

# **CLOSE OUT REPORT**

**FY 1997 – 2004**

**Strategic Objective 520-005:  
“Improved Natural Resources Management  
and Conservation of Biodiversity”  
(Projects No. 520-0395 & 520-0395.20)**

**February 2006**

## ACRONYMS

AED	Academy for Educational Development
CAM	Central America and Mexico
CEMEC	Centro de Evaluación y Monitoreo Ecológico
CONAP	National Council for Protected Areas
DOI	Department of Interior
FORESCOM	Empresa Forestal Comunitaria (Community Forestry Enterprise)
FY	Fiscal Year
G-CAP	Guatemala-Central America Programs
GoG	Government of Guatemala
IDAEH	Instituto de Antropología e Historia
IRG	International Resources Group
IR	Intermediate Result
LTNP	Laguna del Tigre National Park
MARN	Ministry of Environment and Natural Resources
MBR	Maya Biosphere Reserve
MICUDE	Ministry of Culture and Sports
NGO	Non-governmental organization
PIP	Parks in Peril Program
SIGAP	Sistema Guatemalteco de Areas Protegidas
SLNP	Sierra Lacandon National Park
SMBR	Sierra de las Minas Biosphere Reserve
SO	Strategic Objective
TNC	The Nature Conservancy
USAID	United States Agency for International Development

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## ANNEXES

## I. STRATEGIC OBJECTIVE (SO) IDENTIFICATION

- A. **Name:** Improved Natural Resources Management and Conservation of Biodiversity
- B. **Number:** 520-005 (Project 520-0395.00 and 520-0395.20)
- C. **Approval Date:** FY 1997 (520-0395.00), and August 21, 2001 (520-0395.20)
- D. **Life of SO Funding:** 520-0395.00 \$29,000,004 and 520-0395.20 \$7,766,049 Total \$36,766,053
- E. **Completion Date:** 520-0395.00 September 30, 2004 and 520-0395.20 March 31, 2005
- F. **Counterpart Contributions:** US\$5,138,629 (see details in Annex 1)
- G. **Geographic Impact Area:** Guatemala

I. **Purpose:** The purpose of the SO was to strengthen the Guatemalan Protected Areas System (SIGAP) through its principal entity, the National Council for Protected Areas (CONAP), and to improve natural resources management for conservation of Guatemala's biodiversity.

SO5 built capacity in Guatemala to manage natural resources by developing and testing alternative management systems and models that allowed for civil society participation, provided direct economic incentives for conservation, and promoted sustainable development. USAID's environmental program supported Guatemalan efforts to increase the number of people employing sustainable agricultural practices and environmentally friendly income generation options in the Maya Biosphere Reserve (MBR), the Polochic-Motagua bioregion (Sierra de las Minas Biosphere Reserve and Bocas del Polochic), and the Atitlán Volcanoes bioregion. USAID provided assistance to the Government of Guatemala (GOG) to develop laws and policies that offer greater incentives for sustainable land use and conservation of biodiversity, including parks management. USAID provided technical assistance for the implementation of community based forest management activities, and 'green seal' certification, making Guatemala the country with the largest area of certified community forestry concessions in the world.

## II. PRINCIPAL IMPLEMENTING PARTNERS

The National Council for Protected Areas – CONAP acted as the main counterpart for SO5, as it is the government organization in charge of the management and direction of SIGAP.

Ministry of Environment and Natural Resources - MARN: USAID signed a Strategic Objective Grant Agreement (SOAG) with MARN in August 2001 to support the achievement of results under SO5. The completion date for the SOAG was September 2004.

International Resources Group (IRG) /Fortalecimiento Institucional en Políticas Ambientales (FIPA): A Task Order (T.O.) was signed under Management, Organizational and Business Improvement Services (MOBIS) with IRG at the end of 2002 to provide short-term technical services in the areas of strategic planning, implementation and evaluation of environmental policies, advocacy, environmental communications and outreach, institutional capacity building, natural resources and protected areas management, monitoring and evaluation and other cross-cutting issues. Before 2002, IRG signed a T.O. with USAID under EPIQ IQC, to support SO5.

Chemonics International, through a T.O. under Biodiversity and Sustainable Forestry (BIOFOR), provided technical assistance to the community forestry concessions located in the Multiple Use Zone of the MBR, working with GOG agencies (CONAP, MARN) local NGOs, community organizations, and other selected groups of the civil society. Assistance was provided to these organizations to strengthen the capacity for community-based forestry activities, dialogue policy and in obtaining their green certification. Chemonics assistance during the last year of the Program was focused on consolidating the community forestry concessions as viable, business enterprises by improving their ability to take advantage of market opportunities for certified forest products.

The U.S. Department of Interior (DOI) signed an agreement with USAID to support Program activities, such as fire prevention and control, biological monitoring, protected areas and park management, planning and design of required visitor infrastructure for tourism, and development of public use plans for parks and cultural and natural sites.

The Nature Conservancy through the Parks in Peril Program (PIP) in Guatemala, supported the Program in two areas of geographic focus: Atitlán and the Motagua/Polochic. It also implemented a multi-site strategy to address cross-cutting themes such as private lands conservation and conservation finance. TNC provided support to develop an inter-institutional strategy to strengthen the institutional and policy frameworks for private lands conservation in Guatemala. In Atitlán, TNC supported the development and implementation of the site conservation plan, specific management plans and annual operations plans, and supported forest fires activities. Additionally, TNC provided technical assistance to several municipalities in the process of declaring municipal parks and improving their management and conservation. In the Motagua-Polochic area, TNC promoted alternative economic activities to reduce pressure on

conservation targets. A site conservation plan was developed and implemented in the Motagua area to reduce key threats such as fires. Support was provided to design a water fund and establish alliances between Defensores de la Naturaleza and private sector companies that benefit from water from the Sierra de las Minas.

Fundación Defensores de la Naturaleza, a Guatemalan NGO. After many years of working with USAID through other implementation mechanisms (PIP and MOBIS), in November 2003 Defensores signed a Cooperative Agreement with USAID/G-CAP to support the protection of the area of high biological importance of Sierra Lacandón National Park (SLNP); to strengthen the co-administration capacity to promote and implement conservation actions; to work with communities and local organizations, and implement a biological monitoring program.

The Academy for Educational Development (AED) through the Greencom Project, provided technical services in the development of environmental communication strategies and activities, working with several partners and key stakeholders. GREENCOM provided training on how to conduct Participatory Strategic Environmental Communication Assessments, and strengthening environmental communication, and for the development of communication materials, including the development of a promotional campaign for the MBR.

### **III. SUMMARY OF OVERALL IMPACT AT SO AND IR LEVELS:**

The bilateral environment program made significant contributions to natural resource management in Guatemala. As a result of USAID's support in natural resource management, the country has a well-established protected areas system (SIGAP) that is providing a strategic foundation for long-term sustainable development, and a strong, experienced and recognized organization in charge, CONAP. MARN was also created in 2001 with full support from USAID, giving the environment sector a voice in the Government of Guatemala Cabinet.

In general terms, the overall impact at the end of the program can be summarized as follows: Selected protected areas, municipal lands and private lands have improved stewardship of natural resources. Better management was achieved through improved management plans, more efficient administrative structures, basic infrastructure and trained technical staff. Government institutions increased their capacity to formulate policies and regulations, and public consultation processes were undertaken. Forestry concessions are a model in the region, they are applying better business and marketing practices, better forestry management techniques, and are operating with minimal technical assistance, better administrative capacity and planning tools. Guatemala has been recognized for having the largest number of hectares of community managed forests with Forest Stewardship Council certification in the world. The model for natural resources co-management is being adopted by the Guatemalan system, with the participation of civil society organizations.

The evaluation “*Guatemala: Assessment and Analysis of Progress Toward SO5 Goals in the Maya Biosphere Reserve*” (Chemonics and IRG, December 2000) was the basis for designing the new Program approved in 2001, which included two new geographical areas (Atitlán and Motagua-Polochic) in addition to the MBR. The main achievements of the Program as of 2000 were: 1) Helping to gain public and government recognition and acceptance of the MBR, its external boundaries, its internal zoning scheme, and the various management regimes employed therein; 2) Slowing the rate of deforestation within the MBR; 3) Promoting and strengthening co-administration agreements between the GOG and environmental NGOs; 4) Creating an incipient community of environmental NGOs in Peten; and 5) Creating and legitimizing community forest concessions.

#### **IV. SUMMARY OF ACTIVITIES USED TO ACHIEVE THE SO AND THEIR MAJOR OUTPUTS:**

The program focused its efforts on promoting sustainable activities, such as forest management, tourism, and natural resources management; as well as promoting alliances between local partners, the private sector, communities, and the public sector. The adoption of natural resources management and conservation activities are key to maintain the natural resource base in Guatemala and promote development, particularly since the government lacks the capacity and resources to function adequately. During the last years of the Program, NGOs and local groups played a key role and the progress achieved was mainly due to their participation.

Even though significant political constraints were encountered during program implementation due to ups and downs in GOG leadership, results were achieved due to the fact that most of Guatemala’s protected areas operate under co-management arrangements between local NGOs and CONAP, facilitating the preparation and implementation of management and operating plans, and implementation of protection activities such as patrols, monitoring (including biological monitoring), fire prevention and control. Community participation improved and authorities showed an increased support in protection activities.

CONAP, with technical assistance provided by USAID, developed a strategy to improve security issues in Peten, and established a working relationship with Colombia for an exchange of technical assistance and experiences. Key agreements were developed between CONAP and the government security forces to deal with and improve law enforcement and application. CONAP also signed a Letter of Understanding with Big Cypress Reserve in Florida for Laguna del Tigre National Park (LTNP) to support management activities and exchange of experiences, and also strengthened the relationship with the oil company operating in the area. CONAP, due to USAID support, has better capacity in terms of equipment, trained staff, infrastructure, planning tools, detection systems and coordination mechanisms, to implement fire prevention and control activities in the MBR, Peten.

Municipalities in the three program regions play an active role, and received technical assistance, training and equipment, contributing to the development of management plans and information systems. Municipalities in the Petén region increased their income (approximately US\$60,000) through leasing instruments and also through their participation in economic incentives programs such as the Forestry Incentive Program (PINFOR). Fundación Defensores de la Naturaleza also signed agreements with 11 municipalities in the area of Sierra de las Minas, which included the payment by each municipality of one park guard. This represents significant progress towards getting municipalities more involved in local management issues related to national parks.

During the last year of program implementation, three new private reserves were declared, representing 1,431 hectares (Ha.), and five management plans were developed, making a total of 6,033 Ha. of private land under management. Additionally, 420 Ha. were declared in San Juan La Laguna as Municipal Park, making a total of 1,159 Ha. under municipal lands being protected in the Atitlán area. A total of 17,811 Ha. were incorporated in the PINFOR Program in the Motagua-Polochic region. In Sierra Lacandón National Park (SLNP) 202,865 Ha. continued under management and in the MBR Multiple Use Zone 408,262 Ha. are under forestry management.

The program supported the development of: the Master Plan for SLNP for the period 2004-2008; the Management and Public Use Plan for the Candelaria Caves (developed in response to the agreement between the Ministry of Culture and local communities); the Public Use and Financial Plan for Piedras Negras; and the Management Plan for Cancuén. The Master Plan for Sierra de las Minas Biosphere Reserve and Bocas del Polochic for 2003-2007 was also developed and approved by CONAP. TNC also supported the development and consultation of the Master Plan for Tikal National Park.

Forest management organizations received technical assistance and training to improve their technical operations, business and management systems, marketing, and production capacity. Internal by-laws were developed, financial records were updated in most of the organizations; financial planning instruments were also developed, as well as management plans for a five-year period. With five-year operational plans in place, concessionaires are in a better position to negotiate timber with buyers as well as to promote long-term alliances with the private sector. Additionally, a forestry community enterprise (FORESCOM), in charge of marketing activities and the provision of technical assistance in harvesting management was established and began operations, with the participation of ten community concessions.

The Human Settlement Policies for Petén and the Verapaces region, the Co-management Policy, the Forest Management Policy and Non-timber Products Policy were officially approved by the Council of CONAP, made available to the public, and are being applied through regulations, dialogue (*mesas de diálogo*), and agreements with communities. Support was also provided to MARN for the formulation, revision and consultation of the Environmental Services Policy and for the Natural Resources Policy Framework.

Results from the biological monitoring program in program sites where it was applied indicated no significant changes in fauna, with the species established as indicators. 2004 on the ground monitoring results showed that efforts to protect the highly endangered Scarlet Macaw resulted in increasing the chick survival rate. The only case that showed a negative change was for the manatee in Bocas del Polochic, since there was no evidence of their presence during 2004.

## **V. PROSPECTS FOR LONG-TERM SUSTAINABILITY OF IMPACT AND PRINCIPAL THREATS FOR SUSTAINABILITY**

Although MARN began to show some improvement in its management capacity as a result of the institutional diagnostic carried out by USAID, significant strengthening will be required in order to enable it to assume its role as coordinator and rector of environment issues in the country. USAID will continue to support the application of financial mechanisms established in the law through assistance provided under the new country strategy, to ensure that both MARN and CONAP at least receive the funds they generate in fees and taxes in order to continue managing protected areas. Donor collaboration on these subjects is key. For example, Gesellschaft für Technische Zusammenarbeit (GTZ) has been supporting MARN on decentralization issues from within, and Holland, in collaboration with technical assistance from USAID through IRG/MOBIS, is playing a key role in helping CONAP become a National Biodiversity Institute, which should give it some institutional autonomy from changing government priorities from one administration to the next.

As a result of the findings and recommendations of the 2003 Chemonics analysis of the community forestry concessions, which emphasizes the need to strengthen community organizations, business enterprises practices, diversification of products and processing, marketing, among others, USAID decided to continue supporting the concessions to consolidate them as sustainable enterprises. Also, support is going to be provided to ensure that tourism revenues for parks increase and returns are invested in natural resource management. The support to forestry concessions and tourism activities were incorporated into 520-0436.4 of the new strategy.

Additionally, there are important threats that impact the sustainability of Guatemala's parks and protected areas. These threats are land invasions, illegal activities, and fires. Poverty, land tenure issues, lack of law enforcement, and lack of institutional capacity are among the main structural factors that affected program achievements. These problems resulted in a high pressure for land and resources leading to encroachment to protected areas, illegal activities, and deforestation. For example, although the area affected by forest fires during 2004 was smaller than that of 2003, organized crime contributed to setting fires in the MBR and financing some illegal settlements to enable illegal activities. The physical presence the program afforded (providing for patrols, monitoring, fire prevention and control), discouraged some of these illegal activities. While the government has responded to illegal activities related to natural resource management; effective suppression has been difficult due to the poor follow up by entities charged with enforcing the law and ensuring penalties are levied against infringers. These are

important issues that need to be supported by other USAID programs or donors that are dealing with institutional capacity and law enforcement.

## **VI. LESSONS LEARNED:**

Efforts are needed to establish explicit and clear policies and regulations, and support their application in order to resolve key conflicts, such as land issues and natural resources use. To be effective, the process should include the participation of key stakeholders and other individuals affected, in order for them to understand their implication and impact and avoid misinterpretations. Another important factor is to work with strong government institutions and to work through consensus. This last factor has been very difficult for program implementation due to constant changes in key institutions, and the lack of a clear vision, support, capacity and resources.

The program managed to support the formulation and implementation of several important policies and regulations related to resource use, such as forest management and non-timber management. These policies went through a participatory process that included key stakeholders, which facilitated their application. Policies included incentives that have promoted the desired behavior and actions. For example, CONAP has been able to conserve forests in the MBR through the community forest concession system, since it provides user rights and economic incentives to communities, as well as responsibilities to take care of resources and invest in protection actions.

Additionally, a lot of energy, time and resources were invested in the formulation and consultation processes for the Human Settlement Policy for Protected Areas in Peten, and in the last years in the Verapaces. Their application required a lot of effort in sharing information in a clear and consistent manner, and building the trust with communities, since people are generally distrustful of government institutions. Open and public consultations were required. CONAP, as part of the policy application process, negotiated and signed agreements with communities and reviewed them recently. Community involvement and participation in these processes are excellent steps in the right direction, but still require follow-up, as well as coordination with and support from other agencies and authorities for policy application, taking into account that land tenure issues and poverty are part of the equation.

The community forest concessions in the MBR are proving to be a successful model for managing and protecting forests in the region. Even though at the beginning of the program, activities included the promotion of income generating practices, such as agro forestry and sustainable agriculture in the buffer zone of the MBR, impacts were not as substantive as those obtained by the community forestry concessions. The monitoring of forest cover and fires through satellite images shows that the Multiple Use Zone, where concessions are located, has had the lowest rate of deforestation. The Forestry Concessions invest between US\$ 300,000 and US\$500,000 per year of their own resources for forest fire suppression. The USAID Maya Biosphere Project (1990-1996) supported the development of the legal policy framework for concessions, which required

a long-process and efforts, and supported the implementation of the first contracts signed between CONAP and communities.

Keith Kline in his document on Lessons Learned (August 2001) indicated that ‘Prior to the concessions, the forest was no man’s land since there was no official recognition of user rights, even though many communities were there for decades. People continued to settle the area, and anyone could use and clear new land. Prior to the creation of the MBR, there was practically no law enforcement and rarely any outside (government or NGO) presence in the communities, other than loggers, poachers, looters, and new settlers. The creation of the MBR began to change this, but it was through the forest concessions that people really became involved, organized and interested in managing the natural resources in the MBR. The concession contracts offered some recognition and rights to community members’.

Forestry concessions have required technical assistance to implement management plans, strengthen community organizations, assist in business enterprise development, marketing strategies, etc. All of these have contributed to the conservation of forest since community members have seen the economic value of their natural resources and become an important source of income and development. The program has been providing support and technical assistance to increase community business management capabilities in activities such as forestry management, tourism, and non-timber products. These are areas identified as having great potential in program sites, but require continual assistance taking into account that community organizations and enterprises go through a learning curve and need to be consolidated. The establishment of alliances with the private sector is also necessary. USAID understands that forestry concessions still need additional support to become sustainable business enterprises

Increased interaction and coordination with stakeholders, donors and other actors, such as private sector, other government agencies, etc. to obtain their support, address threats and provide potential solutions is key to achieve the expected results and impacts. Coordination with other government institutions to control and follow-up on illegal activities in protected areas and complete reports submitted by CONAP is critical for law enforcement issues. Participation and cooperation with local governments, such as municipalities, is important to obtain their support for protecting natural resources in program sites and to promote community involvement. The private sector has been identified as an important actor through the establishment of alliances to achieve sustainability. However, active community participation and involvement is the most important element to achieve results and obtain positive impact, as demonstrated in the forestry concessions.

Political will, changes and uncertainty affect activity implementation and the achievement of expected results. The lack of support for key government partners, such as MARN and CONAP, the continued changes of key personnel in these institutions, and the cuts in budgets and resources affected program implementation. USAID’s SOAG with MARN and CONAP acted as a limiting factor in further reducing the budget the government allocated to these entities. Periods of government transition and uncertainty

created big threats to natural resources in program sites. For example, deforestation rates in the MBR doubled during the transition to the peace period; security issues were significant during program implementation, and increased during the last years – violence, illegal activities and organized crime – affecting activity implementation and the safety of program partners in the field. A lack of rule of law *clima de ingobernabilidad* was the status quo. Land invasions and encroachment continued in protected areas. The level of political uncertainty, corruption, and violence in the country also affected the involvement of other key stakeholders in protected area management. This was the case of the municipalities in the Motagua valley with the potential for declaring municipal lands as protected areas, and their participation and support is essential. However, changes in authorities can be positive, as in the case of CONAP where new staff embarked on significant efforts to mitigate these threats, working with authorities and other organizations during 2004.

The program also invested efforts, time and resources in the implementation of a monitoring and evaluation system, which provided quantifiable data and information to measure progress towards targets. For example, the indicator for measuring biological integrity through using a forest cover indicator has been extremely useful to detect impact of program activities, i.e., forestry concessions where deforestation rates have decreased. On the other hand, monitoring activities have created capacity in partner organizations, an example of that is CEMEC/CONAP, which is well recognized in the region by its capacity, and will continue with the monitoring.

## **VII. SUMMARY OF PERFORMANCE INDICATORS USED AND AN ASSESSMENT OF THEIR RELATIVE USEFULNESS FOR PERFORMANCE MANAGEMENT AND REPORTING**

As part of USAID Guatemala Strategic Plan for FY 1997 – 2001, extended through 2004, specific results and indicators were established for SO4 “Improved Natural Resources Management and Conservation of Biodiversity”. During the negotiation and signing of a new SOAG with the GOG in 2001, a new Results Framework was defined, and SO4 was changed to SO5. A revised Results Framework for SO5 was developed in 2001 through a participatory process, and the Performance Monitoring Plan became fully operational in early 2002. The following are the SO5 intermediate results: IR1. Improved natural resource management for the conservation of biodiversity in selected bioregions; IR2. Improved environmental policies applied; and IR3. More effective and responsive institutions. The revised Result Framework is included as Annex 2.

Following is a description and achievements under main program indicators:

A. The SO level indicator “*Stable or improved ecological integrity*” was developed in 2002, and information was obtained through the implementation of a biological monitoring system by partners. This indicator integrated data on forest cover, which used satellite images and field observation to measure changes, and monitoring of selected species of flora and fauna for the three geographical areas. Biodiversity measures were

incorporated to respond to the findings and recommendations included in the program assessment carried out in 2000.

A forest cover baseline was established in 2001. FY 04 reports indicated that in Atilán, as well as in Motagua-Polochic there were no significant changes (less than 5%). However, the MBR data showed deforestation of an additional 22,913 Ha. during 2004, compared to 2003. The overall annual deforestation rate for the MBR increased to 1.3% (22,913 Ha.), from 1% (18,513 Ha.) reported in 2003. Annex 3 shows changes in forest cover during the period 1986-2004. This increase was primarily caused by invasions and the lack of law enforcement and political will to deal with the problem, especially in LTNP and the eastern side of SLNP.

Additionally, the hectares lost by forest fires have been measured each year and numbers have varied each year. For example, during 2004 fires were fewer than in 2003, due to a longer and wetter rainy season. The total area affected by fires in 2004 in the MBR was not calculated because an increased of cloud cover made impossible to interpret the satellite imagery. In the Motagua-Polochic area, Defensores continued to successfully implement the fire prevention plan developed with help from DOI and the Forest Service, which includes prescribed burning.

Regarding the monitoring of species, baseline was established in 2002 for certain species, mostly in the MBR, and in 2003 for others. Data for most indicators was obtained in 2004, and reports indicated the following: a) In the MBR the fledgling success of the Scarlet Macaw increased in LTNP and SLNP (from 19 nests that were monitored, 17 chicks survived [89.5%]). b) Xate (tropical decorative plant) monitoring in the MBR showed a slight density decrease of xate macho (6.4%), probably due to stress from over-harvesting in an exceptionally dry year, which requires actions to encourage communities to cultivate xate for harvesting, to take some pressure off the natural populations, and to raise awareness in the xate industry concerning properly selecting leaves for harvest, since the amount of xate waste increased to 75%. c) In the areas of Atilán, biological monitoring data showed no significant changes, compared to the baseline. Indicator species included: frogs (*Eletheurodactylus* and salamanders), cracids (horned guan) and bees (Bombini and Euglossini). In the Motagua-Polochic region, data for the Golden Cheek Warbler is still being processed and data show no changes in Bromeliads. No manatees were observed during 2004.

B. Another important indicator for the Program is the one for IR 1.1: ***“Number of hectares in forest concessions and forestry private properties with forest management certified by an acknowledged agency, considering the economic, ecological and social aspects”***. As of September 2004, 350,008 Ha. of community forest were certified.

In previous years, the program monitored only the number of hectares under forestry management, which provided information on the area that was granted through concessions. The total area in the MBR under forestry management is 408,262 Ha., This indicator was changed in 2002 to measure the number of hectares certified to obtain information on better management, since certification includes economic, ecological and social aspects.

C. Under IR 1.3 the indicator: “*Areas in Selected Bioregions under Improved Management*” applies to the three SO5 geographical areas: SLNP, Atitlán volcanoes, and the Motagua-Polochic system. This indicator measured elements such as: adequate planning, sufficient personnel, minimum infrastructure, and functional relationships with active local groups.

As of September 2004, the Master Plan for SLNP was developed through a participatory process, and submitted to CONAP for approval. During the life of the Program, park staff received training on fire management, fire breaks were implemented, patrols were done, infrastructure was developed (park control posts) and equipment was provided.

In Atitlán as of September 2004, municipal parks such as San Pedro and Santa Clara established tourism infrastructure as well as administrative capacity. San Pedro developed its operating plan, defined a co-management structure that includes local government authorities, NGO, and civil society organizations; and with some financial resources leveraged construction of trails, a visitor center, and a geology museum was established. In Santa Clara, two park guards were hired by the municipality, a management committee is being established, and infrastructure is under development. In the municipal parks of San Marcos and San Juan, boundaries were delimited, mapped and land use and best management practices were in the process of development. In terms of fire prevention and control, brigades were established for seven municipalities.

In the Motagua-Polochic bioregion, the program supported the development of 2003-2007 Management Plans for Sierra de las Minas and Bocas de Polochic, which were approved by CONAP; and fire prevention activities (fire breaks, prescribed burns, and voluntary brigades to conduct patrols and monitoring) were implemented. The Conservation Plan for Monte Espinoso was developed and presented for consultation to new mayors and private owners to promote declaration of municipal and private reserves. Additionally, the program provided training on topics such as gender, administration, and park management.

D. For IR2, the indicator to measure progress: “*Number of Applied Operational Policies*” was developed through consensus. However, the program also supported the formulation and application of structural policies. As of September 2004, the Human Settlement Policy for Petén and the Verapaces was formulated, submitted and approved by CONAP, and its application was initiated. The Forestry Concessions Policy, the Non-Timber Policy and the Co-administration Policy continue their application. All policies were made available to the public and illustrative versions of the Human Settlement Policies were issued for the general public. The Environmental Services Policy was officially presented to MARN, and the Action Plan for the Environment Policy Framework was updated and is being applied by MARN’s Policy Unit.

Additionally, technical support was provided to CONAP in the formulation of the Policy for Mining and Oil Activities in Protected Areas, and to MARN, the Ministry of Agriculture (MAGA) and Secretariat for Planning (SEGEPLAN) in the formulation of the National Water Policy. In 2004, to respond to multiple requests from the GOG, SO5

also provided technical support to initiate the development of the Rural Development Policy and Strategy. This is an excellent opportunity to establish the linkages between economic growth and environment.

**E.** Under IR 3, the Indicator chosen to report was: *“Number of organizations that have improved management, production, transformation and marketing practices of forest management products in benefit to its members”*. The program helped forestry community organizations by providing training and technical assistance on business management (organization, administration, accounting and financing, planning, marketing, customer service); forestry management and certification; marketing research, pricing and costing; preparation of forestry management and financial plans. The analysis made on these organizations during 2004 showed that they have increased their capacity to manage their businesses and are applying better practices in implementing forestry activities.

FORESCOM, a community forestry enterprise legally established in August 2003, began operations, supported timber marketing, and provided technical assistance to ten community organizations. FORESCOM received equipment for road maintenance for the concessions from USAID, which will contribute to its sustainability and help ensure continued income flow.

During FY04, income generated through forestry management was approximately US\$2,741,000. Data came from 12 forestry concessions that were still in the milling process. During FY04, community forestry concessions paid taxes in the amount of US\$285,101 to the GOG and generated 43,200 temporary work-days and 21,600 permanent work-days.

### **VIII. LIST OF EVALUATION AND SPECIAL STUDIES CONDUCTED DURING THE LIFE OF THE SO**

- Community Forest Management in the Maya Biosphere Reserve – Close to Self-sufficiency. Guatemala, May 2003. Chemonics International. (English and Spanish)
- Estrategia de Areas de Alta Importancia Biológica con Aplicación en el Parque Nacional Sierra Lacandón, Reserva de la Biosfera Maya. Guatemala, enero 2002. USAID, FIPA/IRG, CONAP y Fundación Defensores de la Naturaleza
- Estrategia para Aumentar la Participación de Hombres y Mujeres en la Ejecución del OE-5/USAID. Guatemala, marzo 2003. USAID, FIPA/IRG y CODERSA
- Estrategia para el Manejo del Bosque en la Reserva de la Biósfera Maya. Guatemala, noviembre 2001. USAID, FIPA/IRG y CONAP.
- Estrategia para el Monitoreo Biológico del Programa Ambiental de USAID. Guatemala, septiembre 2002. USAID, FIPA/IRG y CONAP.
- Estrategia para la Unidad de Conservación de Laguna del Tigre, 2002-2007. Guatemala. USAID, FIPA/IRG y The Nature Conservancy.

- Evaluation and Recommendations for Protection of Archeological Sites within Community Forestry Concessions in the Multiple Use Zone of the Maya Biosphere Reserve, Peten, Guatemala. J. Kunen, J. Roney, April 2004.
- Guatemala Biodiversity and Tropical Forest Assessment. IRG, September 2002.
- Guatemala: Assessment and Analysis of Progress Toward SO5 Goals in the Maya Biosphere Reserve. Chemonics and International Resources Group, December 2000.
- Lessons Learned and Future Opportunities under the Environmental Strategic Objective of USAID and the Government of Guatemala. MacFarland, C. 1999.
- Revisión de la Aplicación de Regulaciones Ambientales de USAID, informe de viaje de A. Dix y C. Saito.
- Strengthening Community Participation in Environment Programs in the Peten: A Strategy for Increasing the Opportunities for the Participation of Women USAID/Guatemala (by Mary Rojas, WIDTECH) – final draft December 2000
- Unified Environmental Education and Communication (EE&C) Strategy (GREENCOM draft proposal) October, 2000
- 1999 Review of Forest Management in Cooperatives and Community Concessions in Maya Biosphere Reserve, Peten, Guatemala. C. Yocum and A. Dix, 1999.

**IX. LIST OF ACTIVITY CLOSE-OUT REPORTS PREPARED FOR CONTRACTS, GRANTS, AND COOPERATIVE AGREEMENTS**

- A. Rodale Research Institute Cooperative Agreement (5209-0000-A-00-1199-00), Exp. date 05/31/01
- B. The Nature Conservancy Cooperative Agreement (520-0395-A-00-1223-00), Exp. date 07/18/01
- C. CARE Cooperative Agreement (520-0395-A-00-1303-00), Exp. date 09/27/01
- D. Conservation International Cooperative Agreement (520-0395-A-00-1224-00), Exp. date 07/15/01
- E. Fundación Defensores de la Naturaleza Cooperative Agreement (520-A-00-04-00011-00), Exp. date 09/30/04
- F. Task Order with International Resources Group (PCE-I-66-96-00002-00) Exp. date 09/30/02
- G. Task Order with International Resources Group (520-C-00-02-00249-00), Exp. date 12/15/02
- H. Task Order with Chemonics International (LAG-I-04-99-0014-00), Exp. date 12/31/01
- I. PASA with U.S. Department of Energy/Oak Ridge National (520-0395-P-ER-0548), Exp. date 07/17/00

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## **XI. INFORMATION SOURCES:**

- Community Forest Management in the Maya Biosphere Reserve – Close to Self-sufficiency. Guatemala, May 2003. Chemonics International.
- FIPA/IRG Annual Report for the Monitoring Plan, September 2004.
- Guatemala: Assessment and Analysis of Progress Toward SO5 Goals in the Maya Biosphere Reserve. Chemonics and International Resources Group, December 2000.
- Maya Biosphere Project: Ten Years and A Dozen “Lessons”, by Keith Kline, August 2000.
- USAID/G-CAP Annual Portfolio Review Documents, R4 and Annual Reports

## **XII. ANNEXES**

1. Counterpart contribution table
2. SO 5 Results Framework
3. Table on Forest Cover Changes

## ANNEX 1

**COUNTERPART CONTRIBUTION INFORMATION  
STRATEGIC OBJECTIVE No. 520-005**

<b>ORGANIZATION</b>	<b>LOP</b>	<b>INFORMATION AS OF</b>	<b>CUMMULATIVE</b>	<b>%</b>
MARN Grant Agreement	<b>1,000,000</b>	November 12, 2003	<b>1,123,246</b>	
CONAP Grant Agreement	<b>2,220,000</b>	June 30, 2004	<b>2,754,145.72</b>	
<b>NGOs</b>				
The Nature Conservancy -PIP- Defensores de la Naturaleza / Sierra del Lacandon National Park	773,695	September 30, 2004	574,853	
Wildlife Conservation Society	155,000	September 30, 2004	158,747	
		September 30, 2004	462,375	
<b>TOTALS</b>	<b>\$ 4,148,695</b>		<b>\$ 5,138,629</b>	<b>124%</b>

## ANNEX 2-A

## Results Framework

### Strategic Objective 520-005

<b>Strategic Objective</b>	<b>Improved natural resource management and conservation of biodiversity</b>
<b>IR 1</b>	<b>Improved natural resource management for the conservation of biodiversity in selected bio-regions</b>
Sub IR 1.1	Natural ecosystems are conserved through the execution of sustainable management models by stakeholders
Sub IR 1.2	The main threats are reduced in areas of high biological importance
Sub IR 1.3	Protected areas have basic elements to operate
<b>IR 2</b>	<b>Improved environmental policies applied</b>
Sub IR 2.1	Priority structural policies are developed through consensus
Sub IR 2.2	Key operational policies are developed and approved through consensus
Sub IR 2.3	Improved analysis and proposal capacity of the civil society in environmental policy issues
<b>IR 3</b>	<b>More effective and responsive institutions</b>
Sub IR 3.1	Grassroot organizations have greater community or entrepreneurial management capacity
Sub IR 3.2	The institutional capacity of CONAP & MARN to fulfill their obligations is improved
Sub IR 3.3	Improved analysis and proposal capacity of the civil society in environmental policy issues
Sub IR 3.4	Municipalities in priority areas are strengthened to improve environmental management and biodiversity conservation

Figure 1. USAID-Guatemala's Results Framework For Strategic Objective # 5, 2002

Figure 1. USAID-Guatemala's Results Framework For Strategic Objective 520-005, 2002



Cuadro 1: Deforestación en la RBM 2003-2004

Unidad	Cambios anuales en hectáreas 86-90	Cambios anuales en hectáreas 90-93	Cambios anuales en hectáreas 93-95	Cambios anuales en hectáreas 95-97	Cambios anuales en hectáreas 97-00	Cambios anuales en hectáreas 00-01	Cambios anuales en hectáreas 01-02	Cambios anuales en hectáreas 02-03	Promedio últimos 10 años	Cambios anuales en hectáreas 03-04	% diferencia entre promedio y 03-04
Parque Nacional Sierra del Lacandón	241.0425	2178.54	2090.79	1409.76	724.71	536.31	1262.07	1208.52	1315.22	1690.02	28.50
Parque Nacional Laguna del Tigre	11.97	183.3	672.48	1616.715	1593	717.57	2383.38	4699.71	1264.16	5536.98	338.00
Parque Nacional Tikal	0	0	0	4.14	0	0	0	0	0.83	0.00	-100.00
Parque Nacional Mirador - Río Azul	0	0	0	0.315	0	1.26	0	0	0.19	0.00	-100.00
Biotopo Laguna del Tigre	0.135	0.27	0.675	32.805	317.43	86.67	351.63	693.99	145.78	901.62	518.47
Biotopo San Miguel la Palotada - El Zotz	10.665	15.69	8.82	62.595	15.42	17.46	26.1	37.89	24.83	38.25	54.02
Biotopo Dos Lagunas	0	0	0	0.585	0	0	0	0	0.12	0.00	-100.00
Biotopo Cerro Cahui	0.9675	0.42	0	14.31	0	0	0	0	2.90	0.00	-100.00
Monumento Natural Yaxhá Nakum Naranjo	0.3375	0.99	11.475	108.99	73.56	48.51	12.78	33.12	52.39	38.25	-26.99
Monumento Cultural El Pilar	0	0	0	4.14	5.07	0	0	0	2.35	0.00	-100.00
Zona de Uso Múltiple	342.6075	1033.89	1757.835	1897.92	666.9	824.94	809.91	3241.71	1198.10	2093.49	74.73
Zona de Amortiguamiento	2609.37	9707.85	11571.39	10195.11	5266.8	4087.98	6950.97	8598.87	8008.02	12614.67	57.53
Bioitza	2.4975	0.51	0.585	1.305	0	0	0	0	0.43	0.00	-100.00
Total	3219.593	13121.46	16114.05	15348.69	8662.89	6320.7	11796.84	18513.81	12015.32	22913.28	90.70

Cuadro 2: Deforestación en el Parque Nacional Sierra del Lacandón

Unidad	Cambios anuales en hectáreas 86-90	Cambios anuales en hectáreas 90-93	Cambios anuales en hectáreas 93-95	Cambios anuales en hectáreas 95-97	Cambios anuales en hectáreas 97-00	Cambios anuales en hectáreas 00-01	Cambios anuales en hectáreas 01-02	Cambios anuales en hectáreas 02-03	Promedio últimos 10 años	Cambios anuales en hectáreas 03-04	% diferencia entre promedio y 03-04
Zona de Recuperación PNSL	11.00	229.02	160.43	143.96	126.72	33.57	147.51	240.48	141.05	264.06	87.21
Zona Intangible PNSL	11.18	46.76	36.99	87.66	32.67	43.74	53.73	258.39	70.32	275.94	292.42
Zona de Uso Especial PNSL	218.86	1904.73	1893.33	1178.10	565.32	459.00	1060.83	709.65	1006.83	1150.02	14.22
Todo el PNSL	241.04	2178.51	2090.75	1409.72	724.71	536.31	1262.07	1208.52	1218.20	1690.02	38.73

## Annex 3-B

O5 final

Cuadro 3: Deforestación en las concesiones forestales (ZUM-RBM)

Unidad de Manejo	Cambios 86-90	Cambios 90-93	Cambios 93-95	Cambios 95-97	Cambios 97-00	Cambios 00-01	Cambios 01-02	Cambios 02-03	Promedio últimos 10 años	Cambios anuales en hectáreas 03-04	% diferencia entre promedio y 03-04
Carmelita	3.7	2.9	0.1	1.8	1.7	2.9	4.0	9.7	1.86	6.48	248.39
Cruce a la Colorada	4.0	12.1	19.8	74.0	42.8	105.0	91.6	159.6	52.48	142.11	170.81
Cruce Dos Aguadas	56.7	115.0	78.8	357.8	59.6	277.2	198.3	851.3	164.24	514.35	213.18
Crosquitán	0.0	0.0	0.0	0.0	0.5	0.0	0.0	2.5	0.15	0.00	-100.00
La Colorada	5.9	23.2	41.0	44.4	8.1	10.2	11.5	97.3	23.98	58.59	144.37
La Gloria	0.0	0.0	0.0	0.1	0.0	9.7	0.0	2.2	1.00	0.00	-100.00
La Pasadita	20.0	68.1	50.9	119.8	17.3	85.6	70.9	347.2	61.79	336.42	444.42
La Unión	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.00	0.00	-100.00
Las Ventanas	0.0	0.0	0.0	0.0	0.6	0.0	0.0	3.8	0.19	0.00	-100.00
Paxbán	0.0	0.0	0.1	2.3	0.5	8.3	0.0	4.0	1.47	1.17	-20.25
Rio Chanchich	0.0	0.0	0.0	0.0	0.1	0.8	0.0	1.4	0.11	0.00	-100.00
San Andrés I	0.3	2.0	2.7	5.1	2.1	3.4	0.0	1.5	2.74	0.00	-100.00
San Miguel	18.3	19.1	7.5	24.1	4.5	16.7	8.4	49.0	12.06	7.56	-37.33
Uaxactán	0.0	0.0	4.4	60.6	0.4	9.8	0.0	11.9	14.09	13.23	-6.13
Yalech	6.3	0.0	0.0	0.9	6.2	0.1	0.0	2.0	2.04	0.00	-100.00
Total	115.2	242.4	205.3	691.0	144.2	529.7	384.7	1547.9	338.20	1079.91	219.31