario, the emissions of CO<sub>2</sub> from deforestation and forest degradation will continue to grow in the future. Primary and secondary forests are under increased pressure because they contain the region's most fertile soils required for subsistence and cash-crop farming. If viable options, such as economic incentives to conserve forests and adopt low carbon agricultural practices, are not made available in the region, it is estimated that the REBISO will lose at least an additional 5,000 ha of forests in the next 15 years. This will add a further 2 million tCO<sub>2</sub>e of emissions to the atmosphere.<sup>45</sup>
111. Land degradation and loss of fertile soils will affect an increasing area, especially in the hilly and mountainous regions. This will put still more pressure on forest areas as farmer families need to open new land for producing food.
112. In addition, the BAU scenario will put at risk the generation and delivery of crucial ecosystem services of local, regional and global significance; among them provision of water and food, climate regulation, and soil retention and formation.
113. In particular, the BAU scenario will affect the rich biodiversity of the complex of NAPs. The expansion of the agricultural frontier will continue and accelerate the fragmentation of ecosystems and habitats in the region. The corridor function of the five NAPs as part of the Mesoamerican Terrestrial Hotspot in south-eastern Mexico and Central America will loose in strength. This will

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<sup>45</sup> Expected loss of forest area and corresponding emissions of tCO<sub>2</sub>e in the other four NPA of the complex will be estimated at the beginning at the project.

lead to growing pressure on ecosystems and habitat of threatened and vulnerable flora and fauna species, like ocelots and primates, large predators, such as the jaguar and puma, and some species particularly endangered as the quetzal and the peacock (pavón). Many species of the still abundant orchid and bromeliad families will disappear.

#### **D. Alternatives to the Business-As-Usual Scenario**

114. Alternatives to the Business-as-Usual Scenario can build on numerous possible combinations of barriers to addressing environmental problems. A way to reduce this complexity consists in dividing barriers into two categories, i.e. institutional and social barriers, as shown in Figure 2.
115. Under *alternative 1* the project would focus on institutional barriers or drivers, addressing weak environmental governance, insufficient institutional coordination and weak institutional capacity to sustainably manage natural resources.
116. Under *alternative 2*, the project would address a set of social barriers: low level of incentives for farmers to conserve forests, and for sustainable land management (SLM) in general; weak influence of awareness about consequences and costs of D+D on production practices; limited smallholder farmers' capacity to sustainably manage forest and land resources; unfavourable access of smallholder farmers to markets for sustainable or certified products; and landless farmers and youth exerting pressure on forest areas.
117. *Alternative 3* consists in addressing a combination of institutional and social barriers: These are on one hand, weak institutional capacity to sustainably manage natural resources, and on the other hand, low level of incentives for farmers to conserve forests and for sustainable land management (SLM) in general, weak influence of awareness about consequences and costs of D+D on production practices, and limited smallholder farmers' abilities to sustainably manage forest and land resources.
118. As demonstrated under subsection E (Cost Effectiveness Analysis), *Alternative 3* has been assessed as the cheapest and most feasible (and pragmatic) mean for achieving the project objective of maintaining and increasing carbon stocks in the Selva Zoque - Sumidero canyon complex of NPA.
119. The following table shows the chosen alternative to the BAU and discarded alternatives:

**Table 4: Environmental drivers addressed by this GEF project and by baseline projects**

Environmental drivers	GEF project (chosen alternative to the BAU)	Drivers addressed by baseline projects
<b>Institutional drivers (barriers)</b>		
a) Weak environmental governance		X
b) Insufficient institutional coordination		X
c) Weak institutional capacity to sustainably manage natural resources	X	
<b>Social drivers (barriers)</b>		
d) Low level of incentives for farmers to conserve forests, and for sustainable land management (SLM) in general	X	

<b>Environmental drivers</b>	<b>GEF project (chosen alternative to the BAU)</b>	<b>Drivers addressed by baseline projects</b>
e) Weak influence of awareness about consequences and costs of D+D on production practices		
f) Limited smallholder farmers' capacity to sustainably manage forest and land resources	X	
e) Unfavourable access of smallholder farmers to markets for sustainable or certified products		X
f) Landless farmers and youth exerting pressure on forest areas		X

- 120.** Under the proposed alternative scenario, this GEF project will help to avoid the emission of 132.298 tCO<sub>2</sub>e and enable the sequestering of 160.969 tCO<sub>2</sub>e<sup>46</sup>, through building local and institutional capacity on climate change mitigation from the LULUCF sector in Chiapas; creating and strengthening incentive mechanisms for farmers to conserve forests; and strengthening awareness about consequences and costs of D+D for the purpose of changing production practices.

## **E. Cost Effectiveness Analysis**

- 121.** In the following analysis, the above presented alternatives – or alternate project approaches – are considered and the most effective and least-cost approach is selected.
- 122.** Under the first alternative – focussing on institutional drivers –, it would be unfeasible for a locally confined project to address complex institutional barriers like weak environmental governance and lack of institutional coordination. Lessons learned in other GEF-projects, like the project “Mainstreaming the conservation of ecosystem services and biodiversity at the sub-watershed scale in Chiapas, Mexico”, have demonstrated that conservation and sustainability-oriented impacts on institutional programs and actions on a local or regional level are rather limited, as long as such coordination efforts are not sufficiently backed by advanced mainstreaming of environmental considerations into policies and regulations (“*reglas de operación*”) on a central governmental level.<sup>47</sup>
- 123.** The second alternative is discarded because addressing the five identified social barriers at the same time would exceed the human and financial resources of this project. The barriers “Unfavourable access of smallholder farmers to markets for sustainable or certified products” and “Landless farmers and youth exerting pressure on forest areas” will not be addressed, mainly because they would demand high investments in comparison with the incentives, awareness and capacity building approach.
- 124.** Consequently, alternative 3 is proposed because of its higher political and financial feasibility in comparison to alternatives 1 and 2. This project will focus on those environmental drivers where the additional GEF contribution will have the highest impact, given the existing gaps in respective current baseline investments of governmental and social actors, i.e. weak institutional capacity to

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<sup>46</sup> For a 25 years period in both cases (avoided emissions *and* carbon sequestration)

<sup>47</sup> Important environmental mainstreaming efforts on the federal level of governmental policies and programs are currently under way in Mexico, but its impact on concrete local and regional actions is still limited.

sustainably manage natural resources; low level of incentives for farmers to conserve forests, and for sustainable land management (SLM) in general; weak influence of awareness about consequences and costs of D+D on production practices; and limited smallholder farmers' capacity to sustainably manage forest and land resources.

125. Basic assumptions of the project with regard to cost effectiveness are that the project outcomes of improving production practices and maintaining forest coverage in the Selva Zoque-Sumidero canyon complex are best achieved through 1) local management of natural resources at the community scale; 2) an incentive-driven approach based on economic and environmental service rewards; 3) building on existing institutional mechanisms for implementing investments in conservation and sustainable production activities; and 4) taking advantage of methodological expertise and local experience in the NGO, governmental and academic sector for supporting capacity building processes.
126. Strengthening the local management of natural resources at the community scale is particularly cost-effective under the topographical and socioeconomic conditions of the project region. Experience in the region with its dispersed rural localities has shown that the community is a good scale for coordinating the efforts of different governmental and non-governmental institutions, thereby achieving synergies. If institutional circumstances are favourable, linking local planning with the municipal level will contribute to improve cost effectiveness of investment in climate mitigation measures.
127. This project also favours a reward-and-incentive approach to the management of natural resources rather than an approach based exclusively on rules and policing (which are both necessary as well) for numerous reasons, including cost effectiveness. In an area of difficult access with security problems and low environmental governance, it is difficult to enforce land use regulations if these are not in the interest of the land users. The project's approach is therefore to facilitate access to incentives and rewards for communities for land use practices and activities that benefit the environment and help ensure the delivery of environmental services to local inhabitants. Through this approach, better results can be expected in terms of resource conservation than with a traditional approach based solely on the most ineffective enforcement of rules.
128. An important factor of this project's cost effectiveness is the adopted implementation and sustainability strategy that builds on existing institutional structures in the government, NGO and academic sector, instead of paying for their establishment through project funds. Project management costs associated with the project staff can be held at a low level (9.1% of GEF project cost), because involved institutions and organizations assume part of the administrative and management costs related to implementing project activities. So GEF funds will be focused on cost effective use for planning, implementing and capacity-building on all levels, from land users to state and federal government agencies.
129. Another significant advantage for project cost effectiveness consists in the methodological expertise and local experience in the region of key project partners from the NGO, governmental and academic sector, particularly AMBIO and CONANP. The project implementation strategy considers the involvement of these actors in all components thereby reducing substantially transaction costs which are associated with community decision processes and coordination between different participating actors.

## F. Incremental Cost Reasoning and Expected Contributions to the Baseline

130. The GEF funding from this project will help to fulfill the 2011 Chiapas Climate Change Action Program (PACCCH), more specifically Strategy I: Climate Change Mitigation for the Land Use,

Land Use-Change and Forestry (LULUCF) Sector. The investments and commitments made by the government of the state of Chiapas through the PACCCH will serve as baseline for this GEF project.

131. This project will take advantage of and build on current investments in the Selva Zoque -Sumidero Canyon complex of five NPAs both from the governmental and non-governmental sectors. The federal government of Mexico, through CONANP and CONAFOR, and the state government of Chiapas, through SEMAHN (see associated baseline projects under subsection G), is currently investing in several conservation and sustainable development projects in the project area that are complementary to this GEF project. SAGARPA, CDI and FMCN are also worth to be mentioned in this context.
132. AMBIO has successfully implemented climate change mitigation pilot projects using the *Plan Vivo* standards, and is well positioned to replicate and scale-up this experience in eighteen additional rural communities in the Selva El Ocote-Sumidero canyon complex of five NPAs and their buffer zones as demonstration sites.
133. The GEF funding from this project will provide the incremental costs to advance climate change mitigation beyond what national and state investments would have achieved on their own. Thus, through the PACCCH the Government of Chiapas has made crucial progress in improving the institutional and legal baselines for climate change mitigation and adaptation actions at the state level, but the capacity of the state to implement these baselines, for example through investing in local field demonstration projects, remains limited. Moreover, it has been estimated that without projects like this, the national and regional climate change targets for Chiapas in particular and the region in general will lag behind.
134. Incremental GEF funding will also be required to improve market-oriented production systems (for example shade grown coffee; pacaya palm). This will include aspects of social organization and will help establishing links with key actors in the commercial sector. Improved access to markets for local products will also reduce pressure on land use change avoiding GHG emissions.
135. Another activity that will require additional funding is promoting sustainable forest management by communities. Most *ejidos* have no forest management strategy; processes for developing such strategies need an investment in time and money.
136. The capacity building activities to be implemented under this field demonstration project will establish the foundation needed to scale up climate change mitigation initiatives to additional rural communities in the Selva El Ocote-Sumidero canyon complex of five NPAs and other priority areas within region, and therefore achieve larger impacts.
137. This project will also generate co-benefits, such as biodiversity conservation and improved rural livelihoods in several impoverished communities of the region.

## G. Associated Baseline Projects

138. This GEF project will build upon current investments from the federal and state government agencies in the project area of five NPAs, as well as AMBIO's own experience with the Scolelte Program in Chiapas and more specifically its recent USAID REDD+ pilot project in the REBISO.
139. The Government of Chiapas has made crucial political, institutional, and financial commitments and investments that provide a very solid baseline for this GEF project. Thus, in 2009 the Ministry for Environment and Natural History of Chiapas (Secretaría de Medio Ambiente e Historia Natural - SEMAHN) in partnership with Conservation International-Mexico (CI-Mexico), the University for Sciences and Arts of Chiapas, and the British Embassy, started a highly participatory process to

develop the Climate Change Action Program for the state of Chiapas (Programa de Acción ante el Cambio Climático de Chiapas, PACCCH 2011).

- 140.** Launched in 2010, the PACCCH provides a framework to articulate public policies and actions for the state government of Chiapas on issues related to climate change mitigation and adaptation. This program is a priority for the state government as it supports statewide planning and development and has impacts at the global level.
- 141.** Since its inception, the PACCCH has provided the institutional, strategic and scientific guidance to achieve the following results:
  - a) The enactment of the State of Chiapas Climate Change Mitigation and Adaptation Law;
  - b) The establishment of the Commission for the Inter-Secretarial Coordination of Climate Change that is responsible for defining climate change public policies;
  - c) The creation of the Climate Change and Energy Department housed within the SEMAHN;
  - d) The creation of an institutional link between the government, civil society and academia to work towards understanding and creating solutions to climate change;
  - e) Building capacity at governmental, academic and local civil society organizational levels through the implementation of eight capacity building workshops, two state forums, one public hearing, and nine public consultation workshops;
  - f) The implementation of the first State Greenhouse Gas Inventory for Chiapas based on guidelines provided by the National Institute of Ecology (INE) and the Intergovernmental Panel on Climate Change (IPCC). The sectors analyzed included LULUCF, Energy, Industrial Processes, Agriculture, and Waste;
  - g) The historical, current, and future deforestation and degradation analyses and projections for Chiapas, including preliminary baselines for Reducing Emissions from Deforestation and Degradation (REDD+); and
  - h) Climate scenarios for historic, present temperature, precipitation, heat waves, and droughts in the state.
- 142.** In addition, in August of 2011, the first state-level Technical Advisory Committee for REDD+ was established. The Committee is made up of experts from civil society organizations, federal and state governmental agencies, and academic institutions, with a wide range of experiences in Monitoring, Reporting and Verification (MRV), forestry inventories, voluntary market carbon initiatives, community land planning, community training, and sustainable land management (including the successful AMBIO's Scolel'te Program established in 1997 using the *Plan Vivo* methodology). This Technical Committee will guide and advise the State Climate Change Commission in the development of the REDD+ strategy, mechanisms, and projects.
- 143.** SEMAHN and UNICACH were entrusted with the task to conclude with the GHG inventory process, but at the moment of writing this Project Document, the results had not been presented. Once the inventory raw data are available, the project will provide information for completing the GHG inventory report.
- 144.** Since 1998, AMBIO has been implementing the Scolel'te Program in several *ejidos* of Chiapas. The goal of this program is to avoid and reduce carbon emissions and sequester carbon in agrosilvopastoral systems and enhance the livelihoods of rural farming communities in Chiapas. It is a registered *Plan Vivo* project (<http://goo.gl/m5fx8L>) that involves hundreds of producers who are implementing *Plan Vivo* technical specifications on their small landholdings. The reforestation and agroforestry systems that the project promotes are designed to capture more carbon than what

would be found in baseline conditions of pasturelands, degraded forests or the traditional cropping of corn and beans (*milpas*).

145. From 2008 through 2013, AMBIO implemented the *REDD+ Project Using the Plan Vivo System in the Selva El Ocote Biosphere Reserve*, as an extension of its Scolel'te Program in three *ejidos* of the REBISO (Veinte Casas, Nuevo San Juan Chamula and Tierra Nueva). This USD 250,000 project was funded by the United States Agency for International Development (USAID) and closely coordinated with the REBISO's staff. The objective of the project was to learn about different aspects of implementing REDD+ projects using the *Plan Vivo Standards* with local communities of the REBISO, including developing baselines and reference scenarios, applying environmental and social safeguards, developing and implementing land use plans, and improving governance and local capacity. The know-how acquired throughout the implementation of this pilot project will serve AMBIO as baseline experience that will be applied towards the success of this GEF project.
146. As a result from the USAID project, AMBIO has received a preliminary commitment from the International Union for Conservation of Nature (IUCN) to purchase at least 3,000 tCO<sub>2</sub>e from carbon emissions avoided from the REBISO.
147. Furthermore, AMBIO is implementing a program for *Building local capacity to implement forest monitoring (USD 15,000 - 2014-2016)* in the REBISO. The objective of this project is to develop local capacity to conduct forest monitoring, mainly for deforestation. This project is funded jointly by the Moore Foundation and the Mexican Fund for Conservation of Nature (Fondo Mexicano para la Conservación de la Naturaleza, FMCN).
148. The National Natural Protected Areas Commission (Comisión Nacional de Áreas Naturales Protegidas, CONANP), the federal agency in charge of managing the REBISO, will be investing approximately USD 360,000 over the next 3 years to improve the management of the Reserves and the buffer zones. Information on CONANP and SEMAHN investments in the other four NPAs of the Selva Zoque – Sumidero Canyon complex will be complemented at the beginning of the project.
149. Some of CONANP's current programs that will continue over the life of this GEF project and serve as baseline projects include:

**Table 5: Objective, geographic coverage, duration and sustainability of CONANP programs and projects**

Program/ project name	Objective	Coverage	Duration	Sustainability perspective (continuity)
<i>Traditional Maize Landraces Program</i>	Conservation and use of local maize landraces improving yields and reducing agricultural inputs	REBISO La Pera Meyapac Villa Allende Sumidero Canyon	This permanent program started some years ago.	The program was launched by three institutions (CONANP, CDI, Chiapas Secretariat of Rural Development-SECAM). According to experiences in other regions, the process of adaptation to these new production practices takes three to five years. However, until now there is a lack of systematic follow-up of activities, and impacts on production and farmer families' income have not been assessed.
<i>Improving Beekeeping and Honey</i>	Income generating activity compatible with conserving forests while creating	REBISO La Pera Villa Allende	Permanent program since 2011, more syste-	This is a joint program of CDI, SECAM, CONANP and AMBIO, designed as a permanent strategy for avoiding land use

<i>Production</i>	biological corridors and reducing GHG emissions from deforestation and forest degradation		matically planned since 2013. Started in Villa Allende in 2015.	change.
<i>Improving Coffee Production Systems</i>	Reduce rate of conversion of shade-grown coffee into land uses less compatible with BD conservation; avoid and reduce GHG emissions from land use change	REBISO La Pera Villa Allende Sumidero Canyon	Permanent program since 2010	CONANP, together with different partners (SECAM, INMECAFE, others) are highly interested in reinforcing this program. One of its main instruments is permanent payments of environmental services for avoiding carbon emissions, as well as systematic control of pests and diseases which affect coffee plants. Another instrument is promoting organic coffee production, opening access to organic and fair trade markets.
<i>Biological Monitoring</i>	Build local capacity to identify and manage native species of flora and fauna. Strong environmental awareness component, which includes issues related to CC mitigation and adaptation.	REBISO La Pera Villa Allende Sumidero Canyon Meyapac	CONANP, SEMAHLN , UNICACH and ECOSUR are monitoring flora and fauna over more than 10 years in the region.	The sustainability strategy of this project consists in creating a permanent flora and fauna monitoring network for native species coordinated by CONABIO, with CONANP, AMBIO, SEMAHLN, UNICACH and ECOSUR participating. CONANP is a driving actor in this project as it will improve its information basis for planning and implementing conservation activities in the Selva Zoque-Sumidero Canyon complex.

150. As part of the implementation of the PACCCH, the government of the state of Chiapas through SEMAHLN has committed an investment of USD 375,000 for the Meyapac-La Pera Corridor, which will fund activities for reducing GHG emissions through improving forest management, preventing and managing forest fires, improving productive systems, and strengthening stakeholders' capacity.
151. The National Forest Commission (CONAFOR) has important baseline investments in the project area:

**Table 6: Objective, geographic coverage, duration and sustainability of CONAFOR programs and projects**

Program/ project name	Objective	Coverage	Duration	Sustainability perspective (continuity)
<i>Community Land Use Planning</i>	Assist local communities in developing land use plans, which incorporate biodiversity conservation and	REBISO Sumidero Canyon Villa Allende	Permanent program that started in 2015	Land use plans under this program promoted by CONAFOR are implemented by communities and must be updated every five years. These plans are a very useful tool for CONANP as they allow improving the effectiveness of their programs for conservation and

	sustainable use, as well as CC mitigation and adaptation criteria.			sustainable use of natural resources in NPA.
<i>Payment for Ecosystem Services Program</i>	Provides economic incentives for forest conservation, based on species endemism and richness, which directly contribute to decrease deforestation and forest degradation.	REBISO Villa Allende Cañon del Sumidero	Permanent program  Los programas actuales tienen un periodo de 5 años	CONAFOR is interested in expanding the coverage of its PES program in the Selva Zoque-Sumidero Canyon complex building on the information generated by this GEF project.  The CONAFOR PES program is permanent, but users receive payments only during five years. The GEF project will open new PES modalities making economic incentives for forest conservation more sustainable.
<i>Ecological restoration with Chapaya Palm in the Veinte Casas Ejido</i>	Establish, increase and restore vegetative cover in primary and second-growth forests using a non-timber species. The Chapaya Palm is a source of food and cash for local communities.	REBISO	2011-2015	The chances for continuity of this program are high, given the great interest of communities in the region to protect this source of income. Furthermore, this activity is included in the CONANP management program for the Selva El Ocote reserve.

- 152.** The State Extension Secretariat (Secretaria del Campo, SECAM) is the State agency in charge of developing the regional productive strategies. In the project area, SECAM will continue implementing several sustainable production activities with small landholders, included but not limited to improving cash crops production (honey, coffee, cattle, fruits), as well as subsistence crops such as corn, bean, and vegetables, all in production systems compatible with this project.

**Table 7: Objective, geographic coverage, duration and sustainability of other programs and projects**

Project name	Project name (objective)	Coverage	Duration	Sustainability plan (continuity)
<i>Strengthening local capacity to manage forest fires in the REBISO (FMCN)</i>	Update and strengthen local and regional capacity to manage forest fires in the ejidos of the REBISO	REBISO	2014-2015	This project has developed and reinforced local and institutional capacities for forest fire management. Local forest fire brigades are being created which count with the institutional support of the Chiapas state Civil Defence, CONAFOR and BIOMASA, a NGO expert in fire management and assessment of wildfire impacts.
<i>Improving production systems as a strategy for CC adaptation</i>	Adoption of low carbon production systems in the Selva Zoque	REBISO	2013-2015	This project is part of a set of CC adaptation initiatives. From 2013 to 2015, FANP financed the improvement of three production systems considered as strategic for strengthening the resilience of the Selva Zoque region. Those

(FANP)				activities were implemented by AMBIO, given its recognised expertise in this area. The projects GEF Resiliency (CONANP) and GEF Selva Zoque-Sumidero Canyon (AMBIO) will provide continuity to the processes promoted by the FANP project.
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## H. Project Consistency with GEF Focal Area and/or Fund(s) Strategies

153. The project *relates* to and supports the GEF Climate Change (CC) Mitigation Focal Area, particularly CC focal area objective 2: Demonstrate mitigation options with systemic impacts.
154. The foreseen project activities are consistent with program 4 of the CC focal area objective 2; this program aims to:
- *Promote conservation and enhancement* of carbon stocks in forest, and other land use, and support climate smart agriculture.
- The specific outcome of this program is:
- *Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration.*
155. Under the Climate Change Mitigation Strategy for LULUCF and agriculture, this project is designed to address the identified root causes (see subsection A) of forest carbon and other land use emission and emissions from agricultural practices. In correspondence with the CC focal area, the project will support mitigation-focused management practices in LULUCF in forests and agriculture, protecting and enhancing carbon concentration and CO<sub>2</sub> sequestration.
156. In agriculture in particular, the project is aligned to the CC strategy for promoting climate smart agriculture (CSA) initiatives that include mitigation objectives and activities. This will include soil management practices, rehabilitation of degraded areas, improved fertilizing methods, improved and integrated livestock management, agroforestry, control of slash and burn shifting agriculture, open burning practices.
157. The project is also consistent with the CC focal area strategy to incentivize land users to undertake emission reducing measures, including training systems to support farmers who engage in new practices. It will also build and strengthen capacity of government officials (CONANP) on issues related to climate change mitigation and adaptation, sustainable forest management, carbon monitoring and low carbon agricultural practices.
158. In accordance with the GEF CC focal area strategy, this project will acknowledge gender differences and will determine key actions to promote women's role in implementation of project activities. This will involve the use of gender disaggregated project indicators.

## I. Project Consistency with National Priorities, Plans, and Policies

159. As shown below (Table 5), the project is highly consistent with national priorities, plans, and policies:

**Table 8: Project Consistency with National Priorities, Plans, and Policies**

National Priorities	Project Consistency
General Climate Change Law (Ley General de Cambio Climático – LGCC, 2012)	The project is aligned to actions foreseen by the law that are aimed to reverse deforestation and degradation, conserve and restore land for enhancing carbon sequestration and implementing sustainable agriculture practices, among others. It will contribute to achieving the indicative goals established by the law to reduce greenhouse gases (GHG) – 30% by 2020; 50% by 2050.
National Climate Change Strategy. <i>Vision 10-20-40</i> (Estrategia Nacional de Cambio Climático – ENACC, 2013)	The project is consistent with the mitigation strategy and lines of action of the Strategy for promoting best practices in agriculture and forestry to increase and preserve natural carbon sinks.
National REDD+ Strategy (Estrategia Nacional REDD+ – ENAREDD+, November 2014 draft)	The project addresses several of the strategies identified by the ENAREDD+, such as the development of reference scenarios for REDD+, stakeholder capacity building, information sharing, and improved participation and consultation processes.
National Development Plan (Plan Nacional de Desarrollo 2012 - 2018 – PND)	This project will contribute to the fulfilling of: Objective 4.4. Promote and guide an inclusive green growth to preserve our natural heritage while generating wealth, employment and competitiveness. Strategy 4.4.3. Strengthen national climate change policy and environmental care for the transition to a competitive, sustainable, resilient and low-carbon economy.
Special Climate Change Program 2014-2018 (Programa Especial de Cambio Climático – PECC)	The project is consistent with this program which presents the federal government's contribution to the GHG emissions reduction indicative goal prescribed by the LGCC for the period 2014-2018.
Climate Change Strategy for Protected Areas (Estrategia de Cambio Climático para Áreas Protegidas – ECCAP)	Released in 2011 by CONANP, the strategy is designed to increase capacity and adaptation of ecosystems and the people living in them to address climate change and contribute to the mitigation of GHG emissions and enrichment of carbon stocks.
Sector Programme of Environment and Natural Resources 2013–2018 (Programa Sectorial de Medio Ambiente y Recursos Naturales 2013–2018 – PROMARNAT)	In accordance with the PROMARNAT, the project will contribute to halt the loss of biodiversity and promote clean technologies to consolidate the country as a low-carbon economy; encourages government agencies to include environmental green growth in their public policies.
Chiapas State Development Plan 2013-2018 (Plan Estatal de Desarrollo de Chiapas 2013-2018)	This Plan considers climate change mitigation and adaption key components of a sustainable development path for Chiapas. One of its objectives is to reduce GHG emissions and air pollution through a reduction in the rate of land use change, including deforestation and forest degradation. This GEF project will directly help reduce the rate of land use change and thus GHG emissions in the State, as well as increasing carbon sequestration from productive landscapes.
Chiapas Climate Change Action Program (Programa de Acción ante el Cambio Climático del Estado de Chiapas - PACCCH)	The goal of the PACCCH is to “coordinate and promote measures to reduce the risks posed by climate change through reducing emissions and increasing GHG sequestration”. This GEF projects is well aligned with the PACCCH and will directly contribute towards the fulfillment of Strategy I: Climate Change Mitigation for the Land Use, Land Use-Change and Forestry (LULUCF) Sector.
<b>This project is highly consistent with several international/regional agreements related to the issue of climate change, including:</b>	
United Nations Framework Convention on Climate Change (UNFCCC)	This project addresses, directly or indirectly, the Articles 4 and 5 of the Convention on Climate Change.

National Priorities	Project Consistency
Mexico's Fifth National Communication on Climate Change (2012)	The project will contribute directly to three of the six climate change mitigation goals set forth in the Fifth National Communication for the LULUCF sector: 1) Increase the area under sustainable grazing; 2) Increase the area under sustainable forest management (SFM); and goal 4) Increase the area of land under payment for ecosystem services (PES) schemes.

## J. Country Ownership and Drivenness

- 160. Mexico has underscored its commitment to climate change mitigation and adaptation efforts by a series of laws, strategies, policies, plans and programs at the federal and state level, as shown under subsection H. An outstanding evidence of this involvement is the fact that Mexico is the second country in the world to have a General Law on Climate Change, published in June, 2012.
- 161. At the federal level, the project receives the full support and cooperation of CONANP, in responsiveness to its Climate Change Strategy for Protected Areas (ECCAP). CONANP has assumed a lead role in project preparation and will be the main government protagonist in this local climate change mitigation project. As co-execution partner and federal agency in charge of managing three NPAs in the project region, CONANP is engaged in central project issues, like restoring degraded ecosystems to increase and enhance carbon stocks; promote systems of agricultural and forestry production that favor the reduction of emissions and removal of carbon in buffer zones and zones of influence; and safeguard the interests of local communities and indigenous peoples in implementing *mitigation measures*. This GEF project is strongly supported by CONANP, who has expressed interest in replicating and scaling up the *Plan Vivo* approach in other protected areas under its jurisdiction. With USD 1.6 million, CONANP has subscribed the main share to Mexico's co-financing commitments.
- 162. A strategic project partner is the National Forest Commission (CONAFOR) which will bring in institutional recognition and experience in forest management and community extension, as well as its experience with REDD+ projects and the Mexican Carbon Norms development. CONAFOR will support the project with an investment of USD 760,000.
- 163. The state government of Chiapas has made crucial political, institutional, and financial commitments and investments that provide a very solid baseline for this GEF project. The Chiapas Climate Change Action Program provides an excellent platform for promoting the project among governmental and non governmental actors in the region. The Secretariat for Environment and Natural History of Chiapas (SEMAHN) is interested in strengthening climate change mitigation activities in the two NPAs under state management, La Pera and Cerro Meyapac. SEMAHN will contribute an investment of USD 300,000 to project co-financing.
- 164. AMBIO, as a civil society organization and co-executing partner, has a lead role in preparing, planning and implementing this GEF project. AMBIO is committed to empowerment of communities, their organizations and leaders, and women; also on capacity-building to enable them to be protagonists of their own way of conserving and restoring healthy ecosystems and improving human well-being. Thus, AMBIO pursues a bottom up approach giving time to communities to take ownership of the proposed projects and adapt them to their own vision and needs.

## **K. Project Consistency and Alignment with CI Institutional Priorities**

- 165.** The project area falls within the Mesoamerican Terrestrial Hotspot, and the five NPAs of the Selva El Ocote-Sumidero Canyon Complex have also been identified as a Key Biodiversity Area (KBA). Hotspots and KBAs are among the main focus of CI whose goal is to empower societies to responsibly and sustainably care for nature, global biodiversity, and the well-being of humans. CI established an office in Mexico and has been working in the Sierra Madre and coast of Chiapas with more than 18,000 producers, 19 municipalities and the national and federal government to coordinate efforts so their activities are developed in harmony with their natural landscapes
- 166.** In 2011, CI in partnership with the Ministry for Environment and Natural History of Chiapas, SEMAHN, the University for Sciences and Arts of Chiapas, and the British Embassy developed the Climate Change Action Program for the state of Chiapas (Programa de Acción ante el Cambio Climático de Chiapas) through a highly participatory process.

## SECTION 4: PROJECT STRATEGY

### A. Project Vision and Objective

167. This project pursues the *vision* that by 2020, greenhouse gas emissions from the Selva Zoque – Sumidero Canyon complex have decreased significantly, and carbon sequestration in agro-pastoral systems has increased. On the way towards this goal, deforestation rates in natural ecosystems have been abated and sustainable management practices in forestry and agriculture adopted by a majority of communities and smallholder farmers in the region. The growing tendency towards vegetation loss and soil degradation has been reverted, and threats to ecosystems, habitat and plant and animal species with high value for conservation are under better control. The improvements in health of ecosystems have had a positive impact on environmental goods and services and on the well-being of the population in the region. By integrating innovative approaches for maintaining and increasing carbon stocks introduced by the project, the state of Chiapas's climate change mitigation strategy has been further developed and strengthened.
168. The *project objective* is “to maintain and increase carbon stocks through avoiding deforestation in natural ecosystems and adopting sustainable management practices to reduce greenhouse gas emissions and increase carbon sequestration in agro-pastoral systems in the Selva Zoque – Sumidero canyon complex”.<sup>48</sup>
169. In comparison to the PIF, the objective definition has been modified during the project preparation phase, extending the project area from one to five NPAs, i.e. from the Selva El Ocote Biosphere Reserve to the larger Selva Zoque – Sumidero Canyon complex, for the following reasons: CONANP started in 2014 a GEF climate change adaptation project in the Selva Zoque – Sumidero Canyon region and proposed to manage the present GEF climate change mitigation project covering the same area, in order to facilitate coordination, exchange of experience and obtain synergy effects. Among those expected effects are: a) develop strategies for strengthening the connection between the forest areas in the region and its function as biological corridors; b) cooperate for reducing the impacts of deforestation and forest degradation; c) give more attention to rural communities in this region which until now has received less benefits than other protected areas in Chiapas; and d) position the Selva Zoque – Sumidero Canyon complex in policy planning and public opinion.
170. Objective *indicators*, as stated in the project results framework, are:
- 132.298 tCO<sub>2</sub>e avoided to be emitted in 15 communities of the Selva Zoque – Sumidero Canyon complex (by sustainable management of primary and second-growth forests for avoiding carbon emissions)
  - 160.969 tCO<sub>2</sub>e sequestered in the Selva Zoque – Sumidero Canyon complex (by improved production practices contributing to the sequestration of carbon).
171. During the development of the PIF, communities to be included in the project had not yet been defined. Once having identified the 15 project communities during the PPG phase, their forest surface and areas of impact could be verified. Due to a minor size in hectares of the selected communities in comparison with those of the REBISO, the total forest surface area covered by the

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<sup>48</sup> In a strict sense, the *core of the project objective* is to maintain and increase carbon stocks, and to reduce greenhouse gas emissions and increase carbon sequestration in the project region (see also objective indicators), whereas the other parts of the cited definition refer to the *means for achieving this objective* (“through avoiding deforestation in natural ecosystems and adopting sustainable management practices in agro-pastoral systems”).

project is now slightly lower than expected originally. Equally, agricultural surface is now slightly lower, with the effect that the potential area to be converted into agroforestry systems has decreased marginally, reducing the amount of sequestered carbon from 161.650 tCO<sub>2</sub>e to 160.968 tCO<sub>2</sub>e.

## B. Project Components, Expected Outcomes, and Outputs

172. As explained under section 3 (table 4), this project will focus on existing gaps in respective current baseline investments of governmental and social actors where the additional GEF contribution will have the highest impact, i.e. (1) low level of incentives for farmers to conserve forests, and for sustainable land management in general; (2) limited smallholder farmers' abilities to sustainably manage forest and land resources; (3) weak institutional capacity to sustainably manage natural resources; and (4) weak influence of awareness about consequences and costs of deforestation and forest degradation (D+D) on production practices.
173. Addressing these environmental drivers, SEMAHN, CONANP, CONAFOR and AMBIO have identified: a) the implementation of field demonstration projects to incentivize local communities to conserve and sustainably manage their natural resources, and b) building institutional and local awareness and capacity for sustainable resource management, as the priority areas of investments to achieve the project objective of maintaining and increasing carbon stocks in the region and to advance the implementation of the Chiapas state climate change policy, based on the PACCCH.
174. Correspondingly, the project will manage the following components:
  - **Component 1:** Field demonstrations for maintaining carbon stocks in forests and increasing carbon sequestration in agropastoral landscapes of the Selva Zoque – Sumidero Canyon complex. This component will directly address barriers (1) low level of incentives for farmers to conserve forests, and for sustainable land management in general; and (2) limited smallholder farmers' abilities to sustainably manage forest and land resources.
  - **Component 2:** Building institutional and local awareness and capacity on reducing GHG emissions from the LULUCF sector in Chiapas. This component will directly address barrier (3) weak institutional capacity to sustainably manage natural resources; and (4) weak local environmental awareness and capacity to adopt climate change mitigation practices in agricultural production.

### **Component 1: Field demonstrations for maintaining carbon stocks in forests and increasing carbon sequestration in agropastoral landscapes of the Selva Zoque – Sumidero Canyon complex.**

175. The expected **outcome of component 1** is that "Primary and second-growth forests are managed sustainably and production practices in agro-pastoral landscapes are improved", contributing to the reduction of greenhouse gas emissions and to the increment of carbon sequestration; as well as leading to better human well-being.
176. This outcome will be measured and monitored through four **indicators**:
  - Number of hectares of primary and second-growth forests managed sustainably for maintaining carbon stocks and reducing emissions. Starting from a baseline of 2,624 hectares, at the end of the project at least 6,615 hectares of forests are managed sustainably (avoiding the emission of at least 132.298 tCO<sub>2</sub>e in 25 years).
  - Number of hectares of productive landscapes under improved management practices contributing to carbon sequestration. The baseline is 36 hectares, and at the end of the project at

least 722.42 hectares in production landscapes are managed under improved practices (contributing to the sequestration of 160,968.70 tons CO<sub>2</sub>e).

- Number of communities maintaining forest cover and/or improving management practices in productive landscapes, with an increment from 2 to 15 communities.
  - Percentage of local processes (field projects, network capacity building processes) with a gender approach, with an end-of-project target of 80%.
- 177.** The following **outputs** will together contribute to achieve component 1 outcome: 1) Intervention communities and local project sites are identified and validated by stakeholders; 2) a gender sensitive sustainable forest management (SFM) strategy for maintaining carbon stocks and reducing emissions is developed and implemented in project area communities; 3) field projects under improved productive landscapes management (PLM) practices contributing to carbon sequestration are developed and implemented in project area communities; 4) carbon and greenhouse gas mitigation benefits generated by the project are measured and monitored using internationally accepted protocols throughout project life; 5) a carbon market strategy is developed and implemented, to ensure that a maximum of carbon credits generated through the project are properly issued in the voluntary market and benefits are equitably distributed; and 6) an agreed upon strategy for scaling up the demonstration field projects within the Selva Zoque – Sumidero Canyon complex and the State of Chiapas and beyond is developed and first implementation steps have been initiated. By putting into practice this strategy and objectives, AMBIO will scale up its climate change mitigation efforts in the area.

#### **Output 1.1: Intervention communities and local project sites identified and validated**

- 178.** The project will work with rural communities in 15 *ejidos* of the Selva Zoque – Sumidero Canyon complex buffer and influence zones that were not part of AMBIO’s USAID REDD+ pilot project (see section 3, subsection G: Associated Baseline Projects).
- 179.** Project areas and *ejidos* were selected during the PPG phase based on environmental and social criteria, including: level of social organization; land tenure; biological connectivity; experience in reforestation and forest management; presence of women leadership; presence of internal conflicts or conflicts with neighboring communities; and management of low carbon systems. These indicators were evaluated under maximum and minimum values and the communities with the highest score were selected and visited to inform them in more detail about the project proposal (see also the Stakeholder Engagement Plan).
- 180.** Table 6 presents some fundamental demographic and socioeconomic data of the 15 communities involved in the project:<sup>49</sup>
- 181.** During the first sixth months of project implementation, the social, environmental and economic assessment of communities realized during the PPG phase will be complemented, and demonstration field project sites will be identified. Building on the results of an intensive dialogue with communities, the proposed demonstration field projects will be confirmed and validated. These field demonstration projects will follow two complementary approaches to avoid and reduce carbon emissions, as developed under output 1.2 and output 1.3:

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<sup>49</sup> See also Map 2: Rural communities selected by the project.

**Table 9: Demographic and socioeconomic data of communities involved in the project**

NPA/ Community	Number of in- habitants 2010	Population growth 2000- 2010*	% (nº) of EAP** populatio- n	% of EAP in agri- culture	*** % of EA women	% (nº) of indigenous population	Area of ejido land in ha
<b>Selva El Ocote</b>							
<i>Veinte Casas</i>	259	2.77	23 (60)	23	0.4	100 (259)	2,241
<i>Emilio Rabasa</i>	91	-3.79	29 (27)	29	1.09	31 (28)	827
<i>Nvo. San Juan Chamula</i>	506	3.75	22 (113)	22	-	100 (506)	1,334
<i>Nicolás Bravo</i>	367	2.48	26 (95)	26	0	100 (367)	1,457
<i>Llano Grande</i>	497	4.17	23 (115)	23	3.47	98 (487)	1,130
<b>La Pera</b>							
<i>Tierra y Libertad</i>	496	5.12	30 (151)	30	0.8	0.6 (3)	274
<i>Cuchumbac</i>	55	-2.65	29 (16)	29	1.8	0 (0)	-
<i>San Martín (no information)</i>	6	-	-	-	-	-	-
<i>Amendum</i>	453	2.74	31 (144)	31	19.4	93 (421)	-
<b>Cerro Meyapac</b>							
<i>Santa Martha</i>	110	2.61	32 (36)		2.7	0 (0)	-
<b>Villa Allende</b>							
<i>Vista Hermosa</i>	237	0.21	31 (74)	31	1.4	89 (211)	346
<i>Efraín Gutiérrez</i>	576	0.82	32 (189)	32	10.1	1.56 (9)	368
<i>16 de Septiembre</i>	1,020	3.79	37 (380)	37	17.1	5 (51)	487
<b>Sumidero Canyon</b>							
<i>Benito Juárez</i>	1,488	1.72	35 (564)	35	16.3	0 (0)	1,311
<i>Triunfo Agrarista</i>	651	1.37	35 (233)	35	17.5	0.3 (2)	989
<b>Total</b>	<b>6,812</b>	<b>2.45</b>	<b>(32) 2,197</b>			<b>34.4 (2,344)</b>	

Source: Own elaboration with data from INEGI (National Institute for Statistics and Geography Mexico Government) and RAN (National Agrarian Register Mexico Government).

\*Average annual demographic growth 2000-2010: Metodología de indicadores de la serie censal, INEGI, [www.inegi.org.mx](http://www.inegi.org.mx). \*\*EAP: Economically Active Population.

\*\*\*% of EA women: Percentage of economically active women divided by the total number of women in the community.

### **Output 1.2: Avoiding and reducing carbon emissions from natural carbon stocks**

182. Avoiding and reducing carbon emissions from primary forests and mature *acahuales* will be achieved through a) identifying social, environmental and economic threats to priority forest systems, such as pests, land tenure and others; b) calculating the baseline and reference scenarios of CO<sub>2</sub> for the local and regional level; c) defining inclusive activities for reducing threats to the sustainable management of forest systems, with a gender sensitive approach; d) implementation of sustainable, alternative and improved forest management practices; e) development, strengthening and implementation of community regulations to regulate the access and use of community owned forest resources; f) prevention and mitigation of forest fires, pests and diseases; and g) prevention and abatement of any other forest resource threats.
183. The project will work with rural communities to improve forestry practices in approximately 6,614 ha of primary and mature second-growth forests (mature *acahuales*) that otherwise would be

deforested and/or degraded for agricultural production. This will avoid the emission of at least 132.298 tCO<sub>2</sub>e over a 25 year period (for carbon emission estimations, see Table 7 below).

184. According to the Scolel'te project (Esquivel *et al.*, 2013), the annual emission of CO<sub>2</sub> from deforestation and forest degradation in agricultural lands of the REBISO is between 0.4 a 1.8 tons CO<sub>2</sub>e/ha, depending on local conditions.
185. On the other hand, it has been estimated (Orihuela, 2013) that the primary forests of the REBISO store between 570 and 700 tons CO<sub>2</sub>e/ha, while second-growth forests store between 425 and 775 tons CO<sub>2</sub>e/ha, depending on forest type, structure, and degree of degradation. The PPG assessment made clear that the conditions (productive activities, threats) in the other four NPAs of the complex are rather different to the REBISO, therefore these parameters cannot simply be extrapolated to the rest of the complex. Nevertheless, the project will work on estimations for the whole complex and include them in its GHG monitoring activities.

#### **Output 1.3: Increasing carbon stocks in agro-pastoral landscapes**

186. AMBIO will work with local communities to conduct reforestation and re-vegetation activities in at least 1,946 ha of agricultural lands. These activities will aim at sequestering at least 160,968 tons CO<sub>2</sub>e (see table 7) and will be carried out in productive landscapes, such as *acahuales*, coffee plantations, maize/bean fields (*milpas*) and pastures.
187. The 722.42 ha under improved agricultural management for carbon sequestration will be used as demonstration sites for other rural communities of the Selva Zoque – Sumidero Canyon complex and beyond (see output 2.6).
188. Reforestation and re-vegetation activities will be carried out only with native species.
189. Local pilot projects have estimated that implementing agroforestry systems to produce maize and beans can sequester approximately 15,700 tons CO<sub>2</sub>e per 100 ha over a period of 20-25 years, depending on the tree species utilized in the system. However, this amount might double if soil carbon is accounted for.
190. Another way to increase carbon sequestration in the Selva Zoque – Sumidero Canyon complex is through improving the management of second-growth forests (*acahuales*), which are usually slashed and burnt to expand agricultural lands. Local estimations show that *acahuales* can sequester around 31,900 tons CO<sub>2</sub>e per 100 ha over a period of 25-30 years.
191. Pastures can also be managed to increase carbon sequestration through silvo-pastoral practices, where tree species that can serve as living fences, fodder and/or shade for livestock are added to the pasture. Silvo-pastoral systems like this in the Selva Zoque – Sumidero Canyon complex have the potential to capture approximately 23,550 tons CO<sub>2</sub>e per 150 ha over 25-30 years.
192. The feasibility of including *acahuales* and pastures as part of the approach to increase carbon sequestration in agro-pastoral landscapes of the Selva Zoque – Sumidero Canyon complex was estimated during the PPG phase. The result is that young tropical and subtropical *acahuales* are suitable for being improved by introducing indigenous forest species. However, in mature *acahuales* planting trees is not appropriate; instead, it is more feasible to manage these areas as permanent forests. – As to pastures, the PPG assessment found that many of them are abandoned or subutilized. About 20 to 30% of these areas can be included in the project, managing silvopastoral practices like tropical and subtropical live fences.
193. The project will take the following steps for conducting the aforementioned reforestation and re-vegetation activities:
  - Assess current production and landscapes management practices and systems for subsistence and market.

- Identify and analyze alternative production and landscapes management practices and systems that are strategic for *existing* vegetation types (forest, jungle, acahuau, etc.) and estimate amount of CO<sub>2</sub> they can capture.
- Identify, value and prioritize the role of women in implementing activities that contribute to carbon capture and climate change mitigation.
- Building on previous activities, develop *Planes Vivos* for communities, working groups and individual farmers (key members of community).
- Validate community *Plan Vivo* in community assembly with the participation of non-*ejido* members and women.
- Establish alternative production and landscapes management practices and systems in the field.
- Operate and provide technical assistance for managing alternative production practices and systems.

**Table 10: Estimation of Avoided Emissions and Carbon Sequestration (in a 25 years period)+**

Components	(A) Area (ha)	(B) TonCO <sub>2</sub> e/ha-25 years	C (A*B) Total tons CO <sub>2</sub> e-25 years
<b>Avoided emissions</b>	<b>6.614,91</b>		<b>132.298,20</b>
<i>Primary forest and mature acahuales</i>	6.614,91	20	132.298,20
<b>Carbon sequestration total</b>	<b>722,43</b>		<b>160.968,70</b>
<i>Tropical life fences</i>	150,00	143,13	21.469,50
<i>Temperate life fences</i>	13,40	102,39	1.372,07
<i>Tropical taungya</i>	100,00	363,33	36.333,00
<i>Subtropical acahuau</i>	100,00	167,72	16.771,90
<i>Improved coffee plantation</i>	150,00	143,13	21.469,50
<i>Tropical reforestation</i>	9,03	256,90	2.318,78
<i>Improved tropical acahuau</i>	150,00	352,32	52.848,00
<i>Improved subtropical acahuau</i>	50,00	167,72	8.385,95

+For LULUCF projects, lifetime length is defined to be 20 years. Nevertheless, for this project 25 years are deemed appropriate for the following reasons: a) In the case of avoided emissions, AMBIO's experience and recommendations of the Plan Vivo Foundation indicate that five years periods are recommendable considering criteria of permanence, certainty and market management; in any case, five year carbon sales contracts can be renewed as long as additionality and permanence in the longer term can be demonstrated. b) In the case of carbon storage, the Plan Vivo standard and AMBIO's experience suggest working in 25 years periods given that after this time it is possible to estimate with reasonable accuracy the amount of carbon sequestered by the system. Before that it is not possible to obtain a good estimate as the system is still in a dynamic process of growth; i.e. a certain level of system stability must have been attained.

#### **Output 1.4: Measuring and monitoring carbon mitigation benefits generated by the project**

- 194.** AMBIO's Scolel'te Program has been using the *Plan Vivo Standards* since 1996. These standards will be used for this GEF project in the Selva Zoque – Sumidero Canyon complex. *Plan Vivo* ([www.planvivo.org](http://www.planvivo.org)), a voluntary carbon market standard, is considered the most viable standard for rural communities in Mexico, given the country's socioeconomic context and land tenure system. *Plan Vivo* Standards take into consideration local needs and interests, and its evaluation methodologies for additionality and permanence are simple and easy to understand by rural communities.

195. The project will verify in the field and monitor progress and results of activities for sustainable forest management (SFM) and alternative production and landscapes management practices and systems. Carbon sequestration potential of these management practices will be measured using internationally accepted protocols throughout project lifetime.
196. The environmental, economic and social effectiveness, efficiency and sustainability of the alternative production and landscapes management practices and systems will be assessed with a gender perspective.

#### **Output 1.5: Carbon market strategy is developed and implemented**

197. *Plan Vivo*, established and managed by the Scottish Plan Vivo Foundation, is a framework that supports rural communities to improve the sustainable management of their natural resources, while generating climate, livelihood and ecosystem benefits. The *Plan Vivo Standards* were developed exclusively for use in community-based projects using a payment for environmental services (PES) approach.
198. Project participants that comply with the *Plan Vivo Standards* will be able to obtain *Plan Vivo Certificates* (VERs). A *Plan Vivo Certificate* is a bundled ecosystem and social service credit representing the long-term reduction or avoidance (sequestration) of one tonne CO<sub>2</sub>e, plus livelihood, biodiversity, and ecosystem benefits.
199. The process to obtain *Plan Vivo Certificates*, which allow projects to access the voluntary carbon market, includes the following steps: a) project identification; b) project registration; c) stakeholders' capacity building; d) land-management plan preparation, called *plan vivos* (living plans); e) carbon services quantification; f) *plan vivos* evaluation using technical specifications of the standard; g) *plan vivos* implementation in communal and individual landholdings; h) project follow-up and field monitoring; i) data recording and management; j) payment agreements signing; k) carbon credits payment and provision of continued technical support; and l) periodic evaluation and certification over the life of the project.
200. Step j) “payment agreements signing” of the carbon market strategy developed by the project is including the following activities:
  - Identify potential buyers of carbon credits generated through this project.
  - Negotiate and agree to the terms of contracts with buyers of carbon credits (in particular, ensuring that benefits are equitably distributed).
  - Register buyers and contracts under the *Plan Vivo*.

#### **Output 1.6: Scaling up lessons learned from demonstration field projects**

201. The project will develop and implement a gender sensitive strategy for scaling up lessons learned from demonstration field projects towards additional communities in and beyond the Selva Zoque – Sumidero Canyon complex.
202. This strategy and the selection of additional communities will be agreed upon by AMBIO, CONANP and SEMAHN and other institutional partners. The strategy will identify, among others, the priority areas for expansion, communities to be involved, institutional commitments and responsibilities, potential national and international sources of funding, and timelines.
203. The first steps for implementing this scaling up strategy in six additional communities will be accompanied by the project, providing initial technical support and training for pilot projects in other NPAs in Chiapas and adjacent states.

**Component 2: Building institutional and local awareness and capacity on reducing GHG emissions from the LULUCF sector in Chiapas**

204. The expected **outcome of component 2** is “Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon capture and storage.”
205. This outcome will be measured by three indicators:
- Number of communities and farmers (men and women) trained for applying sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective; the end-of-project targets are 15 communities and at least 375 farmers.
  - Number of community extension workers trained for transmitting sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective to communities and individual farmers.
  - Number of CONANP and SEMAHN staff members and NPA technical committee members trained on sustainable forest management (SFM) and improved PLM practices contributing to carbon capture and storage with a gender perspective.

**Output 2.1: Capacity needs of project stakeholders in climate change mitigation projects assessed**

206. During the PPG phase, a first stakeholder capacity needs assessment was carried out. The results regarding small farmers and rural communities in the project area demonstrate that information on CC mitigation (measures) and experience with concrete practices of sustainable natural resources management are insufficient. For example:
- Best management practices for pest control, fertilization, soil protection, etc are generally unknown or inadequately applied.
  - Producers are interested in transforming existing unprofitable farming systems into agroforestry models that open the possibility of carbon capture and payments by increasing the forest cover, but lacks the skills to do so.
  - Traditional burning practices are still widespread, due to insufficient understanding of the role of forest fires and fire management for the conservation and restoration of forest ecosystems and soil fertility. Transferring this knowledge would help moving from a strategy of fire suppression to one of integrated fire management.<sup>50</sup>
207. Staff of supporting institutions are generally aware of the causes and impacts of climate change but have insufficient information and experience with concrete practices of sustainable natural resources management, especially with climate change mitigation measures. This is because research on locally adapted technologies is scarce or knowledge on these practices has not been sufficiently transferred to institutional actors. However, the assessment carried out in the project preparation phase has made clear the great interest among CONANP, SEMAHN and CONAFOR staff to deepen their theoretical and practical knowledge about CC mitigation strategies and actions.
208. During the first six months after project start, and after having identified specific local project objectives, sites and involved target groups under component 1 (output 1.1), a more focused and detailed stakeholder capacity needs assessment will be conducted. Local stakeholders – farmers and communities – to be included in capacity building programs for implementing SFM and improved PLM practices are identified based on a key stakeholders identification guide, giving preference to existing working groups in the *ejidos*, groups of women and leaders.

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<sup>50</sup> ENAREDD+, draft November 2014, p.21

**209.** The assessment of specific capacity needs requires also that community extension workers who will provide communities and farmers with technical assistance, and CONANP and SEMAHN staff members and members of NPA technical committees, are properly selected based on the key stakeholders identification guide. The project will then assess specific knowledge and skills levels and gaps of these project target groups.

**Output 2.2: Capacity building programs and training materials designed**

**210.** Based on the assessment of knowledge and skills levels and gaps of project target groups with regard to the topics to be included in capacity building programs for implementing SFM and improved PLM practices in climate change mitigation programs, the project will define topics and develop methods and tools to be addressed in differentiated capacity building programs, using the Indigenous Peoples Plan, the Stakeholder Engagement Plan, and the Gender Mainstreaming Strategy and Action Plan as a resource.

**211.** A preliminary inventory of capacity building topics for project target groups includes the following:

Small farmers and inhabitants of rural communities in general

- Explain basic concepts of climate change, GHG, environmental services with emphasis on carbon sequestration; REDD+ and principles of sustainable forest management.
- Assess, together with communities, existing production systems identifying problems to be corrected and solutions to be implemented. The improvement of production systems should lead to integral land management and benefit subsistence or commercial products.
- Demonstrate appropriate management of basic crops (corn, beans and chile), applying sustainable practices for soil conservation, pest control, organic fertilization, and others.
- Evaluate the interest of small farmers and train them for transforming existing production systems into agroforestry models, increasing forest cover as well as carbon capture and storage.

Community technicians

- Explain basic concepts of climate change, GHG, environmental services with emphasis on carbon sequestration; REDD+ and principles of sustainable forest management.
- Train community technicians on concepts and methods for developing community and individual *Planes Vivo*.
- Use geographic information systems (GIS) in mapping and monitoring local forest resources for the purpose of implementing REDD+ projects.
- Apply methods of social and environmental impacts assessment of production systems and forest management practices.
- Payment for ecosystem services schemes.

Personnel of project stakeholders institutions

- Present international strategies and policies of climate change mitigation.
- Present federal and state documents on CC mitigation strategies and policies: ENAREDD, PACCCH, ECCAP, PECC.
- Explain basic topics of climate change, CC mitigation and adaptation: concepts, principals, field application.
- Introduction to carbon markets: development and operation of regulated and voluntary carbon markets; voluntary carbon standards; examples of voluntary carbon markets.
- Conceptualization and application of REDD+ actions: additionality, permanency and transparency.

- Analyze central topics like environmental governance, environmental, social and gender equity safeguards, vulnerability, resilience.
  - Identify NPA resilience strategies and actions (with regard to CONANP's NPA resilience GEF project).
- 212.** Existing training materials for implementing SFM and improved PLM practices in climate change mitigation strategies are reviewed and adapted to the specific needs of this project. In addition, the project will design and produce its own training materials.
- Output 2.3: Network of community extension workers established**
- 213.** After having selected community extension workers who will provide communities and farmers with technical assistance, the project will induce the creation of a network among them, pursuing the objective of acting as a learning and cooperating community.
- Output 2.4: Capacity building programs for different target groups implemented**
- 214.** Capacity building programs will be focused on three target groups: 1) community extension workers; 2) farmers (men and women) and communities; and 3) governmental and CSO project stakeholders.
- 215.** Capacity building needs of community extension workers are addressed by specialists identified and engaged by the project as consultants supervised by project staff.
- 216.** Knowledge and skills of farmers and communities for implementing SFM and improved PLM practices for carbon capture and storage are built and strengthened through a variety of methods: field experiments and demonstrations (learning by watching and doing), workshops, training courses, exchange of experiences, dissemination of training materials and other capacity building tools. Special efforts will be put on ensuring significant participation of women in training activities. Generally, community extension workers are in charge of implementing these training processes, occasionally seconded by specialists and project staff.
- 217.** The project will update and complement knowledge of governmental and CSO project stakeholders, particularly NPA technical committees and CONANP and SEMAHN staff members, concerning relevant issues of SFM and improved PLM practices for carbon dioxide capture and storage in climate change mitigation projects. This task is performed by project staff in combination with experts for specific topics.

**Output 2.5: Monitoring system to assess acquisition of knowledge and skills by stakeholders designed and implemented**

- 218.** Together with CONANP and SEMAHN, the project will develop a monitoring and evaluation system to assess acquisition and application of knowledge and skills by project target groups about SFM and improved PLM practices for carbon capture and storage. A field guide will assist stakeholders in using the tools of the monitoring and evaluation system.

**Output 2.6: Field exchanges to share lessons learned and promote adoption of best practices for climate change mitigation by other communities in Chiapas and adjacent states**

- 219.** The project will identify communities apt to, and interested in adopting SFM and improved PLM practices for CC mitigation (this will be coordinated with activity described in paragraph 204).
- 220.** Field exchanges (including women and mixed groups) about best practices for climate change mitigation in agrosilvopastoral landscapes between project communities and other communities located in Chiapas and adjacent states will be organized and facilitated by the project.

**Output 2.7: Public awareness and policies are influenced by lessons learned and know-how generated by the project**

- 221.** Directed to a broader public, project output 2.7 stipulates that influencing public awareness and policies is part of the project strategy, drawing on lessons learned and know-how generated from local interventions in the Selva Zoque – Sumidero Canyon complex. The corresponding topics will be divulgated among decision-makers and a broader citizenship, by the use of outreach material, a press and broadcast campaign and special information events.
- 222.** Target audiences for these events will include various public and civil society organizations. Media representatives will be invited to participate in events organized to present results and exchange experiences between land users, local authorities and local organizations on topics such as impacts of reforestation, soil conservation and sustainable agricultural practices on CC mitigation. In addition, a website will be created to communicate the best practices and benefits of integrating carbon projects into decision-making by communities, municipalities and governmental and CSO actors in the Selva Zoque – Sumidero Canyon complex.
- 223.** As a means to influence public policies, the project will release communication bulletins providing information on persisting problems and challenges, as well as methodologies and experiences regarding climate change mitigation programs in the Selva Zoque – Sumidero Canyon complex.
- 224.** The Scolel'te Program has successfully integrated *Plan Vivo* projects as part of regional and local rural development strategies, which has facilitated information generation and sharing through networks of *plan vivos* practitioners.
- 225.** Currently, the Secretariat of the Environment and Natural Resources of Mexico (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT) is reviewing a proposal to establish the Mexican Carbon Norms (Norma Mexicana del Carbono, NMX). It is expected that once in effect, these voluntary carbon norms will foster the establishment of a national carbon market where the carbon credits generated by this GEF project can be traded. The lessons learned and the know-how generated from this GEF project will inform the Carbon Norms under review by the SEMARNAT.

## C. Project Timeline

- 226.** The Project Timetable in Appendix II is built on the most important issues regarding the implementation of the project. These are reflected in the six outputs of project component 1 and the seven outputs of component 2.
- 227.** Output 1.1 (“Intervention communities and local project sites identified and validated by stakeholders”) provides the geographical and social basis of the whole project implementation strategy and process. The corresponding activities will be carried out during the first six months after project start.
- 228.** Output 1.2 (“Sustainable Forest Management (SFM) strategy implemented in project area communities”) and output 1.3 (“Field projects under improved productive landscapes management (PLM) practices”) are key elements for achieving the project objective to maintain and increase carbon stocks and to reduce greenhouse gas emissions and increase carbon sequestration in the Selva Zoque – Sumidero Canyon complex. The activities to obtain these outputs will extend nearly over the entire project lifetime.
- 229.** A prerequisite for farmers and communities to access the carbon market is covered by output 1.4: “Carbon and greenhouse gas mitigation benefits generated by the project are measured and monitored using internationally accepted protocols throughout project life”. Moreover, the lessons learned and the know-how generated from measuring and monitoring carbon benefits will inform the Carbon Norms under review by the SEMARNAT and contribute to fulfill the 2011 Chiapas

Climate Change Action Program (PACCCH), more specifically Strategy I: Climate Change Mitigation for the Land Use, Land Use-Change and Forestry (LULUCF) Sector.

230. One of the main barriers for maintaining carbon stocks in forests and increasing carbon sequestration in agropastoral landscapes of the Selva Zoque – Sumidero Canyon complex is the lack of incentives for farmers to conserve forests, and for sustainable land management (SLM) in general. This barrier will principally be addressed beginning from the second project year under project output 1.5: “Carbon credits generated by the project issued in the voluntary market“.
231. Under project component 2 “Capacity building and awareness raising for project target groups” three preparatory and necessary steps will be undertaken during the first project year: Assessment of capacity needs of project stakeholders in climate change mitigation projects; on the basis of this assessment, design of capacity building programs and training materials; engagement and training of community extension workers who will provide communities and farmers with technical assistance.
232. A core project activity is aimed at building capacities of communities and farmers and NPA for sustainable forest management (SFM) and improved productive landscapes management (PLM) practices contributing to carbon dioxide capture and storage. Special capacity building programs will be implemented addressing CONANP and SEMAHN staff members and NPA technical committees. These activities leading to output 2.4 will start in the second semester after project start and will span over the rest of project duration.
233. The last three project outputs are intended to measure and strengthen project impacts; in particular, assessing acquisition and adoption of knowledge and skills transmitted by the project to project target groups; field exchanges to share lessons learned and promote adoption of best practices for climate change mitigation by other communities in Chiapas and adjacent states; influencing public awareness and policies by lessons learned and know-how generated from the project. The project will address those issues mainly during its last year of implementation.

## D. Expected Global, National, and Local Environmental Benefits

### Global Environmental Benefits

234. Global environmental benefits in the focal areas of climate change mitigation, biodiversity and land degradation relevant for this project are:

#### *Climate Change:*

- Mitigated GHG emissions in metric tons of CO<sub>2</sub> equivalent;
- Increased sequestration of carbon; and
- Reduced GHG emissions and enhanced carbon stocks under sustainable management of land use (including peatlands), land use change, and forestry.

#### *Biodiversity:*

- Conservation of globally significant biodiversity; and
- Sustainable use of the components of globally significant biodiversity.

#### *Land Degradation:*

- Improved provision of agro-ecosystem and forest ecosystem goods and services;
- Mitigated/avoided GHG emissions and increased carbon sequestration in production landscapes; and
- Reduced vulnerability of agro-ecosystems and forest ecosystems to climate change and other human-induced impacts.

- 235.** *Climate Change Mitigation:* Primarily, this GEF project will avoid the emission and enable the sequestering of carbon through:
- Avoiding the emission of at least 132.298 tCO<sub>2</sub>e from primary and second-growth forest that otherwise would be deforested/degraded and secure its permanence for 25 years; and
  - Sequestering at least 160.968 tCO<sub>2</sub>e through improving agricultural land management practices and securing its permanence over a period of at least 25 years.
- 236.** *Climate Change Adaptation:* By increasing the recovery capacity of native forests and productive systems, this project will contribute to the resilience and adaptability of these systems to the negative impacts of climate change and help people adapt to them.
- 237.** This project will also generate significant benefits by *conserving biodiversity* of global environmental value. The project will avoid the deforestation of at least 6,615 ha of forest with high levels of biodiversity and species endemism, many of them of global significance. The location of these forests will be selected strategically, thus ensuring their contribution to the integrity of NPA core areas and connectivity of the Selva Zoque – Sumidero Canyon complex. In addition, the reforestation and re-vegetation (using native species) activities to be conducted in 1,946 ha of productive landscapes will create additional habitat for biodiversity and generate spatial connectivity for wildlife movement and dispersal;
- 238.** Project activities include the *restoration of degraded ecosystems*, including improvement of soil quality and watershed services.

#### **National Environmental Benefits**

- 239.** This project will contribute to achieve national GHG reduction goals for the period 2014-2018 laid down in Mexican government's Special Climate Change Program (PECC). Objective 2 of this program seeks to implement and modernize actions and instruments that simultaneously reduce emissions and vulnerability of ecosystems through six strategies, particularly strategy 3: Implement sustainable agriculture, forestry and fishery practices to reduce emissions and ecosystem vulnerability.

#### **Local Environmental Benefits**

- 240.** *Poverty reduction and sustainable livelihoods* through improved agriculture and micro-enterprises and capacity building of farmers and local project groups, contributing to diversify and increase income.
- 241.** The project will also enhance local capacities in order to strengthen community governance for resource management.
- 242.** Cooperation on the local level between governmental institutions in climate change mitigation issues will be improved.

#### **E. Expected Human Well-being Benefits**

- 243.** Human well-being benefits will be achieved by the project directly for families or as an effect of mitigation activities. One strategy is to develop *Planes Vivos*, with which people gain a greater understanding of the terrain and landscape dynamics. This will help them to understand and protect the environmental services of significant importance for the well-being of their communities.
- 244.** Forest management activities supported by the project will increase the adaptability and resilience of these ecosystems and reduce the vulnerability of people to climate change. According to the social capital assessment carried out during the PPG phase, most communities have problems with

water supply. Through conservation practices, the cycle and availability of water for families will be favoured, as well as a reduction in landslides, soil erosion and water pollution.

- 245.** Improvement of production systems will benefit small landholder families through better quantity and quality of products, with positive impacts on their nutritional status. The community will get more access to food, avoiding high purchasing costs.
- 246.** Capacities of people in knowledge, skills and attitudes for improved management practices in agriculture and forestry will be strengthened by community technicians, building on AMBIO's experience in climate change mitigation projects. These capacities may be replicated and transmitted to other community members. Furthermore, young people will be integrated in these activities, forming a barrier to migration to urban centers.
- 247.** Ensuring a gender perspective, the project will develop activities that benefit all members of the community. Gender gaps will be identified and decision processes made more equitable and inclusive. Due to its inter-agency and multi-level properties, the project will promote greater coordination between civil society organizations, government institutions and local working groups.

## F. Linkages with other GEF Projects and Relevant Initiatives

**Table 11: Other Relevant Projects and Initiatives**

GEF Projects Other Projects/Initiatives	Linkages and Coordination
	GEF projects
Strengthening Management Effectiveness and Resilience of Protected Areas to Safeguard Biodiversity Threatened by Climate Change CONANP 2014-2018. GEF agency: UNDP GEF grant: USD 10.2 million	As one of 17 natural protected areas throughout Mexico this project will work in the Selva El Ocote - Sumidero Canyon complex. The objective of the project is to increase protected areas' resilience to climate change and improve their potential to mitigate climate change. As this NPA resilience project will generate crucial information and know-how about CC mitigation, in particular about management and improvement of production systems (for example agroforestry systems), there are broad fields of possible interchange and coordination between the two GEF projects.
Mitigating Climate Change through Sustainable Forest Management and Capacity Building in the Southern States of Mexico (States of Campeche, Chiapas and Oaxaca) CONAFOR 2011 – 2015. GEF Agency: IFAD. GEF grant: USD 5 million	This project is being implemented in municipalities of the Selva Lacandona region, in the south-eastern portion of Chiapas, with no spatial overlap with this GEF project. However, given that both projects will work on climate change, AMBIO will closely coordinate with CONAFOR and IFAD to secure the exchange of information and lessons learned from both projects.
Sixth National Communication to the UNFCCC. INECC. GEF Agency: UNDP. GEF grant: USD 3.6 million	AMBIO will collaborate with the UNDP in providing information from its projects and contributing to the successful completion of this national report.
Mexico Rural Development. SAGARPA/FIRCO 2009-2014. GEF Agency: World Bank. GEF grant: USD 10.5 million	Although this grant is related to energy saving, there will be meetings with SAGARPA and FIRCO for the presentation of technical specifications and models of best practices to contribute to mitigation and adaptation policies and programs.
Education, training and	This program offers an opportunity to coordinate training actions with small

GEF Projects Other Projects/Initiatives	Linkages and Coordination
<p>dissemination program of the Mexican Sustainable Land Management Strategy. SEMARNAT-CECADESU Agency: UNDP GEF grant: USD 2.02 million</p>	<p>landholders (<i>ejidatarios</i>) on sustainable land management practices.</p>
Other Projects/Initiatives	
<p>Strengthening local capacity to manage forest fires in the REBISO (2014-2015) Mexican Fund for Conservation of Nature (FMCN) USD 56,000</p>	<p>The objective of this project is to update and strengthen local and regional capacity to manage forest fires in the <i>ejidos</i> of the REBISO. This project will directly contribute to the success of this GEF project, by reducing the impact of forest fires in the REBISO, covering part of the areas in which this GEF project will be implemented.</p>
<p>Improving production systems as a strategy for climate change adaptation in the Selva Zoque. (2013-2014) Natural Protected Areas Fund (FANP). USD 150,000</p>	<p>This project is being implemented as part of the Climate Change Adaptation Program for the REBISO and funded by the Natural Protected Areas Fund (Fondo para Áreas Naturales Protegidas, FANP). The adoption of low carbon production systems implemented by this FANP project will be complementary to the climate change mitigation activities that this GEF project will carry out in the the Selva Zoque – Sumidero Canyon complex.</p>
<p>Ecological restoration with Chapaya Palm (<i>Astrocaryum mexicanum</i>) in the Veinte Casas Ejido (2011-2015). National Forest Commission (CONAFOR). USD 50,000</p>	<p>The objective of this project is to establish, increase and restore vegetative cover in primary and second-growth forests using a non-timber species. The Chapaya Palm is a source of food and cash for local communities. The lessons learned in this restoration project will directly inform AMBIO's mitigation project, especially for the carbon sequestration component of the project</p>
<p>Capacity building for forest monitoring in Mexico. CONANP and FMCN</p>	<p>Lessons learned and best practices from this project will inform the creation and operation of the network of community extension experts on climate change that will be established under this GEF project.</p>
<p>Local development through revenues generated by carbon credits in the program Scolel'te. International Union of Conservation of Nature (IUCN)</p>	<p>IUCN has committed to acquire 3,000 tCO<sub>2</sub>e of avoided emissions from AMBIO's Scolel'te program, which will provide important lessons learned for future carbon credit trading operations.</p>
<p>Mesoamerican Biological Corridor CONABIO</p>	<p>This program was designed to strengthen the connectivity of landscapes and ecosystems in the Mesoamerican region, including nine southeastern states of Mexico. One of the tools used by the program for achieving this objective consists in promoting sustainable production systems, generating green products in seven production lines: coffee, honey, cocoa, community forestry, management of wildlife, chicle gum and ecotourism. It is supported by the construction of 27 networks of producers in eight states and over four years favouring the establishment of small farmers companies that can bring these products out commercially to both national and international markets. In view of that, there is a wide field for exchange of experience between the two projects.</p>

## G. Appropriateness of New Technology and Methodologies to be Applied by the Project

- 248.** The development of this project in the Selva Zoque – Sumidero Canyon complex can be considered an extension of the methodology AMBIO has applied during 15 years in various regions of Chiapas, through the Scolel'te program for the sale of carbon credits in the voluntary market, involving rural communities as stakeholders in its implementation. The Scolel'te program has currently an impact in 100 communities in Chiapas. The project in the Selva Zoque – Sumidero Canyon complex will retake methodologies, such as Plan Vivo, already implemented by AMBIO; however, results-oriented adjustments will be introduced, based on lessons learned by projects in other regions.

## H. Project Stakeholders

- 249.** During the PPG phase a Stakeholder's Engagement Plan was developed; see Appendix VI for more details.
- 250.** The table below provides a list of key stakeholders or groups of stakeholders who may influence and/or be affected by the outcomes of the project.

**Table 12: Project Stakeholders**

Stakeholder	Interests in the Project	Stakeholder Influence in the Project	Project Effect(s) on Stakeholder
<b>Local communities and farmers (men and women)</b>	As collective and individual land-users and natural resource managers they receive incentives and benefits from local CC mitigation projects.	<ul style="list-style-type: none"> <li>- As project partner, this stakeholder group will be involved through participatory project planning and implementation.</li> <li>- Contribute with local and traditional knowledge to sustainable forest and land-use practices.</li> </ul>	<ul style="list-style-type: none"> <li>- Capacities for sustainable forest management (SFM) and productive landscape management (PLM) built and strengthened.</li> <li>- Adoption of innovations in SFM and PLM practices, as well as community land use planning.</li> </ul>
<b>National Protected Areas Commission (CONANP)</b>	Improving management effectiveness and impacts on BD conservation of its three NPA in the project area.	As a federal agency in charge of managing three from five NPA in the Selva Zoque – Sumidero Canyon complex CONANP is a strategic partner and co-executing agency.	More resilience of NPA in the project area to safeguard biodiversity threatened by climate change.
<b>Secretariat for the Environment and Natural History of Chiapas (SEMAHN)</b>	Improving management effectiveness and impacts on BD conservation of its two NPA in the project area.	<p>SEMAHN is a key project partner being the Chiapas state authority in charge of monitoring environmental issues, including the State's climate change strategy.</p> <ul style="list-style-type: none"> <li>- Will contribute experience in measuring carbon stocks and monitoring emissions in the field.</li> </ul>	<ul style="list-style-type: none"> <li>- SEMAHN can develop its potential to replicate and scale up the project experience in other areas of Chiapas.</li> </ul>
<b>National Forest Commission (CONAFOR)</b>	Interested in testing replicability of project methodology for CC mitigation, especially the <i>Plan Vivo</i> approach	<ul style="list-style-type: none"> <li>- As a strategic partner, CONAFOR will contribute institutional recognition and experience in forest management and community extension.</li> <li>- Will contribute experience with REDD+ projects and the Mexican Carbon Norms (under development).</li> </ul>	<ul style="list-style-type: none"> <li>- Replication and scale-up of project methodology to other national forests regionally and nationally.</li> </ul>

Stakeholder	Interests in the Project	Stakeholder Influence in the Project	Project Effect(s) on Stakeholder
		- Facilitate field exchanges among stakeholders within and beyond project area.	
<b>Mexican Fund for Conservation of Nature (FMCN)</b>	Form an alliance, cooperate and build synergies with this GEF project.	Can support the project with: - forest fire management in the REBISO - capacity building and institutional development - providing access to a national network of experts on forest management and climate change mitigation.	Development in aspect of fire management between Natural areas of region and country.
<b>Natural Protected Areas Fund (FANP)</b>	Interested in improving management effectiveness and impacts on BD conservation of NPA in the project area.	- Provision of funding for NPA in the project area for climate change mitigation and adaptation. - Contribute local capacity building expertise.	For they is a oportunity in the strengthening of aspects that develop and for continuity in topics related with the sustainability in the region.
<b>El Colegio de la Frontera Sur (ECOSUR)</b>	Develop further methodologies and technical specifications of carbon stock estimation.	Contribute with: - Carbon stock estimation - Development of technical specifications - Capacity building	The region has little information, so is possible perform research in many aspects (fisical, enviroment, economic, social). This is an area for oportunity.
<b>Plan Vivo Foundation (PVF)</b>	Further extend its international portfolio of successful CC mitigation projects applying <i>Plan Vivo</i> standards.	Contribute with: - Oversight and monitoring of <i>plan vivos</i> - Carbon standards - Development of <i>plan vivos</i> - Carbon certification	The Fundacion Plan Vivo, wide of area for work and your folder the projects, regions and partners.

**251.** Other stakeholders present in the project area with programs and actions related to the project objectives are:

- Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA)
- National Commission for the Development of the Indigenous Peoples (CDI).

## I. Project Assumptions Risk Assessment and Mitigation

**252.** Critical assumptions for project outcome success are listed and briefly described in the table below:

**Table 13: Project Assumptions**

Project Outcome	Key Assumptions
<b>Component 1 outcome:</b> Primary and second-growth	Social cohesion and governance of target communities are sufficiently strong to comply with commitments for sustainable land use practices aimed at climate change mitigation.

Project Outcome	Key Assumptions
forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration).	Communities selected during the PPG phase maintain their engagement in local projects agreed upon with the project team. Involved communities are open towards integration of gender approach into local processes. Sufficient buyers of carbon credits can be found in the voluntary market. Sustainability and biodiversity conservation are increasingly becoming cross-cutting criteria in public policies and programs of non-environmental sectors.
<b>Component 2 outcome:</b> Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage.	Farmers (men and women) and communities participate continuously in training programs. Farmers and communities are ready to apply knowledge and adopt innovations in forest and agricultural practices transmitted by the project. Members of NPA technical committees are interested in participating in training programs offered by the project. CC mitigation policies and programs at the federal and state level continue to enjoy a high priority. Appropriate communities interested in participating in scaling up program for CC mitigation can be identified.

## J. Project Risk Assessment and Mitigation

253. The following table describes the potential risks associated with the Project:

**Table 14: Project Risk Assessment and Mitigation Planning**

Project Outcome	Risks	Rating (Low, Medium, High)	Risk Mitigation Measures
<b>Component 1 outcome:</b> Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration).	Extreme climate events damage local project investments and impede access of project team to communities.	Low	A Environmental and Social Management Plan (ESMP) will describe how negative environmental impacts will be managed and mitigated during implementation of local projects.
	False expectations generated in local communities lead project beneficiaries to leave the project.	Low	AMBIO and CONANP will ensure that every stage of the project is implemented in a very participatory manner, where expectations, commitments and responsibilities are regularly clarified and agreed upon (via formal documents when necessary) with local communities and project beneficiaries.
	Policy support for unsustainable land use and production practices, as well as weak enforcement of environmental laws and regulations, continue to cause degradation of ecosystems and loss of biodiversity.	High	AMBIO will work closely and develop strategic alliances with government agencies, NGOs and local communities. These alliances will help identify potential project risks and seek joint mitigation strategies. AMBIO will work with the Secretariat of Agriculture (SAGARPA) at the federal level and the Department of Rural Affairs at the

Project Outcome	Risks	Rating (Low, Medium, High)	Risk Mitigation Measures
			Chiapas state level to coordinate and harmonize their objectives with this GEF project.
	Loss of interest from local communities.	Medium	AMBIO will work to provide positive and proactive feedback to project beneficiaries. In addition, it will put in place early detection systems to identify potential issues that may cause participants to lose interest in the Project.
	Intra- and intercommunity conflicts affect adversely project operation, outputs and results.	Low	Social safeguard mechanism for resolving disputes among individuals or groups will be established.
	Lack of carbon markets	Medium	AMBIO will develop a carbon market strategy to secure that the carbon credits generated through this Project are properly issued in the voluntary market. The strategy will include alliances at the national and international levels, including innovative tools to support the establishment of a national carbon market.
<b>Component 2 outcome:</b> Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage.	Men and communities in general reject or boycott integration of gender approach into local processes and actions.	High	Implementation of CI-GEF Gender Mainstreaming policy seeks to mitigate potentially adverse effects of gender constraints on participation and decision - making in consultative processes, access to natural resources, and project benefits.
	Farmers (men and women) and communities gradually abandon training programs.	Low	Training activities will be clearly linked with sustainable land use activities combining CC mitigation with social and economic benefits. (AMBIO's experience indicates that <i>Plan Vivo</i> program withdrawal rates decrease substantially over time and that securing early benefits for stakeholders is crucial for long-term permanence in local processes.)
	Farmers do not apply innovations in forest and agricultural practices transmitted by the project.	Medium	The project will demonstrate that environmental, social and economic benefits of innovations in forest and agricultural practices are higher than opportunity costs.
	Few members of NPA technical committees participate in training programs offered by the project.	Medium	The project will develop and implement a special campaign for motivating members of NPA technical committees to participate in training programs tailored to their needs.

## K. Sustainability

254. Sustainability, understood as the probability of continued long-term project-derived outcomes and impacts, will be achieved by a project approach that relies on the principals of: a) capacity-building; b) ownership; c) gender and generational equity; d) governance; e) identification and continuity of ongoing processes; and f) cost-effectiveness and co-financing of local projects.
255. *Capacity-building:* The project will strengthen the technical, administrative and organizational capacities of social and institutional stakeholders for developing and applying tools, methods and practices to be introduced or reinforced by the project to manage forests sustainably and improve production practices in agro-pastoral landscapes for CC mitigation purposes. In particular, the project will enhance the capacity of supporting actors (government agencies, CSO, universities) to provide adequate technical assistance to communities for enabling them to effectively manage their local projects.
256. *Ownership:* The project will place responsibility for implementing project activities and for achieving outcomes with permanent local social and institutional stakeholders in the Selva Zoque – Sumidero Canyon complex from the outset.
257. *Gender and generational equity:* Inclusion and participation of women and youth not only in local projects, but also in strengthening and monitoring environmental governance is a crosscutting principle that will contribute to the sustainability of project results.
258. *Governance:* This project will employ significant resources to ensure the appropriation of pilot project objectives and strategies by farmers and communities, especially indigenous actors. It will also promote lasting integration (mainstreaming) of CC mitigation considerations into policy planning and implementation by communities, institutions and civil society groups, including building and strengthening of inter-institutional coordination and synergies.
259. *Identification and continuity of ongoing processes:* Building on and develop further local practices is an integral part of the *Plan Vivo* methodology.
260. *Cost-effectiveness:* The project will make sure that cash and in-kind (labour) costs, as well as transactional costs for participating communities and families stand in a reasonable proportion to economic, social and environmental benefits.
261. *Co-financing local projects:* Increasing use of local resources from institutions and social actors, to reduce dependence on external funding; co-financing not only between GEF and non-GEF funds, but also between local stakeholders, avoiding duplication or overlapping activities.
262. Sustainability and permanence are integral to *Plan Vivo* project development and implementation. Risk management is built into every stage of the planning and delivery processes, and carbon certificates delivery are ensured through: a) building strong and effective project governance; b) creating strong technical foundations; c) establishing sale agreements and staged payments with stakeholders; d) creating carbon risk buffers; e) conducting annual reviews and providing support to implement corrective measures as needed; and f) conducting third-party verification of all projects.
263. Carbon projects are designed to be financially sustainable over time from the revenues generated by the carbon credits.
264. Through the Scolel'te program, AMBIO has learned that the interest of stakeholders in the program increases as planted trees mature and provide other benefits beyond the payment for carbon credits, including shade, fodder, fruit, and defense against weather events. Therefore, AMBIO's experience

indicates that program withdrawal rates decrease substantially over time and that securing early benefits for stakeholders is crucial for long-term sustainability.

- 265. To secure the long-term financial sustainability and permanence of this project, AMBIO will work with the Plan Vivo Foundation to obtain ex-ante carbon credits for carbon sequestration activities, thus providing present payments (monetary incentive) for future credits.
- 266. To further secure the permanence of this project, AMBIO and the Plan Vivo Foundation will sign sale agreements for a period of 25-30 years with each community or private landowner that joins the program, both for carbon emissions avoided and carbon sequestration activities.
- 267. The project will scale up lessons learned in local processes within the Selva Zoque – Sumidero Canyon complex towards new communities in the region and beyond, adding social and institutional acceptance and sustainability to the proposed CC mitigation strategy.

## L. Project Catalytic Role: Replicability and Potential for Scaling Up

- 268. The development of this project incorporates part of the experience generated five years ago in communities of the Biosphere Reserve El Ocote (REBISO). Some of these communities will be integrated into this proposal; in this sense the previous experience of AMBIO will be scaled up to new communities and new regions.
- 269. Field exchanges to share lessons learned and promote adoption of best practices for climate change mitigation in agrosilvopastoral landscapes will be organized between project communities and other communities in Chiapas and adjacent states. Through the network of community extension workers, AMBIO will seek to generate additional interest from at least 5 local communities, paving the road for future scaling up of this project.
- 270. Past experience shows that there is a high viability of the project methodology to be applied not only in this region, but also in other natural protected areas or other regions of the state and the country. The reason is that the project approach to work directly with rural producers permits a high degree of flexibility to adapt it to local circumstances.
- 271. The implementation of this GEF project will refine the implementation of the *plan vivo* methodology, build local and government capacity, and generate tools and lessons learned that will be directly applicable to other key climate change mitigation areas. Thus, this project has a great potential to be scaled up not only in Chiapas but also the region as a whole.
- 272. The *plan vivo* approach pursued by the project has the potential of becoming one of the most important tools for the Government of Chiapas to achieve the climate change mitigation goals set forth by the PACCCH and an important conservation and sustainable development tool that CONANP can use to engage local communities living in the buffer zone of biosphere reserves and other protected area categories.
- 273. This GEF project is strongly supported by CONANP, who has expressed interest in replicating and scaling up the *plan vivo* approach in other protected areas under its jurisdiction.

## L. Innovativeness

- 274. This type of climate change mitigation project is new to the five natural protected areas of the Selva Zoque – Sumidero Canyon complex, requiring substantial innovations in capacity building and natural resource governance.

- 275.** Related to this aspect, an important innovation introduced by the project consists in the development of assessments, plans and actions at the Selva Zoque - Sumidero Canyon complex level.
- 276.** At present, each reserve has its own pool of data, but no systematized information is available for the complex as a whole; this will be one of the great contributions of this proposal. Generating information for this region is basic for strategic decision making, as it contributes to create visibility of the environmental importance of this biological corridor at the local, national and global level. Together with the CONANP resilience project this will help to position the complex as a priority area of governmental action and civil society concern.
- 277.** During the development of *plan vivos*, an important innovation is the land use plan that each community or individual landowner will develop. These plans can become a crucial tool for improving the way in which local stakeholders manage their lands and natural resources, not only for climate change mitigation, but also for biodiversity conservation, the maintenance of other ecosystem services, increasing food security, and improving local livelihoods.
- 278.** An additional innovative component is that, unlike other mitigation projects, AMBIO assists project participants in trading carbon credits in the voluntary market.

## **M. Project Communications, and Public Education and Awareness**

- 279.** The project strategy includes an important awareness building component, as expressed in the title of project component 2: Capacity building and awareness raising, directed both to immediate project target groups as well as to a broader public.
- 280.** The awareness and capacity building program will be implemented for social and institutional stakeholders within the project area, to engage and enable them in managing carbon projects. Awareness building topics regarding CC causes, impacts and mitigation strategies will be incorporated into the training manuals that will be used in the training programs for the target groups.
- 281.** Directed to a broader public, project output 2.7 states that public awareness and policies are influenced by lessons learned and know-how generated from local interventions in the Selva Zoque – Sumidero Canyon complex. The corresponding topics will be divulgated among decision-makers and a broader citizenship, by the use of outreach material, a press and broadcast campaign and special information events.
- 282.** The target audiences for these events will include various public and civil society organizations. Media representatives will be invited to participate in events organized to present results and exchange experiences between land users, local authorities and local organizations on impacts of reforestation, soil conservation and sustainable agricultural practices on CC mitigation.
- 283.** In addition, AMBIO website will be complemented to communicate the best practices and benefits of integrating carbon projects into decision-making by communities, municipalities and governmental and CSO actors in the Selva Zoque – Sumidero Canyon complex.
- 284.** Through its webpage, AMBIO and its partners will be present project progress reports by electronic bulletins. Experiences, feedback and information generated by the project will also be hosted by AMBIO's website.
- 285.** As a means to influence public policies, the project will also release communication bulletins providing information on persisting problems and challenges, as well as methodologies and experiences regarding climate change mitigation programs in the Selva Zoque – Sumidero Canyon complex.

- 286.** The project communication strategy will take advantage of the Scolel'te Program experience. This program has successfully integrated *Plan Vivo* projects as part of regional and local rural development strategies, which has facilitated information generation and sharing through networks of *plan vivo* practitioners.

## **N. Lessons Learned During the PPG Phase and from Other Relevant GEF Projects**

- 287.** During preparation of this project proposal different lessons were learned. One of them related to the selection and reconnaissance visits to communities. Access to them was not always possible, due to a lack of confidence to new actors coming from outside the region. In this context, it is important to note that many communities have had little contact until now with non-governmental actors. On the other side, many communities, once having accepted an initial contact and first assessment activities, were developing a good disposition to cooperate with the project. But still, these initial difficulties caused some delays during the PPG phase, and the entire project preparation field team had to invest more time than initially considered in the workplan for the development of the ProDoc.
- 288.** Another point to be emphasized is that the Selva Zoque - Sumidero Canyon complex has only recently begun to be visualized by relevant actors, like CONANP and SEMAHN, as an interconnected unit or as a region as such. By integrating the information for the whole region needed for project planning and implementation, important information gaps have been identified. Thus, the project is already generating new and more systematized information, useful for actors present in the region (communities and institutions).
- 289.** During the PPG phase, some local actors have been identified that can be considered strategic for project implementation, given their interest in the project objectives and the additional benefits they perceive for achieving their own objectives. These actors have been integrated in the project proposal.

## **SECTION 5: COMPLIANCE WITH CI-GEF PROJECT AGENCY'S ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)**

### **A. Safeguards Screening Results**

- 290.** The safeguard screening process was conducted on February 27, 2014 at the PIF stage. Given that there were not substantial changes from the PIF to the Project Document, no additional Safeguard Screening was required.
- 291.** The table below provides a summary of the environmental and social policies and standards that were triggered by the project and the justification of the screening results. The full version of the Safeguard Screening review can be found in Appendix III.

**Table 15: Safeguard Screening Results and Project Categorization**

<b>Policy/Best Practice</b>	<b>Triggered (Yes/No)</b>	<b>Justification</b>
<b>Environmental and Social Impact Assessment Policy</b>	No	
<b>Protection of Natural Habitats Policy</b>	No	<ul style="list-style-type: none"> <li>Reforestation and revegetation activities will be carried out in degraded natural ecosystems and second-growth forests (<i>acahuales</i>) and only using native species.</li> </ul>
<b>Involuntary Resettlement Policy</b>	No	
<b>Indigenous Peoples Policy</b>	Yes	<ul style="list-style-type: none"> <li>An important sector of the inhabitants in the project area are indigenous peoples who migrated to the area during the 1970s, and their main economic activities include subsistence farming and small scale coffee and livestock production.</li> <li>Among the communities of the reserve 34.4% of the population speaks an indigenous language. The dominant indigenous language is Tzotzil, since most of the indigenous inhabitants of the Reserve originate in towns in the Tzotzil region from the highlands of Chiapas.</li> </ul>
<b>Pest Management Policy</b>	No	
<b>Physical Cultural Resources Policy</b>	No	
<b>Stakeholder Engagement</b>	Yes	<ul style="list-style-type: none"> <li>The preparation and implementation of this project will be carried out in a participative and inclusive manner. It is expected that a wide array of national and state government agencies, private sector organizations, non-governmental organizations (NGOs), and local communities will be involved in the project preparation and implementation phases.</li> <li>This project aims to fully engage local communities living in the areas where the project will be implemented. They will be involved through participatory planning and best practice in community engagement. AMBIO will work with existing governance structures within the communities, strengthening and complementing when necessary to ensure full and appropriate representation.</li> </ul>
<b>Gender mainstreaming</b>	Yes	<ul style="list-style-type: none"> <li>Throughout the project AMBIO will ensure full and equitable representation in and benefit sharing from project activities. The</li> </ul>

Policy/Best Practice	Triggered (Yes/No)	Justification
		project will seek to engage with all stakeholders within the community including any potentially marginalized groups. The project will engage through current leadership structures and will seek to add to or strengthen these groups when key stakeholders are underrepresented. AMBIO will ensure that men, women, youth and other groups are engaged and build monitoring systems that include necessary disaggregation to track this throughout the life of the project.

## B. Project Safeguard Categorization

292. The safeguard screening process determined that this project falls under Category C<sup>51</sup>

PROJECT CATEGORY	Category A	Category B	Category C
			<b>X</b>
<b>Justification:</b> The review of this screening form and the PIF indicate that this project will not cause or permit any major environmental or social impacts.			

## C. Safeguards Screening Recommendations

293. Safeguard recommendations from the Safeguard Screening review process are summarized here:

- *Indigenous Peoples*: to ensure that the project meets CI-GEF Project Agency’s “Indigenous Peoples Policy #4”, the Executing Agency will develop, during the PPG phase, an “Indigenous Peoples Plan” (see Appendix V). The terms of reference will be provided by the CI-GEF Project Agency, who will approve and oversee the implementation of this plan throughout the duration of the project.
- *Stakeholders’ engagement*: to ensure that the project meets CI-GEF Project Agency’s “Stakeholders’ Engagement Best Practice”, the Executing Agency will develop and submit, within 30 days of the beginning of the PPG phase, a “Stakeholders’ Engagement Plan” (see Appendix VI) for the Project Agency’s approval. The Project Agency will oversee the implementation of this plan throughout the duration of the project.
- *Gender mainstreaming issues*: to ensure that the project meets CI-GEF Project Agency’s “Gender Mainstreaming Policy #8”, the Executing Agency will develop, during the PPG phase, a “Gender Mainstreaming Strategy and Action Plan” (see Appendix VII) that will ensure the mainstreaming of gender issues throughout the project. The terms of reference will be provided by the CI-GEF Project Agency, who will approve and oversee the implementation of this Strategy and Action Plan throughout the duration of the project.

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<sup>51</sup> According to the CI’s EMSF a “project is classified as Category C if it is likely to have minimal or no adverse environmental and social impacts”

## D. Compliance with Safeguard Recommendations

294. This section provides a summary of the action that were taken to comply with the recommendations of the Safeguard Screening review process described above.

### *Indigenous Peoples Plan*

295. During the PPG phase, an *Indigenous Peoples Plan* was developed. The full version of this plan can be found in Appendix V. This Plan covers the following items:

- A summary of the *legal and institutional framework* applicable to the indigenous peoples living in the project area: In this regard, the ILO Convention No. 169 on Indigenous and Tribal Peoples ratified by the Mexican government and the National Safeguards System for REDD+ (SNS), currently under preparation, stand out.
- An assessment of the demographic, economic, social, cultural and political *characteristics of the concerned communities*: 34.4% of the inhabitants of the 15 communities involved in the project are indigenous people, most of them speaking the Tzotzil language and organized in *ejidos* (communal lands possessed and used individually or communally). Their economies are based mainly on subsistence production of maize and beans, extensive cattle ranching and some market crops, like coffee and honey.
- A summary of the findings of the *participative consultation* carried out among the communities involved in the project, designed to allow their free, prior and informed consent (FPIC) with the project: To obtain the FPIC, the methodology of the Plan Vivo standard was applied; it allows the planning of land use with the participation of community representatives. The main risks and threats of forest areas (fire, pests, timber extraction, etc.) are identified and actions to minimize or prevent them are marked. These activities are realized in their own language.
- The participative consultation included also interviews with *ejido* leaders and other community representatives in order to determine what their perception is regarding the *social, human, financial, physical and natural capital* of their communities. In general, communities consider their natural and physical capital as strengths, whereas the major weakness is seen in the lack of financial resources and instruments for stimulating local production. Limitations are also related to human capital, i.e. the lack of skills and knowledge to enable them to develop successful economic strategies. Social capital, i.e. local organization is generally recognized as a strong point.
- The Plan identifies measures to ensure that indigenous peoples *receive social and economic benefits* that are culturally appropriate: 1) Benefits from the sustainable production activities promoted and implemented by the project; 2) benefits derived from carbon markets, distributed on the community and individual level.

### *Stakeholders' Engagement Plan*

296. A *Stakeholders' Engagement Plan* was also prepared during the PPG phase. It is built on two pillars: 1) The participative consultation held with communities to achieve their free, prior and informed consent (FPIC) with the project: the results of this consultation process are summarized under paragraph 297 (Indigenous Peoples Plan). 2) Consultations and meetings with governmental institutions and civil society organizations: These were held with representatives of relevant project stakeholders, like CONANP (regional director, climate change directOr in Mexico, directors of the

involved reserves), SEMAHN, CONAFOR, SAGARPA, CDI, Aires de Cambio, CECROPIA A.C and others.

297. A special workshop was conducted with directors and staff of the five NPA of the Selva El Ocote - Sumidero Canyon complex to define social and environmental indicators for the selection of some 10 to 16 communities to be included in the project, as well as to systematize information useful for setting project targets.
298. In November 2014, once the communities were selected, they were visited by AMBIO, CONANP and SEMAHN staff, along with community technicians who speak Tzotzil, the predominant indigenous language in the region. The participants decided to present land use planning, improvement of production systems and avoiding deforestation as project goals; the agreement between AMBIO, SEMAHN and CONANP was to exclude at this moment the subject of carbon payments in order to avoid false expectations.
299. A full version of the Stakeholder's Engagement Plan is presented in Appendix VI.

#### ***Gender Mainstreaming Strategy and Action Plan***

300. To ensure compliance with the safeguards on the inclusion of a gender perspective in the project, a *Gender Mainstreaming Strategy and Action Plan* was developed (see Appendix VII). With these tools, a commitment is built to start a permanent process of inclusion of both gender at all stages of the project to achieve the effective participation of communities in the development of a common conservation and well-being strategy.
301. The objective of the Action Plan is to guide or include specific actions that promote results-oriented project management under a gender perspective. Each strategic line of this Action Plan meets the needs identified during the project's PPG phase in more than 15 communities. Special attention is given to project component 2 on capacity building. Gender considerations are grouped under the main strategic lines and specific objectives are proposed, ranging from organizational strengthening of AMBIO, institutional strengthening, project monitoring with gender indicators and promoting gender awareness at the community level.

#### **E. Accountability and Grievance Compliance**

302. The project will ensure that it is in compliance with the GEF and CI Accountability and Grievance Policy. The grievance mechanism will attend two types of complaints, one at the local level, and the other at the institutional and CSO level.
303. At the *local level*, complaints will be directed to the community technician and through him or her, to the regional coordinator who will in turn transmit them to the technical project coordinator. If the complaint, depending on its complexity, cannot be solved from the technical coordinator, it will be taken up by the Project Technical Committee, who will address it at its next meeting or, if necessary, convocate an extraordinary meeting. The answer to the complaint should not exceed more than 60 working days time and must be given in written form. Complaints will be addressed whenever they refer to a problem occurring within the zone of influence of the project and during its lifetime. The letter of complaint must be signed by any of the owners or holders of community resources.
304. At the *institutional and CSO level*, including citizen stakeholders, complaints will be directed to the project director, the technical director or the Project Technical Committee. If the complaint requires further analysis it must be submitted to the next ordinary session or to an extraordinary session of the Project Technical Committee. The answer to the complaint should not exceed a time of more

than 60 days and must be given in written form. Complaints will be addressed whenever they refer to a problem occurred within the zone of influence of the project and during its lifetime. The letter of complaint must be signed and endorsed by any of the representatives or directors of the organization or citizens active in the project region who presented the complaint. Complaints from persons who do not effectively dispose of precise information regarding the problem and cannot give feedback to the process will not be considered.

- 305.** The CI-GEF Project Agency will be promptly informed about complaints submitted to the project director, the technical director or the Project Technical Committee and their resolution.

## **SECTION 6: IMPLEMENTATION AND EXECUTION ARRANGEMENTS FOR PROJECT MANAGEMENT**

### **A. Project Execution Arrangements and Partners**

- 306.** AMBIO, as the *Project Executing Agency* (EA), will play the lead role in implementing and monitoring the project and maintaining its strategic focus. Since 1998, AMBIO has been realizing the Scolel'te Program in several communities of Chiapas. The goal of this program is to avoid/reduce carbon emissions and sequester carbon in agrosilvopastoral systems and enhance the livelihoods of rural farming communities in Chiapas. The know-how acquired by putting into praxis the Scolel'te Program will serve AMBIO as baseline experience that will be applied towards the success of this GEF project. The project will be managed through a director under contract with AMBIO.
- 307.** Strategic partner and *Co-Executing Agency* is CONANP. CONANP is highly present in the project area by administrating three of the five protected areas of the Selva Zoque – Sumidero Canyon complex which cover 94% of its total surface. The project receives the full support and cooperation of CONANP, in responsiveness to its Climate Change Strategy for Protected Areas (ECCAP). The institution has assumed a lead role in project preparation and will be the main government protagonist in this local climate change mitigation project. CONANP is engaged in central project issues, like restoring degraded ecosystems to increase and enhance carbon stocks; promote systems of agricultural and forestry production that favour the reduction of emissions and removal of carbon in buffer zones and zones of influence; safeguard the interests of local communities and indigenous peoples in implementing mitigation measures. CONANP has expressed interest in replicating and scaling up the *Plan Vivo* approach in other protected areas under its jurisdiction. With USD 1.6 million, CONANP has subscribed the main share to Mexico's co-financing commitments; significant contributions by CONANP to this project include technical staff and different programs for conserving and sustainable use biodiversity in the project area.
- 308.** Other important *partners for project execution* are:
- CONAFOR: a strategic project partner which will bring in institutional recognition and experience in forest management and community extension, as well as its experience with REDD+ projects and the Mexican Carbon Norms development;
  - SEMAHN: responsible for managing two of the five NPA of the Selva Zoque – Sumidero Canyon complex;
  - FMCN: together with AMBIO, implementing a local capacity building program for forest monitoring in the REBISO;
  - ECOSUR: will contribute with carbon stock estimation and capacity building;
  - SAGARPA; and
  - CDI.
- 309.** The *Project Management Unit* (PMU) will be responsible for operative planning and day-to-day implementation of all project activities under the two project components, as well as for monitoring and reporting advance in achieving project outputs and outcomes. It will prepare and support PSC meetings and manage the project budget. The PMU will be composed of a project director, a general coordinator, 3 regional coordinators and an administrator. In addition, the PMU will receive important technical, administrative and institutional support from CI and CONANP (see organizational chart under subsection B). PMU staff will be reduced in number for cost-effectiveness reasons; an important part of project activities will be realized by contracting specialists via consultancies.

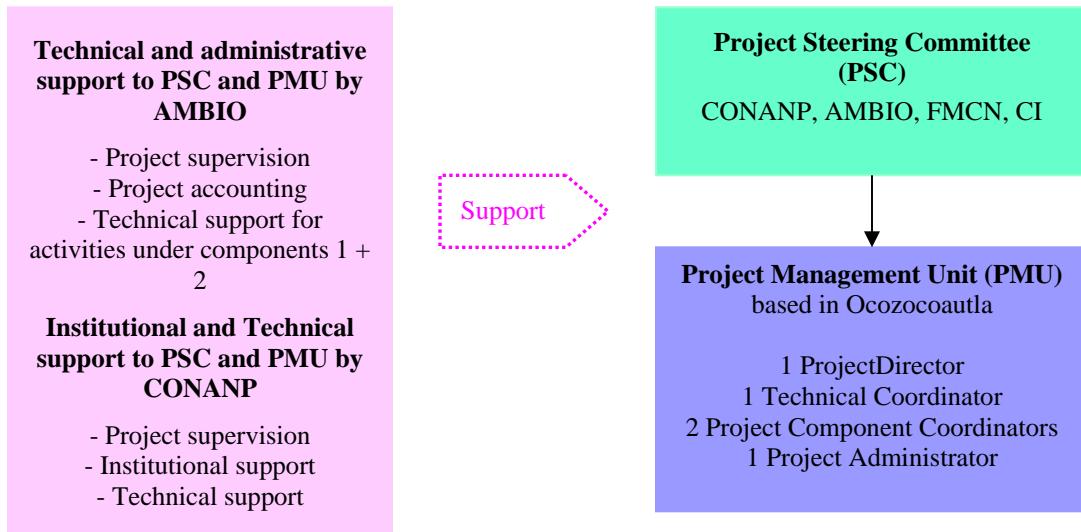
- 310.** The PMU has an important responsibility to ensure country ownership and drivenness of the project; this applies particularly to the empowerment of communities to enable them to be protagonists of their own way of conserving and restoring healthy ecosystems and improving human well-being. Thus, guided by AMBIO, the PMU will pursue a bottom up approach giving time to communities to take ownership of the proposed projects and adapt them to their own vision and needs.
- 311.** The PMU will be based in Ocozocoautla for its proximity to the project area. Nevertheless, the project director and other staff will travel frequently to the state capital Tuxtla Gutiérrez to maintain close and continuous contact with the project implementing partners and other stakeholders.
- 312.** The *GEF Operational Focal Point* (OFP) for this project is the Secretariat of Finance and Public Credit (SHCP). The OFP's role and responsibilities in the project are: verify the development and implementation of the project in both technical and financial aspects, and assess compliance with established goals and objectives of the project in its different areas of performance.
- 313.** The project will establish a *Project Steering Committee* (PSC) composed of AMBIO, CONANP (Federal Climate Change Direction and Regional Direction), FMCN and CI-Mexico (with no voting rights).<sup>52</sup> The formal representative of each executing partner will be the institution's general director in the state of Chiapas or corresponding region; they may nominate representatives to attend PSC meetings. The PSC will be chaired by AMBIO and CONANP by annual rotation and meet quarterly. Its principal functions will be to analyze and approve regular work plans, terms of reference and selection of consultants; provide strategic guidance and oversight to project implementation; review progress and evaluation reports; discuss problems or strategic issues that might arise during implementation, and provide support for the necessary inter-institutional coordination and contributions to project activities. The PSC will maintain continuous exchange of information among its members by electronic means, and additional ad hoc steering committee meetings can be convened via telephone conference or other means, if necessary.
- 314.** The *CI-GEF Project Agency* will support project implementation by maintaining oversight of all technical and financial management aspects, and providing other assistance upon request of the Executing Agency. The CI-GEF Project Agency will also monitor the achievement of the project outputs, ensure the proper use of GEF funds, and review and approve any changes in budgets or workplans. The CI-GEF Project Agency will arbitrate and ensure resolution of any execution conflicts.

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<sup>52</sup> Participation of CI-Mexico in the Project Steering Committee is to be defined.

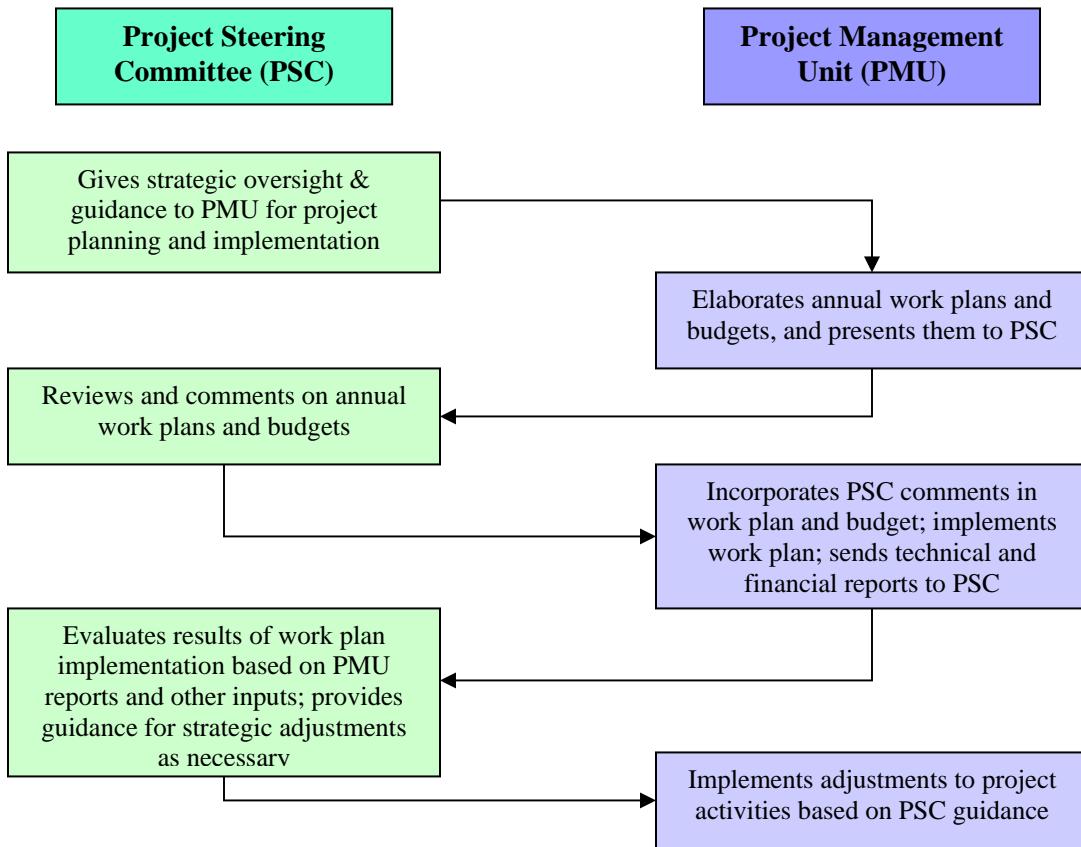
## B. Project Execution Organizational Chart Organigram

**Figure 3: Project Execution Organigram**



**Figure 4: Decision-making Flowchart**

(Example: elaborating, implementing and adapting annual work plan)



## **SECTION 7: MONITORING AND EVALUATION PLAN**

- 315.** Project monitoring and evaluation will be conducted in accordance with established Conservation International and GEF procedures by the project team and the CI-GEF Project Agency. The project's M&E plan will be presented and finalized at the project inception workshop, including a review of indicators, means of verification, and the full definition of project staff M&E responsibilities.

### **A. Monitoring and Evaluation Roles and Responsibilities**

- 316.** The Project Management Unit on the ground will be responsible for initiating and organizing key monitoring and evaluation tasks. This includes the project inception workshop and report, quarterly progress reporting, annual progress and implementation reporting, documentation of lessons learned, and support for and cooperation with the independent external evaluation exercises.
- 317.** The Executing Agency is responsible for ensuring the monitoring and evaluation activities are carried out in a timely and comprehensive manner, and for initiating key monitoring and evaluation activities, such as the independent evaluation exercises.
- 318.** Key project executing partners are responsible for providing any and all required information and data necessary for timely and comprehensive project reporting, including results and financial data, as necessary and appropriate.
- 319.** The Project Steering Committee plays a key oversight role for the project, with regular meetings to receive updates on project implementation progress and approve annual workplans. The Project Steering Committee also provides continuous ad-hoc oversight and feedback on project activities, responding to inquiries or requests for approval from the Project Management Unit or Executing Agency.
- 320.** The CI-GEF Project Agency plays an overall assurance, backstopping, and oversight role with respect to monitoring and evaluation activities.
- 321.** The CI Internal Audit function is responsible for contracting and oversight of the planned independent external evaluation exercises at the mid-point and end of the project.

### **B. Monitoring and Evaluation Components and Activities**

- 322.** The Project M&E Plan should include the following components (see M&E Table 14 for details):

a) Inception workshop

Project inception workshop will be held within the first three months of project start-up with the project stakeholders. An overarching objective of the inception workshop is to assist the project team in understanding and taking ownership of the project's objectives and outcomes. The inception workshop will be used to detail the roles, support services and complementary responsibilities of the CI-GEF Project Agency and the Executing Agency.

b) Inception workshop report

The Executing Agency should produce an inception report documenting all changes and decisions made during the inception workshop to the project planned activities, budget, results framework, and any other key aspects of the project. The inception report should be produced within one month of the inception workshop, as it will serve as a key input to the timely planning and execution of project start-up and activities.

c) **Project Results Monitoring Plan** (Objective, Outcomes, and Outputs)

A Project Results Monitoring Plan will be developed by the Project Agency, which will include objective, outcome and output indicators, metrics to be collected for each indicator, methodology for data collection and analysis, baseline information, location of data gathering, frequency of data collection, responsible parties, and indicative resources needed to complete the plan. Appendix IV provides the Project Results Monitoring Plan table that will help complete this M&E component.

d) In addition to the objective, outcome, and output indicators, the Project Results Monitoring Plan table will also include all indicators identified in the Safeguard Plans prepared for the project, thus they will be consistently and timely monitored.

e) The monitoring of these indicators throughout the life of the project will be necessary to assess if the project has successfully achieved its expected results.

f) *Baseline Establishment:* in the case that all necessary baseline data has not been collected during the PPG phase, it will be collected and documented by the relevant project partners within the first year of project implementation.

g) **GEF Focal Area Tracking Tools**

The relevant GEF Focal Area Tracking Tools will also be completed: i) prior to project start-up, ii) prior to mid-term review, and iii) at the time of the terminal evaluation.

h) **Project Steering Committee Meetings**

Project Steering Committee (PSC) meetings will be held quarterly, or as appropriate. Meetings shall be held to review and approve project annual budget and work plans, discuss implementation issues and identify solutions, and to increase coordination and communication between key project partners. The meetings held by the PSC will be monitored and results adequately reported.

i) **CI-GEF Project Agency Field Supervision Missions**

The CI-GEF PA will conduct annual visits to the project country and potentially to project field sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Oversight visits will most likely be conducted to coincide with the timing of PSC meetings. Other members of the PSC may also join field visits. A Field Visit Report will be prepared by the CI-GEF PA staff participating in the oversight mission, and will be circulated to the project team and PSC members within one month of the visit.

j) **Quarterly Progress Reporting**

The Executing Agency will submit quarterly progress reports to the CI-GEF Project Agency, including a budget follow-up and requests for disbursement to cover expected quarterly expenditures.

k) **Annual Project Implementation Report (PIR)**

The Executing Agency will prepare an annual PIR to monitor progress made since project start and in particular for the reporting period (July 1st to June 30th). The PIR will summarize the annual project result and progress. A summary of the report will be shared with the Project Steering Committee.

l) **Final Project Report**

The Executing Agency will draft a final report at the end of the project.

m) **Independent External Mid-term Review**

The project will undergo an independent Mid-term Review within 30 days of the mid-point of the grant term. The Mid-term Review will determine progress being made toward the achievement of outcomes and will identify course correction if needed. The Mid-term Review

will highlight issues requiring decisions and actions, and will present initial lessons learned about project design, implementation and management. Findings and recommendations of the Mid-term Review will be incorporated to secure maximum project results and sustainability during the second half of project implementation.

n) Independent Terminal Evaluation

An independent Terminal Evaluation will take place within six months after project completion and will be undertaken in accordance with CI and GEF guidance. The terminal evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The Executing Agency in collaboration with the PSC will provide formal responses to the findings and recommendations of the terminal evaluation.

o) Lessons Learned and Knowledge Generation

Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. There will be a two-way flow of information between this project and other projects of a similar focus.

p) Financial Statements Audit

Annual Financial Reports submitted by the Executing Agency will be audited annually by external auditors appointed by the Executing Agency.

- 323.** The Terms of References for the evaluations will be drafted by the CI-GEF PA in accordance with GEF requirements. The procurement and contracting for the independent evaluations will be handled by Office of CI's General Counsel. The funding for the evaluations will come from the project budget, as indicated at project approval.

**Table 16: Project M&E Plan Summary**

Type of M&E	Reporting Frequency	Responsible Parties	Indicative Budget from GEF (USD)
a. Inception Workshop and Report	Within three months of signing of CI Grant Agreement for GEF Projects	Executing Agency	1,000
b. Inception Workshop Report	Within one month of inception workshop	Executing Agency Specialist (consultant) in preparation of reports	3,000
c. Project Results Monitoring Plan (Objective, Outcomes and Outputs)	Annually (data on indicators will be gathered according to monitoring plan schedule shown on Appendix IV)	Project Management Unit (PMU) CI-GEF PA	-
d. GEF Focal Area Tracking Tools	i) Project development phase; ii) prior to project mid-term evaluation; and iii) project completion	PMU Executing Agency Specialist (consultant) in preparation of reports	3,000

Type of M&E	Reporting Frequency	Responsible Parties	Indicative Budget from GEF (USD)
e. Project Steering Committee Meetings	Annually	PMU Executing Agency	4,000
f. CI-GEF Project Agency Field Supervision Missions	Approximately annual visits	CI-GEF PA	From the CI-GEF project Agency budget
g. Quarterly Progress Reporting	Quarterly	PMU Executing Agency Specialist (consultant) in preparation of reports	15,000
h. Annual Project Implementation Report (PIR)	Annually for year ending June 30	PMU Executing Agency Specialist (consultant) in preparation of reports CI-GEF PA	9,000
i. Project Completion Report	Upon project operational closure	PMU Executing Agency Specialist (consultant) in preparation of reports	4,000
j. Independent External Mid-term Review	Approximate mid-point of project implementation period	CI Evaluation Office Project Team CI-GEF PA	18,000
k. Independent Terminal Evaluation	Evaluation field mission within three months prior to project completion	CI Evaluation Office Project Team CI-GEF PA	15,000
l. Lessons Learned and Knowledge Generation	At least annually	Project Team Executing Agency CI-GEF PA	5,000
m. Financial Statements Audit	Annually	Executing Agency CI-GEF PA	28,500

## SECTION 8: PROJECT BUDGET AND FINANCING

### A. Overall Project Budget

- 324.** The project will be financed by a medium size GEF grant of USD 1.009.174, with co-financing from the National Commission of Natural Protected Areas (CONANP); the National Forest Commission (CONAFOR); the National Commission for Knowledge and Use of Biodiversity (CONABIO); the Secretariat for Environment and Natural History of Chiapas (SEMAHN); the Natural Protected Areas Fund (FANP); the Mexican Fund for Nature Conservation (FMCN), Ecometrica, Secretaria Del Campo (SECAM), Conservation International, Plan Vivo Foundation, Comision Nacional de Pueblos Indigenas and Cooperativa AMBIO.
- 325.** A summary of the project costs and the co-financing contributions is given in the two tables below. The project budget may be subject to revision during implementation. The detailed project budget is provided in Appendix IX.
- 326.** The planned project GEF budget by component is:

**Table 17: Project GEF Budget by Component**

Budget Item	Project budget by component (in USD)			
	Component 1	Component 2	PMC	Total budget
<b>Personnel salaries and benefits</b>	197,795	126,495	29,340	<b>353,630</b>
<b>Professional services</b>	295,600	41,400	61,500	<b>398,500</b>
<b>Travels and accommodations</b>	75,500	88,000		<b>163,500</b>
<b>Meetings and workshops</b>	6,500	6,500		<b>13,000</b>
<b>Grants &amp; Agreements</b>	---	---	---	---
<b>Equipment</b>	9,800	10,000		<b>19,800</b>
<b>Other direct costs</b>	54,834	5,910		<b>60,744</b>
<b>TOTAL GEF FUNDED PROJECT</b>	<b>640,029</b>	<b>278,305</b>	<b>90,840</b>	<b>1.009.174</b>

- 327.** The planned project GEF budget by year is:

**Table 18: Planned Project GEF Budget by Year**

Budget Item	Project budget by year (in USD)			
	Year 1	Year 2	Year 3	Total budget
<b>Personnel salaries and benefits</b>	115,670	118,980	118,980	<b>353,630</b>
<b>Professional services</b>	153,800	160,200	84,500	<b>398,500</b>
<b>Travels and accommodations</b>	53,950	55,550	54,000	<b>163,500</b>
<b>Meetings and workshops</b>	6,200	3,600	3,200	<b>13,000</b>
<b>Grants &amp; Agreements</b>	---	---	---	---
<b>Equipment</b>	19,800			<b>19,800</b>
<b>Other direct costs</b>	30,154	25,140	5,450	<b>60,744</b>
<b>TOTAL GEF FUNDED PROJECT</b>	<b>379,574</b>	<b>363,470</b>	<b>266,130</b>	<b>1.009.174</b>

## B. Overall Project Co-financing

328. The amount of co-financing for the project is composed as follows:

### From the governmental sector:

- The National Commission of Natural Protected Areas (CONANP) will: a) implement programs for developing and improving forestry and agroforestry systems (under project component 1); b) train CONANP staff members and NPA technical committee members on climate change mitigation strategies (project component 2). This contribution is estimated as USD 360.000 (General Directorate for Climate Change: USD 100.000 - Regional Directorate in Chiapas: USD 260.000) over the three years of the project.
- The National Forest Commission (CONAFOR) will implement payment for environmental services programs and improve forestry and agroforestry systems (project component 1). Estimated contribution: USD 1.000.000 over the three years of the project.
- The National Commission for Knowledge and Use of Biodiversity (CONABIO) will implement capacity building (project component 2) activities for reducing land use change in the region, contributing USD 32.896 over the three years of the project.
- The Secretariat for Environment and Natural History of Chiapas (SEMAHN) will participate with activities for improving productive systems and forest management, prevention and management of forest fires (project component 1) and strengthening stakeholders' capacities (project component 2), contributing USD 375.021 over the three years of the project.
- The State Extension Secretariat (Secretaría del Campo, SECAM) will implement small farmers with the implementation of sustainable farming compatible with component 1 of this project. SECAM's contribution is estimated at USD 1.260.923 over the three years of the project.
- The National Commission for the Development of the Indigenous Peoples (Comisión de Pueblos Indios, CDI) will implement sustainable farming activities (project component 1) and provide capacity building (project component 2). CDI co-finacing will be USD 168.424 over the three years of the project.

### From the non-governmental and private sectors:

- The Natural Protected Areas Fund (FANP) will execute local capacity development activities for monitoring and protection of forest ecosystems (project component 1), contributing USD 45.000 during the first year of the project.
- The Mexican Fund for Nature Conservation (FMCN) will implement activities for: a) sustainable forest management; b) recovery of degraded forest areas and c) local and institutional capacity development to prevent and combat wildfires (project component 1). Estimated contribution is USD 100.894 for the first two years of the project.
- Cooperativo AMBIO will support components 1 and 2 of this project, regarding the technical training and assistance for the sell the carbon credits during the period June 2015 to June 2018. The contribution is estimated at USD 133.904 over the three years of the project.
- Ecometrica will support Ambio's mapping and spatial analysis work for the Plan Vivos. Estimated contribution is USD 229.500 for the first year of the project.
- Plan Vivo Foundation will support Component 1 in terms of Plan Vivo's staff time. Estimated contribution is USD 45.900 over the three years of the project.

- CI will support the Project Management Costs during the period of July 2015 to June 2018 with USD 210.000 over the three years of the project.

**329.** The committed cash and in-kind co-financing is presented in the following table:

**Table 19: Committed Cash and In-Kind Co-financing (USD)**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount
Government	National Commission of Natural Protected Areas (CONANP) - General Directorate for Climate Change	In-kind	100.000
Government	National Commission of Natural Protected Areas (CONANP) - Regional Directorate in Chiapas	In-kind	260.000
Government	National Forest Commission (CONAFOR)	Cash	1.000.000
Government	National Commission for Knowledge and Use of Biodiversity (CONABIO)	Cash	32.896
Government	Secretariat for Environment and Natural History of Chiapas (SEMAHN)	Cash	375.021
Government	The State Extension Secretariat (SECAM)	Cash	1.260.923
CSO	Natural Protected Areas Fund (FANP)	Cash	45.000
CSO	Mexican Fund for Nature Conservation (FMCN)	Cash	100.894
CSO	Cooperativa AMBIO	Cash	133.904
CSO	Plan Vivo Fundation	Cash	45.900
CSO	National Commission for the Development of the Indigenous Peoples (CDI)	Cash	168.424
Private Sector	Econometrica	Cash	229.500
CSO	Conservation International	Cash	210.000
<b>TOTAL CO-FINANCING</b>			<b>3,962,462</b>

## APPENDIX I: Project Results Framework

Project objective					
Project strategy	Indicators	Baseline	End of project target	Sources of verification	Assumptions
<b>PROJECT OBJECTIVE:</b> To maintain and increase carbon stocks (through avoiding deforestation in natural ecosystems) and to reduce greenhouse gas emissions and increase carbon sequestration (adopting sustainable management practices in agro-pastoral systems) in the Selva Zoque – Sumidero Canyon complex	Number of tons CO <sub>2</sub> e avoided to be emitted in the Selva Zoque – Sumidero Canyon complex  (by sustainable management of primary and second-growth forests)	5,020 of tons CO <sub>2</sub> e en el 2014	Emission of at least 132.298 tCO <sub>2</sub> e avoided (in a 25 years period)	Plan Vivo developed and analyzed: Specifications of tCO <sub>2</sub> e baseline, scenario and tCO <sub>2</sub> e sequestered by the system  Plan Vivo developed and analyzed: Specifications of baseline and tCO <sub>2</sub> e scenario	
	Number of tons CO <sub>2</sub> e sequestered in the Selva Zoque – Sumidero Canyon complex  (by improved production practices contributing to the sequestration of carbon)	0	160.989 tons CO <sub>2</sub> e sequestered (in a 25 years period)	Plan Vivo developed and analyzed: Specifications of tCO <sub>2</sub> e sequestered by the system	
	Percentage of families/ women participating in project activities who perceive an improvement in their communities' natural capital.	0	70% of families/women participating in project activities perceive an improvement in their communities' natural capital.	Stratified sample survey in 15 project communities (asking <u>if</u> they perceive an improvement and <u>in what</u> it consists)	

### Component 1: Field demonstrations

Project strategy	Indicators				Sources of verification	Assumptions
	Name of indicator	Baseline	Target at project mid-term	Target at end of project		
<b>Component 1: Field demonstrations for maintaining carbon stocks in forests and increasing carbon sequestration in agropastoral landscapes of the Selva Zoque – Sumidero Canyon complex</b>						
<b>Component 1 outcome:</b> Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration)	Number of hectares of primary and second-growth forests managed sustainably for maintaining carbon stocks and reducing emissions	2,624 ha (1,991 ha in 20 cases + 633 ha in Nuevo San Juan)	At least 2,500 hectares of forests managed sustainably	At least 6,615 hectares of forests managed sustainably (avoiding the emission of at least 132.298 tCO <sub>2</sub> e in a 25 years period)	Monitoring system for sustainable forest management activities identified under the Plan Vivo plan	- Communities selected during the PPG phase maintain their engagement in local projects agreed upon with the Project team.
	Number of hectares of productive landscapes under improved management practices contributing to carbon sequestration	36 ha in 2 communities	At least 722 hectares	At least 722 hectares in production landscapes under improved management practices (contributing to the sequestration of 160.969 tons CO <sub>2</sub> e in a 25 years period)	Monitoring system for improved productive landscapes management (PLM) activities identified under the Plan Vivo plan	- Social cohesion and governance of target communities are sufficiently high to comply with agreements made with the Project.
	Number of communities maintaining forest cover and/or improving management practices in productive landscapes	2	15	15	Quarterly progress reports of community extension workers	- Involved communities are open towards integration of gender approach into local processes.

	Percentage of local processes (field projects, network capacity building) with a gender approach	0	30%	80%	- Annual report about integration of gender approach into local processes - Progress reports of pilot projects applying strategy to mainstream gender in mitigation projects (lessons learned)	- Sufficient buyers of carbon credits can be found in the voluntary market.
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#### Component 1 Outputs

<b>Output 1.1:</b> Intervention communities and local project sites identified and validated by stakeholders	Number of communities identified and validated	Provisional list of communities	Updated list of communities	Updated list of communities	Quarterly progress reports of community extension workers	
	Number of local project sites identified and validated	Provisional list of local project sites	Updated list of local project sites	Updated list of local project sites		
<b>Output 1.2:</b> A gender sensitive Sustainable Forest Management (SFM) strategy for maintaining carbon stocks and reducing emissions developed and implemented in project area communities.	Number of local processes (field projects) managing forests sustainably for maintaining carbon stocks and reducing emissions	3	12	15	Quarterly progress reports of community extension workers	
<b>Output 1.3:</b> Field projects under improved productive landscapes management (PLM) practices contributing to carbon sequestration developed and implemented in project area communities	Number of field projects under improved productive landscapes management (PLM) practices contributing to carbon sequestration	2 systems in 2 communities	24	36	Comparative tables between current and improved practices, prepared by community extension workers	

<b>Output 1.4:</b> Carbon and greenhouse gas mitigation benefits generated by the project are measured and monitored throughout project life using internationally accepted protocols.	Annual measurement of carbon and greenhouse gas mitigation benefits generated by the project using internationally accepted protocols	None	Carbon and GHG mitigation benefits generated by the project are measured annually	Measurement and monitoring system has been improved	Monitoring system for measuring carbon and greenhouse gas mitigation benefits generated by the project	
<b>Output 1.5:</b> A carbon market strategy, to ensure that a maximum of carbon credits generated through the project are properly issued in the voluntary market, is developed and implemented	Number and value of carbon credits generated through the project placed in the voluntary market	5,020 tons CO <sub>2</sub> e placed in the voluntary market in 2014	32,500 tons CO <sub>2</sub> e placed in the voluntary market (2,500 avoided emissions and 30,000 sequestered carbon) at the end of the 2° project year	70,000 tons CO <sub>2</sub> e placed in the voluntary market (5,000 avoided emissions and 65,000 sequestered carbon) at the end of the 3 <sup>rd</sup> project year	Contracts between sellers and buyers of carbon credits	
<b>Output 1.6:</b> An agreed upon strategy for scaling up the demonstration field projects within the Selva Zoque – Sumidero Canyon complex and the State of Chiapas and beyond is developed and first implementation steps have been initiated.	<ul style="list-style-type: none"> <li>- Number of pilot projects applying strategy to generate carbon credits designed and implemented in other NPA in Chiapas and beyond</li>   <li>- Lessons learned about main-streaming gender in CC mitigation projects</li> </ul>	Sporadic and isolated cases of field projects generating carbon credits  None	Strategy for scaling up lessons learned from demonstration field projects developed and agreed upon at the end of the 2° project year  Preliminary assessment document available	6 pilot projects applying strategy to generate carbon credits designed and implemented in other NPA in Chiapas and beyond at end of project  Assessment document completed	<ul style="list-style-type: none"> <li>- Strategy document for scaling up lessons learned from demonstration field projects within the Selva Zoque – Sumidero Canyon complex</li> <li>- Progress reports of pilot projects applying strategy to generate carbon credits in other NPA in Chiapas and beyond</li> <li>- Assessment document regarding gender main-streaming in CC mitigation projects.</li> </ul>	

## Component 2: Capacity building and awareness raising

Project strategy	Indicators				Sources of verification	Assumptions
	Name of indicator	Baseline	Target at project mid-term	Target at end of project		
<b>Componente 2: Building institutional and local capacity on reducing GHG emissions from the LULUCF sector in Chiapas</b>						
<b>Component 2 outcome:</b> Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage	Number of communities and farmers (men and women) trained for applying sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective	- 3 communities - 30 farmers	- 15 communities - At least 200 farmers (men and women)	- 15 communities - At least 375 farmers (men and women)	- Assessment of learning outcomes of communities and farmers, performed by extension workers and consultants who are conducting training events and processes - Assessment of adoption of SFM and improved PLM practices	- Farmers (men and women) and communities participate continuously in training programs. - Farmers and communities are ready to adopt innovations in forest and agricultural practices.
	Number of community extension workers trained for transmitting sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective to communities and individual farmers	3 community extension workers	- 15 community extension workers	- 15 community extension workers	- Assessment of learning outcomes performed by consultants conducting training events and processes	- Members of NPA technical committees are interested in participating in training programs offered by the Project. - CC mitigation

	Number of CONANP and SEMAHN staff members and NPA technical committees members trained on sustainable forest management (SFM) and improved PLM practices contributing to carbon capture and storage with a gender perspective	11 CONANP staff members	- 20 CONANP and SEMAHN staff members, including some members of NPA technical committees	- 35 CONANP and SEMAHN staff members, including some members of NPA technical committees	- Assessment of learning outcomes performed by consultants conducting training events and processes	policies and programs at the federal and state level remain continue to enjoy a high priority. - Communities apt to, and interested in participating in scaling up program for CC mitigation can be identified.
<b>Component 2 Outputs</b>						
<b>Output 2.1:</b> Capacity needs of farmers (men and women), extension workers, NPA technical committees and CONANP and SEMAHN staff members on SFM and improved PLM practices for carbon capture and storage assessed.	Capacity needs assessment completed	Incomplete and unsystematic information about capacity needs of stakeholders	Capacity needs assessment completed after the first three months of project implementation	-	Capacity needs assessment document	
<b>Output 2.2:</b> Capacity building programs and training materials for farmers (men and women), extension workers, NPA technical committees and CONANP and SEMAHN staff members on SFM and improved PLM practices for carbon dioxide capture and storage designed (programs will take into account the Strategic Gender Plan).	- Capacity building programs designed  - Number of training materials produced by the project	- Some elements for capacity building are already known  - 6 training materials are available	- Capacity building programs designed by the end of the first year and 60% implemented during the second year of the project  - 2 training materials produced or improved	- Capacity building programs fully implemented during the third year of the project  - 5 training materials produced or improved	- Capacity building program documents  - Training materials	

<b>Output 2.3:</b> Network of community extension workers established.	<ul style="list-style-type: none"> <li>- Number of community extension workers (men and women) engaged in promoting and enhancing project activities, outputs and outcomes</li> <li>- Community extension workers form a learning and cooperative network</li> </ul>	<ul style="list-style-type: none"> <li>- Three community extension workers</li> <li>- Network not existing</li> </ul>	<ul style="list-style-type: none"> <li>- 15 community extension workers</li> <li>- Learning and cooperative network of community extension workers established by the end of the first year</li> </ul>	<ul style="list-style-type: none"> <li>- 15 community extension workers</li> <li>- Learning and cooperative network of community extension workers strengthened</li> </ul>	<ul style="list-style-type: none"> <li>- Quarterly reports of community extension workers</li> <li>- Minutes of community extension workers' meetings</li> </ul>	
<b>Output 2.4:</b> Capacity building programs for farmers (men and women), extension workers, NPA technical committees and CONANP and SEMAHN staff members on SFM and improved PLM practices for carbon dioxide capture and storage implemented (programs will take into account the Strategic Gender Plan).	<ul style="list-style-type: none"> <li>- Number of capacity building programs</li> <li>- Number of capacity building programs with a gender approach</li> <li>- Number of field demonstration plots</li> <li>- Number of capacity building events (workshops, training courses, exchange of experiences among farmers and communities in the project zone)</li> <li>- Number of training materials distributed among target groups</li> </ul>	<ul style="list-style-type: none"> <li>- 1 program for 3 communities (Ambio)</li> <li>- 10 field demonstration plots</li> <li>- 12 workshops; 2 courses; 10 exchanges of experiences</li> </ul>	<ul style="list-style-type: none"> <li>- 3 capacity building programs</li> <li>- 4 field demonstration plots</li> <li>- 18 workshops; 5 courses; 5 exchanges of experiences</li> </ul>	<ul style="list-style-type: none"> <li>- 3 capacity building programs</li> <li>- 6 field demonstration plots</li> <li>- 42 workshops; 12 courses; 15 exchanges of experiences</li> </ul>	<ul style="list-style-type: none"> <li>- Quarterly reports of community extension workers</li> </ul>	

<p><b>Output 2.5:</b> Monitoring and evaluation system to assess acquisition and application of knowledge and skills about SFM and improved PLM practices by farmers (men and women), extension workers, NPA technical committees and CONANP and SEMAHN staff members designed and implemented.</p>	<ul style="list-style-type: none"> <li>- Monitoring system designed and implemented to assess acquisition and application of knowledge and skills by project target groups</li> <li>- Adoption of SFM and improved PLM practices assessed in the field</li> <li>- Percentage of farmers (including men and women) in target communities who are informed about improvements in production practices, and about impacts on climate change mitigation promoted by this project</li> </ul>	<p>None</p>	<ul style="list-style-type: none"> <li>- Monitoring system designed at the end of the first project year</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring system implemented during second and third project year</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring reports at the end of the second and third project year</li> </ul>	
<p><b>Output 2.6:</b> Field exchanges (including women and mixed groups) to share lessons learned and promote adoption of best practices for climate change mitigation in agrosilvopastoral landscapes (including food security activities) between project communities and other communities and similar projects located in Chiapas and adjacent states.</p>	<ul style="list-style-type: none"> <li>- Number field exchange events</li> <li>- Number of communities outside the project area participating in field exchanges with project communities and farmers</li> <li>- Number of communities located in Chiapas and adjacent states expressing their interest in adopting SFM and improved PLM practices in climate change mitigation projects</li> </ul>	<p>None</p>	<ul style="list-style-type: none"> <li>- 6 field exchange events</li> <li>- 1 additional community participating in field exchanges with project communities</li> </ul>	<ul style="list-style-type: none"> <li>- 10 field exchange events</li> <li>- 5 additional communities and participating in field exchanges with project communities</li> </ul>	<p>Reports provided by consultants facilitating field exchanges</p>	

<p><b>Output 2.7:</b> Public awareness and policies are influenced by lessons learned and know-how generated from the Project.</p>	<ul style="list-style-type: none"> <li>- Number of communication bulletins released by the project providing information on persisting problems and challenges for conserving climate change mitigation services provided by the Selva Zoque – Sumidero Canyon complex.</li> <li>- Number of public events at the federal or state level with the objective to achieve impact on public climate change mitigation policies</li> </ul>	<p>None</p>	<p>4 communication bulletins released</p>	<p>10 communication bulletins released</p>	<p>Communication bulletins released by the project</p>	
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## APPENDIX II: Project Timetable

Outcomes/Outputs	Timeline											
	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Outcome 1</b>												
<b>Output 1.1:</b> Communities and local project sites identified.	■	■			■							
<b>Output 1.2:</b> SFM strategy implemented in project area communities.			■	■	■	■	■	■	■	■	■	■
<b>Output 1.3:</b> Field projects under improved productive landscapes management (PLM) practices.			■	■	■	■	■	■	■	■	■	■
<b>Output 1.4:</b> Carbon mitigation benefits are measured and monitored.				■	■							
<b>Output 1.5:</b> Carbon credits generated by the project issued in the voluntary market.				■	■	■	■	■	■	■	■	
<b>Output 1.6:</b> Strategy for scaling up demonstration field projects developed and in process of implementation.					■				■	■	■	■
<b>Outcome 2</b>												
<b>Output 2.1:</b> Capacity needs of project stakeholders in climate change mitigation projects assessed.	■	■										
<b>Output 2.2:</b> Capacity building programs and training materials designed.		■	■	■								
<b>Output 2.3:</b> Network of community extension workers established.			■	■	■	■						
<b>Output 2.4:</b> Capacity building programs for different target groups implemented.			■	■	■	■	■	■	■	■	■	■
<b>Output 2.5:</b> Monitoring system to assess acquisition of knowledge and skills by stakeholders designed and implemented.									■	■	■	■
<b>Output 2.6:</b> Field exchanges to share lessons learned and promote adoption of best practices for climate change mitigation by other communities in Chiapas and adjacent states.										■	■	■
<b>Output 2.7:</b> Public awareness and policies are influenced by lessons learned and know-how generated from the project.									■	■	■	■

## APPENDIX III: Screening Results and Safeguard Analysis

Date Prepared/Updated: February 27, 2014

### I. BASIC INFORMATION

A. Basic Project Data		
Country: Mexico	GEF Project ID:	CI Project ID:
<b>Project Title:</b> Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva El Ocote Biosphere Reserve as a climate change mitigation strategy (Chiapas, Mexico)		
<b>Estimated Appraisal Date:</b> End of PPG phase and before beginning of full project implementation		
<b>Executing Entity:</b> Cooperativa Ambio S.C. de R.L. (AMBIO), Comisión Nacional de Áreas Naturales Protegidas (CONANP)		
<b>GEF Focal Area:</b> Climate change mitigation (GEF STAR)		
<b>GEF Project Amount:</b> USD 550,000		
<b>Other financing amounts by source:</b> USD 1,755,975 million		
<b>Reviewer(s):</b> Miguel A. Morales		
<b>Date of Review:</b> February 27, 2014		
<b>Comments:</b>		

### B. Project Objective:

To maintain and increase carbon stocks through avoiding deforestation in natural ecosystems and adopting sustainable management practices to reduce greenhouse gas emissions and increase carbon sequestration in agro-pastoral systems in the Selva El Ocote Biosphere Reserve (REBISO)

### C. Project Description:

- The forests of the REBISO, along with neighboring forests of Chimalapas in Oaxaca and Uxpanapan in Veracruz, are considered the second most important forest formations in the country in terms of extent and biodiversity richness. With more than 45,000 ha of primary forests containing over 1,500 species of plants and animals and substantial ecosystem services, the REBISO is a priority area for conservation and sustainable development at both, the State and national levels.
- The main threats to the REBISO are the expansion of the agricultural frontier, predominantly slash-and-burn practices, wild fires due to extreme weather events, and to lesser extent the impact of hurricanes. Velázquez y Pantoja (2005) estimated that between 1988 and 2008 nearly 31,750 ha of the REBISO were affected by fires.
- The estimated annual deforestation rate for the REBISO between 1986 and 1995 was 1.05%, mainly due to agricultural and livestock production activities. This rate increased more than twofold to 2.54% between 1995 and 2000 (Flamenco-Sandoval et al., 2007), almost three times higher than the deforestation rate of the State of Chiapas.
- Deforestation information for the REBISO indicates that in the last 23 years the reserve lost approximately 5,000 ha of forests (10.6% of its area), representing about 2 million tCO<sub>2</sub> of emissions.

- The main causes of deforestation and forest degradation include: a) inefficient public policies to support the conservation and sustainable use of forests; b) weak institutional capacity to sustainable manage natural resources; c) insufficient inter-institutional coordination; d) lack of incentives to promote conservation and sustainable use of natural resources by local communities; e) lack of markets for sustainable and/or certified forest products; f) inadequate supply of sustainable forest products; and g) weak local environmental awareness and capacity to adopt climate change mitigation practices in agricultural production.
- Taking into consideration that in Mexico 60% of the forests are owned by *ejidos* and managed by local communities, it is crucial to work with them to successfully reduce and mitigate the emission of greenhouse gases (GHG) originated from deforestation and forest degradation.
- Based on historic and current information on land use, land-use change, and forest exploitation trends in the region, it is expected that the rate of deforestation and forest degradation will continue to increase in the short and medium terms. Because current agricultural practices are not very efficient to provide for a growing population, increased demand for agricultural goods will necessarily require the expansion of the agricultural frontier to the detriment of native forests.
- Esquivel *et al.* (2013) has estimated that the communities of the REBISO produce between 50 and 80% of their annual consumption of maize. To sustain this production level in the future, subsistence farmers will need to deforest about 250 ha of primary and second-growth forests over the next 3 years, which in turn will release at around 142,500 tCO<sub>2</sub> to the atmosphere.
- In addition, there is a current regional trend to turn shade-grown coffee plantations into maize fields and pastures. It has been estimated that this change has the potential to emit at least 106,000 tCO<sub>2</sub> per 300 ha over a period of 3 years. Conversely, turning traditional sun grown coffee plantation into shade-grown system has the potential to capture 42,900 tCO<sub>2</sub> per 300 ha over a period of 25-30 years.
- Under the business-as-usual (BAU) scenario, the emissions of CO<sub>2</sub> from deforestation and forest degradation will continue to grow in the future. Primary and secondary forests are under increased pressure because they contain the region's most fertile soils required for subsistence and cash-crop farming. If viable options, such as economic incentives to conserve forests and adopt low carbon agricultural practices, are not made available in the region, it is estimated that the REBISO will lose at least an additional 5,000 ha of forests in the next 15 years. This will add a further 2 million tCO<sub>2</sub> of emissions to the atmosphere.
- In addition, the BAU scenario will negatively affect the rich biodiversity of the REBISO and put at risk the generation and delivery of crucial ecosystem services of local, regional and global significance.
- From 2008 through 2013, AMBIO implemented the ***REDD+ Project Using the Plan Vivo System in the Selva El Ocote Biosphere Reserve***, as part of its long standing Scolel'te Program in Chiapas. This USD250,000 project was funded by the United States Agency for International Development (USAID) and closely coordinated with the REBISO's staff. The objective of the project was to learn about different aspects of implementing REDD+ projects with local communities, including developing baselines and reference scenarios, applying environmental and social safeguards, developing and implementing land use plans, and improving governance and local capacity. The know-how acquired throughout the implementation of this pilot project will serve AMBIO as baseline experience that will be applied towards the success of this GEF project.
- Started in 1998, AMBIO's Scolel'te Program aims to avoid/reduce carbon emissions and sequester carbon in agro-silvopastoral systems and enhance the livelihoods of rural farming communities in Chiapas. It is a registered *Plan Vivo* project ([www.planvivo.org/projects/registeredprojects/scolel-te-mexico/](http://www.planvivo.org/projects/registeredprojects/scolel-te-mexico/)) that involves hundreds of producers who are implementing *Plan Vivo* technical

specifications on their small landholdings. The reforestation and agroforestry systems that the project promotes are designed to capture more carbon than what would be found in baseline conditions of pasturelands, degraded forests or the traditional cropping of corn and beans (*milpas*).

- Under the proposed alternative scenario, this GEF project will help to avoid the emission of and sequestered at least 118,050 tCO<sub>2</sub> as well as build local capacity on climate change mitigation issues.
- This GEF Project will build upon current investments from the Mexican government and AMBIO's own projects in the REBISO, and help to scale up AMBIO's experience with the Scolel'te Program.
- Project areas and *ejidos* will be selected based on environmental and social criteria, including forest carbon content, deforestation and degradation threat, environmental and social vulnerability, poverty levels, and priority areas for the protection of the REBISO's core zone. This information is available from community land use plans and land use change scenarios.
- This project has two main components:

#### **Component 1: Maintaining carbon stocks in forests and increasing carbon sequestration in agro-pastoral systems**

This GEF project will help to avoid the emission of and sequestered at least 118,050 tCO<sub>2</sub> through:

1. Avoiding the emission of at least 4,000 tCO<sub>2</sub> from primary and second-growth forest that otherwise would be deforested/degraded and secure its permanence for 25 years; and
  2. Sequestering at least 114,050 tCO<sub>2</sub> through improving agricultural land management practices and securing its permanence over a period of 25-30 years.
- AMBIO will work with rural communities in 5 *ejidos* of the REBISO's buffer zone to improve forestry practices in approximately 5,000 ha of primary and mature second-growth forests (mature *alcahuales*) that otherwise would be deforested and/or degraded for agricultural production. This will avoid the emission of at least 4,000 tCO<sub>2</sub> over a 5 year period.
  - Avoiding and reducing carbon emissions from primary forests and mature *alcahuales* will be achieved through the: a) implementation of sustainable, alternative and improved forest management practices; b) development, strengthening and implementation of community regulations to regulate the access and use community owned forest resources; c) prevention and mitigation of forest fires, pests and diseases; and d) prevention and abatement of any other forest resource threats.
  - AMBIO will work with local communities in 5 *ejidos* of the REBISO's buffer zone to conduct reforestation and revegetation activities in at least 650 ha of agricultural lands. These activities will aim to sequester at least 114,050 tCO<sub>2</sub> (see Table 3) and will be carried out in *alcahuales*, coffee plantations, maize/bean fields (*milpas*) and pastures.
  - Reforestation and revegetation activities will be carried out only with native species.
  - The 650 ha under improved agricultural management for carbon sequestration will be used as demonstration sites for other rural communities of the REBISO and beyond.
  - AMBIO's Scolel'te Program has been using the *Plan Vivo Standards* for the last 16 years. *Plan Vivo* ([www.planvivo.org](http://www.planvivo.org)), a voluntary carbon market standard, is considered the most viable standard for rural communities in Mexico, given the country's socioeconomic context and land tenure system. *Plan Vivo* standards take into consideration local needs and interests, and its evaluation methodologies for additionality and permanence are simple and easy to understand by rural communities.

**Component 2: Building local capacity on reducing GHG emissions from deforestation and degradation and improving carbon sequestration in the agriculture, forestry and other land uses**

- AMBIO will build and strengthen the capacity of at least 200 farmers and 6 CONANP staff members from the REBISO that will be directly involved in this GEF project. They will be trained on general issues related to climate change mitigation and adaptation, sustainable forest management, carbon monitoring and low carbon agricultural practices as well as on specific methodologies required by the *Plan Vivo Standard*.
- In addition, AMBIO will establish a network of at least 12 community extension experts from the 5 *ejidos* where this project will be implemented. These extension agents will be trained on climate mitigation issues such as Reducing Emissions from Deforestation and Degradation-plus (REDD+), reducing emissions from land use, land-use change and forestry (LULUCF), and payment for ecosystem services (PES) schemes.
- The network of experts will be tasked with building the capacity of farmers and other extension experts in 6 additional communities, within and beyond the REBISO, on climate change mitigation projects. Target audience communities and regions will be defined during the PPG stage.
- The design of the capacity building program will be based on the results of a capacity needs assessment that AMBIO will conduct with the project main stakeholders at the beginning of the implementation phase of the project.
- Capacity building strategies will include, but not be limited to, short courses, workshops, and field exchanges, according to the results of capacity needs assessment and socioeconomic context of target audiences.

**D. Project location and physical characteristics relevant to the safeguard analysis:**

- The REBISO is located in the northwestern part of Chiapas. With 101,288 ha, the reserve is considered as one of the most important centers of biological diversity in the country. The high biodiversity of the REBISO is due to its ecotonal location between two Neotropical Provinces, the Pacifiquense and the Tehuatepequense (SEMARNAT, 2000). In addition, the wide range of topographic elevations within the reserve creates many microclimatic conditions with specialized floristic communities. For management purposes, the REBISO is divided into a core area with 40,416 ha (40%) and a buffer zone with 60,872 (60%).
- There are 45 ejidos (communally owned land that is legally recognized by the Mexican Constitution), within the REBISO, as well as privately and publicly owned lands. The inhabitants of the REBISO are mainly Tzeltal and Tzotzil peoples, who migrated to the area during the 1970s, and their main economic activities include subsistence farming and small scale coffee and livestock production.
- Debido a las diferencias importantes en la información de la tenencia de la tierra de la REBISO en el Registro Agrario Nacional (1993 y 1995), de la Secretaría de Desarrollo Urbano y Ecología (1991), y de la Comisión Agraria Mixta (1993). Se hizo una selección y caracterización con datos verificados en campo según el Programa de Manejo Integral del Fuego Reserva de la Biosfera Selva El Ocote, Chiapas 2009 - 2012. Se encuentra que el 65% (64,838 ha) está en manos de pequeños propietarios, ejidos y el restante 35% (36 674 ha) son terrenos nacionales pertenecientes a la REBISO.
- El proyecto esta planteado a ser desarrollado en 5 ejidos de la Reserva de la Biosfera Selva El Ocote (REBISO), estos ejidos fueron fundados en la decada de los 70's, eran poblaciones inmigrantes de los Altos de Chiapas (region montañosa del estado), los cuales iban en busqueda de tierras. Las poblaciones de esta region son de origen Tzeltal (una de las etnias más representativas de Chiapas), los cuales guardan como parte de sus costumbres su lengua y algunos su escritura.

- De acuerdo al CONEVAL, esta región es de las zonas más marginadas a nivel estatal. Su subsistencia se basa en la producción primaria; maíz y frijol para autoconsumo, producción ganadera, de café y de especies no maderables para la venta. De manera complementaria algunos productores trabajan fuera del ejido como jornaleros temporales, dentro de estos ejidos también se presenta la migración hacia Estados Unidos.
- Para 1998, se reporta una población de 6,855 habitantes en 32 localidades con tres o más viviendas dentro de la zona de amortiguamiento de la Reserva. De ellos, 3,106 son hombres (52%) y 2,865 son mujeres (48%). Las localidades y la población de la Reserva están distribuidas por municipio de la siguiente manera: 953 (13.2%) habitantes y 4 localidades pertenecientes a Cintalapa de Figueroa; 4,279 habitantes (73.3%) y 23 localidades de Ocozocoautla de Espinosa; y, 1,173 (13.5%) y 5 localidades de Tecpatán de Mezcalapa.

#### **E. Executing Entity's Institutional Capacity for Safeguard Policies:**

According to the Capacity Assessment conducted for AMBIO, this institution has experience in implementing environmental and social safeguard policies.

## **II. SAFEGUARD AND POLICIES**

### **Environmental and Social Safeguards:**

Safeguard Triggered	Yes	No	TBD	Date Completed
<b>Environmental &amp; Social Impact Assessment (ESIA)</b>		X		<i>Feb 27, 2014</i>
<i>Justification:</i>				
<b>Natural Habitats</b>		X		<i>Feb 27, 2014</i>
<i>Justification:</i>				
• Reforestation and revegetation activities will be carried out in degraded natural ecosystems and second-growth forests ( <i>alcahuales</i> ) and only using native species				
<b>Voluntary Resettlement - Displacement</b>		X		<i>Feb 27, 2014</i>
<i>Justification:</i>				
<b>Indigenous Peoples</b>	X			<i>Feb 27, 2014</i>
<i>Justification:</i>				
• The inhabitants of the REBISO are mainly Tzeltal and Tzotzil peoples, who migrated to the area during the 1970s, and their main economic activities include subsistence farming and small scale coffee and livestock production.				
• Among the communities of the reserve 63% of the population speaks an indigenous language, of which 82% also speak Spanish and 18% are monolingual, especially women. The dominant indigenous language is Tzotzil, since most of the indigenous inhabitants of the Reserve originate in towns in the Tzotzil region (SEMARNAT, 2001) from the highlands of Chiapas.				
<b>Pest Management</b>		X		<i>Feb 27, 2014</i>

<i>Justification:</i>				
<b>Physical &amp; Cultural Resources</b>		X		Feb 27, 2014
<i>Justification:</i>				

#### Other relevant policies and best practices

Triggered	Yes	No	TBD	Date Completed
<b>Stakeholder Engagement</b>	X			Feb 27, 2014
<i>Justification:</i>				
<ul style="list-style-type: none"> <li>The preparation and implementation of this project will be carried out in a participative and inclusive manner. It is expected that a wide array of national and State government agencies, private sector organizations, non-governmental organizations (NGOs), and local communities will be involved in the project preparation and implementation phases.</li> <li>This project aims to fully engage local communities living in the areas where this project will be implemented. They will be involved through participatory planning and best practice in community engagement. AMBIO will work with existing governance structures within the communities, strengthening and adding where needed to ensure full and appropriate representation.</li> </ul>				
<b>Gender mainstreaming</b>	X			
<i>Justification:</i>				
<ul style="list-style-type: none"> <li>Throughout the project AMBIO will ensure full and equitable representation in and benefit sharing from project activities. The project will seek to engage with all stakeholders within the community including any potentially marginalized groups. The project will engage through current leadership structures and will seek to add to or strengthen these groups when key stakeholders are underrepresented. AMBIO will ensure that men, women, youth and other groups are engaged and build monitoring systems that include necessary disaggregation to track this throughout the life of the project.</li> </ul>				

### III. KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

#### 1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

- The review of the Safeguard Screening Form indicates that three of the CI-GEF Project Agency Environmental and Social Safeguards will be triggered by this project: a) Indigenous Peoples, b) Stakeholder Engagement, and c) Gender mainstreaming.
- Although AMBIO did not originally identify that this project will work in lands or territories traditionally owned, customarily used, or occupied by indigenous peoples, the review of the Screening Form determined that indeed, the project will work with indigenous peoples; and

- This review has also determined that the project's activities will not cause or enable to cause significant negative environmental and social impacts.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

- One potential indirect and/or long term adverse impacts can be anticipated, if the recommendations described below (section 4) are not properly implemented:
  - Unequal distribution of project benefits among different groups within affected communities, especially women and disadvantaged groups.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts:**

- No project alternatives are necessary for this project.

**4. Describe measures to be taken by the Executing Entity to address safeguard policy issues. Provide an assessment of the Executing Entity capacity to plan and implement the measures described:**

1. *Indigenous Peoples: to ensure that the project meets CI-GEF Project Agency's "Indigenous Peoples Policy #4", the Executing Agency will develop, during of the PPG phase, an "Indigenous Peoples Plan". The terms of reference will be provided by the CI-GEF Project Agency, who will approve and oversee the implementation of this plan throughout the duration of the project.*
2. *Stakeholders' engagement: to ensure that the project meets CI-GEF Project Agency's "Stakeholders' Engagement Best Practice", the Executing Agency will develop and submit, within 30 days of the beginning of the PPG phase, a "Stakeholders' Engagement Plan" for the Project Agency's approval. The Project Agency will oversee the implementation of this plan throughout the duration of the project.*
3. *Gender mainstreaming issues: to ensure that the project meets CI-GEF Project Agency's "Gender Mainstreaming Policy #8", the Executing Agency will develop, during of the PPG phase, a "Gender Mainstreaming Strategy and Action Plan" that will ensure the mainstreaming of gender issues throughout the project. The terms of reference will be provided by the CI-GEF Project Agency, who will approve and oversee the implementation of this Strategy and Action Plan throughout the duration of the project.*

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people:**

- *The consultation mechanisms by each type of major stakeholder will be designed and implemented by the Executing Agency at the beginning of the project preparation phase, and approved and monitor by the Project Agency.*

#### IV. PROJECT CATEGORIZATION

PROJECT CATEGORY	Category A	Category B	Category C
			X
<i>Justification:</i>			
<ul style="list-style-type: none"> <li>The review of this screening form and the PIF indicates that this project will not cause or enable to cause any major environmental or social impacts.</li> </ul>			

#### V. EXPECTED DISCLOSURE DATES

Safeguard	CI Disclosure Date	In-Country Disclosure Date
<b>Environmental &amp; Social Impact Assessment (ESIA)</b>	N/A	N/A
<b>Natural Habitats</b>	N/A	N/A
<b>Involuntary Resettlement - Displacement</b>	N/A	N/A
<b>Indigenous Peoples</b>	Before Project Implementation Begins (date to be confirmed)	Before Project Implementation Begins (date to be confirmed)
<b>Physical Cultural Resources</b>	N/A	N/A
<b>Pest Management</b>	N/A	N/A

## APPENDIX IV: Project Results Monitoring Plan

Indicators	Metrics	Methodology	Baseline	Location	Frequency	Responsible Parties	Indicative Resources
<b>Project objective:</b> To maintain and increase carbon stocks (through avoiding deforestation in natural ecosystems) and to reduce greenhouse gas emissions and increase carbon sequestration (adopting sustainable management practices in agro-pastoral systems) in the Selva Zoque – Sumidero Canyon complex							
132.298 tons CO <sub>2</sub> e avoided to be emitted after 25 years in the Selva Zoque – Sumidero Canyon complex (by sustainable management of primary and second-growth forests)	Number of tons CO <sub>2</sub> e	Specifications of baseline and tCO <sub>2</sub> e scenario under the Plan Vivo standard*	5,020 of tons CO <sub>2</sub> e in 2014	Selva Zoque – Sumidero Canyon complex	Annual	AMBIO	USD 10,000
160.989 tons CO <sub>2</sub> e sequestered in the Selva Zoque – Sumidero Canyon complex after 25 years (by improved production practices contributing to the sequestration of carbon)	Number of tons CO <sub>2</sub> e	Specifications of baseline and tCO <sub>2</sub> e scenario developed and analyzed by Plan Vivo*	0	Selva Zoque – Sumidero Canyon complex	Annual	AMBIO	USD 11,000

\*Plan Vivo standard uses a methodology based on: a) assessments at community and family level to know stakeholders' interest and needs; b) technical specifications and reference scenarios to measure carbon to be brought to market; c) monitoring and reporting on behalf by AMBIO transparenting carbon credit transactions; and d) emission of certificates for carbon credits by Plan Vivo Foundation.

Indicators	Metrics	Methodology	Baseline	Location	Frequency	Responsible Parties	Indicative Resources
<b>Component 1 outcome:</b> Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration)							
<b>Component 1 Outcome indicators</b>							
1. 6,615 hectares of primary and second-growth forests managed sustainably for maintaining carbon stocks and reducing emissions	Hectares	Monitoring system for sustainable forest management activities identified under the Plan Vivo plan	2,624 ha	15 communities in the Selva Zoque-Sumidero Canyon complex	End of 2 <sup>nd</sup> and 3 <sup>rd</sup> project year	AMBIO	PMU personnel
2. 722 hectares of productive landscapes under improved management practices contributing to carbon sequestration	Hectares	Monitoring system for sustainable forest management activities identified under the Plan Vivo plan	36 ha	15 communities in the Selva Zoque-Sumidero Canyon complex	End of 2 <sup>nd</sup> and 3 <sup>rd</sup> project year	AMBIO	PMU personnel
3. 15 communities maintaining forest cover and/or improving management practices in productive landscapes	Number of communities	Quarterly progress reports of community extension workers	2	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO	PMU personnel
4. Reports of three safeguard plans	Number of reports	Annual reports developed by PMU personnel	0	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO y consultores	PMU personnel

5. 80% of local processes (field projects, network capacity building) with a gender approach	Field projects	Annual report about integration of gender approach into local processes	0	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO	PMU personnel
Output Indicators	Metrics	Methodology	Baseline	Location	Frequency	Responsible Parties	Indicative Resources
<b>Component 1</b> <b>Outputs indicators</b>							
1.1 a: Number of communities identified and validated	Number of communities	Quarterly progress reports of community extension workers	Provisional list of communities	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO - CONANP	PMU personnel
1.1 b: Number of local project sites identified and validated	Number of local project sites		Provisional list of local project sites	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO - CONANP	PMU personnel
1.2: Number of local processes (field projects) managing forests sustainably for maintaining carbon stocks and reducing emissions	Number of local processes (field projects)	Quarterly progress reports of community extension workers	3	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONAFOR	PMU personnel
1.3: Number of field projects under improved productive landscapes management (PLM) practices contributing to carbon sequestration	Number of local processes (field projects)	Comparative tables between current and improved practices, prepared by community extension workers	2 systems in 2 communities	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO	PMU personnel

1.4: Measurement of carbon and greenhouse gas mitigation benefits generated by the project using internationally accepted protocols	Measurement executed	Monitoring system for measuring carbon and greenhouse gas mitigation benefits generated by the project	None	15 communities in the Selva Zoque-Sumidero Canyon complex	1st measurement at project mid-term; 2nd measurement at end of project	AMBIO	PMU personnel
1.5: Number and value of carbon credits generated through the project placed in the voluntary market	Number and value of carbon credits	Contracts between sellers and buyers of carbon credits	5,020 tons CO <sub>2</sub> e placed in the voluntary market in 2014	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO	PMU personnel
1.6 a: Number of pilot projects applying strategy to generate carbon credits designed and implemented in other NPA in Chiapas and beyond	Number of pilot projects replicating project strategy	- Project experience sistematization to design strategy -Progress reports of pilot projects applying strategy	Sporadic and isolated cases of field projects generating carbon credits	6 communities within and beyond the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP CONAFOR	PMU personnel
1.6 b: Lessons learned about mainstreaming gender in CC mitigation projects	Availability of assessment document	Field assessment of gender mainstreaming in CC mitigation projects	None	15 communities in the Selva Zoque-Sumidero Canyon complex	Annually	AMBIO ECOSUR Consultant	USD 2,500
Indicators	Metrics	Methodology	Baseline	Location	Frequency	Responsible Parties	Indicative Resources
<b>Component 2 outcome:</b> Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage							
<b>Component 2</b> <b>Outcome indicators</b>							

1. 15 communities and 375 farmers (men and women) trained for applying sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective	Number of communities and farmers (men and women)	- Assessment of learning outcomes of communities and farmers, performed by extension workers and consultants conducting training events and processes - Assessment of adoption of SFM and improved PLM practices	- 3 communities - 30 farmers (men and y women)	15 communities in the Selva Zoque-Sumidero Canyon complex	Biannually	AMBIO Consultant	PMU personnel
2. 15 community extension workers trained for transmitting sustainable forest management (SFM) and improved productive landscapes management (PLM) practices with a gender perspective to communities and individual farmers	Number of community extension workers	Assessment of learning outcomes performed by consultants conducting training events and processes	3 community extension workers	15 communities in the Selva Zoque-Sumidero Canyon complex	Biannually	AMBIO Consultant	PMU personnel
3. 25 CONANP and SEMAHN staff members and NPA technical committees members trained on sustainable forest management (SFM) and improved PLM practices contributing to carbon capture and storage with a gender perspective	Number of CONANP and SEMAHN staff members Number of NPA technical committees members	Assessment of learning outcomes performed by consultants conducting training events and processes	11 CONANP staff members	Tuxtla Gutiérrez and project area	Biannually	AMBIO CONANP Consultant	PMU personnel

Indicators	Metrics	Methodology	Baseline	Location	Frequency	Responsible Parties	Indicative Resources
<b>Component 2 Outputs indicators</b>							
2.1: Capacity needs assessment completed	Completed assessment	Assessment by sample survey	Unsystematic information about capacity needs of stakeholders	Selva Zoque-Sumidero Canyon complex	Once during first 3 months after project start	AMBIO CONANP Consultant	PMU personnel
2.2 a: Capacity building programs designed	Capacity building programs	Capacity building programs designed by experts	Some elements for capacity building are already known	Selva Zoque-Sumidero Canyon complex	Once during first 6 months after project start	AMBIO CONANP Consultant	PMU personnel
2.2 b: 5 materials produced by the project	Number of training materials	Training materials designed by experts	6 training materials are available	Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP Consultant	PMU personnel
2.3 a: 15 community extension workers (men and women) engaged in promoting and enhancing project activities, outputs and outcomes	Number of community extension workers (men and women)	Review of quarterly reports of community extension workers	Three community extension workers	Selva Zoque-Sumidero Canyon complex	Biannually	AMBIO CONANP	PMU personnel
2.3 b: Community extension workers form a learning and cooperative network	Network existing	Review of minutes of extension workers' meetings	Network not existing	Selva Zoque-Sumidero Canyon complex	Biannually	AMBIO CONANP	PMU personnel
2.4 a: Number of capacity building programs	Number of programs	Quarterly reports of community extension workers	1 program for 3 communities (Ambio)	Selva Zoque-Sumidero Canyon complex	Quarterly	AMBIO CONANP	PMU personnel
2.4 b: Number of capacity building programs with a gender approach	Number of programs with a gender approach	Review of quarterly reports of community extension workers	None	Selva Zoque-Sumidero Canyon complex	Quarterly	AMBIO CONANP	PMU personnel
2.4 c: Number of field demonstration plots	Number of plots	Quarterly reports of community extension workers	5 plots (agroforestry systems)	Selva Zoque-Sumidero Canyon complex	Quarterly	AMBIO CONANP	PMU personnel

2.4 d: 42 workshops; 12 courses; 15 exchanges of experiences among farmers and communities in and outside the project zone	Number of capacity building events	Quarterly reports of community extension workers	12 workshops; 2 courses; 10 exchanges of experiences	Selva Zoque-Sumidero Canyon complex	Quarterly	AMBIO CONANP	PMU personnel
2.4 e: 5 (five) training materials distributed among target groups	Number of training materials	Quarterly reports of community extension workers	None	Selva Zoque-Sumidero Canyon complex	Quarterly	AMBIO CONANP	PMU personnel
2.5 a: Monitoring system designed and implemented to assess acquisition and application of knowledge and skills by project target groups	Designed and implemented monitoring system	Monitoring system designed by expert	None	Selva Zoque-Sumidero Canyon complex	Annual monitoring	AMBIO CONANP Consultant	PMU personnel
2.5 b: Adoption of SFM and improved PLM practices assessed in the field	Adoption of new practices assessed	Field assessment by expert	None	Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP Consultant	PMU personnel
2.5 c: Percentage of farmers (men and women) in target communities who are informed about improvements in production practices, and about impacts on climate change mitigation promoted by this project	%age of informed farmers (men and women)	Sample survey among farmers in target communities	None	Selva Zoque-Sumidero Canyon complex	End of project	AMBIO CONANP Consultant	PMU personnel
2.6 a: Number field exchange events	Number of events	Reports provided by consultants facilitating field exchanges	None	Within and beyond Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP Consultant	PMU personnel

2.6 b: 6 (six) communities outside the project area participating in field exchanges with project communities and farmers	Number of communities	Reports provided by consultants facilitating field exchanges	None	Outside Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP Consultant	PMU personnel
2.6 c: 6 (six) communities located in Chiapas and adjacent states expressing their interest in adopting SFM and improved PLM practices in climate change mitigation projects	Number of communities	Reports provided by consultants facilitating field exchanges	None	Outside Selva Zoque-Sumidero Canyon complex	Annually	AMBIO CONANP Consultant	PMU personnel
2.7: 10 (ten) communication bulletins released by the project providing information on persisting problems and challenges for conserving climate change mitigation services provided by the Selva Zoque – Sumidero Canyon complex.	Number of bulletins	Annual report about outreach activities	None	State of Chiapas	Annually	AMBIO CONANP	PMU personnel

## **APPENDIX V: Indigenous Peoples Plan**



**Maintaining and Increasing Carbon Stocks in Agro-silvopastoral Systems in Rural Communities of the Selva Zoque-Sumidero Canyon Complex as a Climate Change Mitigation Strategy**

## **APPENDIX V: Indigenous Peoples Safeguard Implementation**

**San Cristóbal de Las Casas, April 2015**

## a) Introduction

### Legal and institutional framework

According to the Mexican legislation, rural communities and indigenous peoples enjoy the same rights as the rest of the Mexican population, therefore, their rights remain safeguarded throughout the application of all national laws. Moreover, the Mexican government signed and ratified various international agreements and conventions, including the convention 169 of the ILO, which determines that governments should consult indigenous peoples through appropriate procedures, considering and recognizing their own institutions. These consulting procedures should be conducted in good faith and in a way that is appropriate to the specific circumstances, with the purpose of reaching an agreement or achieving consent regarding legislative or administrative actions able of directly affecting indigenous peoples.

The Mexican government in its document on the National REDD+ Strategy (ENAREDD+) recognizes the safeguards defined in the COP16 in Cancun (Decision 1/CP.16, Appendix I, Paragraph 2). Additionally, it considers the agreement made in the COP17 in Durban, which points out the development of the System of Information of Safeguards (SIS). Furthermore, in the COP19 (decision 9/CP.19) it was established the agreement to inform on how the safeguards of the COP16 would be designed and executed. Therefore, it is important to point out, that through the ENAREDD+, the Mexican government assessed the development of the National Safeguard System (SNS) for REDD+, which will embrace the SIS, with the aim to respond the agreements made in the COP17 and COP19.

At the moment, the SNS is still under development, but it will have 3 key elements, (ENAREDD+, 2015):

- a) *Legal framework:* Safeguards implementation based on the national legal framework;
- b) *Institutional framework:* Recognition of the national institutions in charge of the application and surveillance of the safeguards; and
- c) *Enforcement framework:* Shaped by the previous frameworks. For guaranteeing its operation, 3 sub-components were determined:

- Solution mechanisms for claims and conflicts: dealing with conflicts and disputes of those groups that consider their rights are affected by the implementation of REDD+
- System of information and/or report: provides information on how the safeguards will be implemented
- Breach mechanisms: attendance of any breach of safeguards in the implementation of REDD+

As mentioned above, the National System of Safeguards is still being designed by the National Forest Commission (CONAFOR), organism in charge of the development of the REDD+ mechanism in Mexico. In this process, AMBIO has been an active organization, both in the development of the ENAREDD+ and in the delivery of remarks on the topic. Therefore, the measures adopted by the ENAREDD+ will be included in this proposal. On the other hand, with the experience generated in this project, AMBIO will seek to give feedback to future systems developed at a national level, in order to keep ongoing participation in the topic.

In order to demonstrate goodwill, in 2012 the Mexican government published in the Official Journal of the Federation the modification of the article 134 Bis of the General Law on Sustainable Forest Development, as follows:

*ARTICLE 134 Bis. The owners and legitimate holders of forest land that, as a result of a sustainable forest management, conserve and/or improve environmental services, will receive the economic benefits*

*derived from these. The legal instruments and mechanisms of environmental policies to regulate and promote the conservation and improvement of environmental services, should guarantee the respect towards the safeguards recognized by the international law, as well as the following:*

- i) *Free, prior and informed consent (FPIC) of ejidos, communites and indigenous peoples;*
- ii) *Equitable distribution of benefits;*
- iii) *Certainty and respect for property rights and legitimate holding and access to the natural resources of the owners and legitimate holders of the land;*
- iv) *Inclusion and territorial, cultual, social and gender equity;*
- v) *Plurality and social participation;*
- vi) *Transparency, access to information and accountability;*
- vii) *Recognition and respect for the internal forms of organization and*
- viii) *Transversal, comprehensive, coordinated and complementarity policies at the three levels of government.*

In Mexico, the National Commission for the Development of the Indigenous Peoples (CDI) must be consulted regarding any issue involving or concerning to indigenous communities at the federal level. This commission also supports the evaluation of governmental programs, as well as it provides training for public authorities with the aim of giving prompt attention to indigenous populations. Additionally, the National Institute of Indigenous Languages (INALI) advises the Mexican government in articulating policies on that matter.

Therefore, the SNS will identify those institutions in charge of applying, following up on and reporting on the state of the safeguards. By now, the CDI is the only institution in charge of that field at the national level. However, given the complexity of this topic, it is expected to be represented by different entities in the future.

#### **Description of the indigenous groups located in the project area**

The project is located in the corridor that for this purpose has been called Selva Zoque-Cañón del Sumidero and it considers 5 Natural Protected Areas: Selva El Ocote Biosphere Reserve, La Pera, Villa de Allende, Cañón del Sumidero and Cerro Meyapac. This complex is located in the northeast of the state of Chiapas (southern Mexico) and covers the municipalities of Ocozocoautla de Espinosa, Cintalapa, Tecpatán, Berriozabal, San Fernando and Tuxtla Gutiérrez (the rural area of the last one). According to the goals of the project, it will cover 15 localities, where 50% of the communites are indigenous, belonging to the tzotzil ethnic group. According to the data provided by the National Institute of Statistics, Geography and Informatics (INEGI, 2010), 15% of the population in the complex belongs to this indigenous group, which is dominant in the region.

Based on the information gathered during the preparation phase of the PPG and through direct communication with the communites, it is known that these indigenous populations arrived to this region in the seventies as a result of the migration from the Highlands Region of Chiapas. These migration flows were caused by the increasing need of land outside their original area. Since then, they have been using the local resources at the Selva Zoque corrdor over four decades, having the legal possession of the land in all cases.

Below, in the Table 1, the communites participating in the proposal are listed, as well as the differentiation whether or not they are indigenous and the type of property they own.

**Table 1. Localities involved in the proposal, identification of indigenous groups and land tenure.**

#	Name of the community	Indigenous group	Land tenure
<b>Selva El Ocote Biosphere Reserve</b>			
1	Veinte Casas	Tzotzil (ethnic group)	Ejidal
2	Emilio Rabaza	Tzotzil and Mestizo (ethnic group and not ethnical)	Ejidal
3	Nuevo San Juan Chamula	Tzotzil (ethnic group)	Ejidal
4	Nicolas Bravo	Tzotzil (ethnic group)	Ejidal
5	Llano Grande	Tzotzil and Mestizo (ethnic group and not ethnical)	Ejidal
<b>Chiapas State Reserve of La Pera</b>			
6	Cuchumbac	Mestizo (not ethnical)	Ejidal
7	San Martín	Mestizo (not ethnical)	Private property
8	Amendub	Tzotzil (ethnic group)	Ejidal
9	Tierra y Libertad	Tzotzil and Mestizo (ethnic group and not ethnical)	Ejidal
<b>Villa de Allende Protected Area for Flora and Fauna</b>			
10	Efrain Gutierrez	Mestizo (not ethnical)	Ejidal
11	Vistahermosa	Tzotzil (ethnic group)	Ejidal
12	16 de Septiembre	Tzotzil y Mestizo (ethnic group and not ethnical)	Ejidal
<b>Cañón del Sumidero National Park</b>			
13	Benito Juarez	Mestizo (not ethnical)	Ejidal
14	Triunfo Agrarista	Mestizo (not ethnical)	Ejidal
<b>Chiapas State Reserve of Cerro Meyapac</b>			
15	Santa Martha	Mestizo (not ethnical)	Private property

The language represents a key component of the identity of these indigenous communities, together with local traditions. Nonetheless, the original dress<sup>53</sup> of this ethnical group is not used anymore.

Regarding land tenure, in Mexico the “ejido”<sup>54</sup> represents a kind of social property, where the ejidatarios (smallholders, members and owners of the ejido) have the right of usufruct of the land. In most cases, the land under this kind of property has been given to its users in a legal way through the corresponding documentation, known as agricultural right.

An important characteristic of this type of property is that each of the ejidatarios, owns individually a defined part of the surface of the land. This regulation allows them to use their individual plots in the way that most benefits their interests (mainly agricultural use). The other part of the ejidal land is shared. There, the community has the right of usufruct and defines the management of the land. In most cases, these communal fields are forest land, and their surfaces differ depending on the size of the ejido and the number of ejidatarios. Both men and women can be ejidatarios, however, at this moment, the number of ejidatarios differentiated by gender in each ejido is unknown.

Within each ejido, the ejidal assembly is the highest authority, represented by a group of ejidatarios who voluntarily receive and perform the position of an ejidal authority (Ejidal Delegate and Surveillance Council), with the objective of representing the ejido in different kinds of dealings and toward third parties. The ejidal authorities are elected during an ejidal assembly, which must be registered in the National Agrarian Registry (RAN) for its legal validity. The duration of the position may vary and depends on the governance rules of each locality, which are wrote down in the internal regulation of the ejido and should be also registered in the RAN. Through this regulation are established the terms and responsibilities of each authority as well as the frequency of assemblies

Regarding the socioeconomic characteristics of the Selva Zoque corridor, at this point the following conditions have been identified, as observed in the Tables 2 and 3.

**Table 2. Socioeconomic characteristics of the Selva Zoque - Cañón del Sumidero complex in Chiapas**

NPA Community	Nº of inhabitants 2010	Population growth 2000-2010*	% (n°) of EAP** population	% of EAP in agriculture	*** % of EA women	% (n°) of indigenous population	Area of ejido land in ha
<b>Selva El Ocote</b>							
Veinte Casas	259	2.77	23 (60)	23	0.4	100 (259)	2,241
Emilio Rabasa	91	-3.79	29 (27)	29	1.09	31 (28)	827

<sup>53</sup> Indigenous original dress is a cultural expression that aims to reflect the customs and traditions of an indigenous group, giving them a common identity.

<sup>54</sup> Ejido: unit of agricultural, livestock and/or agro-industrial production, with legal personality and assets, comprising land from a legal provision and other assets obtained by any means and adhered to the ejido regime.

Nvo. San Juan Chamula	506	3.75	22 (113)	22	-	100 (506)	1,334
Nicolás Bravo	367	2.48	26 (95)	26	0	100 (367)	1,457
Llano Grande	497	4.17	23 (115)	23	3.47	98 (487)	1,130
<b>La Pera</b>							
Tierra y Libertad	496	5.12	30 (151)	30	0.8	0.6 (3)	274
Cuchumbac	55	-2.65	29 (16)	29	1.8	0 (0)	-
San Martín (no information)	6	-	-	-	-	-	-
Amendum	453	2.74	31 (144)	31	19.4	93 (421)	-
<b>Cerro Meyapac</b>							
Santa Martha	110	2.61	32 (36)		2.7	0 (0)	-
<b>Villa Allende</b>							
Vista Hermosa	237	0.21	31 (74)	31	1.4	89 (211)	346
Efraín Gutiérrez	576	0.82	32 (189)	32	10.1	1.56 (9)	368
16 de Septiembre	1,020	3.79	37 (380)	37	17.1	5 (51)	487
<b>Sumidero Canyon</b>							
Benito Juárez	1,488	1.72	35 (564)	35	16.3	0 (0)	1,311
Triunfo Agrarista	651	1.37	35 (233)	35	17.5	0.3 (2)	989
<b>Total</b>	<b>6,812</b>	<b>2.45</b>	<b>(32) 2,197</b>			<b>34.4 (2,344)</b>	

Source: Own elaboration with data from INEGI (National Institute for Statistics and Geography Mexico Government) and RAN (National Agrarian Register Mexico Government). \*Average annual demographic growth 2000-2010: Metodología de indicadores de la serie censal, INEGI. [www.inegi.org.mx](http://www.inegi.org.mx). \*\*EAP: Economically Active

Population. \*\*\*% of EA women: Percentage of economically active women divided by the total number of women in the community.

According to the data in the Tables 1 and 2, the population in the complex splits into mestizo and indigenous. Land tenure is mostly ejidal, which ensures its governance on a local level, as well as the right of usufruct of the land.

**Table 3. Demographic and socioeconomic data of the 5 NPA of the Selva Zoque complex**

Natural Protected Area (NPA)	Nº of localities	Nº of inhabitants	Inhabitants / km2	Demographic growth 2000-2010	% of EAP in agriculture	Nº and % of indigenous population
Selva El Ocote	138	8,017	7.9	2.78	(2405.1) 30	3,848 (48)
La Pera	40	2,087	22.6	2.01	(772.1) 37	397 (19)
Cerro Meyapac	1	110	-	2.61	-	-
Villa Allende	112	29,208+	139.1	2.68	(3505.0) 12	58 (0.2)
El Sumidero Canyon	36	7,737++	32.7	3.60	(773.7) 10	1,393 (18)
<b>Total NPA</b>	<b>327</b>	<b>47,159</b>	<b>30.4</b>		<b>7,456 (15.8)</b>	<b>5,696 (12.1)</b>

Source: Own elaboration with data from INEGI ( National Institute for Statistics and Geography Mexico Government) and RAN (National Agrarian Register; Mexico Government).

+This figure may include the capital of the municipality of San Fernando, distorting the proportion of rural population of the complex.

++Not includes the city of Chiapa de Corzo with 45,077 inhabitants.

Based on the obtained data, the total number of communities in the complex is 331, with little more than 47,000 inhabitants, 33% of which work in primary production. As observed in the Tables 2 and 3, there are some gaps in the data on the complex, which hinders some affirmations at this point. Even though this information is a basis for the development of the project, it needs to be considered under a conservative point of view. Moreover, some of the missing information will be obtained through the implementation of this project.

The economic activities in the region are focused on auto-consumption<sup>55</sup>, such as corn and beans cropping. Other productive activities are market-based, as coffee and some forest products. These are economic activities identified as little controlled, according to the project staff. Therefore, the impact on the forest land and possible productive alternatives will be evaluated. Due to the proximity to some municipal seats, temporal migration is common, which strengthens the families' income and apparently reduces the impact on the use of the forests.

In general terms, this proposal, based on local governance, aims at diagnosing the current land use and identifying those productive activities that allow strengthening local auto-consumption and commercialization of market-based products, and at the same time help in the mitigation of climate change through carbon capture and the management of avoided emissions derived from a sustainable use of the forests.

### b) Summary of the social evaluation

In order to obtain a general scope, the ejidal authorities and representatives of the communities were interviewed. By means of those interviews, it was possible to recognize the five capitals, aimed at obtaining immediate and secure information on the communities' perception. The interview that was conducted can be found in the appendix 1.

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<sup>55</sup> Ability to satisfy the own consumption needs.

The interview was conducted in 11 of the 15 communities. In general terms the people's perceptions of the assessed capitals (social, human – differentiated between men and women, financial, physical and natural) are the following:

- In general, the communities see their strengths in their natural and physical capital, which is related to the personal and communal valuation of aspects regarding the good governance of local resources. This valuation could be result of their consciousness of living in a NPA, as well as governmental presence promoting those topics in the region.
- On the other hand, they see their weakness, in the necessity of and limitation in obtaining economic resources or access to financial instruments which would allow them to initiate productive activities that would benefit their families' and the local development. Likewise, some of those constraints are also related to the human capital, that is to say the lack of capacities or knowledge that would allow them to develop comprehensive strategies.
- The weakness of capacities it perceived both in men and in women, although it is greater in women, as it seems that women have participated and attended trainings less than men in general.
- The social capital on average is considered very acceptable. The local organization is recognized as an internal strength with acceptable levels of confidence. Therefore the spaces and mechanisms for its implementation are respected and recognized within the community governance.

According to this information, the diagnosis is that there are important social bases in the complex, which should be considered for the implementation of the proposal, as well as the general capacities that need to be strengthened. There is a certain interest by the communities for developing environmental projects, however they call for the creation of financial opportunities which help the local people to market their products in order to promote local development.

In addition, most of the communities have a basic communication infrastructure. Only basic education is provided, a fact that limits the options of young people to keep attending education, nevertheless some achieve it. The presence of a local governance is a common strength in the complex, since the legal figure of the ejido allows the recognition of the local authorities and their respective role. This applies both for indigenous and non indigenous communities.

The knowledge on climate change was briefly diagnosed on a local level. It became clear, that only some of the communities had heard about the topic. However, there is no clarity concerning its causes and the strategies or alternatives to mitigate it or deal with it, although the impacts of climate change are generally perceived: loss or decrease of harvests, changes in the productive calendars and increase of production costs due to the purchase of complementary agricultural inputs. From this diagnosis we concluded the importance of bringing up the topic of climate change in a precise way during the implementation phase of the project, using tools and methodologies that facilitate an easy understanding of the topic and the application of mitigation strategies, focused on the impact on productive and forestry systems.

**c) Summary of results of the participatory consultation with the affected indigenous peoples' communities that was carried out during Project preparation and that led to their free, prior and informed consent to the project**

The selection of participating communities was based on the results of a workshop conducted with the directors and technical staff of the Selva El Ocote Biosphere Reserve, Parque el Cañón del Sumidero, Villa de Allende and administration of the Chiapas State reserves of Meyapac and La Pera. This workshop had the objective of identifying all together by means of a set of indicators the most feasible

communities to participate in this project, in terms of social and environmental conditions. A description of the used indicators can be found in the appendix 2.

After visits to each of the selected communities, AMBIO and CONANP consider that there is willingness by the communities (men and women) to participate in the project, as their local interests as well as forest management and productive necessities will be taken into account. Given that the imposition of activities will be avoided, the communities perceive a positive impact and they did not identify negative aspects.

Once the communities were chosen, we started visiting them in order to get their Free, Prior and Informed Consent (FPIC), using the Plan Vivo methodology. The visits to the communities were conducted in cooperation with CONANP and SEMANH, together with community technicians of AMBIO who speak the local indigenous language, in order to ensure mutual understanding and achieve optimal communication with the communities.

The following graphic describes the process of obtaining CLPI in the communities selected by the responsible institutions of each region (Figure 1).

During this initial talkings with the communities, we explained the objectives of the project and the expected results during implementation phase. Furthermore, we obtained basic information that helped define the baseline of the communities we will be working with.

As mentioned above, the field work and acquisition of the FPIC were conducted according to Plan Vivo methodology. In this sense, AMBIO has developed and applied this methodology for more than 15 years as a communal planning tool for the implementation of environmental projects and the selling of carbon credits on the voluntary market.

This methodology is part of the Plan Vivo Standard, an international standard recognized within the voluntary carbon market. As this methodology is not limited to the market, it allows the land-use planning according to the interests of the families and the community on a short and medium term.

Some of the characteristics of the Plan Vivo methodology are:

- Allows identification of interests and needs of the families and communities
- Requires the consent of the producer for its development and implementation
- Recognizes local knowledge and community governance
- Facilitates actions of planification
- It is easy to apply and adopt
- Can be managed and modified over time
- Technically, it is a tool that facilitates the communication between participants and technicians

In this sense, to obtain the FPIC it has been necessary:

- a) Carry out talkings with the local authorities and/or representatives of the communities
- b) Communicate the objectives and scope of the project
- c) Consultation by the ejidal authorities in communal assembly, in order to provide their consent or acceptance
- d) Design of the Planes Vivos, with the participation of the ejidal authorities as the representatives of the ejidatarios.

e) Therefore it was necessary to know the current land-use in the ejido, through the elaboration of the communal Plan Vivo. The communal plans are based on the official area registered of the ejido (PROCEDE registry). The methodology consists of drawing on bond paper the ejido area, the current land-use (urban, agricultural, livestock grazing, forestry) and the approximate surfaces (in ha or local measuring units). On the Plan Vivo, forest areas, main roads, water inlets, neighbouring ejidos, etc. are highlighted.

f) Have clarity about deforestation drivers: On a transparent piece of paper over the Plan Vivo, the main risks and threats to forest areas (wildfires or induced fires, plagues, timber logging etc.) are identified and marked. Moreover, we discuss actions to minimize deforestation drivers and implement preventive actions (surveillance, establishment of firebreaks or maintenance). We conducted all those activities in the local language, using colloquial words in order to achieve better understanding of the project.

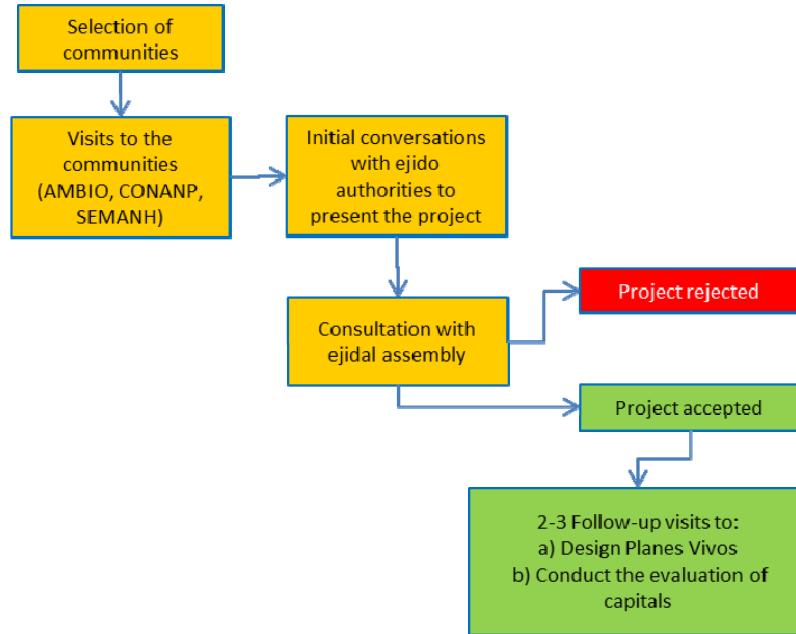
g) Those community's Planes Vivos are elaborated by the local authorities, who have a wider understanding about the main threats, on which we work when executing the project.

In sum, we provided information to the authorities, then they inform about the project during the ejido assembly. Free consent was provided, since neither AMBIO nor any of the direct partners of the proposal participated in those consultations. Previously to the consultation, the authorities received information and the activities determined in the Planes Vivos were directly determined having into account the problems and threats identified by the participants. During the implementation phase, this process will be updated and conducted with more detail, aiming at obtaining better information in order to optimize the decision making of the communities.

It is important to mention that both during the initial stage and the implementation phase, the participation of community technicians and AMBIO staff, fluent in the local language -tzotzil- is critical, since it considerably facilitates the understanding of objectives, goals and scope of the project.

**d) Framework for ensuring free, prior, and informed consent with the affected indigenous peoples' communities during project implementation**

This process is illustrated in Figure 1.



**Figure 1. FPIC process in the participating communities.**

As part of the FPIC request, it is expected to have three different kinds of results

- Obtaining FPIC: The following steps are to proceed and start developing the project. A meeting minute will be taken to record the FPIC obtainment.
- Conditional consent. It implies that several adjustments must be undertaken to implement the project. After these changes are adopted, the process on the Figure 1 will be applied again in the community. The process will be documented, aimed at having evidences in case of further issues during the execution of the project.
- Deny of consent. The deny process will be documented and a new community will be seek in order to achieve the objectives of the project.

#### e) Action Plan

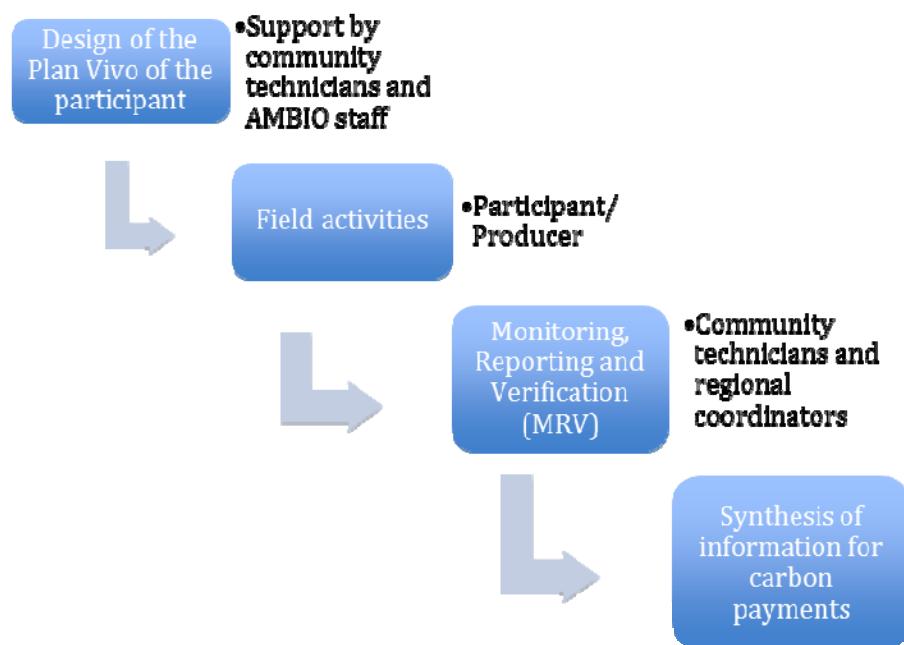
Regarding the distribution of benefits, AMBIO has already worked on this topic in more than 90 localities in Chiapas where we are present. The distribution of benefits derived from this project will take place through two mechanisms:

- Products coming from the direct implementation of the project:** The whole community is invited to take part in the project through meetings with the local authorities and the communal assemblies. Both men and women are encouraged to take part. We will develop a special strategy and process for women in order to ensure their participation, ongoing interest and permanence in the project. The benefits are determined based on the interest shown in the proposed activities, within the own possibilities of the initiative or its collaboration with other projects. For the above, the participation and distribution strategies are designed on a communal level and, if necessary, are conducted at group level.
- Benefits from the carbon market:** Once carbon credits are sold, the benefits are distributed at

two levels: Communal and individual. According to AMBIO's experience, the communal distribution of benefits from this market is organized on three levels: 1) development of activities to ensure the permanence of the forest area and therefore the commitment with the buyer of the carbon credits; 2) financial support for communal benefits, such as the community hall, roads, health advisors, among other things; 3) distribution among the owners of the resources (men and women) or those who possess the right of usufruct.

On the individual level, the distribution of benefits depends on the personal performance and activities of each participant. The Plan Vivo is designed In order to follow up on and evaluate the participant activities. Since the commitments are individual, so are the benefits. In this way we ensure that the fulfillment of the commitments and the benefits are delivered based on the evaluation of the Plan Vivos and their compliance.

The distribution route of benefits from the selling of carbon credits forms part of the Plan Vivo standard and can be seen in Figure 2.



**Figure 2. Scheme for the distribution of benefits to the farmers, according to the work executed in the field.**

The previous figure describes the process for the distribution of benefits derived from the selling of carbon credits is executed and ensured. As mentioned above, the base of the distribution of benefits is given by the producers according to their own Plan Vivos. The execution of the work in the field is their responsibility. After the participant confirms the fulfillment of the planned activities in the field, monitoring, report and verification of the activities are conducted, so that the payment for carbon capture is proportional to the reported activities. The key players in this whole process are: the participants, the community technicians, the regional coordinators and AMBIO's technical staff. Noteworthy is that AMBIO has conducted this whole procedure for more than 15 years.

**f) Actions to avoid, minimize, mitigate, or compensate for potential adverse effects of the project**

There have not been identified any damage or negative side effects in the development of this project so far, neither for the involved communities nor for neighbouring communities or anyone else in the region.

The elaboration of Plan Vivos, both on a communal and on an individual level, ensures the development of the project under a participative scheme and minimizes the risk of unfavorable impacts for the communities. The same Plan Vivo is the tool for the execution of activities in the field. Therefore, we make sure that in its implementation there are no unfavorable aspects for the participants of the project.

Nevertheless, in the case that happened, the complaints mechanism would be used, as described in the following section. This mechanism is still being developed. The exact operating mode of this mechanism will be specified once begins the implementation phase.

This mechanism of complaints will be permanent during the preparation phase and the implementation of the proposal. Any complaint that comes up will be analyzed, and if necessary it will be consulted with other actors of greater competence and knowledge in the area, so that the answers to the complaints will be consistent and clear. At all times, we will aim to find solutions that can be approved by all parts.

Moreover, all recommendations and comments on the actions of the project will be heard and analyzed, besides we will try to include or consider them in accordance with the evolution of the project.

**g) The cost estimates and financing plan for the IPP coordinated to ensure consistency with the overall Project budget**

To ensure the consented participation of the indigenous communities in the project, we have prepared the following budget for the processes described in figures 3 and 4.

**Table 4. Description of the costs to ensure the consent of the indigenous peoples.**

Concept	Cost Description	Cost in USD
Baseline Report	Analysis and report of the collected information	1,500
Assess of the mechanisms for complaints and settlement of disputes	Costs of legal counselling, visits to the communities for negotiations and FPIC obtainment	3,000
Damage compensation	If necessary, damage will be compensated	5,000
First evaluation and report	Analysis of information and report, including field visits; provide feedback	2,000
Second evaluation and report	Analysis of information and report, including field visits; evaluation of the recommendations	2,000
Final report	Gathering of all the information, including field visits	2,500
<b>Total</b>		<b>16,000</b>

According to the information in Table 4, we bear in mind a specialist for conducting the evaluation and report of the Free, Prior and Informed Consent process, as well as the implementation and development of the process. We also took into account that in the case of disagreements, these will be attended, managed, negotiated and when necessary, compensated.

*Budget to develop the protocol is assigned in the section “Consultancies: Development of towns protocol”.*

#### **h) Grievance procedures**

The “Stakeholder Engagement Plan” document describes a mechanism for the same purpose, which for transparency reasons is presented in this section. However, this mechanism will be updated or modified in accordance with its further development during the implementation of the project.

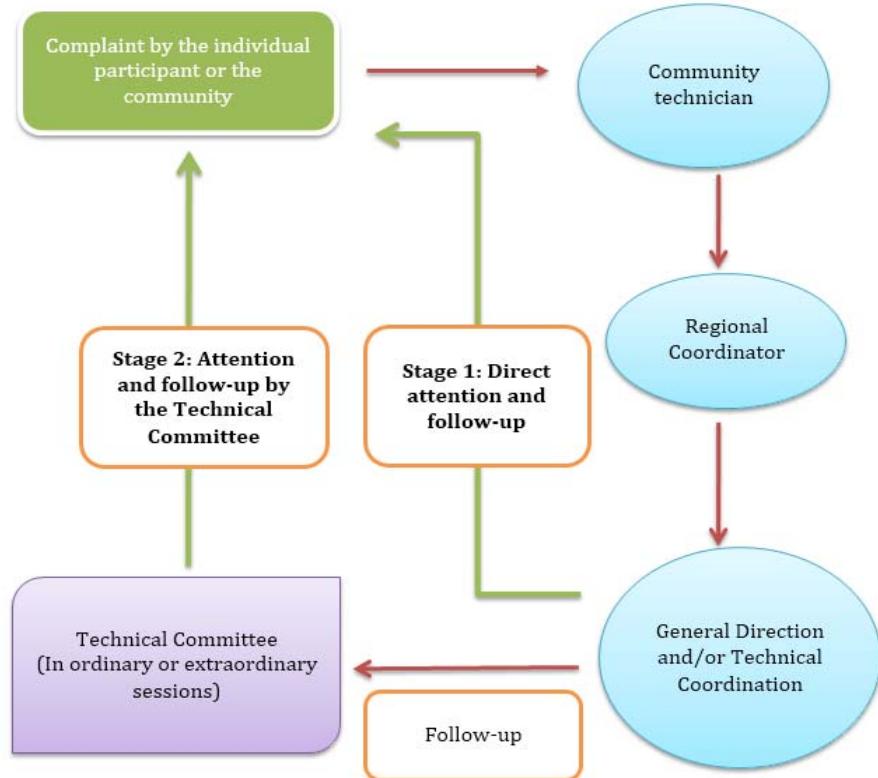
*a. At a local level, the complaints will be initially handled with the community technician, whereas on the second level the contact person is the regional coordinator, who will contact the technical coordinator.*

If the complaint can be settled and the technical coordination can find a solution, it will be solved. Otherwise, based on the complexity or nature of the problem, it will be retaken by the Technical Committee, that will address it in its next session. If necessary, an extraordinary reunion will be carried out in order to give an answer to the complaint or give a statement concerning it. The answer to the complaint should not exceed 60 working days and will be given in written form.

The complaints will be addressed whenever:

- They refer to an issue within the area of influence of the project
- They occur within the planning period or implementation of the proposal
- The letter of complaint is signed by an owner or holder of resources in the communities.  
Therefore during the implementation phase, we will seek letters of consent with the signatures of the involved, so this point will be applicable.

The mechanism on a local level is shown in the following figure.



**Figure 3. Complaints tracking for individual participants or communities in the area of influence of the project**

### i) Monitoring and evaluation

The Plan Vivo System is the methodology through which the proposal objectives will be fulfilled, as well as the way for obtaining the FPIC of the communities, and guarantee their participation and involvement, as described in the section c.

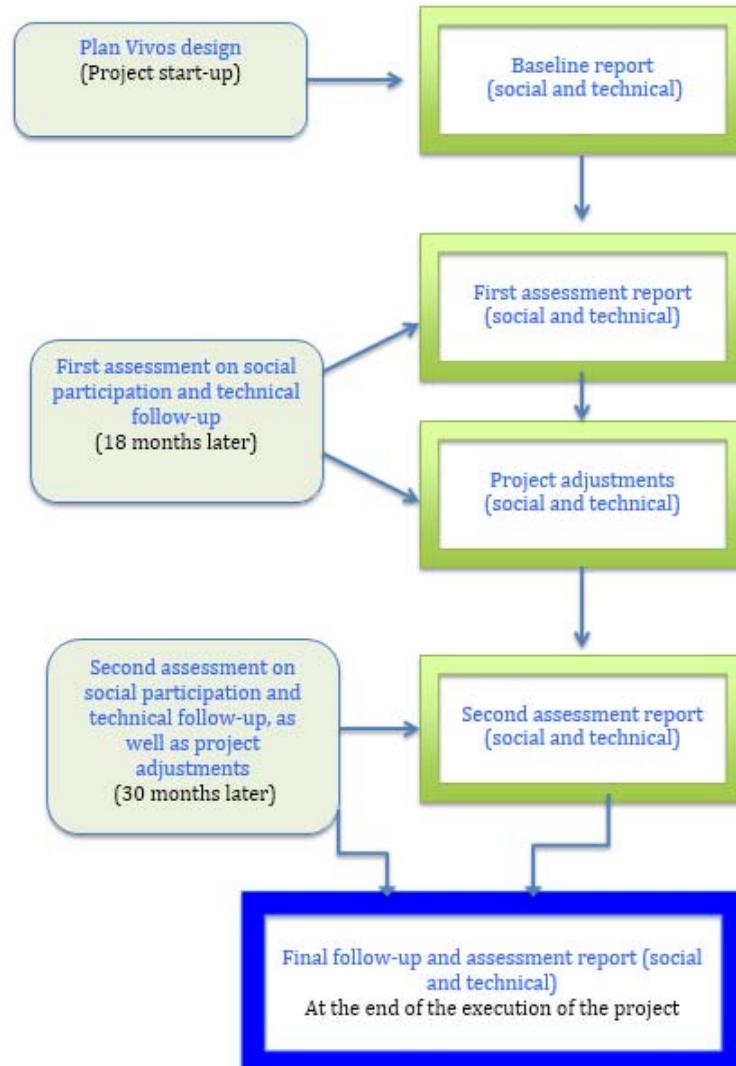
We consider the Plan Vivo methodology as the most suitable one, since it is based on the interests and needs of the involved farmers and communities. Based on the local conditions, the Plan Vivo System generates strategies on a local level, which can be adjusted depending on the needs of each farmer. The system can be adjusted over time and in accordance with the local requirements, which allows its following up and evaluation.

The baseline as well as the follow-up activities and the further evaluation, will be systematized in order to show the FPIC of the indigenous peoples who participate in the proposal. We strongly seek to neither violate local governance nor promote actions which are not equitable. Besides, in order to organize the system in a solid way, we will develop indicators to follow up on the activities and complete the reports throughout the project execution, as described in the figure 4.

**The development of the process described in figure 4 contains the following basic elements in order to ensure transparency and validity:**

- Respect for the opinions and interests of the participants and the communities

- Recognition of the local governance
- Right of reply in case of disagreements
- Evaluation through precise and measurable indicators
- Use of the local language in order to ensure the understanding of all parts, when necessary with the help of an interpreter.



**Figure 4. Process of evaluation and following up of the CLPI, using the Plan Vivo System.**

To evaluate the effectiveness of the previous process, the following indicators have been developed

Project stage	Indicators
Project start-up	No. of communities involved No. of Plan Vivos designed
First assessment	No. of communities involved No. of Plan Vivos implemented No. of participants in the project (by gender)
Second assessment	No. of communities involved No. of Plan Vivos implemented No. of participants in the project (by gender) No. of activities developed by gender
Final project assessment	No. of concluded processes No. of processes to follow up by gender

Sources: Comisión Nacional Forestal. 2015. Estrategia Nacional REDD+. Gobierno de México. (Document under consultation).

## **APPENDICES**

### **Appendix 1**

#### **IDENTIFICATION OF CAPITALS AT COMMUNITY LEVEL**

##### **Questionnaire for Individuals**

Name of the Interviewer: \_\_\_\_\_ Date\_\_\_\_\_

Name of the community:\_\_\_\_\_

Name of the Interviewee:\_\_\_\_\_

Age: \_\_\_\_\_ Sex: male/female Marital Status: \_\_\_\_\_ No.\_\_\_\_\_

The names of the interviewee(s) should be written down on the list in order to keep track of the people interviewed and be able to monitor in future, nevertheless it is important to inform them that the names will be kept under confidentiality and will not be mentioned in the report of results. This is in order to encourage the interviewees to answer honestly.

Some important points:

1. Always be courteous and show respect for the interviewee.
2. Be clear concerning the objective of the interview: *Identifying possible social and environmental risks of the project in order to identify the benefits needed by the community, we do not aim to generate income.*
3. Assure the confidentiality of the interview.
4. Make sure the interviewee agrees to be interviewed.
5. Try not to give answers or ask the questions in a way that influences the answers.
6. The objective is to receive answers to all the questions. If one question cannot be answered, please make a note.
7. Get the signature of the interviewee saying that he/she agrees to the use of the provided information.
8. SAY THANK YOU when finishing the interview.

#### **I. SOCIAL CAPITAL**

The social capital refers to the social resources available in the ejido (social networks, social rights, family relations, community associations), which the members of the ejido turn to as a subsistence strategy.

##### **Table 4. Social Capital**

If you leave a machete outside your house at night, will it still be there in the morning?

Is there anyone in the community you could leave money to take care of with? Who?

When you leave the community, can you leave the door unlocked?

The following indicators will be measured:

Associations: indicates the quantity of organization within the community, the sense of belonging and the sense of community.

Conflicts: indicates, whether there are any conflicts in the community which could affect the implementation of the project.

Interventions: indicates whether there are groups external to the community that could influence the members of the community.

Family relations: indicates the importance of family within the ejido, as well as support groups.

Relation with the government: indicates whether there are relations with the local or state government and its influence in the ejido's decisions.

Distribution of benefits: indicates how the benefits are currently distributed and how this topic could influence the implementation of the project.

Women's participation: indicates the participation of women in decision making.

**Table 4.1 Social Capital**

<b>Table 4.1 Social Capital</b>		<b>NOTES</b>
<b>Organizations</b>	There are no associations within the community, individualism prevails. Everyone seeks their own good/advantage = 1	
	There are organizations within the community, but they are not well structured and/or have conflicts = 2	
	There are organizations within the community coordinated by the acknowledged leaders of the community =3	
	There are women's organizations without structure or well defined plan = 4	
	There are women's organizations within the community that work well = 5	
	There are organizations that promote a sense of community and are coordinated by capable, reliable leaders with experience = 6	
<b>Conflicts</b>	The conflicts within the community have no solution =1	
	There are few conflicts within in the community, but they do not have solution = 2	
	There are conflicts with neighbouring communities or ejidos =3	
	There are few conflicts in the community, but they have a solution =4	

	There are no conflicts in the community = 5		
<b><u>Interventions</u></b>	The community is very vulnerable to external interventions, especially by local politicians = 1		
	Moderate vulnerability to external interventions = 2		
	Little vulnerability to external interventions = 3		
	Minimal vulnerability to external interventions = 4		
<b><u>Family Relations</u></b>	There are no family ties or they are highly fragmented = 1		
	There are ties within the the family core (husband, wife, children) =2		
	There are family ties between relatives = 3		
	There are strong ties between the the family core and the relatives = 4		
	There are very strong ties between the family core and the relatives =5		
<b><u>Relation with the government</u></b>	There is no relation to the local government = 1		
	There is little relation to the local government = 2		
	There is relation to the government, but it is not good = 3		
	The relation with the local government is good =4		
	The relation with the government is high, but mainly through CONANP = 5		
	There is a good relation to local and state government = 6		
<b><u>Decision Making</u></b>	The decisions in the ejido are made by a few people = 1		
	The decisions of the community are made during assembly where only the ejidatarios participate = 2		
	The decisions of the community are made during assembly with the consensus/agreement of some <i>male</i> members of the community who are not ejidatarios =3		
	The decisions of the community are made during assembly with the consensus/agreement of men and women who are not ejidatarios =4		
	The decisions of the community are agreed on with all the members, including women, young people, sons of the ejidatarios and other land		

	holders = 5		
<b><u>Distribution of Benefits</u></b>	There are conflicts concerning the distribution of benefits = 1		
	Only a few people receive benefits when there are resources = 2		
	There are established mechanisms for the distribution of resources, but just a few people (ejidatarios) receive benefits = 3		
	There are established mechanisms for the distribution of resources and a significant number of people apart from the land holders receive benefits = 4		
	There are established mechanisms for the distribution of resources and the whole community, including women, young people and other landholders) receive benefits = 5		
	There are established mechanisms for the distribution of resources and the whole community, including women, young people and other landholders receive benefits. Moreover, a part of the money is used to improve the community (e. g. school, gardens, etc.) = 6		
<b><u>Election of representatives</u></b>	A group of people names them = 1		
	The representatives come from outside the community (from another community, from the municipality or from the state) = 2		
	There is a regulation for the election of representatives and there are appropriate conditions. The representatives are elected in the assembly of ejidatarios. = 3		
	There is a regulation for the election of representatives and there are appropriate conditions. The representatives are elected in the communal assembly (ejidatarios, sons of ejidatarios, wives, other landholders and other inhabitants). = 4		
<b><u>Participation of women in Decision Making</u></b>	Women do not participate and have neither voice nor vote in community topics. They mainly attend the household and/or collect firewood. = 1		
	Women do not participate and have neither voice nor vote in community topics, but they participate in productive activities, e. g.: agriculture and livestock. = 2		
	Women do not participate in community topics, but they participate in the decision making within the household, for example, how to spend the income = 3		
	Women participate in some community topics or local organizations, but only among women = 4		

	Women participate in community topics or local organizations together with men, they are listened to, but they do not participate in decision making = 5		
	Women participate and are represented in decision-making bodies of the community and have the capacity of influencing decisions = 6		
<b><u>Uses and Costums</u></b>	People do not have their own uses and costums = 1		
	There are some uses and costums, but they only apply to some members of the community = 2		
	There are some uses and costums, but they are not representative = 3		
	People have uses and costums related to social standards, beliefs, etc. = 4		
	People have uses and costums, mainly those related to production processes, for example: they have a rotation schedule for the areas of fallow production = 5		
	People are very attached to their uses and costums, they use traditional medicine, they have costums related to productive processes, they have a rotation schedule for the areas of fallow production and they know how to handle wild plants and natural wildlife cycles = 6		

## II. HUMAN CAPITAL

Human capital refers to abilities, knowledge, working capacity and health of the people. Altogether, those become fundamental in order to improve the ways of life of the population.

Education: indicates the level of education of the population.

Incentives to work: indicates whether the people are motivated to work and how this may influence the success of the project.

Professional abilities: indicates whether there are trained professionals or professionals with some skills who do not need additional training.

Technical assistance: indicates whether there is technical assistance in the ejido, for example, in order to improve crop production, commercialization of goods and services, etc.

Health: indicates the well-being of the community.

Free time: indicates whether the population does anything else apart from subsistence activities, including the execution of events and cultural activities, sports and entertainment.

Migration: indicates the migration rate of the community.

<b>Table 5. Human Capital</b>		<b>M</b>	<b>W</b>
<b>Schooling Level</b>	The majority (of men/women) go to school for 2-3 years = 1		

	Young people go to school for 4 years = 2			
	Young people go to school for 6 years = 3			
	Young people go to school for more than 6 years and have access to secondary school = 4			
	Young people have access to secondary school and many complete it, but decide not to keep studying afterwards = 5			
	Young people complete secondary school and various assist high school = 6			
<u>Literacy</u>	The majority (of men/women) neither know how to read nor how to write = 1	M	W	
	Few (men/women) know how to read and write = 2			
	Half of the population (men/women) knows how to read and write = 3			
	A significant porcentage (men/women) knows how to read and write in their language and little or nothing in Spanish = 4			
	The majority (men/women) know how to read and wirte in Spanish and little or nothing in their language = 5			
	The majority (men/women) know how to read and write in their language and in Spanish = 6			
<u>Incentives to work</u>	There are no incentives to work in the community = 1	M	W	
	The men/women have few incentives to work = 2			
	The men/women have some incentives to work = 3			
	The men/women want to work, but do not know where/ in what = 4			
	The men/women are ready and willing to work = 5			
	The men/women are enthusiastic about working and know what to do = 6			
<u>Abilities/ Professional Skills</u>	The men/women do not have professional skills = 1	M	W	
	Few men/women have professional skills = 2			
	Some men/women have professional skills = 3			
	The men/women have professional skills, but they need to improve them = 4			

	There are high-skilled professional men/women = 5			
	There are high-skilled professional men/women in different areas = 6			
<b><u>Technical Assistance</u></b>	There is no technical assistance (for men/women)= 1	M	W	
	There is little technical assistance (for men/women), but people know there is = 2			
	Technical assistance is focused on credits for agricultural projects = 3			
	There is technical assistance available for different issues = 4			
	There is regular access to technical assistance = 5			
	Access to technical assistance is common and is used for all productive processes = 6			
<b><u>Health</u></b>	There is high occurrence of illnesses in men/women and there is no access to clinics or doctors = 1	M	W	
	Illnesses mostly concern children and adults, but there is no access to clinics or doctors = 2			
	There are illnesses in the community and the access to clinics and doctors is complicated = 3			
	There are few illnesses in men/women, but the access to clinics and doctors is complicated = 4			
	Few illnesses and little difficulty in accessing clinics and doctors = 5			
	Few illnesses in men/women and easy access to clinics and doctors = 6			
<b><u>Free Time</u></b>	There is no free time = 1	M	W	
	Free time is used to visit other relatives = 2			
	Free time is used for sports/handcrafts = 3			
	Free time is used for handcrafts, going on excursions, sports = 4			
	Free time is used for handcrafts, going on excursions, religious festivals, playing in the river (note: others?) = 5			
	Free time is used for sporting competitions, religious festivals, playing in the river (note: others?) = 6			

<b><u>Migration</u></b>	A high percentage of men/women from the community go somewhere else to look for work and do not come back = 1	M	W	
	A medium percentage of men/women from the community go somewhere else and do not come back = 2			
	Some men/women from the community go somewhere else, but they come back after a few years = 3			
	A low percentage of men/women from the community go somewhere else, but they come back after a few months = 4			
	There is no migration since there are good working opportunities within the community = 5			

### III. FINANCIAL CAPITAL

Financial capital refers to the basic capital (cash, credit card/debts, savings and other economic goods) available to the people and which provides them different living options.

Access to credit: indicates the easyness of accessing credit and the presence of financial institutions, as well as the capacity to pay the debts of received credits.

Employment opportunities: indicates the availability of employment in the region, working opportunities and their quality.

Commerce of wood-based, agricultural and livestock products: inficates the contribution to the income through selling these products.

Equipment: indicates the access to machinery and equipment helpful for productive activities.

<b>Table 6. Financial Capital</b>		<b>NOTES</b>
Would you be willing to modify your productive systems? (yes/no)		
<b><u>Access to credit</u></b>	People do not know that there are credits they can apply for = 1	
	Some people have credits, but they are not able to pay them = 2	
	Some know that credits exist, but do not have any access to them = 3	
	Various members of the community have credits = 4	
	The majority of the people has a credit = 5	
	The majority of the people has had credits, they have payed them and have requested new credits = 6	

<u><b>Employment opportunities</b></u>	There are no employment opportunities for men and/or women = 1	
	Men mainly work in their property = 2	
	There is work for women in their own plot = 3	
	There is employment as day laborers in neighbouring ejidos for men only = 4	
	There is work for men in their own plots and as day laborers in neighbouring ejidos = 5	
	There is work for women in their own plots and as day laborers in neighbouring ejidos = 5	
<u><b>Commerce of wood-based products</b></u>	Men and women work on their property and at the same time generate employment for others = 6	
	Wood-based products are extracted in an unsustainable manner = 1	
	Wood-based products are extracted for auto-consumption = 2	
	Minimal use of wood-based products for auto-consumption = 3	
	Sustainable use of wood-based products for auto-consumption = 4	
	Sustainable use of wood-based products for auto-consumption and commerce = 5	
<u><b>Commerce of products that are not wood-based</b></u>	Sustainable use of wood-based products for commerce and generating income = 6	
	Not wood-based products are extracted in an unsustainable manner = 1	
	Not wood-based products are extracted for auto-consumption = 2	
	Minimal use of not wood-based products for auto-consumption = 3	
	Sustainable use of not wood-based products for auto-consumption = 4	
	Sustainable use of not wood-based products for auto-consumption and commerce = 5	
<u><b>Commerce of</b></u>	Sustainable use of not wood-based products for commerce and generating income = 6	
	Trade of agricultural products does not exist = 1	

<b><u>agricultural products</u></b>	Little production of agricultural products which are used for auto-consumption = 2	
	Low production of agricultural products and some are traded = 3	
	There is production and commercialization of agricultural products = 4	
	There is production and commercialization of agricultural products and food safety = 5	
	The trade of agricultural products generates income = 6	
<b><u>Livestock</u></b>	There is no livestock and there are few other animals = 1	
	There is no livestock and there are various other animals = 2	
	There is little livestock and there are no other animals = 3	
	There is little livestock and a few other animals = 3	
	There is livestock which is used for auto-consumption = 4	
	There is livestock which is used for auto-consumption and for generating income = 5	
<b><u>Equipment</u></b>	There is neither machinery nor equipment for agriculture = 1	
	There is animal-drawn equipment = 2	
	There is agricultural machinery, but it always has maintenance problems = 3	
	There is agricultural machinery in a good state, but it does not last composed for the whole harvesting period = 4	
	There is new machinery that works pretty well = 5	

#### **IV. PHYSICAL CAPITAL**

Physical capital refers to infrastructure, access to and services within the ejido.

Access: indicates the easiness of entering and leaving the community. This is important, for example in order to have access to markets or services.

Houses: indicates the well-being of the community.

Water: Water is an indicator for the well-being of a community. It is important to note that in this section water does not mean drinking water which is a necessity for surviving, but refers to water for any other use. You should write down which is the main source of water, even if there are various options.

Bathrooms: is an indicator for the well-being of the community.

Electricity: is an indicator for the well-being of the community.

<b>Table 7. Physical Capital</b>			<b>NOTES</b>
<b><u>Access</u></b>	There is no access to the community = 1		
	There is access to the community, but it is limited during rainy season = 2		
	There is always access to the community, but it is in a bad condition = 3		
	There is access to the community, but some parts are in a bad condition = 4		
	There is good access to the community = 5		
	There are various accesses to the community which are in good condition = 6		
<b><u>Houses</u></b>	The houses are made of wood with earthen floors and consist of one room = 1		
	The houses are made of wood with earthen floors and have various rooms = 2		
	The houses are made of wood/brick/adobe with concrete floor and consist of one room = 3		
	The houses are made of wood with concrete floor and various rooms = 4		
	The houses are made of brick/adobe with tin roof and various rooms = 5		
	The houses are made of brick/adobe/cement with the roof made of the same material and with various rooms = 6		
<b><u>Water.</u> <u>Which is the main source of water for the household?</u></b>	Water is obtained from the river, pond, creek = 1		
	Shared tap or shared well or some neighbour's tap or well = 2		
	Well or water tank of their own with scarcity in some periods of the year = 3		
	Well or water tank of their own always available = 3		
	Running water from underground = 5		
	Running water provided by the municipality = 6		
<b><u>Bathrooms</u></b>	River, pond, creek, countryside = 1		

<b>Which is the sanitary system mainly used?</b>	Shared latrine with a pit or floating on the water = 2		
	Letrine of their own with a pit or floating on the water = 3		
	Letrine which is cleaned with water = 4		
	Toilet connected to the water system, but without a septic tank = 5		
	Toilet conected to the water system with a septic tank = 6		
	There is no electricity = 1		
<b><u>Electricity</u></b>	There is electricity through a system in the community (e. g. shared generator, solar, etc.) = 2		
	There is electricity through the grid, but few houses have access = 3		
	There is electricity available through the grid for most houses, but it is expensive = 5		
	Electricity is available through the grid to the whole community at an affordable price = 6		

## V. NATURAL CAPITAL

Natural Capital refers to natural resources (soil, water, air, etc.) and environmental services (soil protection, maintenance of the hydrological cycles) for the well-being of the community.

Forest reserves in the community: indicates the presence of forest reserves and their risk of being deforested or degraded.

Impacts on local ecosystems: indicates the impacts of the main economic activities on the local ecosystems.

Soil: indicates the soil quality for productive activities.

Quality and Quantity of water: indicates the quantity and quality of the water.

Garbage: indicates how the waste disposal is organized.

Biological Corridors: indicates the presence and condition of biological corridors.

Wilfires: indicates the presence of wildfires and the capacities of combatting them.

Biodiversity: indicates the perception of the presence of biodiversity in the community.

<b>Table 8. Natural Capital</b>			<b>NOTES</b>
<b><u>Forest reserves in the community</u></b>	Non-existent = 1		
	There are some little forest reserves within the community, but their risk of deforestation and degradation is high = 2		
	There are forest reserves within the community with a low risk of deforestation and a high level of degradation = 3		
	There are forest reserves within the community that are not at risk of deforestation, but suffer from a high level of degradation = 4		
	There are forest reserves with little degradation within the community = 5		
	The forest reserves are accepted and taken care of by the whole community and therefore do not suffer any risk of deforestation or degradation = 6		
<b><u>Impacts on local ecosystems and water</u></b>	The productive activities have an important impact on the local ecosystems and water reservoirs = 1		
	The productive activities have a high impact on the local ecosystems and water reservoirs = 2		
	The productive activities have a moderate impact on the local ecosystems and water reservoirs = 3		
	The productive activities have a minimal impact on the local ecosystems and water reservoirs = 4		
	The productive activities are conducted sustainably = 5		
<b><u>Soil</u></b>	The soil is poor, agriculture does not work anymore and people mainly have livestock = 1		
	The soil is poor and the agriculture conducted is little productive and requires a lot of effort, for example, through the use of fertilisers and pesticides = 2		
	The soil is poor and the agriculture conducted is little productive, but does not require a lot of effort, for example, through the use of fertilisers and pesticides = 3		
	The soil is of moderate quality and various agricultural products grow there = 4		
	The soil is of good quality and various agricultural products grow there with little effort = 5		

	The soil is very fertile and the agricultural products grow without effort = 6		
<b><u>Quality and Quantity of water</u></b>	There is no water available in the community = 1		
	Water is limited and expensive = 2		
	Water is available at a moderate price = 3		
	There is water available at a low price, but it is used in an unsustainable manner = 4		
	There is high quality water available, but its use needs to be controlled and managed by the community = 5		
	There is water available at a low price and/or it is used sustainably = 6		
<b><u>Garbage</u></b>	Waste disposal is not being controlled = 1		
	A part of the garbage is thrown away in uncontrolled places and the other part is burned = 2		
	The majority of the garbage is burned = 3		
	Some or the garbage is used for compost, production of biogas, recycling and the rest is burned = 4		
	Sometimes the garbage is collected by the municipality and the rest is used for compost, production of biogas, recycling = 5		
	There is an efficient garbage collection system = 6		
<b><u>Biological Corridors</u></b>	There are no biological corridors = 1		
	There are some biological corridors, but they are neglected = 2		
	There are biological corridors that are recovering by natural regeneration = 3		
	There are some neglected biological corridors and the possibility of improving them by reforesting local species is being discussed = 4		
	There are biological corridors that are being improved through reforestation with local species		
	There are well preserved biological corridors = 6		
<b><u>Wildfires</u></b>	There are at least two unattended wildfires annually = 1		

<b><u>Use of the biodiversity</u></b>	There is at least one unattended wildfire annually = 2		
	There is at least one wildfire annually which is attended by the REBISO staff = 3		
	There are wildfires, but the community has worked to avoid them (e. g. firebreaks) = 4		
	There are wildfires, but the community has worked to avoid them and it has a low trained brigade = 5		
	There are forest fires, but the community has worked to avoid them and it has a well trained brigade = 5		
	There is no biodiversity or it is unknown by the community = 1 The community has some biodiversity but they unknown it		
	The community has a high biodiversity and it is declining or at risk = 3		
	The community has high biodiversity and it is well-known = 4		
	The community reckons with a high and stable biodiversity = 5		
	The community reckons with a high, increasing biodiversity, knows its value and protects it = 6		

**Table 8.1 Perception of Biodiversity**

Which species of fauna do you know or have you seen in your community?

Did these species increase or decrease in the last two years?

Why?

Is any species of fauna used? For example, for local consumption. Who uses it?

Is any species of flora used? For example, for local consumption? Who uses it?

## **VI. PERCEPTION OF CLIMATE CHANGE**

Indicates the understanding of the population of the topic of climate change.

**Table 10. Perception of Climate Change**

Have you ever heard anything about climate change? 1=yes, 2=no	
If yes, who told you something about the topic?, 1= CONANP, 2= Ejidal Delegate, 3= the media 4= other (specify)	
What do you know about Climate Change?	
Has anyone in your household participated in any project related to climate change?	

## **VII. PERCEPTION OF THE LAND-USE CHANGE**

The questions in this section will inform us on the perception of the individuals concerning the land-use change and the main reasons.

**Table 3. Land-use change**

How many hectares of forest have been cleared in the last two years?	
What was the reason for clearing? 1= agriculture, 2 = livestock, 3= plantation, 4=other uses (specify)	
If it was for agricultural reasons, what was planted?	
What type of forest was cleared? (primary, fallow, others)	
If it was fallow, of which age was it?	
How far is that forest that was cut down?	
How many hectares of your household are now abandoned or under fallow?	
During the last two years, did the deforestation in the community increase, keep flat or decrease?	
Why?	
During the last two years, has the consuption of wood (fire wood and construction) increased, keep flat or decreased?	

Why?	
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Name of the interviewee and signature confirming that he/she agrees to the interview:

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**To be answered by the interviewer**

How long did the interview take? \_\_\_\_\_ min.

In general, how reliable is the provided information? \_\_\_\_\_

If it is not reliable, why? \_\_\_\_\_

## **APENDIX 2**

**Process and definition of criteria for the selection of communities at the project: *Maintaining and increasing carbon stock in agro-ecological systems in rural communities of the Selva El Ocote Biosphere Reserve, as a climate change mitigation strategy (Chiapas, Mexico)***

### **Indicators**

- 1. Organization**
- 2. Forest area (%)**
- 3. Productive area (%)**
- 4. Land tenure**
- 5. Documentation of the ejido in order (PROCEDE)**
- 6. No. of ejidatarios**
- 7. Biological connectivity**
- 8. Connectivity with the core area**
- 9. Fire management**
- 10. Reforestation experience**
- 11. Biological threats**
- 12. Biodiversity**
- 13. Productivity of the agroforestry systems**
- 14. Payment for Environmental Services (PES) programs**
- 15. Presence of women's leadership**
- 16. Reference documents (diagnoses, studies)**
- 17. Internal communal conflicts**
- 18. Conflicts between neighbouring communities**
- 19. Fragmentation of the vegetation cover**
- 20. Approach to climate change issues**
- 21. Low-carbon productive systems**

**1. *Organization:*** The organization was evaluated at a community level considering that the ejidos have a solid organizational structure which can support the proposal.

Values: (1) Very low – There are different organized groups, but there is no coordination, neither between them nor with the authorities of the ejido; (2) Moderate – There is little coordination between the existing authorities in the ejido and the organized groups (surveillance council, school committee, health council, ejidal delegate, cooperatives, etc.); (3) Very high – There is good coordination between the different ejidal authorities, good coordination with other committees, between the different groups and the people recognize the ejidal authorities.

**2. Forest area:** The communal forest area of each ejido. Values: 1 (25% or less of the total), 2 (from 25 to 50% of the total), 3 (from 50 to 75% of the total), 4 (more than 75% of the total).

**3. Productive area:** Communal area that can apply for land-use conversion activities. 1 (25% or less of the total), 2 (from 25 to 50% of the total), 3 (from 50 to 75% of the total), 4 (more than 75% of the total).

**4. Land tenure:** Are the rights of use and usufruct of the land within in the ejidal area clear? Values: 1 (No) 2 (Yes).

**5. Documentation of the ejido is in order:** Does the ejido have documents that endorse its property and through which it is possible to access different programs and financial supports, such as PROCEDE? Values: 1 (No) 2 (Yes).

**6. Number of ejidatarios:** This indicator adopts a higher value when the number of ejidatarios is lower, since this facilitates the work and the consensus of activities to be developed. Values: 1 (more than 50), 2 (between 30 and 50), 3 (less than 30).

**7. Biological connectivity:** Connectivity that promotes biological corridors in protected areas and the restoration of ecosystems within and outside the area of the ejido. Values: 1 (at least one connection), 2 (2 or 3 connections), 3 (more than 3 connections).

**8. Connectivity with the core area:** Degree of connectivity with the core of the protected area. Values: 1 (less than 30%), 2 (around 50%), 3 (more than 70%).

**9. Fire management:** There is some experience in comprehensive fire management. Values: 1 (Very low – There is neither a communal brigade nor does the community take internal action for the prevention of wildfires), 2 (Moderate – There is a communal brigade and the community takes some internal actions in order to prevent wildfires), 3 (Very high – There is a communal brigade and the community has its own fire management plan).

**10. Reforestation experience:** Does the community have experience in reforestation within projects aimed at increasing the forest cover, recovery of soils, erosion control and restoration of habitats? Values: 1 (Very low – There have not been any reforestation projects, only a few people have reforested individually and of their own accord), 2 (Moderate – There have been reforestation projects, however not on ejidal level, but just in groups), 3 (Very high – There have been reforestation projects at ejidal level in eroded areas or areas with necessity of restoration and this area has been maintained and protected. Or the community has applied some kind of soil conservation method -mainly level curves for soil retention-).

**11. Biological threats:** Threats of a biological nature (such as plagues) that can negatively affect ecological processes, focusing on the loss of vegetation cover. Values: 1 (Very high), 2 (Moderate), 3 (Very low).

**12. Biodiversity:** Knowledge and use of species of flora and fauna that live in the area. Values: 1 (Very low, there is no inventory and the knowledge of the people is little or zero), 2 (Moderate, there are no inventories, but the people know and recognize the species that live the area), 3 (Very high, there are inventories and the people know and use biodiversity).

**13. Productivity of the agroforestry systems:** The higher the productivity or performance of the agro-ecological systems applied in the area, the greater the value assigned. Values: 1 (Very low), 2 (Moderate), 3 (Very high).

**14. Are there PES (Payment for Environmental Services) programs?** The community has PES projects. Values: 1 (No), 2 (Yes)

**15. Presence of women's leadership:** Is there communal participation and important presence of women in the formulation, execution and/or distribution processes of the benefits of existing projects? Possible values: 1 (No), 2 (Yes)

**16. Reference documents (diagnoses, studies):** The ejido has some document of a diagnosis or study conducted previously by some organization or governmental branch. Moreover, the results of the diagnosis or study are available in order to gather existent information that facilitates the data collection process. Values: 1 (There is no type of previous diagnosis or studies), 2 (There are previous diagnosis and studies, but the information is not available), 3 (There are previous diagnosis or studies, the information is available and it is known who keeps that information).

**17. Internal communal conflicts:** There are conflicts between community members and cases of gender-based violence are known. Values: 1 (There are conflicts and gender-based violence), 2 (There are no conflicts within the community, but cases of gender-based violence are known), 3 (There are neither conflicts nor gender-based violence).

\* Gender-based violence: domestic or sexual violence, harassment, etc.

**18. Conflicts with neighbouring communities:** There are severe conflicts between the contiguous communities of the locality of study. Value: 1 (Yes), 2 (No).

**19. Fragmentation of the vegetation cover:** Indicates the degree of fragmentation of the vegetation cover in the studied area. Values: 1 (Very high), 2 (Moderate), 3 (Very low).

**20. Has there been any approach to topics related to climate change?** The topics of mitigation and adaption to climate change have been presented to the community by one of the institutional actors present in the community: 1 (No), 2 (Yes).

**21. Low-carbon productive systems:** Number of systems and activities applied in each low-carbon or low-impact productive system (milpa system, coffee system, beekeeping system or others) in the ejido. Possible values: 1 (There is no low-carbon system), 2 (There is at least one productive system, but the community does not conduct improving activities, though there is knowledge on improving activities), 3 (There is at least one productive system and the community conducts improving activities).

When the necessary information is unknown, the value for the criterion will be 0.

## **APPENDIX VI: Stakeholders Engagement Plan**



Maintaining and increasing carbon stocks in  
agro-silvopastoral systems in rural  
communities of the Selva Zoque - Sumidero  
Canyon complex as a climate change  
mitigation strategy

## ***APPENDIX XII: Stakeholder Engagement Plan***

**San Cristóbal de Las Casas, February 2015**

## A. Overview

The current project has influence over the northwest region of the state of Chiapas, by covering three federal reserves (Selva El Ocote Biosphere Reserve, Protected Forest Area Villa de Allende and Sumidero Canyon National Park) and two state-level reserves (Areas subject to Ecological Conservation: Cerro Meyapac and La Pera). This complex of federal and state Natural Protected Areas (NPA's) represents a corridor of ecological and environmental importance, whose location, size, connection and ecosystems are identified as one of the three most important forest areas in the State of Chiapas.

Over the last years, the National Commission for Natural Protected Areas (CONANP, by its Spanish initials) and the Chiapas Secretariat for Environment and Natural History (SEMANH by its Spanish initials) have identified this region as a priority for the management and conservation of natural resources. At this stage, there are some problems that have been identified as threats for this area, such as the loss of forest cover due to land conversion into areas for agriculture and livestock; the lack of regulations for land-use; uncontrolled wildfires; besides illegal logging and extraction of wood and non-wood products, among others.

This complex has been promoted for a comprehensive strategy for natural resources management. For the above, several information gaps have been identified, while other issues have been involved, including general information and data updating; integration and identification of institutions that have influence on the region, alongside with management plans to help incorporate new actions and enhance former activities, among others.

During the initial recognition trips, carried out by AMBIO and the partners of this proposal, the local people has expressed great interest to develop and join projects that allow them to implement low-impact productive activities, safeguard their natural resources, and at the same time, get opportunities for social improvement. These testimonials have encouraged the collaboration of institutions and organizations that participate on this proposal, since it is identified a good willingness to work and develop sustainable actions to improve the local living conditions of the communities and to bring together the opportunity to maintain and improve this environmental corridor, including the institutional attention for a region commonly disregarded.

In this sense, the current proposal has the main objective of *maintaining and increasing carbon stocks through avoided deforestation of natural ecosystems and by adopting and applying practices of sustainable management in agroforestry systems.*

For this purpose, two components have been established:

1. Avoidance of carbon dioxide emissions from existent sinks and improvement of carbon capture through the enhancement of productive systems.
2. Build capabilities in both institutional and local levels in order to reduce GHG emissions from agricultural sector due to land use change in the state of Chiapas.

Within project development, the main actors are the farmers from involved communities, and the focal partners are CONANP and SEMANH. At the community level, the informed consent will be seek in order to develop project activities as well as visits, meetings and workshops that will be carried out for a general consensus on the proposed activities and actions to be implemented. On the other hand, the partners aim at avoiding over expectations out of this proposal or actions that imply destabilizing local costumes of the people from the communities. In addition, it is important to point out that AMBIO has a vast experience working at community level by considering local needs and interests, since this has been its main objective for over 17 years.

Alongside with those institutions that develop direct actions in the region and others with influence or interest in the project area, a Technical and a Steering Committee will be created in order to oversee the project affairs in a formal level and maintaining a continuous communication. Additionally, it will be

established a mechanism for complaints submission and attention regarding actions and areas covered within this proposal.

## B. Policy and Requirements

This document seeks to fulfill the CI-GEF agency policies on the process to inform and engage the different partners and stakeholders involved in the project. Special attention has been given to all issues related to farmers and communities, by pursuing since the beginning, an informed consent for the participation in the initiative and subsequent cooperation under rules and principles established at the local level. For this purpose, several meetings, workshops, visits and translators among others, have been anticipated in order to establish an effective and positive communication to achieve the proposal objectives.

## C. Summary of activities with the stakeholders during the PPG phase

In this stage of the project, several meetings were scheduled with different actors who have influence over the project area.

One of the main meetings (Oct 27<sup>th</sup>, 2014) was organized by AMBIO with support of the National Commission for Natural Protected Areas (CONANP), having the participation of local government and non-governmental institutions that currently work into the project area. The meeting was attended by the National Forest Commission (CONAFOR), the Chiapas Secretariat for Environment and Natural History (SEMANH), the Chiapas Secretariat for Farming (SECAM), the Federal Secretariat for Agriculture, Livestock, Rural Development, Fishing and Food (SAGARPA), the Chiapas Institute for Coffee (INCAFECH), the National Commission for the Development of the Indigenous Peoples (CDI), the CONANP Regional Bureau, its staff from involved complex reserves, and its General Directorate for Climate Change, some communitarian technicians from the Selva El Ocote Biosphere Reserve “ejidos”, besides the local NGOs CECEROPIA A.C and Aires del Cambio S.C. The calling for this meeting was arranged with the support of CONANP and the official invitations were sent by the Regional Bureau of CONANP with the regional director signature.

The aim of this event was to introduce all the participants involved in the project area, namely “*Selva Zoque- Sumidero Canyon*,” as an effort to enhance protective actions and comprehensive forest management in northern Chiapas.

The meeting minute (available upon request) provides details of participation as well as the proposed agreements and their follow-up actions. Particularly noteworthy is that several of the meeting participants should attend and participate actively at the Technical and/or the Steering Committee of the project, whose participants could increase by incorporating others during the construction and the implementation of the proposal.

In addition, in the months of October and November 2014, some complementary meetings took place with CONANP, including staff of involved NPA’s, its Regional Bureau and the General Directorate of Climate Change, alongside with SEMANH and its Subsecretariat for Forests and the Subsecretariat for Environment . Such meetings were carried out in order to communicate the project objectives and identify interests and actions to actively involve these institutions.

Regarding involved communities and farmers: a workshop took place with the NPA’s staff including people from Selva El Ocote Biosphere Reserve, Sumidero Canyon National Park, Protected Forest Zone “Villa de Allende”, and Chiapas state reserves: Meyapac and La Pera.

The workshop was focused on identifying communities that were feasible to participate in this project through a set of environmentally and socially indicators. The main purpose was to select 10 to 16

communities to start an approach with, introduce the proposal –adopting a careful speech to avoid over-expectations- and obtain information that allows devising objectives and goals. The summary and the outcomes are available upon request.

Once the communities were chosen, preliminary visits began in November. These visits were carried out in collaboration with the CONANP and SEMANH staff, including some communitarian technicians who speak the native language of the region, who joined the visiting group in order to ensure a better understanding and to fulfill an acceptable communication within the communities.

The process of approaching the communities is as follows: the first contact is in charge of the institution that supervises the area (CONANP or SEMANH, respectively). AMBIO together with that institution, explains what is intended to be done (at this moment and by agreement of the partners, the approach is focused on land management, identification of productive systems to be improved, management of regional deforestation drivers, among others<sup>56</sup>). Once the objective of the visit and the project scopes are clear, another authorized visit is scheduled to meet the local authorities and key actors and in order to collect important information in an efficient manner. The above is due to the limited time that has been given to obtain basic information for the baseline elaboration and the characterization of the project area.

Some of the initial communities have been changed given the local complexity or due to the lack of interest by the communities to participate in this initiative. In this case some adjustments have been made in the communitarian participation and consulting process. Such communities have been replaced through the institutions that are directly involved in the project.

#### **D. Stakeholders**

As previously mentioned, at this moment, several actors have been identified as involved institutions in some stage of the proposal. They have been consulted in order to hear their views and know their possible participation. In this sense, the following chart indicates some of these actors and their possible direct or indirect role in the proposal.

Initiative/Institution	Objective, possible participation
<i>PROGAN</i>  Program for Sustainable Agriculture Production, Beekeeping and Livestock Management	<ul style="list-style-type: none"> <li>Support the sector for sustainable practices.</li> </ul>
Programs for livestock sector support	<ul style="list-style-type: none"> <li>Promote good practices of silvopastoral management, technological innovation, reforestation, soil catchment works</li> </ul>
State Program for fishing development	<ul style="list-style-type: none"> <li>Use of specific areas dedicated to fishing</li> </ul>
<i>Conservation International</i>	<ul style="list-style-type: none"> <li>Share generated information for the Selva Zoque area</li> <li>Vision based in rights</li> <li>Sustainable productive activities</li> <li>Conservation of the biodiversity</li> <li>Empowerment of the civilian population</li> </ul>

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<sup>56</sup> Those activities are linked to the topics of carbon capture and carbon sinks. The agreement between AMBIO, SEMANH and CONANP was to attempt that the communities do not have immediate expectations of environmental markets, since the project is in early stages. Therefore, once the project is in its execution stage the topic will be addressed in a direct manner.

	<ul style="list-style-type: none"> <li>• Sustainable management</li> </ul>
<i>National Commission for the Development of the Indigenous Peoples (CDI)</i> Nature tourism Conservation and Management Improvement of production	<ul style="list-style-type: none"> <li>• Enhance ecotourism activities</li> <li>• Support indigenous communities in productive projects and of changes</li> </ul>
CECROPIA Local program for climate change in Tuxtla Gutiérrez and Cintalapa Intermunicipal board for the Sumidero Canyon watershed Regional association of forest farmers of Selva Zoque - Cintalapa	<ul style="list-style-type: none"> <li>• Provide training to the municipal authorities on climate change and governance issues</li> <li>• Create a decentralized body and a trust fund that bounds the municipalities</li> <li>• Reinforce forest management</li> </ul>
Chiapas Secretariat for Farming (SECAM), Food Security Strategic Plan (PESA) All regions of the state	<ul style="list-style-type: none"> <li>• Produce while taking care of the conservation actions</li> </ul>
Aires de Cambio S.C Recovery of the coffee-growing industry To convert the land use from paddock into coffee plantation (Linda Vista)	<ul style="list-style-type: none"> <li>• Renewal of coffee crops</li> <li>• Promote connectivity among vegetation corridors</li> </ul>
CONANP-Sumidero Canyon National Park Restoration and management for sustainable development	<ul style="list-style-type: none"> <li>• Restore impacted areas</li> </ul>
Chiapas Institute for Coffee (INCAFECH) Restoration of coffee plantations in 88 municipalities, covering 250000 hectares	<ul style="list-style-type: none"> <li>• To turn old plantations (susceptible to plagues) into more productive plantations</li> </ul>
CONAFOR National Program on Forests (PRONAFOR): national request for proposals and guidelines for specific projects	<ul style="list-style-type: none"> <li>• Conservation and forest restoration</li> <li>• Forestry development</li> <li>• Communitarian forest management</li> </ul>
SEMAHN State Plan for Climate Change SEMANH Research Strategy Inter-institutional attention for the issue of organic soil extraction for compost and gardening La Pera biological station	<ul style="list-style-type: none"> <li>• Follow up on the State Plan for Climate Change</li> <li>• Development of baselines for research</li> <li>• Strategy to resolve the illegal wood extraction in La Pera and Villa de Allende</li> <li>• Start formal operations at the Biological station</li> </ul>

Regarding communities, the localities are detailed in the table below by Natural Protected Area.

<b>Protected Area</b>	<b>Communities</b>	<b>Municipalities</b>
Villa de Allende	16 de Septiembre	San Fernando
	Efraín A. Gutiérrez	Berriozábal
	Vista Hermosa	Berriozábal
Sumidero Canyon National Park	Benito Juárez	San Fernando
	Triunfo	Usumacinta
Reserva de la Biosfera Selva El Ocote	Veinte Casas	Ocozocoautla de Espinoza
	Nuevo San Juan Chamula	Ocozocoautla de Espinoza
	Emilio Rabasa *	Ocozocoautla de Espinoza
	José López Portillo**	Ocozocoautla de Espinoza
	Nicolás Bravo	Ocozocoautla de Espinoza
La Pera	El Caracol	Berriozábal
	Cuchumbac	Berriozábal
	San Martín	Berriozábal
	Amendun	Berriozábal
	Tierra y Libertad	Berriozábal
Meyapac	Santa Martha	Ocozocoautla de Espinoza

\*This community replaced the Salvador Urbina community, given the lack of conditions for the project development

\*\*This community will be replaced by another to be defined, given the lack of conditions for the project development

One of the expected results from the visits to the communities is the detection of the interest from the people regarding the activities of the project, as well as the opportunities for participation, considering the local needs and interests. At the same time a socioeconomic diagnosis was carried out in order to identify the best way of participation without threatening the local rights. In this sense, the Plan Vivo methodology helps undertake a communitarian diagnosis by identifying and respecting the local context.

During the implementation of the proposal, the project will continue including those interest as an essential part of the project development, as well as the decision-making about aspects of participation and resources management.

## **E. Stakeholders participation program**

The preparation, development and implementation as well as the monitoring of the activities of the project and its permanency will count on the participation of the actors involved on the good management of the region.

**The purpose** of the engagement plan is that all the involved actors know the project and its scopes by identifying the most appropriate way of participation, aimed at enhancing the results of specific initiatives.

**The objective** is that the project obtains the informed, voluntary and consensual participation from the communities, landowners, governmental and non-governmental institutions with complementary actions and activities that promote sustainable management and protection of the Selva Zoque- Sumidero Canyon complex.

<b>Stage</b>	<b>Information to be shared</b>	<b>Method/format, materials</b>
<b>Preparation stage</b>	Basic information about the project; introducing the objective, scopes and goals	<ul style="list-style-type: none"> <li>Participative diagnosis under the Plan Vivo methodology</li> <li>Meetings with the different actors in a particular manner and in common spaces</li> <li>Visits to the communities</li> <li>Design of communitarian Plan Vivos and surveying information with key actors.</li> </ul>
Implementation stage	<p>Share the project objectives, scopes and goals in each one of the Natural Protected Areas involved.</p> <p>It includes training workshops at a regional and community level</p>	<ul style="list-style-type: none"> <li>Several methodologies will be implemented, utilizing different materials, as follows.</li> <li><i>Component 1.</i></li> <li>Attend the community assemblies in order to share the project's achievements, issues and general topics that could be beneficial or adverse for this initiative.</li> <li>Social and Environmental Impact Assessment Methodology, applied formerly by AMBIO in some Selva El Ocote communities, with good results and under similar objectives.</li> <li>Plan Vivo methodology (including tools for diagnosis at individual and communitarian level), in order to know the current land-use and the perspectives in the short and long term at family level.</li> <li>Setting up of demonstrative plots</li> <li>Application of methodologies that promote the involvement of all the actors in the community</li> <li>Materials: interviews with key actors, interviews and meetings with local authorities, institutional meetings, workshops, local and regional forums.</li> <li><i>Component 2.</i></li> <li>Implementation of a training program about climate change for the different actors that will take part in the</li> </ul>

		<p>project (institutions, NGOs, community technicians, communities, NPAs' advisory councils)</p> <ul style="list-style-type: none"> <li>• Technical and specific training workshops for the actors directly involved in the proposal through appropriate methodologies.</li> <li>• Exchanges of experiences (from farmer to farmer) between the communities from the region and outside of it, linked to matters of local interest.</li> <li>• Exchanges between institutions for the reinforcement of skills</li> <li>• Materials: Training programs, files with the materials on the matters that will be handled, brochures, workshops, evaluation processes and group discussions.</li> </ul>
Monitoring Stage	Follow up on the activities and processes that have been generated by this initiative	<ul style="list-style-type: none"> <li>• Through these inclusive processes, the methodologies will be selected and developed for the evaluation of the indicators previously identified in the project.</li> <li>• These monitoring actions will be part of the actions handled on the project's Technical Committee.</li> <li>• Development and application of monitoring protocols for current activities.</li> <li>• Application of field trips</li> <li>• Reviewing of technical reports and materials produced under the project</li> <li>• Compilation of gathered information at the initial stages of the project</li> </ul>
Permanence (post-project)	Identify pathways to give follow-up on the process and the participation of the involved actors	<ul style="list-style-type: none"> <li>• This stage will be considered along the project, since it is one of the goals for scaling-up the initiative.</li> <li>• This is a matter to be constantly discussed in the Technical and Steering Committees.</li> <li>• The selling of carbon credits means a commitment from 10 to 15 years as minimum, so the Plan Vivo methodology is required for appropriate follow-up</li> <li>• Meetings and partnership will be identified as part of the actions through which this topic will be accomplished</li> </ul>

#### F. Other activities implemented with stakeholders during the PPG phase

At this moment, mainly carbon markets, and secondarily environmental markets are observed as an income source generated by the project in direct way to the communities in the mid-term. This is a mechanism implemented by AMBIO through a carbon program at community and individual levels. The carbon accreditation and distribution is based on the evaluation of actions that every farmer is committed to execute. On beforehand, at the community level, the monitoring of committed activities that direct or indirectly impact over the maintenance of carbon sinks allows the recognition of environmental services; in both cases the agreements and commitments are generated in a previous way with the farmers and authorities from the community.

## G. Stakeholder engagement timeline

At this time is only possible to provide the scheduling of activities developed during the consultation stage and the data collection (PPG phase). The visit days to the communities and the time schedules of those are agreed with the stakeholders, always bearing in mind and respecting their own timelines and the activities that they make in their plots.

<b>Protected Area</b>	<b>Locations</b>	<b>Municipalities</b>	<b>Visit Dates and developed activities</b>
Villa de Allende	16 de Septiembre	San Fernando	20/November/2014 Presentation 03/December/2014 Plan Vivo Workshop
	Efraín A Gutiérrez	Berriozábal	21/November/2014 Presentation 26/November/2015 Plan vivo Workshop 15/January/2014 Complementary Information
	Vista Hermosa	Berriozábal	21/November/2014 Presentation
Parque Nacional Cañón del Sumidero	Benito Juárez	San Fernando	20/November/2014 Presentation 26/November/2014 Plan vivo Workshop 13/January/2015 Complementary Information
	Triunfo	Usumacinta	Feb/2015 Presentation and Plan Vivo workshop
Reserva de la Biosfera Selva El Ocote	Veinte Casas	Ocozocoautla de Espinoza	Follow-up activities of AMBIO
	Nuevo San Juan Chamula	Ocozocoautla de Espinoza	Follow-up activities of AMBIO
	Emilio Rabaza *	Ocozocoautla de Espinoza	Follow-up activities of AMBIO
	José López Portillo**	Ocozocoautla de Espinoza	Visited, but the community expressed lack of interested
	Nicolás Bravo	Ocozocoautla de Espinoza	21/October/2014 Presentation 28/October/2014 Plan Vivo Workshop 13/January/2014 Complementary information
	Salvador Urbina	Ocozocoautla de Espinoza	23/October/2014 1 <sup>st</sup> Presentation

			28/October/2014 2 <sup>nd</sup> Presentation
La Pera	El Caracol	Berriozábal	Participation to be defined
	Cuchumbac	Berriozábal	20/January/2015
	San Martín	Berriozábal	Participation to be defined
	Amendun	Berriozábal	20/January/2015
	Tierra y Libertad	Berriozábal	20/January/2015
Meyapac	Santa Martha	Ocozocoautla de Espinoza	16/January/2015 Presentation 22/January/2015 Plan Vivo Workshop

## H. Resources and responsibilities

The entity in charge of the execution of the project is Cooperativa AMBIO SC de RL: a Mexican non-governmental organization based in the city of San Cristobal de Las Casas Chiapas. It was established in 1998 by a multidisciplinary group of researchers and professionals, who expressed particular interests in community development linked to climate change and comprehensive natural resources management.

AMBIO has a wide experience in community-level work and carbon credits offsetting through the voluntary market. Since 1997 (one year before its establishment) AMBIO's associates were in charge of the management and technical and administrative development of the Scolelte Program. Currently AMBIO has basic facilities (building, regional offices, vehicles, technician groups, and an administrative team) for the development of the project.

The implementation stage of the project will have a team arranged this way:

Staff	Activity to be developed
General Direction	Day to day management of the project, managing contacts and inter-institutional alliances.
Technical Coordination	Direct supervision of advances of technical and administrative activities developed during the implementation of the proposal. Provides direct support to the general direction.
Carbon Offsets Sales Manager	Promotion and strengthening of the carbon markets area. Contact point for the sales and marketing of AMBIO carbon offsets program. Responsible for permanent research on the national and international carbon market trends.
Regional Coordinators	Professional technicians of AMBIO, who report directly to the technical coordinator and who are in charge of actions in regional level and maintain constant and direct contact with communitarian technicians and their

	communities. The option of having 4 to 5 regional coordinators will be evaluated.
Communitarian Technicians	They report directly to every regional coordinator and have close contact with the communities during the implementation and monitoring of the project. One technician is considered for each community.
Administrative Team	Administrative staff of AMBIO, constituted by an administrative coordinator, a bookkeeper and an administrative assistant. In a timely manner some queries will be redirected to external experts.
Consultants	A list of consultants will approach specific topics of the proposal; in every component the need of consultants will be determined.

Regarding the main partners of AMBIO, CONANP and SEMANH are critical associates for the execution, implementation and monitoring of the proposal. The role of these actors is being a focal point for the development of the activities, besides the design and implementation of community-level strategies. Both institutions will be into the technical committee, mainly for decision making. Furthermore, the project seeks to complement the management and conservation of natural resources in this complex -the mission of both governmental institutions- through the development and reinforcement of local and institutional capabilities, as well as the implementation and monitoring of sustainable activities.

## I. Complaints mechanism

The complaints mechanism must attend two kinds of complaints:

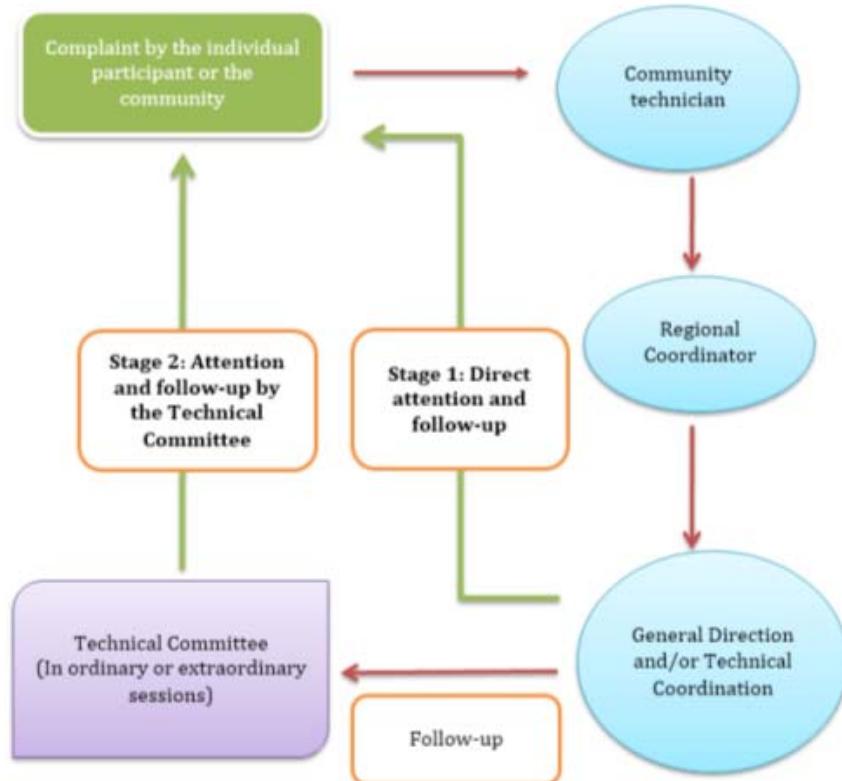
- a. *At community-level, attended directly by the community technician and in second place by the regional coordinator who reports to the technical coordinator.*

If a complaint can be solved by the Technical Coordination, it will be so. Otherwise the Technical Committee will attend to it, depending on the complexity of the complaint. If necessary, a special session will be arranged in order to submit a response or position. The response to the complaint must not exceed 60 working days and must be in writing.

The complaints must be attended as long as:

- Those are generated within the project's influence zone.
- Those are generated throughout the fixed time for the management and implementation of the proposal.
- The complaint letter is signed by one of the owners or holders of the resources at the communities. For the above, the letter of consent will be sought out in the implementation stage with the signature of the people involved.

The mechanism in local level is presented in the following diagram:



**Figure 1. Process for complaints that come from individual participants or communities within the influence zone of the project.**

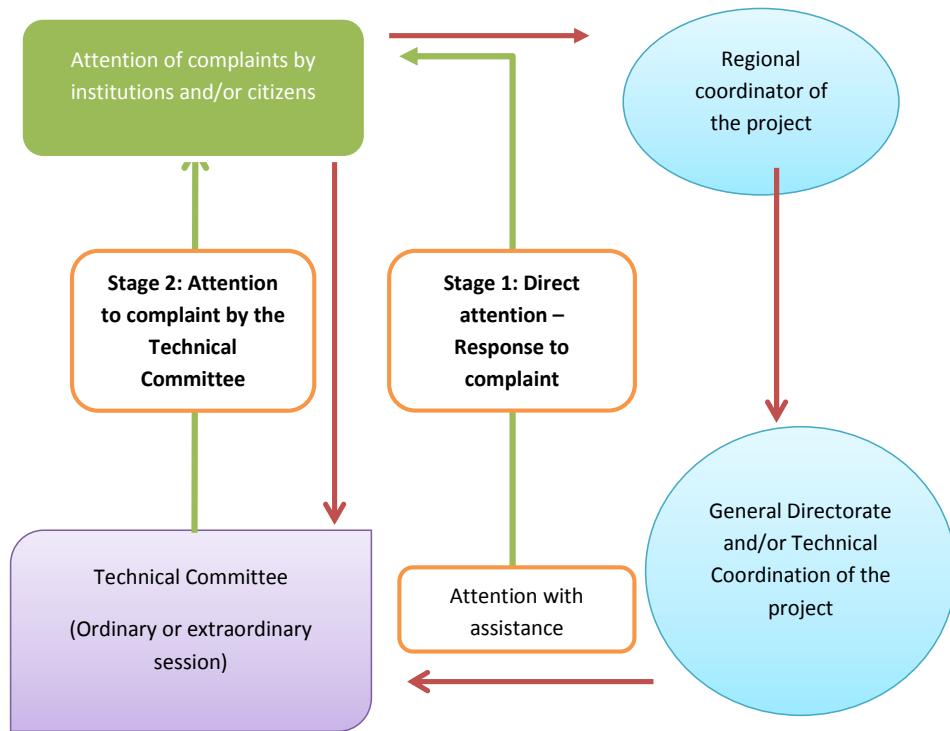
- b. *Complaints at a level of governmental, non-governmental institutions and citizens with inference over the area of the project. The complaint must be submitted directly to the project's Director, Technical coordinator or Technical Committee.*

The complaint must be managed by the project's Directorate or the Technical Coordination. In case it demands an in-depth analysis then must be submitted to the ordinary or extraordinary session of the Technical Committee. The response to the complaint must not exceed 60 working days and must be in writing.

The complaints will be attended as long as:

- Those are generated within the project's influence zone.
- Those are generated throughout the fixed time for the management and implementation of the proposal.
- The complaint letter is signed and endorsed by the delegates, managers and/or people that can demonstrate their enrollment in the dissatisfied organization or citizens interested in the region. Those complaints that do not fulfill with the previous requirements or do not have accurate contact information for the follow-up process will be omitted.

The mechanism for institutional and/or civil complaints is displayed on the next figure.



**Figure 2. Attention process to complaints from governmental, non-governmental institutions and citizens with interest in the project´s zone of influence.**

## J. Control and follow-up

At this moment no inconveniences or negative impacts have been detected during the development of the project, neither for the communities involved, the neighboring communities or actors from other regions.

If it happens, the complaints mechanism will be applied, as described in the previous section. At this time this mechanism is in the development stage, so the way it shall work will be detailed once the project starts its execution phase.

This complaints mechanism will be permanent during the preparation and implementation period of the proposal. Any complaint detected will be examined and if necessary, discussed with more experienced actors, in order to provide consistent, factual and satisfactory responses for all sides.

It is important to add to that every advice and suggestion made about the project´s actions will be heard and analyzed, and if those are relevant and appropriate, they will be considered for the project.

## **APPENDIX VII: Gender Mainstreaming Strategy and Action Plan**



Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy

## ***APPENDIX VII***

### ***Gender Mainstreaming Strategy and Action Plan***

## **1. INTRODUCTION**

### **1.1 Climate Change, Gender Mainstreaming and Natural Protected Areas.**

Climate change affects all population sectors, altering the welfare of small towns and large cities from any region. Nevertheless, it does not affect all in the same way. The measure of its impacts is a product of the particular socio-environmental context and even of the political context. Natural Protected Areas (NPAs) have become essential allies in climate change adaptation and mitigation, since those are the natural solution for both strategies. The success on promoting mitigation actions in the NPAs will depend on the community actions for its use, management and protection to be forged on the particular needs of the population that directly or indirectly get the environmental goods and services. These needs have been considered traditionally only for one community group: the ejido members or land owners. For women, the lack of access to land titles, deep-seated social disparities, structural disadvantages and their continuous exclusion from the access and management of goods and services as well as in the process of decision making have obscured relationships between women and environment. This prevents them from participating in the different strategies and causes a detriment on the conservation initiatives and projects. Therefore, it has been proved that efforts which not consider gender issues perpetuate injustices, increase gender gaps and obstructs development of adaptation and resilience capacities.

Due to the above, the international agendas for climate change adaptation and mitigation have placed emphasis on the need to incorporate gender perspective in these efforts, from its design to implementation. Due to this interest and need, a project has been created and entitled “Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy”. In this way, the creation of the Gender Mainstreaming Strategy and Action Plan (GMS) was fulfilled. Also, GMS was created under the organizational interest and social responsibility which AMBIO has been working with along its institutional life, in which it recognize the social situation of the region and the specific context of Chiapas´s women.

### **1.2. Gender perspective**

The gender perspective is understood as a work tool and a type of analysis through which women and men´s roles and tasks are identified inside a society, community or project. This perspective allow to detect disparities, power relationships and concerns, and also recognize the root causes, as well as formulate mechanisms to overcome the gaps, by locating the issues in social relationships that are built through exclusion and control. When the analysis is focused on relationships and inequities, it implies that all social actors involved in these relationships must be considered. Therefore, working with gender perspective issues goes beyond making activities of women to women; it is working with a specific approach, strategies and actions for women and men that allow to enterprise inclusive actions and roles at any level, building and improving equal and participative relationships in matters of sustainable development and conservation. This recognition makes role disparities visible with respect to the access and control of natural resources and the delivery of costs and benefits, and also permits to identify the unequal participation in respect of making decisions and also skills, needs and interests of the genders.<sup>57</sup>

## **2. ANALYSIS AND DIAGNOSIS OF SOCIO-ENVIRONMENTAL CONTEXT**

### **2.1. Background**

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<sup>57</sup> IUCN. 2002. En búsqueda del género perdido. Lorena Aguilar, Itzá Castañeda, Hilda Salazar.

Despite the fact that gender perspective locates into higher levels inside public state policies (Chiapas Development Plan has gender equality as a transversal policy), there have been few occasions in which the idea of promoting women's participation related to forest conservation and restoration has been raised. There is no information that details the level of participation. Over the study region and specifically in Berriozabal municipality, it has been highlighted that women inclusion in these activities could represent a chance of gender equality development, not only for the subjective wellness that themselves are expressing for these tasks to be achieved, but by the chance that the values and benefits of women participation in conservation activities may contribute to a genuine gender equality<sup>58</sup>.

The opportunities not only refers to the social benefits; a study that outlines the priorities to be considered with respect to the REDD+ state strategy development shows an analysis about a range of potential risks for women that gender perspective is ignored in the strategy, which are a build-up of identified risks at international, national and state level. It is also shown a hitch about several benefits that may provide gender perspective in REDD+, some of them are mentioned below:

- Insights, skills and experiences captured from women that are forest primary users.
- Accurate information about the causes of deforestation and forest degradation.
- Equal distribution of benefits.
- Consistency between sustainable development approach and human rights basis.
- The rise of effectiveness, efficacy and sustainability of REDD+<sup>59</sup>.

## **2.2. Social assessment of the Selva Lacandona-Cañón del Sumidero Complex**

For Chiapas and the project area, there is information that is not disaggregated by gender and for some indicators. At state level, it is known that the rate of economic participation of women over 15 years old with at least one child alive is 35.6%, from which 98.9% combines their work out of home with the house work (INEGI, 2010). However, this kind of information cannot be generalized to the NPAs of the project, since the corridor conditions tend to vary with respect to those indicators. For example, in Nuevo San Juan Chamula, the economically active women is 0%.

For the development of this GMS, it started on the basis of a very little information and almost null data that could allow to know the role gender inside the productive activities in a community level. Therefore the need to make a social diagnosis that considers gender matters is extremely important. The diagnosis will help to identify, to encourage and to perform activities and actions that can match to the real situation from the region and at the same time can promote essential skills development as much as the creation of opportunities for women and men.

The diagnosis and analysis of gender mainstreaming are activities that require a remarkable investment of time, and for the PPG stage it was designed and made a social and gender pre-diagnosis. With this pre-diagnosis, the general proposal was strengthened through the display of community's context that will be complemented with information acquired over the planning and design stage. The bibliography research was a useful tool that made possible the approximation to the social context of the communities chosen for this project. Some data were obtained from different sources, such as INEGI, PHINA, Territorial Development Plans, NPAs Management Plans, socio-environmental diagnosis, and Communitarian Land

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<sup>58</sup> Gutiérrez, V., Nazar, A., Zapata, E., Contreras, J., Salvatierra, B. 2013, Género y participación de las mujeres en la gestión del agua en las subcuencas Río Sabinal y Cañón del Sumidero, Berriozábal, Chiapas.

<sup>59</sup> Alexandrova, E., Aldana, T., Festa, J., Jacobo, P. 2014. Prioridades en el diseño de la estrategia estatal REDD+ en Chiapas, México: Diagnóstico de las percepciones internas y externas.

Management. An example of the relevance about getting information of both genders is reflected in Table 1, where it is easier to collate the same indicator for both genders, raising the relevance of promoting social benefits in the project.

It can be identified that labor conditions vary from one location to another. For example in the ejido Amendu 19.4% of the economically active population (EAP) are women, in Nuevo San Juan Chamula and Nicolás Bravo women are not considered inside the EAP. This demonstrates again the need to develop actions for every location, as well as the need to make visible the occupation of women in the productive roles at a family unit level, identifying risks and opportunities for every community.

**Table 1. Communities involved in the proposal and participation of women in economic activities.**

Ejidos involved in the project	Population over 3 years old speaking indigenous language and Spanish		% of homes with woman as head	Grade Level Average by gender		% of women inside EAP
	Men	Women		Men	Women	
San Martín	N/A	N/A	N/A	N/A	N/A	N/A
Cuchumbac	0	0	22.2%	3.27	1.67	6.25%
Amendu	156	155	15%	3.88	2.99	<b>19.4%</b>
Tierra y Libertad	0	1	11%	3.38	2.73	2.6%
Santa Martha	0	0	26%	4.39	3.63	2.5%
Benito Juárez	0	0	7.8%	6.67	5.81	16.3%
Triunfo Agrarista	1	0	12%	6.06	5.21	17.6%
Veinte Casas	102	122	9.3%	4.04	3.81	1.6%
Nuevo San Juan Chamula	201	166	12.2%	5.25	4.31	<b>0</b>
Emilio Rabasa	7	8	<b>31.8%</b>	3.48	2.5	3.7%
Nicolás Bravo	152	128	11.3%	4.43	3.5	0
Llano Grande	207	217	<b>7.3%</b>	5.21	4.79	3.5%
Vista Hermosa	88	88	5.8%	4.26	3.65	1.4%
Efraín Gutiérrez	0	2	13.5%	4.39	4.39	10.1%
16 Sep.	15	11	8.1%	6.64	5.97	17.1%

**Source:** INEGI

Another tool used as pre-diagnosis in the making of GMS was a survey which contains the identification and valuation of five capital approach to a community level, the capitals evaluated were: social, human, physical, natural and financial. Thirty three surveys were applied to 48 people where 24 were men and 24 were women. Those were made for women and men in order to execute a project's design according to

the real situation of every community. These surveys were applied on 11 from the 15 communities that were chosen for this proposal.

The survey's results allow visualization of gender differences related to men and women's visions, perspectives and needs. Through results detailed analysis and understanding, main differences of capital value will be understood, showing by this, the situation and position of women facing, employment, education, natural resources and participation rates, etc.

Table 2 shows the results of capitals from 11 communities where surveys were applied. Observing carefully, the information given by the surveys can be remarked, for example, on all occasions, the human capital of women had a lower value than men's human capital. Some causes identified during the analysis development were:

- The labor situation;
- The few work incentives;
- The existence of more illiterate women than men; and
- The less technical assistance directed at women.

Another example of these differences can be seen on the answers given by men and women about the social capital issue. For example, in the ejido 16 de Septiembre, the rate obtained for men's answers was 3.5 and for women's answers was 2.5. These differences are under criteria of: social organization, conflicts, benefits delivery, decision making and women participation, etc., that means that men have a major participation in those matters than women.

**Table 2. Results of capitals assessment by gender**

CAPITALS	REBISO			CAÑON		VILLA ALLENDE			LA PERA		MEYAP AC
	Rabas a	Nicolás Bravo	Llano Grande	Benito Juárez	Triunfo A.	16-sep	Efraín G.	Vista Hermosa	Cuchumbac	Amendu	
SOCIAL	4.29	3.32	2.90	2.53	3.86	2.84	2.83	2.68	3.57	3.05	3.55
Perception Men	4.35	3.20	3.10	2.80	4.30	3.50	2.50	2.60	3.22	2.44	3.80
Perception Women	4.30	3.50	2.89	2.60	3.70	2.50	3.30	2.40	3.67	3.50	3.30
HUMAN - Men	3.13	3.06	3.53	2.86	4.12	3.38	2.83	2.79	3.13	2.94	2.25
HUMAN - Women	2.63	2.72	3.50	2.69	4.04	3.28	2.56	2.20	2.88	2.44	1.87
Social Perception Men	4.35	3.20	3.10	2.80	4.30	3.50	2.50	2.60	3.22	2.44	3.80
Social Perception Women	4.30	3.50	2.89	2.60	3.70	2.50	3.30	2.40	3.67	3.50	3.30

The Table above shows the communities visited for the acquisition of field information. In the Table, it is shown that the social perception of women is greater than that of men in every single case.

On the other hand, from the dialogue that emerges from the surveys, inequality factors are identified which have been considered over the planning of the project's activities, to mention a few:

- Women do not participate by tradition or because they think they are not capable of doing the activities themselves;
- It is thought that women involved may create trouble or conflict; and
- Men do not believe women can be capable of doing some activities.

### **2.3. Assessment of capacities building needs during project implementation**

When gender perspective is addressed in the present project, a commitment is generated to initiate a permanent process of training in several matters that will include women, children, men and youths in distinct moments (design, diagnosis, planning, implementation, assessment and monitoring) and it will be searching for the effective participation from society, in order to create a common welfare and the conservation of forest resources.

In order to implement and reach the goals presented in this plan and project, it is necessary to promote a social learning process that deconstruct and redefine the actual identities of gender. This is not a quick task or the easier one; neither can anyone make it possible. The second component of the project, which has as a target the construction of skills on an institutional and local level, contribute directly to this vision to make real the implementation of actions of GMS and vice versa.

An advantage of gender component and skills development is that relevance and needs are much more apparent to institutions. An online questionnaire was applied to 28 employees of the public sector where 81.82% of them perceive that actual strategies for climate change mitigation are not equal. Furthermore, when asked about the importance of working with a gender perspective, a variety of answers was obtained that point out the social and environmental benefits. Nevertheless, despite the acceptance to this deficiency, the proposals to ensure a gender perspective into climate change adaptation and mitigation strategies lack a gender perspective, are bad oriented and keep focusing on the promotion of women participation in mitigation activities and the decision making, and as Ivens (2009) mentions, the simple access to the resources does not mean women empowerment.

At the organizational level, the work team in charge of the project's implementation has expressed the lack of comprehension to address the gender matter into the projects, pointing it out as a field of interest and something that must be strengthened inside the team involved in the implementation of the project.

## **3. GENDER MAINSTREAMING STRATEGY (GMS)**

### **3.1. AMBIO's position**

AMBIO's team believe in the need to visualize the inequities that exists in the region and also, in the importance of stopping the promotion of conservation, adaptation and mitigation activities that perpetuate those disparities and increasing gender construction, encouraging unequal power relationships and obstructing human development. The aim is to raise human wellness, human development, low emissions, rural development and to improve the collaborative management of natural resources.

AMBIO's team believe that men and women must be an integral part of the project's design, implementation and monitoring and by this way all women and men involved could receive the benefits

that may be derived. The labor will be done according to social rules and local habits and costums, with the guarantee that those will be properly respected and valued.

In order to assure a project with gender perspective, the team will count on a specialist in the matter, who will advise and monitor the stages and actions, not only for this strategy but the whole project.

This strategy obeys the Number 8 policy of Environmental and Social Management Framework (ESMF) from de agency CI-GEF.

### **3.2. General aim**

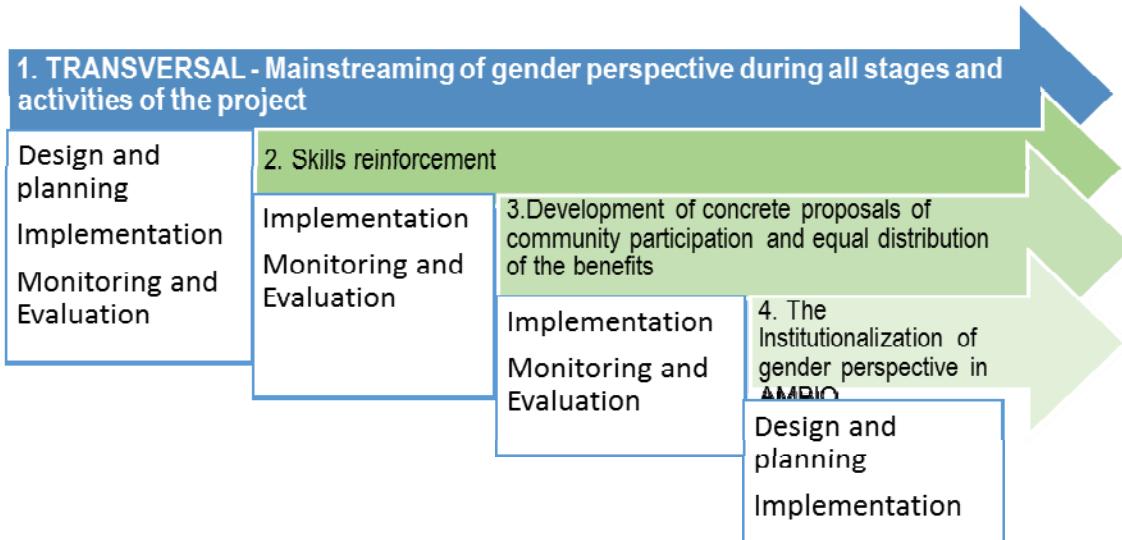
To guide or include specific actions that could be executed in the project named “Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy” in order to achieve results through these activities and under a gender perspective.

The general objective of GMS was planned with the pre-diagnosis findings; were expected results was simultaneously elaborated. The achievement of this objective will be guided by an action plan that will be part at the initial stages of the project.

## **4. ACTION PLAN**

An action plan is presented for the GMS. It is executed as part of the Stakeholders Engagement Plan and it is complemented with the Indigenous Peoples Plan. The Action Plan details a set of strategic lines to be followed, every line responds to needs that were identified on the planning and design stage of the project, also responds to the social diagnosis made on defined communities as well as to the skills strengthening. The strategic lines groups the main gender concerns and suggest guided actions for specific objectives by covering: AMBIO’s organizational reinforcement, institutional strengthening and confidence that the project will be monitored under gender indicators and awareness to a community level. The indicators of each action are proactive but not imperative, since the implementation of the project and GMS conditions may vary. The Action Plan poses general actions that will be defined as the gender diagnosis is being completed; this action plan agrees with the general work plan and pursues to be practical, adaptable and meaningful for the final results.

### **4.1. Strategic lines of action**



**Figure 1.** Strategic lines of GMS and their incidence on the different stages of the project.

## 1. Mainstreaming of gender perspective on a transversal way during all stages and activities of the project.

**Specific aim:** The design, implementation and monitoring of the development of the project through a gender perspective, in order to minimize the promotion of unequal benefits and contribute to minimize the gap between genders.

### Justification:

- The benefits about including a gender perspective have been demonstrated and notified with several initiatives around the world.
- The gender perspective ensures the efficiency and sustainability of the project, and promotes equality with respect to opportunities and benefits distribution.
- The assurance greatest environmental awareness.
- The enhancement of resilience in communities, due to the importance given to the needs, concerns and issues of the whole families.
- Greatest socio-environmental benefits for the communities.

## 2. Skills reinforcement

**Specific aim:** The improvement in the understanding of gender matters, these matters could be created through personal experiences, between partners, actors, technical staff, AMBIO, community technicians and people living in the communities where the project will be executed.

To fortify skills and awareness of:

- AMBIOS´s administrative and technical staff.
- CONANP´s administrative and technical staff.
- Men, women, children and adults in the communities and work teams.

## **Justification**

- The social diagnoses and training workshop replenish the need to approach the gender perspective (surveys of social capitals applied to the community people and online surveys applied to public sector employees).
- The institutional skills reinforcement improves the replication and resilience affirmative actions.
- It speeds up the information and knowledge disclosure.
- It contributes to the aims fulfillment.
- The people involved on the design and execution of the project have expressed the need to fortify this aspect.

### **3. Development of concrete proposals about community participation and equitable distribution of benefits**

**Specific aim:** To elaborate a proper gender analysis in order to increase the understanding the positions and relationships between genders and with the environment as well, and in order to know the women and men's needs and to explore action opportunities as well. This objective has the purpose to design and execute activities in accordance with the socio-environmental context and the criteria of the Indigenous Peoples Plan and the Stakeholders Engagement Plan, seeking that the benefits will be distributed equally, this way gender and structural inequality will not be promoted.

#### **Justification:**

- It is the most important tool to establish the base line.
- Recognized methodology will be used.
- Community participation is a good proposal to approach gender perspective in environmental projects.
- It is necessary to obtain information about quality disaggregated by sex.
- The gender analysis is fundamental for the development of the strategic line number 1.

#### **Gender Analysis:**

The gender analysis that will be performed during the implementation stage seeks to:

- Dive into the understanding of political and social context (programs, initiatives, projects, etc.).
- Know and visualize the use, access and control of resources.
- Know and value the gender roles and the main activities developed by different social groups.
- Identify gender gaps and disparities.
- Analyze power relationships.
- Analyze the project's social and environmental risks.
- Identify opportunities for actions.
- Identify forms to accomplish the equal distribution of benefits.

For the development of the Gender Analysis, approaches to the communities will be handled according to the situations of each one, considering the times, forms and issues of every one. The target population could be compound by men, women and mixed groups. To seek the information, it will be necessary to create workshops, focal groups, interviews and even adaptations to the Plan Vivo.

Once the gender analysis is completed, the next step is to design the monitoring and evaluation indicators, as well as the elements and actions that will be executed as a part of the action plan a community level.

#### **4. Institutionalization of gender perspective in AMBIO**

**Specific aim:** With the results and experiences obtained and systematized, AMBIO's team can analyze and incorporate the gender perspective into its institutional guidelines with the aim to mainstream this perspective in all actions and activities that the organization are creating.

##### **Justification:**

- AMBIO has successful experiences working with women; nevertheless AMBIO does not count with specific guidelines for the development of projects with a gender perspective.
- People involved in the design and execution of the project, have expressed the need to reinforce this aspect.
- Staff turnover does not allow the knowledge tenure.

##### **4.2. Project stages**

The Action Plan fits into the main stages of the project, remarking the general actions that will be developed in each stage and linking these actions to the corresponding strategic line. The indicators are shown on the last column of tables 3, 4 and 5, which will be the support tool for the monitoring and fulfillment of the specific aims.

**Table 3. Design and planning**

Actions	Indicators
An expert in gender matters will be required, who may provide technical assistance to people.	The presence or absence of an expert
It is necessary to promote gender equality between the people working at AMBIO without affecting the quality in the execution of the project.	The percentage of men and women employed by AMBIO
The development of a gender pre-diagnosis: <ul style="list-style-type: none"> <li>• Surveys of capitals (See diagnosis section)</li> <li>• Field visits</li> <li>• Informal interviews</li> <li>• Bibliographic review</li> </ul>	The gender diagnosis inside GMS
The development of a GMS and its respective indicators, with gender aims	The existence of a GMS and its respective aims and indicators
The support and coordination between all areas of the project: administration, field work and institutional	The assistance to the gatherings performed by the gender matters expert

coordination	
The budget	The budget assigned to the development of the activities included in the Action Plan
The design of tools for the continuous data recollection	The collection of field indicators
The design of a scheme of complaints and accusations	The existence of a complaints and accusations scheme
The development of a diagnosis to identify the training needs	The existence of a diagnosis in needs capture

**Table 4. Implementation**

Actions	Indicators
<b>Organization</b>	
Qualified staff (the employees will be trained otherwise new qualified members will be hire)	The staff has received several hours of training about the mainstreaming of gender perspective
An equal number of men and women will be maintained in the work team without risking the skills and job quality of the people involved	Percentage of men and women in the team
The presence of an expert on gender matters for the execution of activities included in the gender diagnosis	Presence or absence of the expert
<b>Field activities</b>	
The Stakeholders Engagement Plan will be pursued, as well as the guidelines for the previous free and informed agreement and also the plan for indigenous communities	Number of the persons involved in the project, the origin and title of them. Acceptance document released by the person in charge of some activities of the project
The collection of information and data (Individual Plan Vivo), identifying the activities by gender.	The existence of Individual Plan Vivo
A gender analysis will be implemented	The existence of a base line, indicators development, defined benefits distribution, activities and action elements which are emphasized, designed and implemented.
<b>Adaptive management</b>	
The formulation of reports and analyses of indicators and information.	A matching of reports with the original aims of the project
Complaints and accusations resolution	The number of complaints and accusations presented and solved
Attention to the cases of damage compensation that could be made during the implementation	The number of the cases of damage compensation and the resolution of those

**Table 5. Monitoring and evaluation**

Actions	Indicators
Examination and feedback of the tools that will be used for the continuous data gathering	Feedback obtained by the use of those tools managed by the work mates
Formulation of analysis reports about information and indicators	Reports completed
Evaluation of data and adjustment of the project if it is necessary	Matching of the reports with the base line, the actual situation of the project, etc.
Monitoring of complaints and accusations mechanism	The resolution of complaints and accusations
Monitoring of the cases of damage compensation that could be made during the implementation	Resolution of the cases of damage compensation

## 5. FUNDING AND COST ESTIMATES

In order to ensure GMS proper implementation an execution, it is necessary to point out the financial needs and the human capital that must be considered during all stages of the project. This is a task that requires timing and consistency with the general budget of the project. According to established on the general project and naturally with the guaranty that men and women involved will have an agreed participation, the budget is reflected on Table 6.

**Table 6. Description and disaggregation of the budget needed for the execution of GMS along 3 years of project.**

Concept	Description	Year 1	Year 2	Year 3	Total USD
Skills reinforcement	Diagnosis of training needs and awareness; design and implementation of workshops or training programs for operators (technicians, institutions)	1,700	1,500	---	3,200
Gender Analysis	Implementation of gender analysis tools in the communities and the development of indicators	5,000	---	---	5,000
	The report of information obtained from the communities	---	500	---	500
Implementation of activities and elements	The design of elements and implementation of actions in the chosen communities according to the gender analysis	---	2,500	2,500	5,000
Appearance of complaints and resolutions	Costs of legal advice and visits to the communities in order to do business and to obtain the CLIP	---	---	---	3,000
The need to make damage	If it is necessary damage compensations will be made	---	---	---	5,000

compensations					
First analysis of information and gender indicators	Report and analysis of information and gender indicators	2,000	---	---	2,000
Second analysis of information and gender indicators	Report and analysis of information and gender indicators	---	2,000	---	2,000
Final Report	Analysis, results, suggestions and learned lessons	---		2,500	2,500
Institutionalization of the gender perspective	The design and development of a handbook and guidelines to mainstream the gender perspective into the projects and actions of AMBIO		1,000	---	1,000
<b>TOTAL</b>		8,700	7,500	5,000	<b>29,200</b>

**APPENDIX VIII: GEF tracking tool by focal area**

(see email attachment)

## APPENDIX IX: Detailed Project Budget

### Detailed GEF Project budget

Version (date) 7/9/2015

GEF Project ID:	5751	Indicative Project starting date	Aug-15
Project Title:	Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy.		
Executing Agencies :	Cooperativa AMBIO, S.C. de R.L.		
Project Amount GEF-funded (USD) :	1,009,174	Indicative Project end date :	Jul-18

Project Amount co-financing (USD) : 3,962,462

Total Project Amount (USD) : 4,971,636 Duration (in years): 3

Component 1 description : Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration).

Component 2 description: Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM)

GEF FUNDED BUDGET		Project budget by component (in USD)				Project budget per year (in USD)			
EXPENSES TYPE	DESCRIPTION	Project							
		Component 1	Component 2	Management Costs	Total	YR1	YR2	YR3	TOTAL
Salaries and benefits	<i>General Director, 80%</i>	32,220	32,220		64,440	21,480	21,480	21,480	64,440
Salaries and benefits	<i>General Coordinator, 100%</i>	26,100	26,100		52,200	17,400	17,400	17,400	52,200
Salaries and benefits	<i>3 Regional Coordinator, 100%</i>	55,080	55,080	-	110,160	36,720	36,720	36,720	110,160
Salaries and benefits	<i>Logistic assistant, 100%</i>	12,785	13,095	29,340	55,220	18,200	18,510	18,510	55,220
Salaries and benefits	<i>Administrative Assistant, 100%</i>								
Salaries and benefits	<i>Financial advisor 15%</i>								
Salaries and benefits	<i>Regional technical advisor 70%</i>	20,610			20,610	6,870	6,870	6,870	20,610
Salaries and benefits	<i>Community technical advisor 70%</i>	51,000			51,000	15,000	18,000	18,000	51,000
<b>Total Personnel Salaries and benefits</b>		<b>197,795</b>	<b>126,495</b>	<b>29,340</b>	<b>353,630</b>	<b>115,670</b>	<b>118,980</b>	<b>118,980</b>	<b>353,630</b>
Temporary staff - Field activities	<i>Fire brigades Prevention and monitoring in forest areas to prevent forest fires</i>	181,400	-	-	181,400	78,200	77,700	25,500	181,400
	<i>Seeds collections of local species for plant production</i>								
	<i>Establishment and management of nurseries</i>								
	<i>Demonstration plots</i>								
Consultants fees - National	<i>Determining the baseline carbon in forest areas</i>	10,000			10,000	5,000	5,000		10,000
Consultants fees - National	<i>Update technical specifications for determining the amount of carbon capture agroforestry system</i>	11,000			11,000	7,000	4,000		11,000
Consultants fees - National	<i>Systematization of experience in the Scolel te program, with emphasis on lessons learned</i>	5,000			5,000	5,000			5,000
Consultants fees - National	<i>Consulting for the development of gender actions</i>	24,200			24,200	10,700	8,000	5,500	24,200
Consultants fees - National	<i>Consulting service to support Ambio in the preparation of the reports as part of the Monitoring and Evaluation plan</i>	29,000			29,000	9,700	9,700	9,600	29,000
Consultants fees - National	<i>Consulting for carbon markets in buyers and demands</i>	4,000			4,000	2,000	2,000		4,000
Consultants fees - National	<i>Development of a marketing strategy for selling carbon bonds derivatives of this proposal</i>	8,000			8,000	4,000	4,000		8,000
Consultants fees - National	<i>Monitoring the development of the project activities.</i>	2,500			2,500	1,000	1,500		2,500
Consultants fees - National	<i>Protocol implementation for indigenous peoples to ensure their free and consensual participation to the project</i>	16,000			16,000	5,500	3,500	7,000	16,000
Consultants fees - National	<i>Specialists to provide knowledge in improving production systems</i>	17,900			17,900	7,200	5,300	5,400	17,900
Consultants fees - National	<i>Consulting for the design and implementation of a training plan on issues of climate change and mitigation for institutional actors</i>	7,500			7,500	5,000	2,500		7,500
Consultants fees - National	<i>Design and dissemination of materials for the project communication</i>	11,500			11,500	3,000	4,500	4,000	11,500
Consultants fees - International	<i>Project Evaluation (mid term review and terminal evaluation)</i>	-	-	33,000	33,000	-	18,000	15,000	33,000
Other fees / professional services	<i>Translations of English to Spanish for the dissemination of project documents</i>	4,500	4,500		9,000	1,000	5,000	3,000	9,000
Auditing fees	<i>Annual financial project audit</i>	-	-	28,500	28,500	9,500	9,500	9,500	28,500
<b>Total Professional Services</b>		<b>295,600</b>	<b>41,400</b>	<b>61,500</b>	<b>398,500</b>	<b>153,800</b>	<b>160,200</b>	<b>84,500</b>	<b>398,500</b>

International Transportation	<i>Off Training</i>	4,000	4,000		8,000	4,000	2,000	2,000	8,000
Local transportation	<i>Staff Training</i>	2,875	3,050		5,925	2,100	2,100	1,725	5,925
Local transportation	<i>Field visit expenses</i>	10,480	5,400		15,880	4,810	5,640	5,430	15,880
Fuel	<i>Field visit expenses</i>	26,700	14,000		40,700	12,320	14,460	13,920	40,700
Lodging / meals / per diem	<i>Field visit expenses</i>	26,745	14,000		40,745	12,335	14,465	13,945	40,745
Lodging / meals / per diem	<i>Staff training</i>	4,700	4,700		9,400	4,100	2,600	2,700	9,400
Lodging / meals / per diem	<i>Community Exchange : Meetings / travel to meet between representatives of communities to gain knowledge and experience in specific topics</i>		42,850		42,850	14,285	14,285	14,280	42,850
<b>Total Travel and Accommodations</b>		<b>75,500</b>	<b>88,000</b>	<b>-</b>	<b>163,500</b>	<b>53,950</b>	<b>55,550</b>	<b>54,000</b>	<b>163,500</b>
Space rental and material for Workshops	<i>Technical committee meetings, Management committees, workshop or seminar for staff</i>	6,500	6,500		13,000	6,200	3,600	3,200	13,000
<b>Total Meetings and workshops</b>		<b>6,500</b>	<b>6,500</b>	<b>-</b>	<b>13,000</b>	<b>6,200</b>	<b>3,600</b>	<b>3,200</b>	<b>13,000</b>
<b>Total Grants &amp; Agreements</b>									
Furniture and equipment > 5000 USD	<i>Vehicle for field activities</i>	8,000	8,000		16,000	16,000			16,000
Furniture and equipment < 5000 USD	<i>2 Motorcycles for field activities</i>	1,800	2,000		3,800	3,800			3,800
<b>Total Equipment</b>		<b>9,800</b>	<b>10,000</b>	<b>-</b>	<b>19,800</b>	<b>19,800</b>	<b>-</b>	<b>-</b>	<b>19,800</b>
Office operating costs	<i>office costs + Stationery+Bank fees+ freight postage</i>	8,039	4,785		12,824	4,424	4,200	4,200	12,824
Car maintenance, insurance, registration	<i>maintenance for vehicles used in the project</i>	1,125	1,125		2,250	500	500	1,250	2,250
field work supply	<i>Plant nurseries materials and substrates Demonstration plots materials Safety equipment for community forest fire brigade members and small materials</i>	45,670	-		45,670	25,230	20,440	-	45,670
<b>Total Other Direct Costs</b>		<b>54,834</b>	<b>5,910</b>	<b>-</b>	<b>60,744</b>	<b>30,154</b>	<b>25,140</b>	<b>5,450</b>	<b>60,744</b>
<b>Total GEF funded project costs</b>		<b>640,029</b>	<b>278,305</b>	<b>90,840</b>	<b>1,009,174</b>	<b>379,574</b>	<b>363,470</b>	<b>266,130</b>	<b>1,009,174</b>

## APPENDIX X: Co-financing Commitment Letters

2011 Crystal Drive, Suite 500, Arlington, VA 22202, USA  
Tel: +1 703 341.2400  
Fax: +1 703 553.4817  
[www.conservation.org](http://www.conservation.org)



May 27, 2015

Subject: Co-Financing support for "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva El Ocote Biosphere Reserve as a climate change mitigation strategy (Chiapas, Mexico)".

On behalf of Conservation International, I am pleased to commit \$ 210,000 in co-financing to support the GEF Funded Project, "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva El Ocote Biosphere Reserve as a climate change mitigation strategy (Chiapas, Mexico)".

This co-financing will support the Project Management Costs during the period of July 2015 to June 2018.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely,

A handwritten signature in black ink, appearing to read "Jen Morris".

Jennifer Morris,  
Chief Operating Officer, Conservation International



20 años

FONDO MEXICANO  
PARA LA CONSERVACIÓN  
DE LA NATURALEZA, A.C.  
Institución privada

May 20th, 2015.

**Ms. Lilian Spijkerman**  
**Vice President and Managing Director, CI-GEF Project Agency**  
**2011 Crystal Drive**  
**Suite 500**  
**Arlington, Virginia 22202**  
**USA**

**Subject: Co-Financing support for "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy "**

**Dear Ms. Spijkerman,**

On behalf of FONDO MEXICANO PARA LA CONSERVACION DE LA NATURALEZA, A.C. I am pleased to commit \$100,894.28 USD, in co-financing to Conservation International in support of the GEF Funded Project, "*Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy*".

This co-financing will support : Component I and 2 the this project, during the period of January of 2015 and December of 2016.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely,

A handwritten signature in black ink, appearing to read "Juan Manuel Frausto Leyva".

Juan Manuel Frausto Leyva  
Director  
Programa de Conservación de Bosques y Cuenca  
Fondo Mexicano para la Conservación de la Naturaleza, A. C.

**20** años construyendo futuro  
<http://fmcn.org>

Dámaso 48, Col. San José Insurgentes, C.P. 03900, México, D.F. • Jericó 26, Col. Badillo, C.P. 91190, Xalapa, Veracruz  
Acceso Zofemat 3230, Col. El Mangito, C.P. 23060, La Paz, B.C.S. • Av. Acanceh SM 11, piso 3-B, ofc. 323, Cancún, Q. Roo



Ms. Lilian Spijkerman  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

**Subject: Co-Financing support for "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy"**

Dear Ms. Spijkerman,

On behalf of Fondo Mexicano para la Conservación de la Naturaleza, A.C., I am pleased to commit \$45,000 USD in co-financing to Conservation International in support of the GEF Funded Project, "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy".

This co-financing will support the Component 2 "Farmers (men and women), community extension workers, NPA technical committees and CONANP and SEMAHN staff members trained on sustainable forest management (SFM) and improved productive landscapes management (PLM) practices for carbon dioxide capture and storage" during the period of the year 2015.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ana Laura Barillas Gómez".

Ana Laura Barillas Gómez  
Directora - Programa de Conservación de Áreas Naturales Protegidas



Ms. Lilian Spijkerman  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

2nd June 2015

## DRAFT

Dear Ms. Lilian Spijkerman

**Maintaining Carbon Stores in El Ocote, Chiapas, Mexico**

On behalf of Ecometrica, I am pleased to offer up to £150,000 in co-financing to Conservation International in support of the GEF Funded Project, "Maintaining and Increasing Stores of Carbon in Agroforestry Systems of Rural Communities in the El Ocote Biosphere Reserve, Chiapas, Mexico". This amount will be provided as part of the UK Government's International Partnership Space Programme.

This co-financing will support the work of Ambio's mapping and spatial analysis work up to March 2016.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Richard Tipper'.

Dr Richard Tipper  
Executive Chairman  
Ecometrica



CONANP  
COMISIÓN NACIONAL  
DE ÁREAS NATURALES  
PROTEGIDAS

15 AÑOS  
CONSEGUIMOS EL  
PATRIMONIO NATURAL  
para el Futuro de México

**COMISIÓN NACIONAL DE ÁREAS NATURALES PROTEGIDAS  
REGION FRONTERA SUR, ISTMO Y PACÍFICO SUR**  
"201b Año del General José María Morelos y Pavón"

Oficio No. F00.- DRFSIPS/682/2015  
Tuxtla Gutiérrez, Chiapas, 05 de junio del 2015.

Asunto: Cofinanciamiento

MISS. LILIAN SPIJKERMAN  
VICE PRESIDENT AND MANAGING DIRECTOR,  
CI-GEF PROJECT AGENCY  
2011 CRYSTAL DRIVE, SUITE 500  
ARLINGTON, VIRGINIA 22202  
USA

Por medio de la presente, la Comisión Nacional de Áreas Naturales Protegidas (CONANP) ratifica su interés y compromiso para liderar el proyecto "Manejo e incremento de reservorios de Carbono en sistemas agrosilvopastoriles en comunidades rurales del complejo Selva Zoque - Cañón del Sumidero, como una estrategia de mitigación ante el Cambio Climático", que será ejecutado en conjunto con CI-GEF.

Con este proyecto la CONANP busca que las Áreas Naturales que nos ocupan, se fortalezca el desarrollo sostenible de bosques primarios y secundarios, así como prácticas de producción en paisajes agropastoriles que conllevar a la reducción de la emisión de gases efecto invernadero, mejorando las prácticas de gestión de paisajes productivos para captura y almacenamiento de carbono.

La CONANP otorgará recursos en el orden de US \$ 260,000.00 de presupuesto en especie por el periodo 2015-2018.

Cualquier compromiso de recursos quedará condicionado a las autoridades mencionadas por parte de la cámara de Diputados y la Secretaría de Hacienda y Crédito Público.

Estamos a sus órdenes para cualquier duda y aprovecho la presente para enviarle saludos cordiales.

ATENTAMENTE  
DIRECTOR REGIONAL

SOC. JOAQUIN ZEBADUA ALVA  
C.c.p. Archivo



Región Frontera Sur, Istmo y Pacífico Sur.  
2º Oriente Norte No. 227 Palacio Federal, 3er piso, Col. Centro, Tuxtla Gutiérrez, Chiapas, México.  
C.P. 29000. Tel: 01 (961) 61 337 87, 139 75 y 138 72. www.conanp.gob.mx



**15 AÑOS**  
CONTRIBUYENDO AL  
PATRIMONIO NATURAL  
EN EL FUTURO DE MÉXICO

**COMISIÓN NACIONAL DE ÁREAS NATURALES  
PROTEGIDAS**

**DIRECCIÓN GENERAL DE DESARROLLO INSTITUCIONAL  
Y PROMOCIÓN**

**DIRECCIÓN ENCARGADA DE ESTRATEGIAS DE CAMBIO  
CLIMÁTICO**

**OFICIO NO. DGDIP/DECC/006/15**

México, D. F., a 27 de mayo de 2015

"2015, Año del Generalísimo José María Morelos y Pavón"

**MS. LILIAN SPIJKERMAN  
VICEPRESIDENTA Y DIRECTORA DE MANEJO  
AGENCIA DE PROYECTOS CI-GEF  
PRESENTE**

Por medio de la presente la Comisión Nacional de Áreas Naturales Protegidas (CONANP), ratifica su interés y compromiso para contribuir al proyecto "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque – Sumidero Canyon complex as a climate change mitigation strategy" a través del cofinanciamiento a Conservación Internacional en especie de \$100,000.00 USD durante el tiempo que dure el proyecto y que es parte de la Dirección a mi cargo.

La contrapartida apoyará al componente 2 del proyecto referente a "El desarrollo de capacidades a nivel institucional y local para reducir las emisiones de gases de efecto invernadero provenientes del cambio de uso de suelo ocasionado por el sector agropecuario en Chiapas".

Es importante mencionar que el compromiso de recursos quedará condicionado a las autorizaciones por parte de la Cámara de Diputados y de la Secretaría de Hacienda y Crédito Público del Gobierno Federal mexicano.

Estamos a sus órdenes para cualquier duda y aprovecho la presente para enviarle saludos cordiales.

**ATENTAMENTE,  
EL DIRECTOR ENCARGADO DE ESTRATEGIAS  
DE CAMBIO CLIMÁTICO**

  
**ANDREW JOHN RHODES ESPINOZA**

Calle 111, Ajusco No. 360, Col. Iztacalco, Deleg. Tlalpan, C.P. 14310, México, D.F.  
Tel. (55) 5499 - 7000 - [www.conanp.gob.mx](http://www.conanp.gob.mx)



**CONABIO**

CONSEJO NACIONAL DE  
BIODIVERSIDAD Y RECURSOS BIOLÓGICOS

COORDINACIÓN GENERAL DE  
CORREDORES Y RECURSOS BIOLÓGICOS

Dirección General de  
Corredores Biológicos

**Of. CGCRB/DG-037/2015**  
Mexico City, May 11th., 2015.

"2013, Año de la Fealdad Institucional y Centenario del Ejército Mexicano".

**Ms. Lilian Spijkerman**  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

**Issue:** Co-Financing support for the Project "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy"

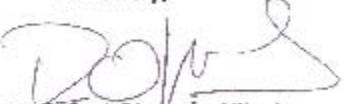
Dear Ms. Spijkerman,

On behalf of the National Commission for the Knowledge and Use of Biodiversity (CONABIO), I would like to inform you that, in case of budget availability, CONABIO could commit \$ 32,896.36 us dollars (500,000.00 pesos), thirty two thousand eight hundred ninety six dollars and thirty six cents (Five hundred thousand pesos) to co-fund Conservation International in the above mentioned GEF Funded Project.

The budget would support Component 2: Capacity building at the institutional and local levels to reduce greenhouse gases emissions arising from land use change by agricultural sector in Chiapas, for two years starting next November.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely,

  
Ing. Rafael Obregón Viloria  
General Director of Biological Corredors

ROF/DAV/gcm

Lixa Perdición • Lázaro Cárdenas 360, Col. Polanco, Delegación Miguel Hidalgo, 11300, Mexico, D.F.  
(tel.: 5243 3019, 5243 3061) [www.conabio.gob.mx](http://www.conabio.gob.mx) | [www.mnbiwerid.gob.mx](http://www.mnbiwerid.gob.mx)



## COOPERATIVA AMBIO, S. C. DE R. L.

San Cristóbal de las Casas, Chiapas a 4 de Junio de 2015

Ms. Lilian Spijkerman  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

Subject: Co-Financing support for: "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy"

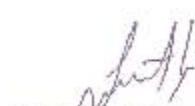
Dear Ms. Spijkerman,

On behalf of Cooperativa AMBIO SC de RL, I am pleased to commit \$ 133,904.50 USD, in co-financing to Conservation International in support of the GEF Funded Project, "Maintaining and increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy".

This co-financing will support components 1 and 2 of this project, regarding the technical training and assistance for the sell the carbon credits during the period June 2015 to June 2018.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely

  
Sotero Quechulpa Montalvo  
Legal Representative of AMBIO  
Cerrada Emiliano Zapata No.4  
Col. El Relicario, San Cristóbal de Las Casas, Chiapas, México

Cerrada Emiliano Zapata No.4, Col. El Relicario, C.P. 29085  
San Cristóbal de Las Casas, Chiapas, Mex. Tel. y Fax (01 967) 37 84 28  
Email: ambio@prodigy.net.mx Página web: www.ambio.org.mx, www.parcos.org.mx, www.climatologos.mx



SECRETARÍA DE MEDIO AMBIENTE  
E HISTORIA NATURAL

GOBIERNO DEL  
ESTADO DE CHIAPAS



SEMAHN/0571/2015

Tuxtla Gutiérrez, Chiapas.  
Junio 05, 2015.

Ms. Lilian Spijkerman  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

**Apoyo de cofinanciamiento para:** "Mantenimiento e incremento de acervos de carbono en sistemas agro-silvopastoriles en comunidades rurales del complejo Selva Zoque-Coán del Sumidero como una estrategia para la mitigación del cambio climático".

**Estimada Ms. Spijkerman:**

A nombre de la **SECRETARÍA DE MEDIO AMBIENTE E HISTORIA NATURAL**, me complace informarle el compromiso para destinar US \$375,021.07 [con recursos ejercidos durante el 2014 dentro del Proyecto financiado con el anexo 30 de Egresos de la Federación y con recursos del presupuesto de inversión 2015 del Gobierno del Estado dentro del proyecto "Monitoreo Biológico y Social en Áreas Naturales Protegidas Estatales] como apoyo para cofinanciamiento del proyecto que será financiado por el Fondo para el Medio Ambiente Mundial (GEF) "Mantenimiento e incremento de acervos de carbono en sistemas agro-silvopastoriles en comunidades rurales del complejo Selva Zoque-Coán del Sumidero como una estrategia para la mitigación del cambio climático".

Esta cofinanciamiento apoyará los componentes 1 y 2 de éste proyecto, en relación con el desarrollo de estrategias para la gestión forestal sostenible y de prácticas agroforestales de éste complejo, durante los años 2015-2018.

Esta contribución descrita anteriormente pretende calificar como **cofinanciación** para que la propuesta logre sus objetivos y metas.

SINCERAMENTE  
  
LIC. CARLOS ORSOE MORALES-VÁZQUEZ  
SECRETARIO



C.C.P. Lic. Joaquín Zebadúa Alba - Director Regional de la Promera Sur, Imsa y Distrito Sur de la Comisión Nacional de Áreas Naturales Protegidas - Para su conocimiento  
Ing. Elsa Esquivel Bazzan - Directora General de la Asociación Cooperativa Ambio - Mismo fin.  
Lic. Jesús Antonio Guillén Gordillo - Subsecretario de Medio Ambiente de la SEMAHN - Mismo fin.  
C.P. Arquimedes Camarena Mingo - Jefe de la Unidad de Apoyo Administrativo de la SEMAHN - Mismo fin.  
Biel Pader-Sánchez Montero - Director de Áreas Naturales y Vida Silvestre de la SEMAHN - Mismo fin.



"2015, Año del Generalísimo José María Morelos y Pavón"

Oficina del C. Secretario

SECRETARÍA  
DEL CAMPO

Oficio No. SC/OC/ 0114 /2015

Tuxtla Gutiérrez, Chiapas,

a 11 de junio, de 2015

Asunto: Carta de contrapartida

M en C Elsa Esquivel Bazán  
Directora del proyecto  
Cooperativa AMBIO SC de RL  
P r e s e n t e.

En atención a su solicitud de carta de contrapartida para inicial via GEF, signada por Usted con fecha 2 de junio del presente, tengo a bien hacer de su conocimiento el interés de esta secretaría para contribuir al proyecto "Maintaining and Increasing carbon stocks in agro-silvopastoral system in rural communities of the selva zoque-sumidero Canyon complex as a climate change mitigation strategy"; "Mantenimiento e incremento de los almacenes de carbono en sistemas agroforestales en comunidades rurales de la Reserva de la Biosfera Selva el Ocote - Cañón del Sumidero, como una estrategia de mitigación del cambio climático", mediante un proceso de coparticipación financiable a Conservación Internacional, con una aportación del orden de 19.5 millones de pesos (1,260,923 \$ USD), durante el 2015.

La referida contrapartida se destina en apoyos a través de proyectos productivos que permiten generar alternativas para producir alimentos y generar ingresos en beneficio de las familias, en un entorno de aprovechamiento sustentable de las recursos naturales y potencial de la región.

Cabe señalar que esta contrapartida de recursos está condicionada a las asignaciones presupuestarias que el gobierno del estado autorice a esta Secretaría, de conformidad con el programa de inversión previsto en el Presupuesto de Egresos del Estado de Chiapas, para el presente ejercicio.

Sin más por el momento, aprovecho la oportunidad para enviarle un cordial saludo.

Atentamente

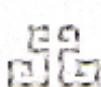
Lic. José Antonio Aguilar Bodegas  
Secretario del Campo



C.c.p./Archivo

Carretera Juárez-Crispi-Chiapas, Km. 2.5; Tuxtla Gutiérrez, Chiapas  
CentroTel: 617 73 90 Ext: 43007, 43000, 43362 y 43363

CHIAPAS NOS UNIR

**CDI**COMISIÓN NACIONAL  
PARA EL DESARROLLO  
DE LOS PUEBLOS INDÍGENAS

Oficio Núm. DCHIS/CCDI/DIR/OCOZ/2015/OF/092

CCDI de Ocozocoautla de Espinosa, Chiapas  
Dirección del Centro

MS Lilian Spijkerman  
Vicepresidenta y Directora de Manejo  
Agencia de Proyectos CI\_GEF  
Presente:

Ocozocoautla de Espinosa, Chiapas; a 8 de Junio de 2015.  
"2015, Año del Generalísimo José María Morelos y Pavón"

Por este medio me dirijo a usted, para hacer de su conocimiento que dentro de la función del Centro Coordinador de Desarrollo Indígena dependiente de la Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI), destaca especial interés el de contribuir al proyecto "Maintaining and increasing carbón stocks in agro-silvopastoral systems in rural communities of the Selva Zoque – Sumidero Canyon complex as a climate change mitigation strategy" a través del financiamiento de proyectos productivos a las comunidades indígenas del área de cobertura del CDI y así también hacer de su conocimiento que en el ejercicio 2014, se erogó un monto de 2,610,575.00 en apoyo a las comunidades indígenas de la región y contribuir así durante el tiempo que dure el proyecto.

La contrapartida apoya al componente 2 del proyecto referente a "El desarrollo de capacidades a nivel institucional y local para reducir las emisiones de gases de efecto invernadero provenientes del cambio de uso de suelo ocasionado por el sector agropecuario en Chiapas".

Es importante mencionar que la asignación de recursos quedara condicionada a las autorizaciones por parte de la Cámara de Diputados y de la Secretaría de Hacienda y Crédito Público.

Sin otro particular por el momento, estamos a sus órdenes para cualquier duda y aprovecho la presente para enviarle saludos cordiales.

Atentamente

MVZ. Gerardo Tomás Zenteno Molina  
Director del CDI  
Ocozocoautla de Espinosa, Chiapas.



C.c.p. Expediente.

Carretera Ocozocoautla Apizaco Km. 1.1  
Ocozocoautla de Espinosa, Chiapas



2015, Año del Generalísimo José María Morelos y Pavón

Dirección General  
Oficio DG-070R/2015  
Zapopan, Jal. a 07 de julio del 2015

**Maestra**  
**Elsa Esquivel Bazán**  
**Directora General**  
**Cooperativa AMBIO, S.C.**  
**Presente**

Recientemente, la Comisión Nacional Forestal (CONAFOR) tuvo conocimiento del proyecto denominado "Manejamiento e incremento de acervos de carbono en sistemas agro-silvopastoriles en comunidades rurales del complejo Selva Zoque-Cárdenas del Sumidero como una estrategia para la mitigación del cambio climático" a ser financiado por el Fondo para el Medio Ambiente (FEM).

Al respecto, le comento que la CONAFOR a través del Programa Nacional Forestal (PRONAFOR) tiene presencia en el área del proyecto, habiéndose destinado a la fecha apoyos en un 70%. Para el año 2016 se estima que se invertirá el monto restante de US\$ 1,000,000.00 (un millón de dólares), en lo que se refiere a los siguientes componentes:

1. Componente 1. Bosques primarios de selva y crecimiento manejados sustentablemente y prácticas de producción en paisajes agro-forestales integrados.
2. Componente 2. Agricultores, extensionistas comunitario, comités técnicos y funcionarios de la CONAFOR, CONAMP y SEMANIF, capacitados en manejo forestal sustentable y en prácticas mejoradas de manejo de paisaje productivos.

Este monto, pudiera ser considerado para los propósitos de gestión del proyecto como una contraparte del mismo.

Cabe mencionar que este financiamiento se obtiene a través de apoyos del PRONAFOR que están sujetos a Reglas de Operación y Lineamientos Anuales para lo cual ejidas y comunidades que los solicitan deben de cumplir con los requisitos establecidos en los mismos.

Sin otro particular, le envío un saludo.

Atenciamete,

Jorge Rescalá Pérez  
Director General

Cc: Mtro Salvador Arturo Beltrán Rosíz, Director General Adjunto. Presente.  
Ing. Gerardo Arturo García Jaramillo, Coordinador General de Pruducción y Productividad. Presente.  
Dr. Enrique Serrano Gómez, Comisionado General de Planeación e Información. Presente.  
Dir. Francisco Quiroz Aceves, Titulado a la Unidad de Asuntos Internacionales y Fomento Financiero. Presente.

TP/CC/frag

1 de 1

Periférico Poniente No. 5360, Col. San Juan de Ocotán, CP. 45019, Zapopan, Jalisco  
Tel.: +52 (33) 3777 7000 ó 78 - [www.conafor.gob.mx](http://www.conafor.gob.mx)  
[directorgeneral@conafor.gob.mx](mailto:directorgeneral@conafor.gob.mx)



8<sup>th</sup> June 2015

Ms. Lilian Spijkerman  
Vice President and Managing Director, CI-GEF Project Agency  
2011 Crystal Drive  
Suite 500  
Arlington, Virginia 22202  
USA

**Subject: Co-Financing support for "Maintaining and Increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy"**

Dear Ms. Spijkerman,

On behalf of Plan Vivo Foundation, I am pleased to commit \$15,900, in terms of Plan Vivo staff time, in co-financing to Conservation International in support of the GEF Funded Project, "Maintaining and Increasing carbon stocks in agro-silvopastoral systems in rural communities of the Selva Zoque - Sumidero Canyon complex as a climate change mitigation strategy".

This co-financing will support Component 1 – "Primary and second-growth forests managed sustainably and production practices in agro-pastoral landscapes improved (to reduce greenhouse gas emissions and increase carbon sequestration)" during the period of 1 July 2015 – 30 June 2018.

This contribution as described above is intended to qualify as co-financing should the project proposal be successful.

Sincerely,

Christopher Stephenson  
Head of Operations, Plan Vivo Foundation