



Integrated Management of the Chimalapas Watersheds, Oaxaca, Mexico

**Midyear Report
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1) Background on Program

For more than a decade, WWF, with its local NGO partners, has participated in the processes and steps towards establishment of sustainable management and conservation schemes in the broad Chimalapas region, including production of forest vegetation maps, participation in the creation of the Community Statute to guide sustainable land-use planning in *San Miguel Chimalapa*, technical and other assistance for sustainable productive activities and economic alternatives, collaborative work to delineate community protected areas, enforcement measures (e.g. in *La Gringa*), and advocacy and dissemination campaigns to highlight to Mexican audiences the importance of the Chimalapas (e.g.. the publication entitled “Chimalapas: *La Última Oportunidad*).

CI (Conservation International) partner NGOs, such as ITAO (Technological Institute of Agriculture in Oaxaca), together with the other members of the project team, began work in the Chimalapas in January of 2000, with initial work concentrated on community assessment and planning processes. Based on an initial agreement with the municipality of San Miguel Chimalapa, the planning process focused on developing proposals for productive projects related to sustainable natural resource management (especially agroforestry) in several communities. An important outcome of this initial planning phase was the building of social capital in the form of strong working relationships and trust among all partners involved, including both the local communities as well as governmental and non-governmental stakeholders active in the region.

a) Description of the region

The Selva Zoque region, located on the Isthmus of Tehuantepec along the borders of Oaxaca, Veracruz and Chiapas, is one of the most biologically diverse areas remaining in Mexico (Annex 1). The mountainous topography (elevations range from 200 to 2,500 m.a.s.l.) and tropical climate support a wide range of ecosystems that are still relatively contiguous and intact. Complex interactions between topography and climate also contribute to the existence of diverse ecosystems and microclimates that support an exceptionally high degree of endemism and many threatened species. The diverse ecosystems in the Selva Zoque have been broadly categorized into nine distinct vegetation types, including dry tropical deciduous forests, wet rainforests, high elevation pine-oak forests, and, on the highest mountains, cloud forest and elfin forests. Of these ecosystems, tropical montane cloud forest is considered to be one of the most globally threatened ecosystems and in danger of extinction in Mexico. Although cloud forests comprise less than 1% of Mexico’s territory, they encompass approximately 10-12% of the country’s floral diversity and possess a degree of endemism of 30% at the species level and up to 73% for epiphytic plants.

The montane forests are particularly important in regulating the hydrological cycle of several watersheds in southeastern Mexico. Because cloud forests receive

exceptionally high inputs of water due to both precipitation and capture of water from clouds by the canopy (“cloud stripping”), these forests play an important role in regulating hydrological cycles and generating water for human populations and major industries located in drier zones downstream. The Chimalapas (Rio Corte) watershed in Selva Zoque remains the largest intact tract of tropical forest habitat in southern Mexico and is ecologically connected to the Uxpanapa watershed network in the state of Veracruz and the El Ocote Biosphere Reserve in Chiapas (Annex 2). Three large rivers from this area (El Corte, Uxpanapa and Oaxaca) contribute to the Coatzacoalcos.. To the south the rivers Espiritu Santo, Niltepec and Ostuta maintain the necessary conditions for the ecosystems of the coastal lagoons. The region has been a high conservation priority for many years, although much remains to be done to secure this unique biological and cultural center (Annexes 3 and 4).

b) Problem statement

The principal threats to sustainable use and conservation of watershed resources in the Chimalapas region are agricultural encroachment, cattle ranching expansion, overexploitation of forest resources and forest fires (Annexes 3 and 4). Agricultural encroachment principally involves inappropriate land use practices that deplete soil resources while generating only low subsistence or commercial returns. Continued expansion of pastures for cattle ranching is causing rapid forest destruction and threatening local management of natural resource use due to increasing external control over livestock production and access to land. Further, cattle ranching often occurs under a contractual regime whereby external companies or individuals rent land (or invade illegally), often hiring local people as laborers to maintain the operations in their absence. This system provides minimal stimulus to local economies and often undermines alternative initiatives for local management of the resource base for long-term sustainability. Timber extraction is promoted by a network of intermediaries and external groups maintaining strong interests in the region, while local people perform most of the harvesting activities in exchange for minimal payment. Although forestry regulations exist and several community management plans are operating with government permits, in practice these plans are rarely followed or enforced. The result is a depletion of the biotic resources to the extent that the population of several species has declined drastically in recent years, potentially reaching local extinction levels. Both intentional application and accidental fires, linked to agricultural practices is causing forest destruction, as highlighted by the extensive wildfires of 1998, one of the most catastrophic events in the history of Chimalapas and the country. An estimated 60% of these fires were caused by agricultural burning, while the remainders were attributed to a combination of rustic and illegal hunting practices, agrarian conflicts and land expansion. In addition, inadequate equipment and training of local fire fighters, along with the remoteness and inaccessibility of the land, created particularly difficult conditions for fire suppression and prevention activities.

c) Overall objectives

As mentioned previously, the major threats to the conservation of critical ecosystems and natural resources in the Chimalapas region are directly linked to a lack of viable

economic opportunities in the communities surrounding the core area and the resultant non-sustainable land use practices that eliminate or overexploit forest resources. These processes are further propelled by a regional absence of clear and mutually agreeable natural resource plans. The WWF/CI Chimalapas project will provide community-driven sustainable livelihood options and watershed planning based on the participation of multiple stakeholders and integration across geographical scales to respond to these issues.

The Integrated Management of the Chimalapas Watersheds program will primarily emphasize the development and execution of individual participatory action plans for the management of the main watershed resources. The action plans will be developed through an iterative process in which lessons learned are used to guide an adaptive strategy for developing community-based natural resources management pilot projects. The use of a participatory approach will ensure that all key internal stakeholders are involved in decision making, implementation, sharing of benefits, and evaluation of results.

d) Partners and roles

To conduct this project, WWF and CI have the support of several local organizations that have experience in the area. While these organizations have worked closely with WWF and/or CI in the past, the decision on the participants in the present project and their respective roles will be heavily decided by community participation.

ITAO - The Technological Institute of Agriculture of Oaxaca is the leading educational institution in the state offering undergraduate and graduate degree programs in the management of agro-ecosystems, including forestry, agroforestry, agronomy, livestock husbandry, computing, and rural economic development. Researchers at the institute have extensive experience working directly with communities to establish demonstration areas, provide technical assistance, and conduct ongoing monitoring and evaluation of field trials aimed at improving productivity and sustainability of diverse production systems. Students actively participate in these field projects by conducting their "residency" (a period of about 6 months) on some component of the project while living and working in the communities. ITAO will provide technical support for the implementation of the community agroforestry projects through the participation of both researchers and students, especially in the establishment of the demonstration areas, capacity building workshops, ongoing monitoring and evaluation, and advising on how to resolve problems and improve production.

CONSERVA, A.C. - The non-governmental organization Agro Environmental Consultancies and Services is comprised of nine associates having experience in both technical aspects of diverse production systems (e.g., agroforestry, agriculture, natural forest management), as well as social and organizational aspects of community development. In particular, CONSERVA has worked extensively with communities in Santa Maria Chimalapa to develop projects related to natural resource management,

environmental education, planning and organization, community micro-enterprises, and commercialization and market development. In the proposed project, CONSERVA will play a lead role in facilitating the planning and implementation of the community projects, which will include participating in capacity building workshops on participatory methodologies provided by ISU faculty members, as well as imparting capacity building activities in the communities on both technical and social aspects of the project.

CONAFOR – The National Forestry Commission has the principal mandate to oversee activities related to forestry, non-timber forest resources, and the prevention and control of fire. Since it took over the fire program from SEMARNAT in 2002, CONAFOR’s Regional Office in Oaxaca has been actively promoting the development of a strategic fire prevention and control program in the state, with a particular emphasis on enhancing community participation in fire management activities. This new focus has included the training of promoters who work directly with communities on fire management planning and capacity building, as well as the establishment of a GIS facility that is beginning to conduct landscape analyses as a tool for regional fire management planning. CONAFOR will participate directly in several of the proposed project areas: community capacity building in fire prevention and control, conducting landscape analyses of fire risk (through hiring of a staff person and with technical support provided by UNAM, see below), and community and regional scale fire management planning.

SEMARNAT - The Secretariat of Environment and Natural Resources has overall responsibility for the environmental regulatory framework at the national level and maintains regional offices in each state. The SEMARNAT office in Oaxaca will play a key role in the project by providing institutional backing to facilitate coordination between the project team and the various state and national level government agencies, as well as logistical support to enhance operational activities. SEMARNAT will also participate in processes of project assessment, dissemination, and replication on broader scales.

CONANP – The National Commission of Protected Areas has the primary responsibility of managing Mexico’s protected areas system. CONANP maintains an office in Chimalapas in the Oaxacan city of Juchitán. This is the only CONANP office that is not associated with an officially recognized protected area, since to date, the Chimalapas region remains completely under communal jurisdiction with no formal protected area status. CONANP’s activities in Chimalapas have focused on promoting alternative land use practices to enhance ecological sustainability and economic opportunities, including the cultivation of iguanas and parrots, establishment of rotational grazing systems, and the production of native tree species and other plants in community nurseries. Project activities included in the USAID proposal will be coordinated with CONANP’s regional office in Juchitan and will include direct collaboration on certain aspects that share common goals and/or seeking to complement each other’s activities. Furthermore, CONANP staff will participate

actively as advisors during the planning and implementation phases, in monitoring and evaluation activities, and in designing mechanisms for scaling project results between local and regional levels to enhance overall impact in the region.

IIEO – The Oaxaca State Institute of Ecology is the government agency at the state level responsible for regulatory activities related to environmental issues, including the process of formulating and achieving consensus for the development of communal statutes to regulate natural resource management activities. The IIEO will facilitate the implementation of this project by providing institutional recognition and logistical support for the project activities and by participating in the analysis of project results and identification of effective mechanisms for applying lessons learned to achieve broad-scale impact in Chimalapas.

UNAM – The Department of Geography at the National Autonomous University of Mexico has collaborated with the U.S. Forest Service during recent years to conduct a field evaluation of fuel loads and model fire behavior in tropical pine-oak forests in central Mexico. This field information is being scaled up to the landscape level through GIS analysis of spatial patterns of fuel loading and fire risk. This information will be applied to the development of fire management plans for the Reserve. UNAM researchers will work with researchers from ISU and professional staff from CONAFOR to develop and implement methodologies for evaluating fuel loads in moist tropical forests in the Chimalapas and for evaluating fire risk on a landscape scale. This collaboration will consist of the participation of a graduate student from UNAM in the project with advising and field visits conducted by UNAM and ISU researchers. In addition, technical capacity building in GIS spatial analysis and field surveys to assess fuel loads will be provided through workshops and special training sessions in Oaxaca.

FMCN – The Mexican Fund for the Conservation of Nature's Fire Program has received extensive funding support from USAID in the past, and this Program has played a leading role in Mexico in supporting initiatives by communities and non-governmental organizations to enhance their capacities to prevent and control forest fires throughout the country. As part of their fire program, FMCN maintains a technical staff that provides capacity building workshops on techniques for preventing and controlling fire. In addition, the FMCN maintains a strong education and outreach program through which they support a variety of learning experiences such as field exchanges, special workshops and meetings, and site visits related to enhancing the capacity of the community to prevent and control fires. Most of FMCN's activities in southern Mexico have been focused in Chiapas, particularly the El Ocote Reserve. We plan to incorporate FMCN's extensive experience in community planning and operational processes by collaborating with FMCN staff in activities related to fire in this project. This will be accomplished through joint community workshops and field visits, as well as focused meetings to develop project strategies and monitor and evaluate project results.

ISU – Iowa State University is a major agricultural land grant institution of higher education and research in the United States, offering undergraduate and graduate degrees in both the sciences and the humanities. A Memorandum of Understanding was signed between ISU and ITAO in 2002 outlining the interests of the two institutions to collaborate in research and education. Researchers from the departments of Sociology, Agronomy, and Natural Resource Ecology and Management have been closely involved in the Chimalapas project since its inception. In 2002, a PhD student in Sociology was recruited to work on project aspects related to community organizational processes and participation, and in the fall of 2003 three new graduate students in the fields of Agronomy, Agroforestry, and Forest Management will begin their research programs related to the project. We anticipate increased opportunities for faculty and student exchanges between ISU and ITAO in the future, as well as the development of a variety of joint research and outreach initiatives in the Chimalapas region evolving from this collaboration.

e) Project design

The Integrated Management of the Chimalapas Watersheds program will primarily emphasize the development and execution of an individual participatory action plan for the management of the some of the main watersheds resources in Chimalapas. The action plans will be developed through an iterative process in which lessons learned are used to guide an adaptive strategy for developing community-based natural resources management pilot projects. The participatory approach used will ensure that all key internal stakeholders are involved in decision-making, implementation, sharing of benefits, and evaluation of results.

2) Work Plan for the year.

Highlights of the year's accomplishments identified by their respective USAID strategic objectives are listed below and followed by a more detailed description of each activity.

- Institutional Coordination (IR1)
- Community Participation (IR3)
- Community Exchange (IR2)
- Biological Information (IR1)
- Forest Management Strategy (IR2)
- Regional Planning (IR1)
- Conservation (IR3)
- Species Prioritization (IR1)

IR1: Enhanced national enabling environment for integrated water management

Inter-institutional Coordination. The experience obtained of WWF-Oaxaca Office in Chimalapas will be advantageous in accomplishing the government's proposal to create a Master Development Plan for the Region. The current social context is also

favorable due to the receptiveness of the Santa María and San Miguel Chimalapa communities to environmental and conservation issues and practices.

The purpose of the agreement (arrangement) with government agencies was the establishment of an inter-institutional working group of which WWF is a member. One of the results of the project is the design of a matrix to integrate the information related to the regional financing, which will allow joint planning efforts to be carried out. The final goal is the construction of a Master Development Plan for the Chimalapas that will be agreed upon by all stakeholders involved. (Fifteen institutional meetings were carried out).

Regional Planning. A regional planning process was initiated with the Santa María and San Miguel Chimalapa communities. The proposal is to carry out participative land use planning, which will state the guidelines used to define ecological restoration actions, diversified productive projects, and sustainable forest use. A proposal is being prepared jointly with the communities in order to submit it to their respective meetings (sessions).

Biological Information. A synthesis of the previous biological, hydrological, socioeconomic and conservation initiatives and sustainable development information was carried out in the region: Ninety three titles related to the Selva Zoque region have been reviewed (checked), included in twenty seven specific issues (Organic Agriculture; Agroforestry; Natural Protected Areas; Biodiversity; Botany and Vegetation; Conservation; Social Development; Ecology; Environmental Education; Ethnology; Forest Fires; Geography; Indigenous Studies; Cientific and Technological Research; Reports; Zoology and Fauna; Statutes (Rules); Anthropology; Agrarian Thematic Issues; Popular Ecology and Conservation; Hidrology and continental freshwater; Environmental Policies; General Policies; Management Plans; Land Use Planning; and Socioeconomic Research).

Species Prioritization. There is a database with information on species formally registered in the region of which priority has initially been given to 59 species including 19 bird species, 3 mammal species, and 37 plant species. The criteria for prioritization are based on the national and international species protection and conservation laws, as well as to their particular conditions in the region, including their social, economic and cultural importance.

Of all the biological information analyzed, most of the available documents concentrate on issues related primarily to conservation and biodiversity of plant species with approximately 20% pertaining to popular diffusion information. It is important to emphasize that a very low percentage of this information is related to animal life (fauna) and zoology. The document review has identified a need for additional studies related to social organization as it pertains to natural resource use and the adoption of technologies for productive activity. In addition, it should be noted that this information has been generated mainly from the Santa María

Chimalapa municipality, and that most of it is concentrated in the Uxpanapa region, therefore leaving significant data gaps in other areas within the Selva Zoque.

IR2: Increased use of environmentally sound and economically viable practices and technologies

Community Exchange. An experience exchange was carried out among the authorities of Santa María and San Miguel Chimalapa and Santa María Huatulco, so that they could get to know the communal reserve system and the progress this community has made in relation to land conservation and the Copalita River basin.

A similar exchange was carried out in the Sierra Norte villages (Santa Catarina Ixtepeji and Ixtlán) to find out more about sustainable certified forest use and the productive diversification towards ecotourism, spring water bottling, as well as communal tree nurseries.

Forest Management Strategy. A sustainable forestry use strategy based on productive diversification and conservation will be designed. This strategy is based on financing Management Programs which allow the authorization of both permissions as provisional. At the same time, a study will be initiated to define the long-term sustainable forest use areas for conifer and other common tropical species. The delineation of this area may assist in the delineation of community conservation areas if so decided upon at the Community Meeting. Additional forest use studies in the region will not be financed unless they clearly include a productive diversification strategy as well as the definition of a conservation priority area. (A forest management plan for the López Portillo area is outlined, as well as the definition of a study for the sustainable forest management).

IR3: Community role in natural resource management strengthened

Community Participation. The San Miguel Chimalapa community and municipality authorities, together with the organization “Chimalapas Unidos Por la Defensa y Conservación de las Etnias y la Biodiversidad”, A.C. (“Chimalapas United for the Defense and Conservation of Ethnic Groups and Biodiversity, A.C.” (CHUDEB, A.C.)), presented the “Natural Resources Sustainable Conservation, Management and Use Community and National Project of the San Miguel Chimalapa Municipality”, for the consideration of WWF. The project is being revised at present. One of the main objectives of the projects is to protect regional biodiversity and ensure the conservation of priority ecosystems of the San Miguel Chimalapa Municipality.

Conservation. *The establishment of the conservation area “Cerro Azul” is being promoted in Santa María Chimalapa as the beginning of community conservation efforts and, at the same time, a strategy for defining other priority areas has been initiated.*

The objective in San Miguel Chimalapa is to continue the consolidation of the community area “El Retén” through characterization and biological studies.

Work Plan Table

Major activities	Actions to support	Conducted in quarter(s)	Comments, verifiers and expected products	Update
Community and Regional Scale Work				
Objective 1) Communities develop and implement sustainable natural resource management projects.				
1.1 <i>Support increasing stakeholder analytical and planning capacities.</i>	1.1.1 Review and evaluation of recent development plans of the major communities (San Miguel and Santa María). <i>Nine meetings with community authorities for planning.</i>	1-4	Technical report	OT
	<i>Coordination of the regional action plan; revision of the San Miguel proposal: “Community and national conservation project, sustainable management and use of San Miguel Chimalapa natural resources”</i>	1	Technical report	OT
	1.1.2 Assessment of planning capacities within the major communities and organized groups of the Chimalapas watersheds.	1-4	Technical report	OT
	1.1.3 Gathering of information on natural resources utilization projects implemented in previous years and evaluation of lessons learned.	1-4	Technical report	OT
1.2 <i>Facilitate implementation of community-based natural resource management systems to promote sustainable rural livelihoods.</i>	1.2.1 Identification of most promising community-based natural resource management systems existing in the region	1-4	Technical report	OT
	1.2.2 Evaluation of existing monitoring systems (or alternatives to monitoring) for the identified management systems.	1-4	Technical report	D
	<i>Experience exchange among the authorities of Santa María Chimalapa and San Miguel Chimalapa with other communities, which carry out diversified productive activities (Exchange in Sierra Norte and Costa communities).</i>	1-2	Technical report	
Objective 2) Communities develop ecologically sustainable processing and marketing of selected non-timber forest resources (i.e. Xate and pita) as alternative income sources.				
2.1 <i>Work with partner organizations active in selected non-timber forest products (i.e. xate and pita) to assess market approach.</i>	2.1.1 In collaboration with CONABIO and Methodus, evaluation of previous feasibility studies of non-timber forest resources (i.e. Pita and xate) and determination of a potential market incentive mechanism.	3-4	Technical report	

	2.1.2 Through a workshop, facilitate partners' design of complementary activities to enhance commercial development potential and to identify potential good environmental practices.	3-4	Workshop report	
2.2 Assist partners to consolidate, establish and expand business entities	2.2.1 Revision of current status, strengths, weaknesses, and business capabilities of the community-based enterprises of the Chimalapas focused on this non-timber forest resources.	2-4	Technical report	D
	2.2.2 Preliminary evaluation of the harvesting system and plantations currently in practice in order to evaluate its sustainability.	3-4	Technical report	
	<i>Production of forest management plans.</i>	1-2-3-4	Technical report	D
2.3 Assist partners and communities to monitor and evaluate the project.	2.3.1 In collaboration with partners, preliminary design of a monitoring system of the harvesting of non-timber forest resources in the Chimalapas Watersheds.	3-4	Draft monitoring report	
Objective 3) Communities establish and implement strategic community fire management plan.				
3.1 Assist communities to enhance their understanding of fire risk and management.	3.1.1 Assessment of forest fires occurring in the last three years, considering fire affected and intact forest areas, monitor regeneration and recovery processes in the target watersheds.	1-4	Technical report	D
	3.1.2 Survey application in order to gather information on the people's perception of the issues related to the management of fire and the root causes and impacts of forest fires.	2-4	Technical report with the results of the survey and its analysis.	D
	3.1.3 Dissemination of knowledge on ecological and human aspects of fire dynamics within the major communities.	2-4	Workshops and production of communication materials.	D
3.2 Assist communities develop and implement local fire management plan.	3.2.1 Facilitate development of the fire management plan, including the design of a work plan for the implementation of specific short-term actions.	2-4	Draft management plan.	D
	3.2.2 Assessment of the implementation of regulations decided by the communities regarding the controlled use of fire.	2-4	Technical report.	D
3.3 Enhance collaboration between communities and external agencies responsible for fire management.	3.3.1 Elaboration of an action plan with the major communities of the Chimalapas Watersheds in order to organize and design a communal system for the prevention and control of forest fires.	2-4	Draft action plan.	OT

	3.3.2 Preliminary design of a special fund with a financial plan focused on the prevention and control of forest fires.	2-4	Draft design.	D
<i>Watershed Scale Work</i>				
Objective 1) Watershed Committee and Overall Planning Process.				
1.1 <i>Promote creation of watershed basin committee and watershed management plan.</i>	1.1.1 Creation of multi-stakeholder advisory and working groups based on broad consensus and support.	3-4	Report of process and stakeholders involved.	
	1.1.2 Gather information to develop watershed management plans to address several critical large-scale issues related to the integration of conservation with community well-being, including protected area designation, sustainable management of forest and agricultural lands, conflict resolution, and the promotion of vibrant local economies.	3-4	Calendar of activities, identification of information gaps.	
Objective 2) Integrated Conservation Information System.				
2.1 <i>Synthesize available information on conservation and sustainable development initiatives.</i>	2.1.1 Create an integrated conservation information database on planning and monitoring of social, economic and biological conditions. The information system will catalogue existing reports, studies, and information relevant to the management of the Chimalapas natural resource base, and will guide the creation of new studies.	1-2-3-4	Geographical Information System created and organized. Catalogue of reports, studies and other relevant information.	OT
	2.1.2 Synthesize biological, hydrological, socioeconomic information and produce a critical analysis of sustainable development projects in the region.	1-2	Technical report on biological issues; Technical report on hydrological issues; Technical report on socioeconomic issues; Analysis of sustainable development projects.	OT
	2.1.3 Produce analysis of stakeholders in order to qualify needs, social and institutional relationships, points of conflict, and individual and mutual interests, as a driver of better coordination and collaboration in the future.	1-2-3	Report on stakeholder analysis.	OT

	2.1.4 Produce analysis of political and administrative environments that affect watershed and natural resource issues in the Chimalapas region.	1-2-3-4		OT
	2.1.5 Support selected environmental inquiries identified by the committee to fill in gaps or update information necessary to guide participatory planning and decision-making.	3-4	Technical reports of selected environmental inquiries	
Objective 3) Watershed Conservation and Management Plan.				
3.1 <i>Build support for the watershed planning process.</i>	3.1.1 Begin to elaborate the details of the watershed planning process to be employed, ensuring that it is socially and economically equitable and acceptable, with particular attention to ensure gender equity on the committee, and to incorporate the needs, interests, and constraints of women in the planning process and committee communications.	4	Draft planning process.	
Objective 4) Strengthen Local and Institutional Capacity.				
4.1 <i>Improve local and institutional capacity.</i>	4.1.1 Initiate capacity building exercises designed to strengthen skills in communication, decision making, SWOT and TRA methods and issues of implementation such as mediation, conflict mitigation, and negotiation.	3-4	Design SWOT, and TRA methods.	
	4.1.2 Strengthen the ability to implement and sustain initiatives articulated in the watershed plans and community strategic planning.	3-4	Report on implementation of proposed initiatives.	
	4.1.3 Initiate exchanges between communities to cross fertilize initiatives and facilitate lesson learned.	1-2-3-4	Report of community exchanges.	OT
Objective 5) Environmental Education and Communications.				
5.1 <i>Integrate environmental education and communications strategies in the previous objectives.</i>	5.1 Initiate environmental education and communications needs assessment.	3-4	Design need assessment.	

The delay of activities in Objective 3, “Communities establish and implement strategic community fire management plan”, was caused by a strategy revision according to the communities’ interest. We are planning to approach activities included in time 1-2 as from 3 onwards.

Link to USAID's Strategic Objectives				
	PO: Improved management and conservation of natural resources in targeted watersheds.	IR1: Enhanced national enabling environment for integrated water management.	IR2: Increased use of environmentally sound and economically viable practices and technologies.	IR3: Community role in natural resource management strengthened.
Community and Regional Scale Work				
Objective 1) Communities develop and implement sustainable natural resource management projects.	Participatory planning will improve sustainable natural resource management.			Participatory processes in developing resource management projects.
Objective 2) Communities develop ecologically sustainable processing and marketing of selected non-timber forest products (i.e. Xate and pita) as alternative income sources.			<i>Forest management plan should increase forestry as an economically viable practice.</i>	Participatory processes in developing resource management projects.
Objective 3) Communities establish and implement strategic community fire management plan.	Improve conservation of resources through community fire management plan.			Participatory processes in developing resource conservation plans.
Watershed Scale Work				
Objective 1) Watershed Committee and Overall Planning process.				The committee will be involved not only on basin level but at the community level.
Objective 2) Integrated Conservation System	The main application is to have a common information system that allows communities and stakeholders to track the current progress of their activities and support their decision-making process.	Support decision making process and improve collaboration between stakeholders.		The information system will be available to support the decision-making process of communities.

Objective 3) Watershed Conservation and Management Plan.		Improve intersectoral collaboration at a watershed and regional level.	Part of our approach is the link of the landowners with markets, so there is an economic incentive for sustainable forest management.	The aim is to improve natural resource management at the community level in order to magnify the results to see the improvement at a watershed scale.
Objective 4) Strengthen Local and Institutional Capacity.	Effective management can only be provided by landowners; therefore, strengthening their capacity should improve natural resource management.			Direct involvement of communities should improve their environment and their natural resources' management.
Objective 5) Environmental Education and Communications.				Improved understanding of conservation and management issues by the community.