

**The USAID/Mexico
Environment Program:
Partnership and
Program Assessment**

February 2002

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Acronyms

ADS	Automated Directives System	CONCAMIN	Confederación de Camaras Industriales
ALCOSTA	Alianza para la Sustentabilidad del Noroeste Costero Mexicano	CTO	Cognizant Technical Officer
ANES	Asociación Nacional de Energia Solar	CySTE	Consultoria y Servicios en Tecnologias Eficientes
ARD	Associates in Rural Development Inc.	DOE	U.S. Department of Energy
ASK	Amigos de Sian Ka'an	ECOSUR	El Colegio de la Frontera Sur
ATPAE	Asociación de Tecnicos y Profesionistas en Aplicación Energetica	EE	Energy Efficiency
CCAP	Center for Clean Air Policy	EIC	Ecoenergy International Corporation
CCMSS	Consejo Civil Mexicano de Silvicultura Sostenible	EMS	Environmental Management Systems
CDIE	Center for Development Information and Evaluation	EP3	Environmental Pollution Prevention Project (USAID)
CEC	Commission for Environmental Cooperation	ESCO	Energy Service Company
CEMEX	Cementos Mexicanos	FIDE	Fideicomiso para el Ahorro de Energía <u>Electricidad</u>
CFE	Comisión Federal de Electricidad	FIRCO	Fideicomiso de Riesgo Compartido
CI	Conservation International	FMCN	Fondo Mexicano para la Conservación de la Naturaleza
CI-MEX	Conservation International-Mexico	FMDR	Fondo Mexicano para el Desarrollo Rural
CMPL	Centro Mexicano de Producción mas Limpia	FSN	Foreign Service National
CNA	Comisión Nacional del Agua	FY	Fiscal Year
CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad	GCC	Global Climate Change
CONAE	Comisión Nacional para el Ahorro de Energia	GDF	Gobierno Distrito Federal
CONAFOR	Comisión Nacional Forestal	GEF	Global Environment Facility
CONANP	Comisión Nacional de Areas Naturales Protegidas	GEOMOD	Geographic Modelling Services
		GHG	Greenhouse Gases
		GOM	Government of Mexico
		GreenCOM	Environmental Education and Communication Project

IDB	InterAmerican Development Bank	PNMARN	Programa Nacional de Medio Ambiente y Recursos Naturales 2001–2006
IHNE	Instituto de Historia Natural y Ecología (Chiapas)	PP	Pollution Prevention
IMADES	Instituto del Medio Ambiente y Desarrollo Sustentable del Estado de Sonora	PPIRA	Programa de Prevención de Incendios y Restauración
INE	Instituto Nacional de Ecología	PPY	Pronatura Peninsula de Yucatan
IR	Intermediate Result	PROFEPA	Procuraduria Federal de Protección al Ambiente
JICA	Japanese International Cooperation Agency	PRONARE	Programa Nacional de Restauración
LAC	Latin America and Caribbean Bureau (of USAID)	R4	Results Review Resource Request
MEO	Mission Environment Officer	RE	Renewable Energy
MEP	Mexico Eco-Development Program (WWF)	REA	Regional Environment Advisor
MPP	Mission Performance Plan	REACH	Reduced Emissions and Advanced Combustion Hardware
MREP	Mexico Renewable Energy Program	RedLAC	Network of Environment Funds in Latin America and the Caribbean
NAFMT	North American Fire Management Team (USDA Forest Service/SEMARNAT)	RMS	Resource Management System
NAFTA	North America Free Trade Agreement	RMSI	Resources Management System Initiative
NGO	Nongovernmental Organization	SAGAR	Secretaria de Agricultura, Ganadería y Desarrollo Rural
NREL	National Renewable Energy Laboratory	SAIC	Science Applications International Corporation
NRM	Natural Resources Management	SEMARNAP	Secretaria de Medio Ambiente, Recursos Naturales y Pesca
OE	Operating Expenses	SEMARNAT	Secretaria de Medio Ambiente y Recursos Naturales
PASA	Participating Agency Services Agreement	SENER	Secretaria de Energía
PEMEX	Petroleos Mexicanos	SEP	Secretaria de Educación Publica
PiP	Parks in Peril Program (TNC)		
PMP	Performance Management Plan		

SNL	Sandia National Laboratory	USAID/W	USAID/Washington
SO	Strategic Objective	USDH	US Direct Hire employee
SOAG	Strategic Objective Agreement	USFS	US Forest Service
SOW	Scope of Work	UNFCCC	United Nations Framework Convention on Climate Change
SWTDI	Southwest Technology Development Institute	UQROO	University of Quintana Roo
TCAPP	Technology Cooperation Agreement Pilot Project	URI/CRC	University of Rhode Island/Coastal Resources Center
TDY	Temporary Duty	WHN	Wildlands and Human Needs Program (WWF)
Tellus	Tellus Institute	WPRP	Wildfire Prevention and Restoration Program
TFCA	Tropical Forest Conservation Act	WWF/US	World Wildlife Fund
TNC	The Nature Conservancy	ZOFEMAT	Zona Federal Maritimo Terrestre y Ambientes Costeros
UNAM	Universidad Autonoma de México		
UNIDO	United Nations Industrial Development Organization		
US	United States		
USAID	US Agency for International Development		

Executive Summary

The US and Mexico share a 2,000-mile border as well as numerous political, socio-economic, environmental, and health concerns, and Mexico is the US's second leading trading partner. This interdependence makes Mexico the most important US foreign policy priority in Latin America. US President George W. Bush singled out the US–Mexico relationship as a key priority, visiting the country in February 2002 as his first presidential foreign visit. He and Mexican President Vicente Fox enjoy a close relationship, and President Fox seeks an unprecedented expansion of the US–Mexico partnership with a more confident and assertive role for Mexico in such areas as economic cooperation, immigration, and narcotics trafficking.

The USAID Program in Mexico

The USAID program in Mexico is a small, but important part of the US–Mexico partnership. The Fox administration has requested direct USAID assistance in the fields of environment, energy, decentralization and government transparency, infectious diseases, and micro-enterprise development. USAID is responding to these requests through its existing programs and will be looking for new opportunities within its Strategic Plan for the period 2004–2008.

USAID's program in Mexico started in 1974 and focused largely on family planning. Since then, its budget has been relatively small, with dramatic fluctuations between \$5 million and \$30 million per year. For the past four years, USAID's annual budget has averaged about \$20 million—a small amount compared the Mexican population of about 100 million and economy of over \$500 billion. The USAID budget is also small compared to the programs of other donors. In 2000, the US ranked fifth among bilateral donors to Mexico, behind Japan, Germany, Spain, and France. The US contribution is even smaller when compared to the combined assistance from the World Bank and Inter-American Development Bank (IDB), which amounts to about \$1 billion per year. With its relatively small annual budget, USAID needs to keep its program tightly focused and be realistic about what it can accomplish.

In Mexico, the relationship between USAID and the host country is one of “cooperation” rather than more traditional “assistance,” and there are no formal assistance agreements (SOAGs) to implement programs and activities. USAID missions in Latin American with programs the size of USAID/Mexico normally have ten or more USDH staff, compared to only two direct hires in Mexico. As a result, the Mission has had to operate a very diverse, complex, and rapidly expanding portfolio with a mostly PSC (personal services contractor) staff, who, despite excellent technical qualifications, lack experience in managing USAID programs. In addition, USAID/Mexico's reporting requirements to Washington are virtually the same as Missions with much larger USDH staffs.

Because of Mexico's importance to the US, USAID/Mexico has been showered with activities initiated by USAID/Washington, sometimes without the Mission's full knowledge or consent. In addition, other US government agencies have initiated development activities in Mexico. In

some cases, there is pressure for USAID to fund these activities. These elements combine to make management of the program in Mexico particularly challenging.

SO6: Critical Ecosystems and Biological Resources Conserved

IR 6.1: Management of target protected areas and other ecosystems Improved.

IR 6.2: Demonstration and implementation of sustainable use activities in biologically important areas.

IR 6.3: Improved policy framework for conservation and sustainable use of biological resources.

IR 6.4: Improved non-governmental organization (NGO) and professional capacity for conservation and sustainable use of biological resources.

Sub IR 6.6.1: Mexican Nature Conservation Fund fully operational and fulfilling its environmental mandate

SO7: Carbon Dioxide Emissions and Pollution Reduced

IR 7.1: Adoption of resource management systems (RMS) and Renewable Energy technologies and practices in targeted industries.

IR 7.1.1: Viability of (RMS) technologies demonstrated at the pilot level.

IR 7.1.2: Viability of renewable energy technologies demonstrated at the pilot level.

IR 7.1.3: Selected policies in place that promote use of RMS and renewable energy technologies.

IR 7.1.4: Improved Mexican institutional capacity for RMS and renewable energy technologies.

IR 7.1.5: Financing available for adoption of RMS and renewable energy technologies from the private sector, the GOM, and other donors (independent of USAID assistance).

Global Climate Change Activities

- Developing nationally and internationally accepted analytical frameworks to determine green house gas (GHG) impacts of projects.
- Strengthening institutional mechanisms and frameworks to enhance Mexico's participation in the United Nations Framework Convention on Climate Change (UNFCCC).

Strategic Vision of the Environment Program

The USAID Environment program has two strategic objectives (SOs)—one focused on biological diversity, the other on energy and pollution reduction—and a crosscutting theme of global climate change (GCC). The current biodiversity strategy's strategic vision has aimed to achieve nature conservation by building in-country capacity, with provisions to improve basic management and infrastructure, adopt methodological tools and approaches, address critical policy limitations, and strengthen public and private institutions. Building human resource capacity takes shape as an underlying issue in all these areas, as does establishing self-replicating processes to spread lessons learned to a growing portion of the conservation sector.

The vision of the current energy efficiency/pollution reduction strategy has a similar orientation: capacity building, large-scale replication, policy promotion, and the creation of synergies. It involves establishing models in energy conservation, resource management systems (RMS), and the use of renewable energy sources to produce consequent reductions in emissions of greenhouse gases (GHG) and other pollutants. Successes are then to be reproduced through market

mechanisms, supported by strengthened institutions and well-trained expertise in both the public and private sectors.

The vision for the GCC program bridges both SOs, with reductions in GHG emissions under SO7 and management of carbon sinks in SO6. It has focused on building adequate analytical frameworks to facilitate calculation of GHG emission reductions; estimation of national and local deforestation rates; and the promotion of large-scale, grid-connected renewable energy sources.

From FY1990 to FY2003, total USAID obligations for environment activities amounted to about \$92.5 million or an average of roughly \$7 million per year. Shifting priorities in Washington caused fluctuations in the environment budget, with a FY1996 high point of \$23.8 million when USAID obligated \$19.5 million for an endowment to the Mexican Fund for Nature Conservation (FMCN). Late-year obligations from Washington tended to distort program focus and add management burdens. The Mission's base-level environment budget has grown significantly. Ignoring for the moment the very steep peaks and special initiatives like FMCN and forest fires, the budget grew from an average of \$2.9 million for FY1990–1992, to \$4.7 million for FY1994–1995, and to \$7.5 million for FY1997–2001.

The Assessment

This report presents the findings of an assessment of:

- Partnership mechanisms used by the USAID/Mexico environment program, and
- Progress made toward achievement of sectoral goals.

The analysis dealt with the period from 1989 through 2001, with primary emphasis on that of the current Country Strategy, which was approved in 1998.

The Partnership Assessment focuses on strengths, weaknesses, lessons learned, effectiveness, roles, expectations, and recommendations for improving USAID/Mexico's relationships with its key contractor and NGO partners. The Progress Assessment concentrates on the results frameworks, performance indicators, assumptions, and development hypotheses, as well as the actual progress toward achieving strategic objectives and intermediate results (IRs). The Assessment Team was also asked to review USAID/Mexico's compliance with Agency environmental regulations.

The assessment results formed the basis for workshops with partners and review sessions with USAID staff, and it will be used as background for a second report presenting options for USAID/Mexico's environment program during the next strategic plan period, 2004 –2008.

Key Partners, Programs, and Progress Assessment

Key Partners

SO6:

The Nature Conservancy (TNC)
Conservation International-Mexico (CI-MEX)
World Wildlife Fund U.S (WWF)
Fondo Mexicano para la Conservación de la Naturaleza (FMCN)
University of Rhode Island/Coastal Resources Center (URI/CRC)
USDA Forest Service

SO7:

PA Consulting Group
Sandia National Laboratory (US Department of Energy)

USAID works with eight key partners in implementing its environment program, six on SO6 and two on SO7 (see box).

Each of these partners works with **many** other groups. The Partnership Assessment focuses **only** on the relationship between USAID and the eight key partners. The Progress Assessment focuses on the results obtained by these eight key partners working with all of the other groups associated with USAID's environment program to produce the results reported on in the annual R4 document. Programs that do not contribute to the results reported in the R4 or are not linked to one of the eight key partners may be mentioned in passing, but have not been assessed in any depth.

SO6: Critical Ecosystems and Biological Resources Conserved

Partners

The Nature Conservancy (TNC) and the Parks in Peril (PiP) Program. Begun in 1990, Parks in Peril (PiP) is a collaborative regional program between The Nature Conservancy and USAID. It brings on-site management to 37 threatened national parks and reserves of global biological significance in 15 Latin American countries. The PiP program in Mexico now involves ten distinct sites and constitutes the largest program commitment to a single country, covering almost 3.2 million hectares. USAID/Mexico bought into this LAC Bureau-funded Cooperative Agreement for roughly US\$7 million between FY1991 and FY2001, thereby providing the bulk of program funding for activities in Mexico and making this the largest single piece of the SO6 portfolio. This well-established partnership has had wide impact in protecting Mexico's biodiversity, fostering local organizational capacity, training conservation personnel, and leveraging other funding. Issues that deserve attention include the need for compatible indicators reported to both LAC/Washington and USAID/Mexico, streamlined reporting, clarification on

the meaning of the transition to platform sites under PIP 2000, and the need to develop a coherent approach to an exit strategy for PiP sites that have been consolidated.

Conservation International-Mexico (CI-MEX). Conservation International was established as an independent, non-profit, international NGO in 1987 and soon began its activities in Mexico. In 1990 Conservation International-Mexico (CI-MEX) was founded and continued the working relationship started by its parent organization with USAID/Mexico. CI-MEX has focused its attention on two of the organization's biodiversity hotspots—the Selva Maya and the Gulf of California. It takes a leadership role in both areas, backed in the Selva Maya by the establishment of modern, real time ecological monitoring capabilities. CI-MEX's achievements and capacities, well recognized in Mexico, have enabled it to attract strong financial support from an array of national private sector sources. This has helped CI-MEX to accommodate relatively sporadic USAID funding levels over the years. However, it may need more stable support from USAID in the near term to compensate for the recent loss of funding for its Chiapas/Selva Maya program from the PULSAR Foundation. CI-MEX has been a key USAID partner in implementing joint initiatives under the aegis of USAID/Mexico's South-South Initiative. It has also been a leader in producing useful and user-friendly information on conservation topics for both the conservation community and the general public.

World Wildlife Fund (WWF/US). The World Wildlife Fund (WWF/US), long involved with conservation in Mexico, has worked with local partners on a wide range of projects since 1968. Shortly after the USAID/Mexico environment program started in 1989, resources for conservation began flowing to a series of WWF projects. WWF pioneered the linking of economic development activities with protected area management in Mexico. This led to a sound framework for protection and conservation, particularly through WWF's Mexico Eco-development Program (MEP). However, disagreements between WWF and USAID/Mexico led to the closing of MEP and a hiatus in USAID/Mexico funding for several years. Starting in FY2001, USAID is once again directly funding WWF programs in Mexico, including the Oaxaca Community Forestry Program (part of the US–Japan Common Agenda) and a program of Strengthening Policy Tools to Achieve Integrated Coastal Zone Management. WWF was instrumental in setting up the FMCN, discussed below.

Fondo Mexicano para la Conservación de la Naturaleza (FMCN). The Mexican Fund for the Conservation of Nature (FMCN) had its origins during the 1992 Rio Earth Summit when the president of the World Wildlife Fund/US submitted the idea to the president of Mexico. Their decision and initiative to work toward the creation of a permanent and autonomous fund to guarantee financing for conservation projects received early endorsement and support from a number of donors, including USAID, the US State Department (OES), the MacArthur and Packard Foundations, and Bankers Trust. The Fund was formally established in 1994 with a

mission “to conserve Mexico’s biodiversity and assure the sustainable use of its natural resources by promoting strategic actions and providing medium- and long-term financing to conservation initiatives.”

USAID can be justifiably proud that FMCN has become more than the principal mechanism for supporting a meaningful, decentralized, and participatory approach to conservation—attributes that are critical to real impact in protecting nature in such a large country. The Fund has proven to be a highly responsible and disciplined partner much concerned with financial accountability and operational transparency. The Fund is well recognized in the region as a successful example of a conservation endowment. FMCN has also been proactive in other LAC countries by promoting similar endowment funds, along with learning through its participation and leadership of the Network of Latin American and Caribbean Environment Funds (REDLAC).

University of Rhode Island-Coastal Resources Center (URI/CRC). URI/CRC has been active in Mexico since the early 1990s. Its USAID-supported work has involved building NGO capacity, enhancing community-based coastal area management, and working with partners to develop a longer-term program for the support of coastal resources management and conservation—one of the priorities identified in the Mission’s 1996 Environment Sector Strategy. URI/CRC helped design USAID/Mexico’s program for coastal area biodiversity conservation and management and thus conforms well to SO6. URI/CRC has helped increase USAID’s presence by coordinating with other Mission programs (e.g., Democracy), leveraging funds, and linking with the Global Bureau’s Environment Program.

USDA Forest Service (USFS). In 1998, with the outbreak of severe forest fires in Mexico, USAID turned to the US Forest Service to become an important partner in coping with these ecological disasters. USAID and its Office of Foreign Disaster Assistance (OFDA) provided almost \$8,000,000 in technical assistance, tools, equipment, and funds to the USDA Forest Service to assist in this major wild-land fire suppression operation. Following the fires, USAID and SEMARNAP signed a memorandum of understanding (MOU) to implement a national fire prevention and restoration program. The success of this working partnership between USAID and the USDA Forest Service in responding to the catastrophic fire situation has opened the door to a new and closer working relationship between the two agencies, including work on criteria and indicators for sustainable forest management and the provision of a staff member for the Environment Team.

Progress Assessment

Clear and considerable progress has been made in biological diversity conservation in Mexico, and USAID and its partners have had a highly significant role in promoting it. Examples of this

progress are presented throughout the report. That said, discrepancies in reporting, confusion about indicators, and a dearth of information hinder measurement of progress. In some cases, recent reporting on achievements seems to be “frozen in time”.¹ In other cases, it is unclear whether discrepancies in reporting represent changes in the way Washington wanted indicators reported, deficiencies in the Mission’s approach, poor or confused reporting by partners, or all of the above. Another serious issue has impeded understanding of how either the Mission or USAID/Washington have used the R4 process to track performance, namely, the limited number of indicators actually being reported out of the 11 identified in the 1998 Strategic Plan.

It does not appear that USAID/Washington’s review of the Mexico R4s has been a very rigorous process in recent years. For example, one could cite the double counting associated with two indicators, the very subjective narrative reporting on other achievements, and a series of recommendations to the Mission that have gone unheeded. The Assessment Team has a particular concern that the disarray over indicators—something that has gone on practically since the inception of the new strategy in FY1998—may be selling short the efforts and achievement of USAID/Mexico and its partners.

Although progress in reaching the SO-level goals appears to be poorly understood, the Assessment Team can confirm that significant progress has been made. There is room for additional work in areas ranging from strategic engagement on policy to greatly increased rigor in assessing economic alternatives as part of promoting biodiversity conservation to a more tactical approach to institutional development.

S07: Carbon Dioxide Emissions and Pollution Reduced

Partners

PA Consulting Group. PA Consulting Group (formerly, Hagler Bailly) is implementing the Resources Management Systems Initiative (RMSI). The RMSI program builds on USAID and PA relationships with a wide range of collaborating Mexican agencies. A primary emphasis of the program has been on pilot demonstrations of energy efficiency, pollution prevention/cleaner production, and environmental management systems for both industries and municipalities. The program also includes important policy and institutional development components. USAID and PA have effectively shared leadership for RMSI activities. Mexican entities, for which PA has tailored its assistance efforts, have considerable confidence in PA’s technical skills. Potential weakness lies in stretching PA and USAID resources too thinly.

¹ A persistent tendency appears in USAID/Mexico’s reporting to Washington (in R4s and the recent Mid-Term Strategy/Portfolio Review) of still claiming credit for results that were part of the mid-1990s.

Sandia National Laboratory (SNL). The US Department of Energy's (DOE's) Sandia National Laboratory (SNL) promotes use of renewable energy systems in Mexico to enhance economic and social development, create new business opportunities for US industry, and offset GHG emissions through rural renewable energy applications. Sandia National Laboratories (SNL) started renewable energy work with Mexico in 1991 at DOE's request. In 1992, USAID provided some initial funding, which was substantially increased in 1993. The Mexico Renewable Energy Program (MREP) initially focused on installing cost-share pilot projects. In the late 1990s, the program started placing greater emphasis on sustainable replication and development of Mexican institutional capacity to manage the program. Sandia phased out of cost-share pilots in mid 2000. In its final phase, through FY2003, the program focuses on four priority goals: large-scale replication, institutional capacity building, policy influence, and synergies. The USAID-Sandia partnership, based on a solid ten-year relationship, is working quite well. Sandia provides USAID with detailed MREP information and USAID leaves program management to Sandia.

Progress Assessment

Clear progress has been made in promoting USAID's energy and pollution prevention objectives. The Mission, PA, Sandia, and participating Mexican entities appear committed, cooperative, and hard working. That said, their efforts would benefit by sharper focus on specified objectives and greater adherence to the 1998 Strategy.

Considerable work has gone into the SO7 Performance Monitoring Plan, its indicators, and data collection systems. Unfortunately, the indicators are not well conceived and do not appear to measure the desired results of the Strategy. Responsibility for this situation rests with both the Mission and the LAC Bureau in Washington. Furthermore, other SO7 documentation does not give a readily understandable picture of the status and progress of the wide range of Mission and USAID/Washington-funded activities under the SO7 umbrella.

Important pilot activities have been carried out under RMSI. Some companies have reaped substantial benefits from RMS audit recommendations. However, only half of participating companies implemented at least 50 percent of audit recommendations, and most RMS audit recommendations remain unimplemented. The Tlalpan municipal EMS has generated useful lessons but has made only limited progress in demonstrating the viability of municipal EMS technologies.

Progress in demonstrating the "viability" of renewable energy technologies is difficult to measure. The indicator used addresses the overall size of the pilot demonstrations but says little about their viability. The technical viability of selected renewable energy technologies was clearly demonstrated by the MREP's 403 renewable energy pilot systems; over 90 percent of

these were still operating one year after installation. In contrast, wind systems have significantly more problems and require regular and diligent maintenance, and hybrid systems are the most complicated.

Assessing policy progress for SO7 poses a challenge, because identifying acceptable indicators is notoriously difficult. The Mission has made an excellent effort to develop a questionnaire-based policy indicator and performance-monitoring system. However, the highly subjective system does not allow for a rigorous progress assessment. Aside from some energy standards promulgated by CONAE, the program has not achieved the SO7 policy objective of having “policies *in place*.”

Important progress has been made in improving Mexican institutional capacity for RMS and renewable energy technologies. In addition, substantial progress was made in assisting Mexican partners obtain major additional funding for several of these activities. PA assistance contributed directly to a US\$46 million, electrical energy efficiency program with FIDE, funded by the IDB (\$23M) and GOM (\$23M). Sandia was instrumental in helping Fideicomiso de Riesgo Compartido (FIRCO) arrange financing for a new, US\$31 million, nationwide renewable energy replication activity funded by the Global Environment Facility (GEF), the World Bank, and GOM. MREP also assisted with the establishment of Mexico’s first RE financing program through the Chihuahua state bank. In addition, Sandia helped Mexico’s Secretaria de Energía (SENER) prepare a proposal to obtain funds for a US\$5 million, off-grid, rural electrification program.

USAID/Mexico articulated its energy SO in terms of carbon dioxide emissions reduced, and USAID/Washington approved the SO—a poor decision for at least three reasons. First, “emission reduction” carries the connotation of obligatory reductions, which the GOM feels would restrict industrial and economic development, an important GOM priority. Second, the SO includes MREP, which focuses primarily on small-scale PV systems that are extremely uneconomical in terms of CO₂ reductions per dollar expended. This does not imply that the Mission should have stopped supporting MREP; rather, it suggests that the Mission’s selection of reduced CO₂ emissions as the SO was a poor choice. Third, the Mission may have set itself up for failure by suggesting that its US\$2- to \$3-million-a-year energy program could have an impact on Mexico’s CO₂ emissions, the twelfth largest in the world. Given the Mission’s SO7 program, a better choice would have been to stick to its previous energy objective, namely, “adoption of renewable energy and energy efficiency technologies.”

Global Climate Change

In 1999, USAID/Mexico initiated its Global Climate Change (GCC) program in response to USAID/Washington's 1998–2002 GCC Initiative. Program partners include contractors, Mexican partners, Mexican implementers, and other USG agencies, most of which overlap with the SO6 or SO7 programs (see box). The program has completed one project and has six active projects.

Two main leitmotifs run through the GCC program: 1) the tension between USAID/Washington initiatives and Mission-promoted activities; and 2) the demarcation between sector-specific activities, which are technical, social and/or economic in nature, and broader, crosscutting activities, germane to GCC itself.

Prior to the arrival of the GCC Advisor in the Mexico Mission, all GCC activities were initiated and funded by USAID/Washington, often without full buy-in from the Mission. The arrival of the Climate Change Advisor has reversed this trend, and the current GCC program is built upon

GCC Program Partners

Contractors

- PA Consulting
- ARD
- NREL
- IRG/Winrock

Mexican Partners

- SEMARNAT
- Instituto Nacional de Ecología, SEMARNAT
- ATPAE
- CONAE

Mexican Implementers

- Consultoria y Servicios en Tecnologías Eficientes
- Grupo Darum
- Instituto de Ingeniería, UNAM

Other US agencies

- US Environmental Protection Agency (EPA)
- Department of Energy (DOE)

direct requests from Mexican institutions. The responsiveness to Mexican needs is clearly a positive aspect of the USAID GCC program. However, given the fact that the GCC program does not have its own budget and that certain opportunities do arise within the USAID/Washington context, the program would be strengthened by closer coordination between Washington and the Mission.

Climate change mitigation effects can only be achieved through the successful implementation of a certain subset of the sector-specific projects. In this sense, GCC is undeniably linked to SO6 and SO7. Ultimately, these programs seek to lower the barriers to dissemination of cleaner technologies in energy or best practices in land use. These programs face mainly technical and economic challenges that, when resolved, lead not only to a more sustainable energy matrix and improved land use but, also, to positive climate effects. However, those climate effects are ancillary benefits, not the *raison d'être* of the projects. To attempt to measure SO6 or SO7 activity performance in terms of attained climate benefits (as attempted in SO7) is a clear case of the tail wagging the dog. At the same time, GCC is a crosscutting challenge and goes well above and beyond SO6 and SO7 activities. In fact, the fundamental nature of the GCC debate is

not sector specific. GCC focuses on determining *whether* the climate benefits of projects—whatever the sector—are to be measured, *how* they should be measured, and *what use* can/should be made of the measurements.

The Mexican USAID GCC program has done an excellent job of distilling from each of the SO6 and SO7 sectors those issues that are fundamentally GCC challenges. The three projects that focus on methodologies offer clear examples and could be considered the program's core activities. These projects have resulted in an invaluable contribution to international efforts of standardizing measurements.

At the same time, the loop needs to be closed with respect to the GCC program's sectoral aspects, and an effort to measure and report on the GHG reductions achieved in both SO6 and SO7 projects would strengthen it. While the success of SO7 projects cannot be measured in terms of emission reductions, reductions are an ancillary benefit, and it is the purview of the GCC program to measure and report these. SO6 projects have not been measured for their GHG benefits. The GCC program should incorporate quantification of benefits in the land use sector as an ongoing activity. SO6, SO7, and GCC should not stand side by side as three parallel programs. They are intimately linked through GCC, and that integration needs to be made more explicit.

Environmental Compliance

USAID/Mexico has a strong environment program with significant accomplishments. Unfortunately, its application of Reg. 216 and related environmental compliance has not kept pace. Although the Initial Environmental Examinations (IEE) have been routinely filed, some notable lapses in follow-up on mitigation measures exist, along with very little indication of ongoing, active compliance monitoring. These matters require the urgent attention of the Environment Team, the Mission Director, and LAC/RSDE. Annex C presents a detailed discussion of these issues as they relate to the USAID/Mexico program, along with a series of specific remedial actions to resolve the issues. In order to ensure that these issues receive proper attention, the Environment Team Leader should assume the role of Mission Environment Officer (MEO), and the new FSN being recruited to manage SO6 programs should be trained to assist with these duties. Agency guidance makes it clear that Reg. 216 compliance, mitigation, and monitoring are the responsibility of all members of each SO Team, not just the MEO. In addition, all program partners should receive training in the application of Reg. 216.

Conclusions and Recommendations

The most important finding of this Assessment, in the opinion of the Assessment Team, should be **“work smarter, not harder.”** The Team found the Mission and its partners to be hard working, very committed, and clearly making a difference in the environment sector in Mexico. However, primarily because of organizational issues involving Washington and the Mission, and because of staffing limitations (not the least of which was the absence of an Environment Team Leader for the first part of the strategy period), they **neither work entirely to plan nor achieve the synergy and multiplier effect expected of teams and partners in the USAID system.** Of even greater concern, their ability to report succinctly and clearly on their achievements has many shortcomings; thereby they **sell their own accomplishments short.**

To achieve the full effectiveness of the Mission’s Environment Team, enhance partner relationships, and achieve desired program results, a number of practical steps are recommended:

- **Address Environment Team Staffing and Program Management Responsibilities** – Complete recruitment and hiring additional FSN for SO6, review workloads, provide training in USAID procedures (including Reg. 216), and make sure partner interface is in Spanish.
- **Consolidate the SO Team** – Re-examine SO Team roles, responsibilities, structure, and functioning; record these in a Team Management Charter; get the Team speaking with one voice; and prepare Briefing Book on the environment program.
- **Rationalize Relationships and Support from the USAID/Washington-based Virtual Team** – Formally establish the Virtual Team, and spell out roles and responsibilities in the Team Management Charter
- **Maintain Program Focus and Avoid Program Creep** – USAID/Mexico is commended for reportedly cutting back from 78 activities to 32 since 1998. No new commitments should be made except after a careful review of how a new activity will contribute to key program goals and an analysis of the management implications of adding it to the ongoing program. This is not a recommendation against new “targets of opportunity,” per se. However, it is a recommendation for the Team to refrain from beginning new activities until it effectively manages those already underway.
- **Establish a Functioning Expanded Team and Improve Cooperation Among USAID’s Primary Partners** – The Expanded Team should meet regularly to discuss

annual work plans and program progress with an aim to improve communication and coordination.

- **Continue to Engage the GOM** – By taking advantage of opportunities to work more closely with the GOM/Fox Administration, the Mission can achieve a better fit between USAID’s environment program and national priorities. USAID must avoid raising expectations of direct funding for GOM agencies unless it plans to change the current funding modalities. It must also ensure that activities funded through NGOs and other intermediaries are seen and understood as being responsive to GOM’s priorities for the sector.
- **Make the Revitalization of the Expanded Team Top Priority** – In addition to improved communication and coordination, this will promote program synergies and avoid duplication of effort. Specific early-action objectives are identified (e.g., Web site development, a sector-wide calendar of events, cross-partner training, identifying themes for collective work on compiling, analyzing and sharing experience, etc.).
- **Engage Other US Government Agencies and Donors** – More frequent and regular contact with the Environment, Science, and Technology Office and other USG agency representatives in the Embassy, along with greater participation in the development of the Mission Performance Plan (MPP) should be part of the Environment Team Leader’s responsibilities. Similarly, room clearly exists for more proactive work by the Environment Team in dialogue and engagement with other development donors and multi-lateral agencies.
- **Improve Record Keeping and Program Documentation.** The abrupt departure of the Environment Team Leader in September 1999 resulted in the loss of some significant portions of the Environment Team institutional memory and historical files. Work currently underway to fill these gaps needs to be continued. While grantees and contractors are required to provide key documents to the Center for Development Information and Evaluation (CDIE) in Washington, this has not happened. Each partner should be asked to provide copies of all key documents to the CDIE Development Experience Clearinghouse (www.dec.org) within the next several months. In addition to filling gaps in the historical record, this will allow the rich experience, significant accomplishments, and important lessons from Mexico to be used by others.

The Assessment discusses issues and opportunities for the remainder of the current strategy period and makes practical suggestions for work that needs to be done within each program element.

In light of the above, the Assessment Team believes that the Mission and its Partners should **spend the remainder of the current strategy period (until 2003) consolidating progress across the board and compiling the lessons learned as a result of their collective investments and experience.** For its part, USAID/Mexico should steadfastly refuse new program commitments and should also ask its Washington-based partners to contribute to this consolidation process. On the Partners' side, continuing efforts are needed to improve communications and cooperation and to ensure that the Team is coalescing rather than competing.

The Mission and its Partners need **fewer activities, clearer indicators, and an agreed-upon and effective method for reporting on them.** By dealing with these issues, which are actually the contractual basis for USAID partnerships, they will fundamentally strengthen their relationships and ensure a clear vision of what has been accomplished to date. This, in turn, will guide the future and put in place smooth working relations for the next cycle of USAID assistance to the environment sector in Mexico.

I. Introduction

1.1 Purpose

This report presents the findings of an assessment of the:

- Partnership mechanisms used by the USAID/Mexico environment program, and
- Progress made toward achievement of sectoral goals.

The period covered is 1989 through 2001, with primary emphasis on the period of the current Country Strategy, which was approved in 1998.

The Partnership Assessment focuses on strengths, weaknesses, lessons learned, effectiveness, roles, expectations, and recommendations for improving USAID/Mexico's relationships with its key contractor and nongovernmental organization (NGO) partners. The Progress Assessment concentrates on results frameworks, performance indicators, assumptions, and development hypotheses, as well as the actual progress toward achieving strategic objectives and intermediate results.

The assessment results served as the basis for workshops with partners, review sessions with USAID staff and will serve as background for a second report presenting options for USAID/Mexico's environment program during the next Strategic Plan period 2004–2008.

1.2 Environment Situation in Mexico

Environmental degradation has been an important issue in Mexico since the arrival of the first Spaniards in the early 16th century.² The Aztecs and other original inhabitants of Mexico believed that humans were dependent upon and subservient to the natural environment. The Spaniards, on the other hand, believed that God had created nature to serve humans and, therefore, humans were destined to control nature for their own ends. The Europeans brought concepts, such as private ownership of property and commercial agriculture, as well as animals, plants, and diseases, that drastically changed the Mexican environment. Overgrazing by sheep, pigs, and cattle degraded Mexican groundcover, leading to severe erosion. The spread of European diseases reduced the indigenous population by almost 90 percent. Later, commercial lumbering, rapid industrial and urban growth, exploitation of oil and mineral resources, and widespread use of fertilizers and pesticides continued to place severe pressures on the environment.

² Joel Simon, *Endangered Mexico: An Environment on the Edge*, Sierra Club Books, San Francisco, 1997.

During the first 450 years after the Spaniards arrived, successive governments devoted little attention to the problems of environmental degradation. Only recently has the Government of Mexico (GOM) given priority to environmental concerns. In 1972, in response to unchecked population and industrial growth in Mexico City that outpaced water, air, and space resources, the GOM created an environmental unit in the Secretary of Health. The unit later was shifted to the Secretariat of Housing, then to Urban Development, and eventually to Social Development. The NAFTA debate served as a catalyst for the creation of an environmental prosecutor's office (PROFEPA) and the National Ecology Institute (INE). In 1995, President Zedillo pulled together agencies from fisheries, social development, and agriculture to form the Secretariat of Environment, Natural Resources, and Fisheries (SEMARNAP). In early 2001, the Fox Administration removed fisheries from the Secretariat and the acronym was changed to SEMARNAT.

Environment is among Presidents Fox's most important priorities. Shortly after taking office, he identified environmental policy, water, and forest management as priority concerns. He also indicated that he favored opening the door to private investment in the electricity sector.

While environment is indeed very important, it is not the most important development issue facing Mexico. The World Bank, in its recent, comprehensive development agenda for Mexico, placed environment combined with more equitable income distribution in fourth place on its five-point development agenda for Mexico:³

1. Consolidate macroeconomic gains;
2. Accelerate growth through enhanced competitiveness;
3. Reduce poverty through human capital development;
4. Balanced growth and poverty reduction with *protecting natural resources* (italics added);
5. Efficient, accountable, and transparent government. (p.2).

The World Bank identified water as the most pressing environmental issue, indicating that "Mexico is on the brink of a water crisis" (p. 11) with 100 of its 258 aquifers overdrawn (p. 17). It also cited as major problems: subsidies on water and electricity tariffs, inadequate wastewater treatment, poor solid waste management, urban air pollution, deforestation, and threats to biodiversity and ecosystems from agriculture and tourism. It is estimated that the cost of environmental degradation is equivalent to about 10 percent of GDP, or more than \$50 billion per year.

³ Marcel M. Giugale, Olivier Lafourcade, and Vinh H. Nguyen (Eds), 2001. *Mexico: A Comprehensive Development Agenda for the New Era*, Washington, D.C.: World Bank

SEMARNAT, the office responsible for the National Development Plan and the National Commission on Water have recently issued a *Programa Nacional de Medio Ambiente y Recursos Naturales (2001–2006)* (GOM SEMARNAT et. al., 2001). This and other recent GOM plans and programs will be carefully reviewed as part of the second report in this assessment.

1.3 The Importance of US–Mexico Relations

The US and Mexico share a 2,000-mile border, as well numerous political, socio-economic, environmental, and health concerns. Mexico is the US’s second leading trading partner. The interdependence between the two countries makes Mexico the most important US foreign policy priority in Latin America.

US President George W. Bush singled out the US–Mexico relationship as a key priority; his first international visit as President was to Mexico in February 2001. The two Presidents enjoy a close relationship. President Vicente Fox seeks an unprecedented expansion of the US–Mexico partnership with a more confident and assertive role for Mexico in such areas as economic cooperation, immigration, and narcotics trafficking.

The USAID program in Mexico is a small, but important part of the US–Mexico partnership. The Fox administration has requested direct USAID assistance in the fields of environment, energy, decentralization and government transparency, infectious diseases, and micro-enterprise development. USAID is responding to these requests through its existing programs and will be looking for new opportunities within its Strategic Plan for the period 2004–2008.

1.4 USAID Program in Mexico

USAID’s program in Mexico started in 1989, focusing largely on family planning. Since then, its budget has been relatively small, with fluctuations between \$5 million and \$30 million per year. For the past four years, USAID’s annual budget has averaged about \$20 million—a small amount compared the Mexican population of about 100 million and economy of over \$500 billion. The USAID budget is also small compared to the programs of other donors. In 2001, the US ranked fifth among bilateral donors to Mexico, behind Japan, Germany, Spain, and France. The US contribution is even smaller when compared to the combined assistance from the World Bank and Inter-American Development Bank (IDB), which amounts to about \$1 billion per year. With its relatively small annual budget, USAID needs to keep its program tightly focused and be realistic about what it can accomplish.

USAID's program in Mexico has addressed the Agency's priority global issues, such as population growth, global climate change (GCC), and biodiversity by linking them to Mexico's specific development needs and requirements. By and large this has been done successfully. In one case, global climate change, differences in USG and GOM positions on the issue have led to some confusion in measuring and reporting on program results. Because of the importance of Mexico to the US, USAID/Mexico has been showered with activities initiated by USAID/Washington, sometimes without the Mission's full knowledge or consent. In addition, other US government (USG) agencies implement development activities in Mexico. In some cases there is pressure for USAID to fund these activities. These elements combine to make management of the program in Mexico particularly challenging.

Added to these challenges has been an abrupt about-face by USAID on the future of its programs in Mexico. This was described in the July 2000 Results Review Resource Request (R4)⁴ as follows:

In the 20 months since USAID/Mexico's 5-year Country Strategy was approved (June 1998), the Mexico Mission has gone from a phase-down Mission to one managing 5 SOs and one Special Objective. All of Mexico's programs have been created as a result of Washington directives, related to US foreign policy objectives. In the past year alone, USAID/M created two completely new strategies (Tuberculosis and Micro-enterprise) and a new program to support the US-Mexico Trilateral Initiative for Central American Development. The USAID/M country program was reduced by one SO (Family Planning) which accounted for approximately \$6 million, or half of Mexico's average \$12 million annual budget. However, due to new programs and other factors, USAID/M's (FY00) annual dollar budget stands at approximately \$16 million." (Note: The planned FY02 budget is \$25-\$30 million).

In Mexico, the relationship between USAID and the host country is one of "cooperation" rather than more traditional "assistance." There are no formal assistance agreements, such as Strategic Objective Agreements (SOAGs), and the relationship with the government is indirect, with activities implemented through NGOs, private firms, and other intermediaries rather than through GOM agencies.

USAID missions in Latin American with programs the size of USAID/Mexico normally have ten or more US direct-hire (USDH) staff, compared to only two direct hires in Mexico. As a result, the Mission has had to operate a very diverse, complex, and rapidly expanding portfolio with a mostly personal services contractor (PSC) staff, who, despite excellent technical qualifications,

⁴ USAID/Mexico, Results Review Resource Request, July 2000, p.6.

lack experience in managing USAID programs. In addition, USAID/Mexico has virtually the same reporting requirements to Washington as do Missions with much larger USDH staffs.

1.5 USAID/Mexico Environment Program

The Mission's environment program started in 1989. The program started slowly, but grew considerably during the 1990s. Washington priorities and concerns have largely shaped the Mission's environment portfolio and also complicated the management task—more than 30 USG agencies support environmental programs in Mexico.⁵ The USAID Global Bureau, particularly the Energy Office, initiated numerous activities in Mexico, some without Mission knowledge and approval. By 1997, the Mission's energy program was composed of 15 small energy projects, primarily funded by the Global Bureau.⁶ However, since 1998, communication and coordination with the Global Bureau Energy Office has improved significantly. Management of the broad and diverse environment program was made even more difficult by the sudden departure of the Mission's Environment Team Leader in September 1999 and the subsequent two-and-half-year vacancy.

USAID/Mexico's environment program initially focused on Agency-wide global climate goals, specifically forestry and clean and efficient energy use. In 1993, biodiversity conservation was added to the portfolio in response to a Congressional initiative. In the mid 1990s, all environment activities were incorporated into a single Strategic Objective (SO): "Environmentally sound natural resource and energy use increased." The five programs within this SO included energy, urban, forestry, coastal and marine management, and terrestrial biodiversity conservation.⁷ In the March 1997 R4, these five programs were collapsed into three Intermediate Results (IRs):

- Adoption of renewable energy and energy-efficient technologies;
- Improved management of protected areas and their buffer zones; and
- Improved Mexican non-governmental institutional capacity for preservation of biodiversity.

The new Country Strategy approved in 1998 split the single environment SO into the following two SOs and their supporting IRs:

⁵ USAID/Mexico, Results Review Resource Request, April, 1996.

⁶ USAID/Mexico, Results Review Resource Request, March, 1997.

⁷ USAID/Mexico, Results Review Resource Request, April, 1996.

SO6: Critical Ecosystems and Biological Resources Conserved.

- IR 6.1: Management of target protected areas and other ecosystems improved.
- IR 6.2: Demonstration and implementation of sustainable use activities in biologically important areas.
- IR 6.3: Improved policy framework for conservation and sustainable use of biological resources.
- IR 6.4: Improved NGO and professional capacity for conservation and sustainable use of biological resources.

Sub IR 6.6.1: Mexican Nature Conservation Fund fully operational and fulfilling its environmental mandate.

SO7: Carbon Dioxide Emissions and Pollution Reduced.

- IR 7.1: Adoption of resource management systems (RMS) and renewable energy (RE) technologies and practices in targeted industries.
- IR 7.1.1: Viability of (RMS) technologies demonstrated at the pilot level.
- IR 7.1.2: Viability of renewable energy technologies demonstrated at the pilot level.
- IR 7.1.3: Selected policies in place that promote use of RMS and renewable energy technologies.
- IR 7.1.4: Improved Mexican institutional capacity for RMS and renewable energy technologies.
- IR 7.1.5: Financing available for adoption of RMS and renewable energy technologies from the private sector, the GOM, and other donors (independent of USAID assistance).

Specific GCC activities have been added and focus on the following:

1. Developing nationally and internationally accepted analytical frameworks to determine green house gas (GHG) impacts of projects, and

2. Strengthening institutional mechanisms and frameworks to enhance Mexico's participation in the United Nations Framework Convention on Climate Change (UNFCCC).

1.5.1 Key Partners and Programs

USAID works with eight key partners in implementing its environment program, six on SO6 and two on SO7. These key partners are:

SO6:

- The Nature Conservancy (TNC)
- Conservation International-Mexico (CI-MEX)
- World Wildlife Fund US (WWF)
- Fondo Mexicano para la Conservacion de la Naturaleza (FMCN)
- University of Rhode Island/Coastal Resources Center (URI/CRC)
- USDA Forest Service

SO7:

- PA Consulting Group
- Sandia National Laboratory (US Department of Energy)

Each of these partners works with **many** other groups. The Partnership Assessment focuses **only** on the relationship between USAID and the eight key partners. The Progress Assessment focuses on the results obtained by these eight key partners working with all of the other groups associated with USAID's environment program to produce the results reported on in the annual R4 document. Programs that do not contribute to the results reported in the R4 or are not linked to one of the eight key partners may be mentioned in passing, but have not been assessed in any depth.

1.5.2 USAID/Mexico Environment Budget

The Mission does not have complete budget information for environment activities during the last decade. This is not surprising given the large number of activities, staff turnover, and the sizeable amount of obligations made by the USAID/Washington for environment activities in

Mexico. By piecing together information from various sources, the Assessment Team was able to develop a table of annual USAID obligations for environment activities in Mexico beginning in FY1990 (see exhibit 1-1). For the period, FY1990 to FY2003, total USAID obligations for environment activities amount to about \$92.5 million or an average of roughly \$7 million per year.

Priorities and decisions in Washington have caused major annual shifts in the environment budget (see exhibit 1-2). The budget increased from \$4.5 million in FY1992 to \$7.9 million in FY1993 when the USAID/Global Energy Office, faced with a large earmark for renewable energy, gave \$4 million to Mexico late in the fiscal year. The following year, the budget dropped back to \$4.9 million. The budget high point came in FY1996 when USAID obligated \$19.5 million for an endowment to the Mexican Fund for Nature Conservation (FMCN), bringing the environment total for the year to about \$23.8 million. The following year, FY1997, the budget dropped to \$3.4 million, but then increased to \$10.1 million in FY1998. That year, Washington provided \$7.5 million to the Mission late in the year to initiate a wildfire program after smoke from the disastrous 1998 Mexican forest fires drifted into the US.⁸ The sometimes unexpected, late-year obligations from Washington tended to distort the focus of the program and add significant new management burdens. The budget numbers presented in the following exhibits are obligation figures; actual expenditures, which more accurately indicate level of activity, were far more stable from year to year.

⁸ USAID/Mexico, Results Review Resource Request, March, 1999.

Exhibit 1-1: USAID/Mexico ENV Budget

EPIQ Assessment: USAID/Mexico Env. Prog.

Estimate of Annual Obligations for USAID Environment Activities in Mexico

11-Jan-02
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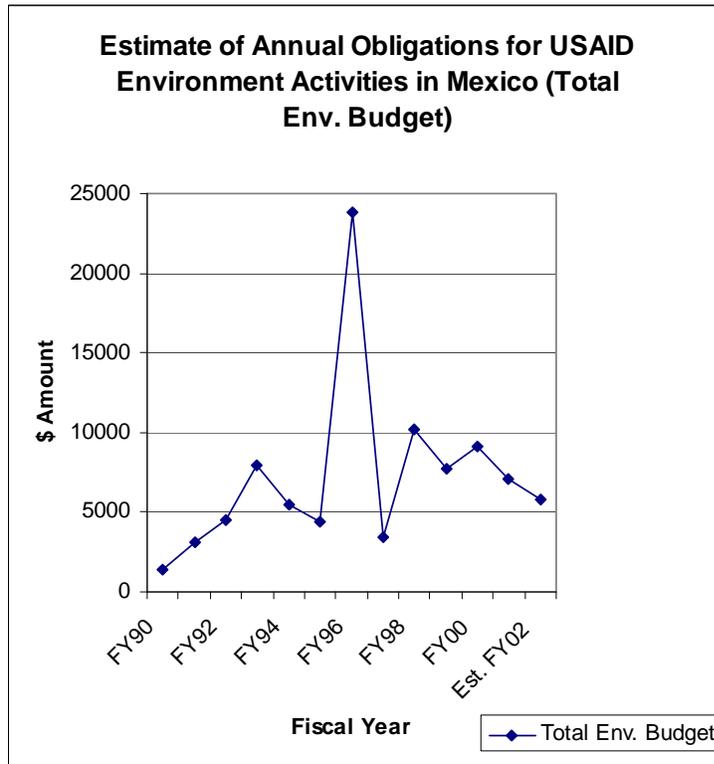
ACTIVITY/PROGRAM	FISCAL YEAR OBLIGATIONS or OYB transfers to USAID/W												Est. FY02	TOTAL
	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01		
SO6: Critical Ecosystems...														
NFWF Nat'l Fish & Wildlife Fnd							50	0	50	50	50	50	50	300
TNC: Parks in Peril		528	558		600	600	650	750	800	800	860	1,000	800	7,946
URI: Univ. of Rhode Island						400		200	350	350	400	600	400	2,700
Pronatura	133	121	75		42	50		25	25	400			70	941
CI: Conservation Int'l.		85	165	250					350	350	200	437	550	2,387
WWF: forestry/coastal												475	275	750
Am. Council Educ. URI & Montana SU.											200	200	200	600
Fondo: FMCN					500		19,500	14						20,014
SO6 Staff: AAAS, PSCs etc.	362	100	140	113	160	313	166	243	313	679	643	799	851	4,881
Previous & Misc.Programs	899	1,824	1,445	1,872	1,961	2,182	1,026	898	795	0		213		13,115
TOTAL SO6	1,394	2,658	2,383	2,234	3,263	3,545	21,392	2,130	2,683	2,629	2,353	3,774	3,196	53,634
Wildfires Program & USFS	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	TOTAL
US Forest Service	22	89	50	75	100					353	207	300	297	1,492
Fires Conference											91			91
Wild Fires: FONDO									3,226	1,220	3,054	0	446	7,946
TOTAL: Wildfires & USFS	22	89	50	75	100	0	0	0	3,226	1,573	3,352	300	743	9,529
SO7: Carbon Dioxide Emissions...	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	TOTAL
HB-PA: RMSI									1,300	1,630	1,350	810	1,000	6,090
SNL: Renewable Energy Program			650	4,000	0	0	880	0	930	800	775	310	600	8,945
TCAPP: NREL- Policy and ESCOs									75	100	100	34		309
LBNL: Appliance & Building Stds				70	70	60				70	70	60		400
Alliance to Save Energy: CLASP									50	223	100			373
Nextant REACH: Madero Refinery									500	500	649			1,649
SO7 Staff				55	76	31	0	65	0	0	0	132	140	498
Previous & Misc.Programs	0	333	0	650	2,277	1,843	1,903	300	120	150	62	159	0	7,638
TOTAL SO7	0	333	650	4,775	2,423	1,934	2,783	365	2,975	3,473	3,106	1,504	1,740	25,902
Global Climate Change	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	TOTAL
Energy Sector Baselines: PA IQC											150	100		250
CO2 at Wildfire Restoration Site: EPIQ IQC											50			50
Avoided Deforestation Baseline: EPIQ IQC											79	50	71	200
Deforestation Rates												300		300
Solar water - watershed mgt: Winrock												220		220
Previous & Misc.Programs	0	15	387	805	0	0	150	150	1,000	0	0	0	0	2,507
TOTAL: GCG	0	15	387	805	0	0	150	150	1,000	0	279	670	71	3,527
Training, and Misc.	0	0	1,000	0	75	0	0	765	340	0	80	810	0	3,069
TOTAL ENVIRONMENT	1,416	3,095	4,470	7,889	5,861	5,478	24,325	3,410	10,224	7,675	9,170	7,058	5,750	95,661

Main Sources:

1. USAID/Mexico R4, 3/12/99 p. 8, says USAID signed Coop Agreement with FONDO on 9/28/98 for \$7.5M for fires.
2. USAID/M Env Team handout for Portfolio Review, November 13, 2001.
3. USAID/Mexico draft, Environment Activities, February, 1998.

4. USAID/Mexico Global Climate Change Program Summary, January, 1994
5. Jorge Landa, Presentation at GOM-USG Energy Agreement Meeting, April 25, 2001
6. Memo USAID/G/ENV/EET from Stephan Wiel, LBNL, February, 1999, Att. C & D.
7. USAID/Mexico, draft budget plan spreadsheet FY00-FY02, 10/4/01

Exhibit 1-2: Estimate of Annual Obligations for USAID Environment Activities in Mexico



The Mission's base-level environment budget has grown significantly. Ignoring for the moment the very steep peaks and special initiatives like FMCN and forest fires, the budget grew from an average of \$2.9 million for FY1990–1992, to \$4.7 million for FY1994–1995, and to \$7.5 million for FY1997–2001.

Exhibit 1-3 offers a comparison of the annual obligations for SO6 and SO7. Exhibit 1-4 presents a comparison of annual obligations among SO6 partners.

Exhibit 1-3: Comparison of Annual Obligations for SO6 and SO7

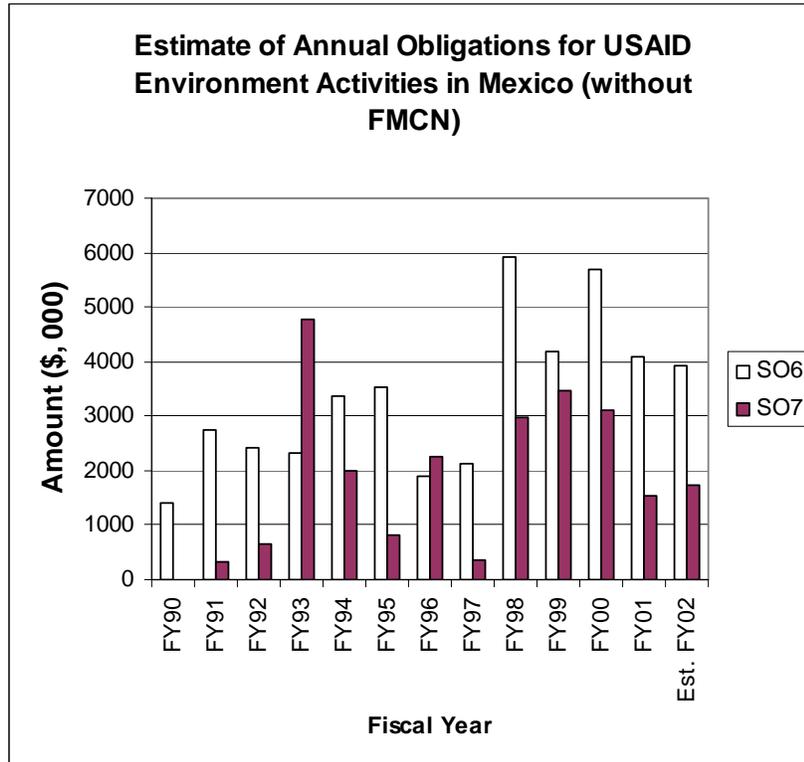
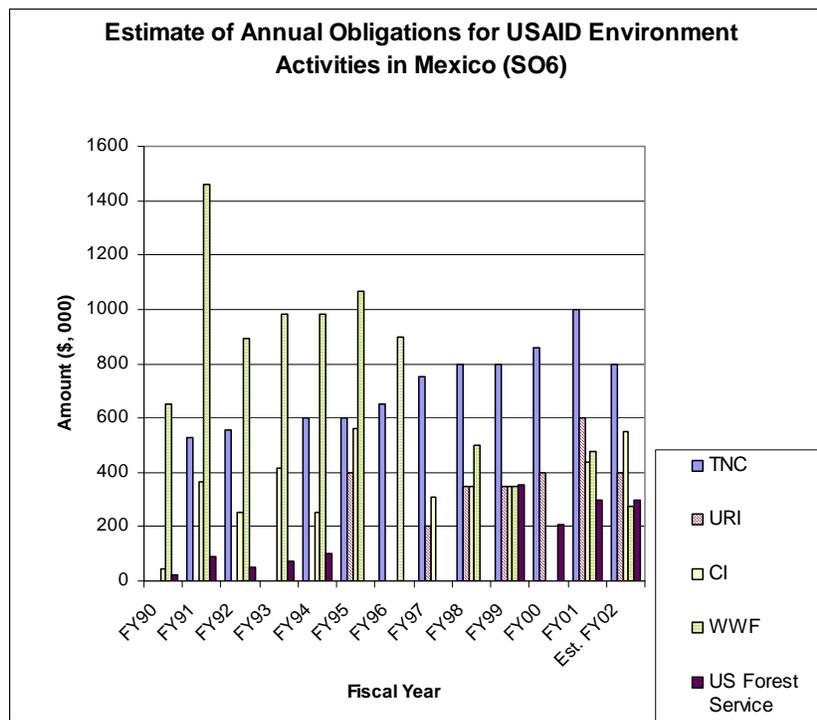


Exhibit 1-4: Comparison of Annual Obligations among SO6 Partners



The overhead or administrative cost of managing the environment program is relatively large. Program-funded administrative costs have increased steadily, now reaching nearly \$1 million per year or almost 20 percent of the total program budget. Some of this increase is related to cuts in the Mission's Operating Expense (OE) budget and the transfer of those costs to the program budget, while other administrative cost increases can be attributed to the large number of discrete project activities that have been undertaken and the need for a relatively large staff to manage these programs.

1.5.4 Current Strategic Vision and Major Accomplishments

In setting the stage for what follows, it is important to have a sense of USAID/Mexico's aims with its environment program, along with its recognition of some of its major accomplishments. USAID/Mexico describes its current strategic vision as follows:

The two Strategic Objectives of USAID/Mexico's Environment Program...have been pursued through a program of capacity building to strengthen the key individuals and institutions involved in managing model programs. SO6 has concentrated on improve (sic), sustainable management of a sample of biodiversity protection areas, while SO7 has focused on building capability to promote energy efficiency in priority sectors, expand use of renewable energy, widen application of resource management systems, and cut emissions of pollutants, including greenhouse gases. After years of laying groundwork and developing small-scale models, both SOs are transitioning to next-phase activities that will consolidate gains and lead to widespread replication of successes.

The strategic vision of the current biodiversity strategy has been to achieve conservation of nature by building in-country capacity, with provisions to improve basic management and infrastructure, adopt methodological tools and approaches, address critical policy limitations, and strengthen public and private support institutions. Building capacity of human resources is an underlying issue in all these areas, as is establishing self-replicating processes to spread lessons learned to a growing portion of the conservation sector.

The vision of the current energy efficiency/pollution reduction strategy is similarly oriented to capacity building, large-scale replication, policy promotion and the creation of synergies. It involves establishing models in energy conservation, resource management systems (RMS), and the use of renewable energy sources to produce consequent reductions in emissions of greenhouse gases and other pollutants. Successes are then to be reproduced through market mechanisms, supported by strengthened institutions and well-trained expertise in both the public and private sectors.

The vision for the GCC program bridges both SOs, with reductions in greenhouse gas [GHG] emissions under SO7 and management of carbon sinks in SO6. It has focused on building adequate analytical frameworks to facilitate calculation of reductions in GHG emissions, estimation of national and local deforestation rates, and the promotion of large-scale, grid-connected renewable energy sources. This program is well positioned to support President Bush's call for a Western Hemisphere GCC initiative. (Assessment Task Order SOW Section 1.1 Background, p.2-3)

USAID/Mexico describes some of the major accomplishments of the environment program as follows:

Among the success stories in which the USAID/Mexico Environment Program had a catalytic early role are the following:

1. Turning around the reality and image of Mexico's conservation programs, from an oft-cited example of "paper parks" to that of a regional leader in wildland management, biodiversity conservation, and institutional capacity.
2. The creation of the Fondo Mexicano para la Conservación de la Naturaleza (FMCN) as the leading source of non-governmental financing for biodiversity conservation and related activities in Mexico and its emergence as a model for national environmental foundations throughout Latin America.
3. The rapid conversion of Mexican industrial markets to the use of high-efficiency electrical motors, leading to economies in the national electrical energy budget on the order of 9%, as well as to even greater reductions in the levels of pollution caused by power generation from fossil fuels.
4. The greening of the national oil company, Pemex, with the involvement of top corporate managers, development of a cadre of energy efficiency trainers, implementation of energy audits and re-engineering proposals at each of its industrial sites, and conversion of many company lands to biodiversity protection zones. A commitment to roll back GHG emissions to below 1999 levels was announced in June 2001, including the establishment of an internal mechanism for carbon trading.
5. The introduction of renewable energy sources to meet off-grid agricultural and conservation needs, with the development of local maintenance and operation capacities to assure sustainability.

6. Environmental Management Systems (EMS) piloted in the Tlalpan Municipality that have led to gains in energy efficiency, water savings, waste reduction, pollution prevention, recycling, and green procurement policies. These are now slated for replication in Mexico City and three other large cities, to improve the environment and to lower costs for upwards of 25 million urban dwellers.” (Assessment Task Order SOW Section 1.1 Background, p.2)

Additional, more recent material appears in Annex E: Summary of Portfolio Review for the Mid-Strategy Review December 17–20, 2001. It is against this background that the Assessment Team analyzed current partnership relations and program progress.

1.6 Environmental Compliance

The Assessment Team was asked to review USAID/Mexico’s compliance with Agency environmental regulations. While USAID/Mexico has a strong environment program with significant accomplishments, its application of Reg. 216 and related environmental compliance has not kept pace. Although the Initial Environmental Examinations (IEE) have been routinely filed, some notable lapses appear in follow-up on mitigation measures, along with very little indication of ongoing, active compliance monitoring. These matters require the urgent attention of the Environment Team, the Mission Director, and LAC/RSDE. In doing so, the following directives and specifications of USAID’s Environmental Procedures (ADS 204) need to be kept in mind:

- Operating Units are responsible for allocating adequate staff and financial resources to their Teams to effectively implement the Agency’s environmental procedures. Operating Units also hold their Strategic Objective Teams accountable for meeting these requirements and continuously monitor their results (204.3.2).
- SO Teams are responsible for ensuring full compliance with 22 CFR 216...and for ensuring that all of its 22 CFR 216 environmental reviews are accomplished in a timely fashion so as not to unnecessarily delay implementation of any activities. (204.3.3).
- Mission Environmental Officers (MEOs) and Regional Environmental Officers (REOs) are responsible for advising SO Teams on how best to comply with 22 CFR 216 requirements, how SO Teams can effectively monitor implementation of approved mitigative measures, and how SO Teams can obtain additional environmental expertise to assist them (204.3.4).

The purpose in citing these fundamental directives is to emphasize the point that compliance with 22 CFR 216 is *not* simply the responsibility of the Mission Environmental Officer (MEO). Many officers within the Agency see the regulations as simply another administrative hurdle to be overcome or feel that environmental considerations as a luxury that should only come after more basic needs had been met. Others rationalize a “light” approach to 22 CFR 216 because they believe that, in the case of environmental activities, the net result is intended to be a very positive impact on the natural environment, such as containing deforestation or protecting biodiversity. These rationalizations are no longer acceptable. Agency standards now clearly establish the fact that compliance with 22 CFR 216 is the responsibility of all members of each SO Team. Properly handled early on in the design and planning process, they are routinely far less burdensome than having to “catch up” and their application can also be expected to ensure greater sustainability of results.

Annex C presents a detailed discussion of these issues as they relate to the USAID/Mexico program, along with a series of specific remedial actions to resolve the issues. To ensure that these issues receive proper attention, the Environment Team Leader should assume the role of MEO and the new Foreign Service national (FSN) being recruited to manage SO6 programs should be trained to assist with these duties. Agency guidance makes it clear that Reg. 216 compliance, mitigation, and monitoring are the responsibility of all members of each SO Team, not just the MEO. In addition, all program partners should receive training in the application of Reg. 216.

1.7 A Note on the Assessment Process

Before turning to the Partnership and Progress Assessments, several points will help explain what follows.

- **Self-Assessment Survey.** As one of its first tasks, the Assessment Team designed a 29-question Self-Assessment Survey (included as Annex D) and sent it to all of the key partners. The survey provided a wealth of important information for the Partnership and Progress Assessment and opened a discussion on future priorities for USAID investments in the environment and energy sectors in Mexico.
- **Program Documentation.** Early in the assessment process the Team discovered gaping holes in the Mexico environment program documentation, particularly for the period before 1998. This resulted from several factors, including the abrupt dismissal of the Environment Team Leader from 1989–1999, the lack of staff continuity over the period being assessed (1989–2001) and the paucity of program documentation submitted to the CDIE Development

Experience Clearinghouse in Washington. For the period since 1998, the situation is better. SO7 program documentation is generally good, with the (RMSI) deserving special mention. Documentation for the SO6 program continues to have important gaps. As a result of all of this, an important difference exists in the Partnership and Progress Assessments that follow: The SO6 pieces are considerably longer than the SO7 pieces and contain substantially more contextual material and detail, since the Assessment Team deems it important to record and pass along as much of the history and context of the SO6 program as possible. This assessment thus contributes to helping fill the “gaping hole” mentioned above, as does the inclusion of Annex G: 1996 Summary of the USAID/Mexico Environment Program in this report.

- **Interviews and Meetings.** An undertaking such as this Assessment depends greatly upon gaining information from interviews and meetings. The Environment Team was instrumental in identifying key interviewees and setting up meetings. Throughout the five-month assessment process, the Team interviewed in person, by phone, or by e-mail a wide range of individuals with knowledge of and/or experience with the program. The Acknowledgement lists the main groups interviewed, and a full list appears in Annex I: List of Persons Contacted and Annex H Assessment Workshop Agendas, Summary and List of Participants.
- **Field Site Visits.** Identifying, arranging, and conducting field-site visits to a representative sample of the literally hundreds of (mostly remote) sites impacted by USAID’s environment program was a daunting challenge. Much of the Assessment Team’s first trip to Mexico City (October 9–11, 2002) was spent working with the Mission to develop and arrange a field-visit schedule. Intensive work on the schedule and arrangements continued right up until the field visits started.
- **Partner Workshops.** Following the preparation of the draft version of this report, USAID/Mexico hosted a series of workshops with their partners to present and discuss the Assessment Team’s preliminary findings. Over 150 people attended the three workshops held in Mexico City on January 23 and 24, 2002. These workshops on the SO6, SO7, and the GCC programs provided valuable feedback on the preliminary findings, as well as input for developing USAID/Mexico’s new five-year Strategic Plan. Annex H contains workshop agendas, a summary of the key points discussed during the workshops, and a list of participants.

2. Partnership Assessment

2.1 Overview

This section of the report analyzes the relationships that have been developed between the USAID/Mexico Environment Team and each of its key partners (see Part I above for a list of these partners). The Scope of Work (SOW) for this component of the assessment asks the Assessment Team to assess “the appropriateness of the use of the partner in achieving results”; to assess “how well major partners and their local support networks complied with expectations and obligations”; to assess the “roles and responsibilities of USAID and its partners in the implementation of programs and these have been coordinated”; to assess “how might the ENV program have been improved through better management of the partnerships”; and to “identify lessons learned concerning the effectiveness, strengths, and weaknesses of the partnerships”.

The USAID Re-Engineering paradigm—“achieving results”—is very clearly based on a teamwork approach: among the individual staff within a Mission who constitute the Environment Team, with an Expanded Team including representatives of the major partners and customers, and with a Virtual Team backstopping and supporting the program from USAID/Washington. Teamwork is the key to the functioning partnership relations. These partnership relations acquire special importance in the case of USAID/Mexico because there is no official SOAG or environment sector-related agreement with the GOM. In many USAID Environment programs, the host Government is **the** major partner. In Mexico, it is not yet a formal partner.

The USAID Environment program in Mexico uses a range of contractual mechanisms with its key partners. For the SO6 program, this includes Cooperative Agreements (TNC, CI, WWF, URI/CRC, and FMCN for the Fires Program) and an Interagency Agreement (USDA Forest Service). The SO7 program, in sharp contrast, uses a contract for its large Resources Management Systems Initiative (RMSI) program (with PA Consulting) and a Participating Agency Services Agreement (PASA) for the renewable energy program (with DOE/Sandia National Laboratory). Each type of contractual relationship has very different ground rules that directly affect the nature of the “partnership,” the degree of USAID involvement in guiding and directing the program, and reporting requirements. The largest program in SO6, the TNC Parks in Peril program, is a RCA managed by the LAC Bureau in Washington. As such, all budgeting, program planning, and reporting under this program is done through USAID/Washington and TNC/Washington.

Given the complexity of the USAID/Mexico Environment program, the differences between SO6 and SO7 partnership mechanisms noted above, the long time frame of this Assessment (1989-2001), the paucity of documentation covering certain periods, the changing nature of partnership relations over time, and the diverse themes mentioned in the SOW, the Assessment Team has chosen to report on the partnerships by reviewing each partnership relationship, providing assessment highlights for each partnership, and then providing key conclusions and recommendations that cover all of the partnerships. When looking at all of the partnerships as a whole, we have been guided by an expectation of synergy among the partners, not duplication of efforts, and by the belief that the sum of all these partnerships should be more than the simple sum of the parts.

2.2 SO6: Critical Ecosystems and Biological Resources Conserved

2.2.1 The Nature Conservancy (TNC) and the Parks in Peril (PiP) Program

Parks in Peril (PiP), a collaborative regional program between The Nature Conservancy and USAID, began in 1990. It brings on-site management to 37 threatened national parks and reserves of global biological significance in 15 Latin American countries.

The PiP program in Mexico, initiated in 1990, now involves ten distinct sites (see exhibit 2-1) and constitutes the largest program commitment to a single country, covering almost 3.2 million hectares. Early in PiP's inception, USAID/Mexico bought into this LAC Bureau-funded Cooperative Agreement for roughly US\$7 million between FY1991 and FY2001, thereby providing the bulk of program funding for activities in Mexico.⁹ The new phase of PiP (known as PiP 2000 but approved in 2001) aims at continuing site-based conservation activities in Mexico that emphasizes "an explicit strategy to work with local public and private, formal, and informal institutions to leverage the impact of our site-based conservation to other sites where we are not directly involved" (PiP 2000). In 2002, TNC expects to undertake activities related to private lands conservation, along with conservation policy and finance programs.

Started originally with a Congressional earmark, the 12-year partnership between USAID and TNC has worked well. Agency and Mission personnel recognize TNC's contribution toward

⁹ These are obligations rather than actual expenditures and do not account for USAID resources provided directly to TNC through LAC Bureau contributions to PiP, which may cover core expenses of the program, both at the central office and in Mexico. They also do not account for an estimated \$800,000 foreseen in the Mission's FY 2002 financial outlook. It should also be noted that for the PiP V agreement, the LAC Bureau was reportedly matching the funding provided through the USAID/Mexico buy-in.

fostering biodiversity conservation, and TNC’s well-rounded approach, known as the Site Conservation Planning Methodology, builds on decades of experience with conservation in the US. PiP’s long-term objective continues to be “to build enduring capability and commitment to conserve sites of outstanding biodiversity” in the LAC Region.

Exhibit 2-1: PiP Sites and Partners

PiP Site Name& Total Area	Location	Local Partner	Activities Begun	Date of Consolidation
El Triunfo/La Sepultura- 295,000 has.	Chiapas	Instituto de Historia Natural y Ecología (IHNE)	October 1, 1990	September 1997
El Ocote Biosphere Reserve- 48,178 has.	Chiapas	Instituto de Historia Natural y Ecología (IHNE)	October 1, 1991	September 30, 1998
La Encrucijada- 144,868 has.	Chiapas	Instituto de Historia Natural y Ecología (IHNE)	October 1, 1991	September 30, 1999
Sian Ka’an Biosphere Reserve- approx. 650,000 has.	Quintana Roo	Amigos de Sian Ka’an (ASK)	October 1, 1991	September 30, 1998
Calakmul Biosphere Reserve- 723,185 has.	Campeche	Pronatura Peninsula de Yucatan (PPY)	October 1, 1991	September 30, 1999, now being treated as the Maya Forest Platform Site
Ria Celestun/ Ria Lagartos Biosphere Reserves- 106,882 has.	Yucatan	Pronatura Peninsula de Yucatan (PPY)	September 1992	September 1997
El Pinacate Biosphere Reserve- 714,556 has.	Sonora	Instituto del Medio Ambiente y Desarrollo Sustentable del Estado de Sonora (IMADES)	January 1994	September 1999
Loreto Bay National Park and Isla Espiritu Santo Migratory Bird and Wildlife Refuge- 215,900 has.	Baja California Sur	Conservación del Territorio Insular Mejicano /Niparaja/IMADES	May 11, 1998	Projected September 30, 2002
Ajos-Bavispe National Forest and Wildlife Refuge- 184,770 has.	Sonora	Instituto del Medio Ambiente y Desarrollo Sostenible del Estado de Sonora (IMADES)	October 1, 1998	September 30, 2001
Cuatro Ciénegas National Wildlife Refuge- 84,347 has.	Coahuila	Pronatura Noreste	October 1,2001	Projected FY 2006

Source: Various TNC/PIP Consolidation and/or Self-Evaluation Reports

The TNC/PiP program is an accomplished and mature USAID partner, fully conversant with the practicalities of its Cooperative Agreement and compliant with its administrative requirements: agreement management; financial reporting (including OMB circulars, cost principles, and

USAID regulations); and sub-recipient monitoring. In fact, USAID/Mexico has based one of its performance indicators on TNC/PiP's Consolidation Scorecard, building this solid measure of success into its strategic results framework.

Just as important as its role as an USAID primary partner, TNC promotes and supports development of local organizational capacity for conservation in all of PiP countries. TNC has supported local partners in PiP program activity implementation in every one of PiP's Mexico sites. As part of its scorecard for evaluating its performance, TNC analyzes the institution-building achievements related to the local partner and its capacity for safeguarding and managing the protected area. This is seen as a key condition for consolidation of these sites, which have been entrusted into the safekeeping of the NGO partner by the GOM (INE/CONANP). Many of the elements of the Consolidation Scorecard focus on helping the local NGO understand, through self-evaluation, what is needed from an institutional perspective to ensure the continued protection and rational management of the specified area.

In addition, in order to build a constituency for each area—critical for long-term protection—TNC and its local partners have established a Technical Advisory Committee (TAC) for each area.¹⁰ The TAC brings stakeholders together and serves “as an effective forum where members discuss, analyze, and plan activities together.” For example, in the case of Calakmul, “representatives of 43 organizations from the government, academic, social, and NGO sectors actively participate in the TAC, with a representation of over 70 percent of the local population” (PiP 1999). Similarly, in the State of Chiapas, TNC and its partner, the Instituto de Historia Natural have worked with as many as 25 local communities to forge community-based watershed management councils to improve land-use choices in the areas between El Triunfo Biosphere Reserve and the coastal wetlands of La Encrucijada Biosphere Reserve.

Partnership Assessment Highlights

Capacity Building. This longstanding partnership has resulted in widespread impact in training and in providing experience to Mexican Conservation personnel. It was noted that at least one third of the current protected area directors within the CONANP system have been involved in the program and received formal training (B. Bermudez A., Director del Parque Nacional Bahía de Loreto, personal communication). The Assessment Team also interviewed many staff and visited the headquarters of several of the major Mexican NGO partners, notably: Pronatura Peninsula de Yucatan, Amigos de Sian Ka'an, and IMADES. These local organizations have evolved into conservation leaders in Mexico, able to muster attention for

¹⁰ Technical Advisory Committees were established by the GOM in response to a GEF condition for support to the Protected Area system in Mexico

environmental issues (*poder de convocatoria*); plan and execute operational conservation programs independent of USAID funding; attract additional funding from a wide variety of sources; and publish interesting, informative documentation and environmental education materials.

Leveraging Additional Resources. Funding provided through the PiP mechanism by USAID has contributed to the successful leveraging of significant additional resources for the areas in which PiP has been involved. Most notably, a portion of the Global Environment Facility (GEF) resources (US\$16.48M) was used to establish the Protected Areas Fund within the FMCN and targeted at ten designated protected areas, most of which are PiP sites. US\$14 million from the World Bank through GEF was generated for the Sian Ka'an - Calakmul Biological Corridor as part of the larger transnational Mesoamerican Biological Corridor. A trust fund established for El Triunfo was capitalized with grants from two foundations, and an agreement with the US Department of the Interior facilitated financing a trust fund of \$1.5 million for the Upper San Pedro River watershed as part of the work in Ajos-Bavispe Reserve. A second tranche of GEF resources, estimated at US\$15.0 million for the FMCN Protected Areas Fund, while still under negotiation, is also targeted for established protected areas, at least some of which are PiP sites. In addition, there have been many other smaller contributions and grants for the various PiP sites in Mexico—Attachment 3 to the PiP Evaluation FY 2000/Implementation Plan FY2001 lists 155 such smaller contributions totaling approximately US \$8.9 million.¹¹

Continued Funding Needs. Although leveraged complementary funding is one of TNC/PiP's significant achievements, it does raise issues about USAID's continued funding of PiP sites in Mexico, the question of how much is enough, and whether other priorities and/or approaches for the PiP program should be determined. Self-sufficiency of funding to protect and manage these sites is considered a fundamental indicator of their conservation status and something that TNC focuses on as part of PiP. The Assessment Team believes that measuring the achievement of self-sufficiency should begin with an estimate of the annual recurrent costs to ensure protection and reasonable management operations for each protected area. These figures are not readily available. The Assessment Team believes it would be especially useful for all concerned (NGOs, GOM, donors and other supporters of conservation in Mexico) if a systematic study of the costs of conservation of protected natural areas in Mexico could be prepared, based on the emerging experience in PiP and similar activities. Although such costs for staffing,

¹¹ It is impossible to tell whether or not funds donated to the various PiP sites, as listed in Attachment 3 of the PiP 2000 document, include GEF funds. Some clearly indicate that they are from GEF/World Bank resources and, accordingly, have not been added to this total.

operations and maintenance are like to vary a great deal according to the size, ecotype and complexity of the conservation challenge, they would go a long way towards enhancing indicative planning for conservation funding in Mexico.

The TNC/PiP staff has embarked on an exercise to document the amount of funding available for each site. The PiP 2000 Evaluation FY 2000/Implementation Plan 2001 cited above also includes a pro-forma table (page 79) for its personnel to complete on “Sources of funding at the site.” However, while the total amount of funding available for a given site is important, it is not a real measure of financial stability. Often, these ancillary funding sources are one-time inputs and/or earmark their resources for specific investments, research, or other programs; and these cannot be converted for day-to-day operational needs of the protected area. Further, the availability of earmarked funds can actually add to both the work load and the administrative overhead of the limited staff assigned to each area, possibly even distracting them from their first priority of ensuring the conservation of the site.

Partnership Issues Between USAID/Mexico and TNC. TNC and its PiP Program are the largest stand-alone portion of the SO6 portfolio and have been responsible for numerous important achievements and real impact in protecting biodiversity in Mexico. A number of issues, however, have arisen that need attention to ensure that this partnership continues to work smoothly. Primary among them is the issue of management of this Cooperative Agreement, including:

- **Reporting Responsibilities.** PiP is a USAID/Washington-managed activity. However, because of the large amount of Mission buy-in, the importance of PiP in USAID/Mexico’s portfolio, and the uniqueness of Mexico as a host country, the Mission has insisted in playing an active rather than passive role in PiP monitoring and management. TNC finds itself having to report to both the LAC Bureau CTO in Washington and the USAID/Mexico NRM Specialist, regrettably sometimes under different formats and with different questions about performance.¹² While the LAC

¹² This issue of dual reporting responsibilities was the subject of a recent (Oct. 18, 2001) five-page letter by Heather Huppe to Victoria Diggins of TNC. Additionally, all of the Partners received a four-page *Instructions to Partners for FY 01 Reporting*, also prepared by Dr. Huppe. The Assessment Team would comment that, while these memos clearly appear to be trying to resolve these issues, the approach is decidedly “instructive” beyond the bounds expected in a cooperative agreement. Therefore, it is not surprising that such instructions generate frustrations among the partners about “micro-management.” Ideally, these sorts of issues would best be dealt with in the context of a partners’ meeting with the USAID Environment Team, which last occurred in the fall of 1998. These instructions to partners also represent in part the outcome of an audit carried out by USAID of the verifiability of its indicators. The instructions are intended as a simplified and more user friendly version of the performance monitoring plan. While some partners have had difficulty responding along these lines, preferring to send long

Bureau would doubtless prefer that all of its PiP partners in all countries report using PiP indicators and with the same general format, this approach may not serve USAID/Mexico's needs adequately. Recognizing this situation, TNC voluntarily agreed to provide additional reports to USAID/Mexico. Despite good intentions, this situation is now leading to inefficiencies, confusion, and frustration on the part of both TNC and USAID/Mexico. The situation must be reconciled, and it is recommended that the LAC Bureau and USAID/Mexico review the current reporting requirements and work with TNC to streamline the reporting process by developing indicators and a format that works for all concerned.

- **Management Responsibilities.** The PiP Program in Mexico is the second largest country program (dollar-wise after Bolivia) funded almost entirely by USAID/Mexico. Within Mexico, TNC operates PiP with a decentralized field staff of regional program directors based in the regions (and in Tucson, Arizona). At present, the Mission Environmental Team has no central TNC point person in the Washington with whom to interact; and, accordingly, the Mission has initiated PiP country strategy meetings with TNC staff. Unfortunately, the LAC Bureau CTO responsible for PiP has not been able to visit Mexico in the last two years, despite several attempts on the part of the Mission and the Bureau to arrange for such a visit. Similarly, recent reorganization within TNC, combined with the absences from Mexico of the USAID Environment Team staffer following PiP, have led to some gaps in both planning and reporting about current PiP activities in Mexico. Efficient management requires effective communications.
- **The Transition to PiP 2000.** The new PiP 2000 approach in Mexico needs a concerted effort by TNC, USAID/Mexico, and the LAC Bureau to ensure a smooth, sensible transition. The FY 2002 *Program Description*, also called the *PIP GCC FY 2002 Scope of Work* and prepared by TNC for USAID/Mexico, presents a confusing picture of the next phase of PiP in Mexico. The Assessment Team notes that the document reads like an earnest attempt to tell USAID what it wants to hear in terms that fit the Agency's indicators (both for LAC and USAID/Mexico) without getting into the complexity of TNC's overall program in Mexico.

Certain internal inconsistencies add to the difficulty in understanding what is being proposed. For example, the overall approach of the "Conservation Blueprint ... the Conservancy's vision is to conserve portfolios of functional conservation areas within

reports with much detail, the fact that USAID was using such a format went a long way to deflecting verifiability issues during the audit. USAID as an Agency must also recognize that the many changes and adjustments to the R4 process and the confusion about indicators has been reflected in tensions among its partners in many other countries as well.

and among eco-regions”—the platform site method—seems to fit well with the present USAID program emphasis on moving to an eco-regional planning and implementation modality. The document, however, later describes PiP 2000 as both “platform and network sites.” The latter is said to “create and implement multi-site threat abatement strategies at platform sites,” organized not as eco-regions, but as model programs, such as watershed management, forest management, coastal wetland management, freshwater wetland management, desert, invasive species management, and coastal marine management. Without some careful and realistic work planning, it may prove even more difficult to report achievements under this new approach. Clearly, this situation needs to be reconciled before PiP 2000 advances too far.

Part of the problem appears to be one of program fit between a regional program and a country strategy. This situation is further exacerbated by a mismatch of the regional cooperative agreement (the very large USAID/Mexico buy-in to the program and the Mission’s dependence on this buy-in, the largest component of its SO6 program) for its needs in terms of achieving its SO results. Among the options to address this situation include a change to a direct cooperative agreement between USAID/Mexico and TNC for the local program; a restructuring of the Mission’s SO6 Results Framework to reflect the intended goals of PiP 2000 in Mexico; and/or an agreement between TNC and USAID (both the Mission and the LAC Bureau) to work together in defining the new SO6 Strategy for the next cycle. At a minimum, the Mission should encourage another USAID retreat with TNC to discuss PiP 2000 expectations; expectations about the continuing development of a Mexico-specific strategy for PiP; and reporting, programming and management issues. Ideally, the USAID LAC Bureau CTO for PiP should also be present to ensure a harmonized approach among all players.

2.2.2 Conservation International-Mexico (CI-MEX)

Conservation International was established as an independent, non-profit, international NGO in 1987 and soon began its activities in Mexico. In May 1990, Conservation International-Mexico was founded and continued a working relationship started by its parent organization with USAID/Mexico. Part of the impetus for establishing CI-MEX was the search for a local organization that could manage the resources resulting from debt-for-nature swaps and distribute the proceeds among a series of local organizations. At the time, Mexican debt could be acquired at attractive rates, resulting in 25 percent earnings on the investment, and several donors, including the Bank of America and USAID, provided funds for this purpose. This modality gave rise to the characterization of the CI-MEX program as a debt-for-nature-based activity. In 1997, USAID went over exclusively to bilateral funding through a cooperative agreement for the

program when the Ministry of Finance shut down the swap window. This approach to generating incremental funding for conservation is, however, still the preferred route; and CI has recently been negotiating a new swap in the amount of approximately US\$1 million to be used to finance its activities in Mexico.

Conservation International began its work in Mexico in 1987 with program activities in the Gulf of California and later, in 1989, in the Selva Lacandona in the state of Chiapas. Both are intended to be ecosystem-scale activities in areas considered of highest biodiversity in Mexico and remain the core focal areas for CI-MEX. Both have benefited from USAID support from the outset. For example, CI-MEX has worked in partnership with URI/CRC through collaboration and subcontracts in the Gulf of California. This support—a combination of debt-for-nature swap-generated resources and bilateral funding from the Mission—has varied a great deal in total amounts over the years, particularly between FY 1990 and FY 1998. As of 1999, CI-MEX has made a single, unified proposal to USAID for resources for both sites. The total amount of USAID resources provided to CI-MEX since FY 1990 is approximately US\$4 million.¹³ In recent years, CI-MEX has been able to supplement these USAID resources with a substantial donation from the PULSAR Group, a large national corporation. Unfortunately, because of the recent economic downturn in Mexico, PULSAR has indicated that its commitments under this program must be put on hold for the foreseeable future.

In both of these areas, CI-MEX has developed an integrated approach aimed at involving local communities and many of the other organizations that support them in a participatory conservation planning and implementation effort. Although the Selva Lacandona is part of the area directly affected by the Zapatista Uprising of 1994, CI-MEX has maintained a presence there, albeit with involvement of fewer governmental and non-governmental organizations, whose roles have been limited by the conflict. Similarly, its proximity to the Guatemalan border (literally, the Usumacinta River which runs along the margin of the area) has resulted in some program emphasis on bi-national activities concerned with both conservation and tourism.

In the Gulf of California, CI-MEX took a regional approach from the outset; it was among the first conservation organizations to take a leadership role in organizing and promoting efforts by the many organizations along the Gulf for eco-regional planning. CI-MEX also played an active leadership role in the 1993 establishment of the Upper Gulf of California/Rio Colorado Delta Biosphere Reserve. In the past, much of the activities were directed at promoting more

¹³ It is not clear if the monies allocated for debt-for-nature swaps, amounting to approximately \$1.7 million in eight different annual increments, were used by CI-MEX for its own programs or distributed to other organizations in Mexico as part of the agreements. At least five other local organizations are known to have been participants in these resources, including UNAM, SEDUE, and PRONATURA (personal communication, Alejandro Robles).

sustainable fishing practices and fisheries management. Now, CI-MEX and other NGOs and governmental organizations are involved in a comprehensive planning exercise (*ordenamiento ecológico del Golfo*) designed to lead to a conservation strategy for the entire Gulf. This initiative led to the formation of the Gulf Coalition and the first joint meeting of the local NGO community (*organizaciones civiles*) dedicated to the conservation of the Gulf.

Exhibit 2-2 provides a brief overview of CI-MEX activities in its two target areas.

Exhibit 2-2: Achievements and Activities of Conservation International Mexico

Selva Lacandona	Golfo de California
<p>Conservation Achievements in recent years:</p> <ul style="list-style-type: none"> Partnered in the comprehensive vegetation mapping exercise for the Selva Maya under US MAB program Rehabilitated and operated two field stations within the Selva Lacandona Established a GIS system for conservation in Chiapas and its use in the preparation of different diagnostic tools and as a basis for systematic, long-term monitoring of the Selva Lacandona Assessed environmental impact of GOM plans for road building and tourism development for Bonampak. Held workshops on community participation in the Montes Azules Reserve Management Plan Contributed to developing the management plans for the Montes Azules Biosphere Reserve and the Naha and Metzabok Reserves. Published the Selva Maya map in collaboration with partners in the three countries 	<p>Conservation Achievements in recent years:</p> <ul style="list-style-type: none"> Prepared a management strategy for San Pedro Martir Island— a sanctuary for the Blue-Footed Booby Developed a management program for the Gulf Island’s Natural Protected Area (898 islands covering 300,000 hectares) Empowered 150 women among the Upper Gulf communities to pursue sustainable fishing and mariculture activities Helped achieve participatory agreement among users and authorities for an integrated coastal management plan for Santa Maria Bay (63,000 hectares) Supported GOM’s declaration of the Upper Gulf of California and Colorado River Delta Biosphere Reserve (950,000 hectares) Spurred the creation of the Loreto Bay National Park (206,000 hectares) Adapted and promoted the use of Bycatch Reduction Devices for the shrimp fishery in the Gulf of California, with training programs for industry leaders Helped GOM create the legal framework to prohibit the use of bottom-trawling nets on 1.2 million hectares of the Gulf Developed GIS capabilities at two research centers in the Gulf area
<p>Ongoing Programs and Action Plans:</p> <ul style="list-style-type: none"> Developing a joint strategy for conservation of the biodiversity of the Selva Maya (Mexico, Belize and Guatemala), using USAID South-South funding. 	<p>Ongoing Programs and Action Plans:</p> <ul style="list-style-type: none"> Participating in the preparation of a GEF proposal for the Program for the Sustainable Development of the Gulf—a presidentially decreed program being carried out under the auspices of the Coalition for the Gulf

Selva Lacandona	Golfo de California
<ul style="list-style-type: none"> • Publishing conservation communications—including the electronic bulletin <i>Lacandonia</i> and the publication of the CD-ROM <i>Selva Lacandona- Biodiversity Treasure of Mexico</i> • Establishing the Fondo Mexicano Fire Program Grant for a fire prevention program in the Montes Azules Biosphere Reserve • Organizing Ejido women in Conservation Enterprises • Developing a responsible tourism network (attracting tourists from major Mayan sites in Mexico (e.g., Palenque) and Guatemala (Tikal), using USAID South-South funding. • Establishing an Integrated Environmental Monitoring System for the Selva Lacandona, including real time monitoring of land-use change using satellite imagery and ground truthing with the area. 	<ul style="list-style-type: none"> • Helped to form an Alliance of 23 NGOs (ALCOSTA) for the sustainable development of the Northwest Coastline of Mexico • Continuing support for biodiversity priority setting exercises as a key to an integrated conservation strategy for the Gulf • Continuing work on diminishing the impact of the shrimp fishery on the biodiversity assets of the Gulf • Developing and implementing the first co-management plan for artisanal fisheries in various key sites (Upper Gulf, Kino Bay, Santa Maria Bay, and La Paz Bay) • Developing local capacity for conservation and sustainable management of coastal wetlands along Santa Maria Bay • Strengthening the TAC for the Upper Gulf Biosphere Reserve • Promoting improved governance mechanisms for regional sustainable development in the Gulf

Partnership Assessment Highlights:

Conservation Leadership. Since its creation in 1987, Conservation International has had significant program presence in Mexico, and its program staff members at the Washington headquarters have in-depth country experience. CI-MEX was founded in 1990 and has focused its attention on two of the organization’s biodiversity hotspots—the Selva Maya and the Gulf of California. The organization takes a leadership role in both areas, backed by the establishment of modern, real-time, ecological monitoring capabilities. CI-MEX’s achievements and capacities, well recognized in Mexico, enable it to attract strong financial support from an array of national private sector sources.

USAID Funding. CI-MEX’s ability to attract strong financial support has helped it to accommodate relatively sporadic USAID funding levels over the years. However, it may need more stable support from USAID in the near term to compensate for the recent loss of PULSAR funding. CI-MEX has also agreed on a number of occasions to serve as a financial management mechanism for USAID/Mexico initiatives related to the program in Chiapas, such as the English language training for local tourism hosts and an upcoming Protected Areas Management Training Course. A particularly attractive option is the continuation of joint activities in the Mesoamerican Biological Corridor spanning Mexico, Belize, and Guatemala.

CI-MEX has been a key USAID partner in implementing joint initiatives under the aegis of USAID/Mexico's South-South Initiative. Examples of completed activities include bi-national cooperation on the development of community ecotourism along the Usumacinta River and the Guacamayas Sin Fronteras program. Cooperative conservation programming of the Selva Maya ecological corridor will continue through the USAID South-South and SO6 programs now using the Leaders with Associates Cooperative Agreement mechanism.

Awareness Raising and Documentation. CI-MEX has been a leader in producing useful and user-friendly information on conservation topics for both the conservation community and the general public. It deserves special credit for the informative and interesting CD-ROM, *La Selva Lacandona—Tesoro de Biodiversidad en Mexico*, as well as for its informative Web site (www.ci-mexico.org.mx). Three large and very useful posters prepared under CI-MEX—on Conservation in Chiapas, in the Gulf of California, and on the Protected Areas of the Yucatan— notably recognize USAID sponsorship by prominently incorporating the Agency's logo.

Despite these achievements with its general and program publications, USAID/Mexico has encouraged CI-MEX to improve the quality of its annual reporting. USAID expects CI-MEX to present reports that mirror the scorecard approach and carefully reflect the full range of activities targeted at identified threats in the areas where it works. This would be particularly useful for Montes Azules, located in an area of Chiapas where, although conflicts have subsided, reaching some kind of consolidation in light of a fluid set of values and local aspirations may be more difficult to achieve.

2.2.3 World Wildlife Fund (WWF/US)

WWF/US has long been involved with conservation in Mexico, “working with local partners in over 100 projects since 1968” (WWF, 1999). USAID resources for conservation began flowing to a series of WWF projects starting as early as 1987. At the time, WWF's program in Mexico was one of its largest country programs; however difficulty arises in reconstructing the history of those efforts. The WWF Wildlands and Human Needs (WHN) Program, begun in 1985, aimed to “integrate environmentally sound economic development into [WWF's] biological diversity and wildlands conservation work” (Davenport and Kaus, 1995). Activities financed under the WHN Program—among the first linking in-country economic development activities with protected area management—included early support for the establishment of the Sierra de Manantlan Biosphere Reserve, considered crucial to strengthening the protection and conservation framework for this key reserve in western Mexico (Jalisco).

The more recent mainstay of WWF's USAID-funded activities in Mexico, however, was the Mexico Eco-development Program (MEP) carried out under the aegis of its cooperative

agreement with the Global Bureau for the Biodiversity Support Program (BSP). The LAC Bureau provided actual funding for MEP with a buy-in using regional Environment and Global Climate Change Program resources. Total funding over the period FY 1990 to FY 1998 amounted to more than US\$5.0 million. This program, centered on Southern Mexico, was one of the early efforts by a major conservation organization to “address the interdependence of natural resource availability, environmental conditions, local standards of living, and macro-economics” (Davenport and Kaus, 1995). The MEP was an early and proactive attempt to breach the unfortunate dichotomy between conservation and development through the mechanism of an integrated conservation and development approach. MEP’s objective was to protect four wildland areas in southern Mexico with sustainable programs of resource use among the communities living in or near the areas.¹⁴ WWF implemented the program with a series of local Mexican partner NGOs. In 1991, BSP and USAID/Mexico “decided to expand the geographic focus of the MEP” to include forested wildlands in the northern border region of Mexico. This program expansion was apparently financed by bilateral contributions buying into MEP from the Mission, amounting to approximately US\$1.86 million from FY 1990 to FY1998. Two areas were chosen for these additional activities: the Sierra Madre Occidental in Chihuahua and the El Cielo Biosphere Reserve in Tamaulipas (Meganck, Zabin, and Stern, 1997). Exhibit 2-3 provides a brief summary of those MEP activities.

Exhibit 2-3: USAID/WWF Mexico Ecodevelopment Program Synopsis

Project Site & Area	Local NGO Partner	Project Modalities
Chimalapas Region, Oaxaca 600,000 has.	Maderas del Pueblo, A.C.	Goals: community self-sufficiency, technical innovation and adaptation to ecological and socio-economic conditions; reduce the negative ecological impact of traditional agriculture practices. Activities: communal land-use planning; improve basic grains production; communal management and harvesting of forestland; women’s program of improved nutrition and health; and environmental education for community children.
El Triunfo Biosphere Reserve, Chiapas 119,177 has.	Instituto de Historia Natural de Chiapas	Goals: community development in the buffer zone; participatory planning and implementation of conservation and sustainable use; sustainable natural resource use for improvement of living conditions. Activities: analysis of relationship between community situation and state of natural resources; community conservation and development activities; develop a strategy for resource and land-use and institutional coordination; develop a methodology of community development that emphasizes conservation.

¹⁴ An excellent synopsis and evaluation of the Mexico Ecodevelopment Program is available in the publication: *Mid-Term Evaluation Final Report–Mexico Ecodevelopment Program*, prepared by Russell Davenport and Andrea Kaus through the Biodiversity Support Program, Washington, July 1995, pp. -145 + appendices.

Project Site & Area	Local NGO Partner	Project Modalities
El Ocote Ecological Reserve, Chiapas & Oaxaca 48,800 has	Ecosfera, A.C. and Pronatura- Chiapas	Goals: ongoing research for community and ecosystem diagnosis; strategy and activity choices and design; environmental education. Activities: demonstration of organic agriculture, community organization, participation, technical assistance and training; preparation of training capabilities, methods, and materials; audio-visual programs; and increased women's participation through training in various conservation technologies.
Calakmul Biosphere Reserve, Campeche 723,000 has.	Pronatura Peninsula de Yucatan, A.C., Plan Piloto Forestal de Quintana Roo & Consejo Regional Xpujil	Goals: integrated conservation and development along the reserve borders and among the local ejidos—a managed sustainable agriculture and forestry project. Activities: improved beekeeping and product marketing; environmental education; sustainable forest management; and ecological agriculture.
El Cielo Biosphere Reserve, Tamaulipas	Terra Nostra	Goals: community development for ecological development Activities: community organization for self-sufficiency and development; income-generation activities associated with ornamental palms and firewood collection; biological/natural history research; women's store and restaurant and a hotel.
Sierra Madre Occidental, Chihuahua	Consejo Asesor Sierra Madre, A.C. & Sierra Madre Alliance	Goals: biosphere reserve planning; community organization; small-scale eco-development and institution building. Activities: research/analysis of ecological and socio-economic conditions; protection of human and civil rights; ecology, conservation, and community management of lands; community and ejido organization, education, training and outreach; and sustainable development.

A final evaluation of the Mexico Eco-development Program was carried out in July 1997 with a view to considering the possibility of funding a second phase of the program. The USAID Environment Officer in charge at the time apparently was concerned about the difficulty of widening the impact of these pilot activities in northern Mexico and linking their activities with halting deforestation and achieving conservation goals. Further, all of MEP's southern Mexico project sites were being accommodated under the PiP program. Therefore, despite the recommendation of the evaluation team, he decided not to fund the second phase of WWF's MEP activities in Mexico. As a result, there was a hiatus in USAID/Mexico funding for conservation programs by WWF for several years (FY 1999 and FY 2000).

Now, USAID/Mexico once again directly finances conservation-cum-development activities with WWF-US within the framework of the Leaders with Associates Agreement with the Biodiversity Team in the Global Bureau in Washington. The Oaxaca Community Forestry Program is part of the US-Japan "Common Agenda"—an effort to link US and Japan bilateral initiatives in Mexico. SEMARNAT and the Japanese International Cooperation Agency (JICA) asked USAID for support in implementing on-the-ground activities for four communities for which an earlier phase of JICA assistance had done community forestry master planning. WWF

was chosen to implement these activities, building on their earlier work in the adjacent Chimalapas Region of Oaxaca. This work is currently being supported for a three-year period at approximately US\$200,000 per year.

A new project, Strengthening Policy Tools to Achieve Integrated Coastal Zone Management, was approved in July 2001 for WWF implementation. Project objectives include an analysis of the Environmental Zoning Process along Caribbean Coast as related to the Mesoamerican Reef and in the Gulf of California. This study is expected to lead to better application of this land resource-use planning tool. Similarly, WWF will help elaborate two new federal laws—a Coastal Law and a Protected Areas Law—thereby ensuring incorporation of integrated coastal management principles into the planning process. USAID will contribute US\$150,000 over the two-year life of the project.

Partnership Assessment Highlights

Staying the Course, with or without USAID. WWF was the first of the current partners to develop a program in Mexico, with early efforts begun in the late 1960s. It is unclear at what point WWF initially used USAID resources there, although one hears many allusions to an early association. One notable WWF activity was the early involvement by Ms. K. Fuller, president of WWF/US, in the agreement with President Salinas de Gotari to set up the Mexican Fund for the Conservation of Nature (FMCN). WWF, in consultation with USAID/Mexico, recognized the biodiversity conservation potential in the northern portions of the country long before it became a strategy objective in the late 1990s. In 1993, WWF opened a program office in Mexico. This office is now staffed by Mexican conservationists, all of whom had their basic experience in local NGOs, funded in part by USAID.

WWF personnel involved in the program in the late 1990s candidly report having experienced considerable frustration as a result of trying to “fit” their existing program into the Results Framework established in the new USAID Strategic Plan. An evaluation, carried out at the behest of USAID, recommended continuing MEP funding under the Biodiversity Support Program (BSP), but, by this time, misunderstandings and frustrations had grown to such a point that the Environment Team Leader chose to close the program instead. It has taken USAID three years to re-establish a working relationship with this international organization, which pioneered biodiversity conservation in Mexico.

2.2.4 Fondo Mexicano para la Conservación de la Naturaleza (FMCN)

The Mexican Fund for the Conservation of Nature (FMCN) had its origins during the 1992 Rio Earth Summit when the President of the World Wildlife Fund/US submitted the idea to the

President of Mexico. Their decision and initiative to work toward the creation of a permanent and autonomous fund to guarantee financing for conservation projects received early endorsement and support from a number of donors, including USAID, the US State Department (OES), the MacArthur and Packard Foundations, and Bankers Trust. The resources provided by these early donors, including a \$500,000 start-up grant from USAID, were instrumental in sustaining a participatory design process led by WWF.¹⁵ Near the end of 1993, the design process had been completed, and agreement was reached between the Governments of the United States (through USAID) and Mexico (through SEMARNAP) to provide US\$ 20 million and US\$ 10 million, respectively, as the initial endowment for the capitalization of the Fund.

In March 1994, FMCN was legally created, and a Council of Directors and Technical Advisory Committees to oversee its operations were established. The Fund, which aims to help strengthen environmental institutions in Mexico and prepare them to take leadership of biodiversity conservation, has as its mission “to conserve Mexico’s biodiversity and assure the sustainable use of its natural resources by promoting strategic actions and providing medium- and long-term financing to conservation initiatives” (www.fmnc.org).

Strong US support for FMCN was partially a response to concerns about adverse environmental impacts that might result from NAFTA. This project was also seen as part of the USG commitment to the Global Environment Facility. The US contribution through USAID was intended as an initial capitalization toward an eventual US\$50-million endowment that would enable the Fund to provide the equivalent of US\$2 to \$3 million a year in grant funding for worthwhile, conservation-related projects to be carried out by the NGO and academic communities. The actual funding program became operational with the first call for proposals in 1996. Since then, FMCN’s significant progress, both in implementation and in continuing to attract additional resources with which to expand its scope and operations, has exceeded all expectations.

Exhibit 2-4: Time Line of Activities and Achievements at the FMCN

Date	Activity or Achievement
June 1992	Mexico's President Salinas discusses creating a Mexican Conservation Fund at Earth Summit in Rio with WWF President Fuller.

¹⁵ These initial grant monies to design and launch the Fund were channeled by USAID through PRONATURA. These monies were used to bring together a 21-person design committee and hold a series of 12 national workshops to compile the views of many experts, who represented more than 250 public and private organizations linked to research, conservation, and management of natural resources in Mexico.

Date	Activity or Achievement
1993/1994	Yearlong consultative process about design of FMCN; Governments of Mexico and US discuss endowment.
Jan. 1994	Fondo Mexicano para la Conservación de la Naturaleza legally incorporated.
March 1994	First meeting of Board of Directors; first US\$1 million received from GOM for Conservation Fund.
Oct. 1994	Executive Director and staff hired.
June 1995	First meeting of FMCN's General Assembly held.
April 1996	US/GOM endowment plan finalized; first call for proposals—results in 76 grants being awarded with a value of M. Pesos 13.340 million.
March 1997	FMCN funds Regional Workshop on Priority Areas for Biodiversity Conservation with CONABIO & PRONATURA—155 priority areas identified.
April 1997	Second call for proposals issued—results in the approval of 108 projects with a total value of M. Pesos 16.879 million.
July 1997	CONANP/GEF agreed to pass US\$16.48 million in remnant proceeds to FMCN for establishment of Natural Protected Areas Fund to be used for 10 priority biodiversity conservation areas.
March 1998	Third call for proposals issued—results in the approval of 39 project grants with a total value of M. Pesos 17.591 million.
June 1998	USAID & SEMARNAP agree to creation of Fires Fund within FMCN with a sinking fund of US\$5.7 million.
March 1999	Fourth call for proposals issued—results in 42 projects being financed with a value of M. Pesos 17.363 million.
April 1999	Agreement signed between SEMARNAP/Spanish International Cooperation Agency and FMCN for US\$1.5 million to support the Vizcaino Biosphere Reserve.
April 1999	European Community Commission agrees to provide 786,940 Euros for supporting the development of self-financing mechanisms in coastal reserves.
Oct. 1999	Network of Environment Funds in Latin America and the Caribbean established; FMCN Executive Director named first director of REDLAC.
1999	FMCN allocates M. Pesos 4.5 million to CONABIO for design and implementation of the Hot Spots Detection System for early forest fire detection.
1999	MacArthur Foundation agrees to provide funding for applied research in southeastern Mexico; five projects approved for a value of M. Pesos 2.432 million.
1999	SEMARNAP agrees to provide a fund of M. Pesos 5 million for the conservation and restoration of natural resources in the Patzcuaro Watershed.
March 2000	First Fires Program call for proposals issued—results in 11 projects being approved with a value of M. Pesos 5.65 million.
March 2000	Fifth call for proposals issued—results in 29 projects approved with a value of M. Pesos 14.1 million.
Nov. 2000	Approval by GEF for second contribution of US\$16.1 million to Protected Areas Fund within FMCN.
2000/2001	Second Fires Program call for proposals issued—results in 20 projects being approved with a value of M. Pesos 11.2 million.

Date	Activity or Achievement
2000	FMCN staff and Board begin organizational restructuring study and consultations regarding a new strategic plan for 2001–2006.
March 2001	Summit Foundation approves grant (US \$ 120,000) for a Population and Environment Program within the FMCN.
Oct. - Nov. 2001	Packard Foundation approves grant (US \$ 140,000) for the establishment of the Gulf of California Conservation Fund.
Oct. - Nov. 2001	Hewlett Foundation approves grant (US \$ 300,000) for watershed management program in three priority areas with local NGOs.
Oct. - Nov. 2001	WPRP issues a call for proposals for Ria Lagartos Biosphere Reserve. Three proposals are approved.
Oct. - Nov. 2001	FMCN receives M. pesos 2 million from SEMARNAT to design and establish a private Fund for Communication and Environmental Education.

Partnership Assessment Highlights

Opening up the Program to the Many Other Actors in a Large Country. USAID can be justifiably proud that FMCN has become more than the principal mechanism for supporting a meaningful, decentralized, and participatory approach to conservation—attributes that are critical to real impact in protecting nature in such a large country. The Fund has also proven to be a highly responsible and disciplined partner much concerned with financial accountability and operational transparency. These, too, are important assets for endowment funds of this nature. Credible financial management gains the trust of those who provide the money and transparency gains the trust of those who use it, leading to satisfied customers and partners all around.

From Fundraising to Second-Generation Issues: The New Strategic Plan for FMCN. Having set up a reasonably effective and efficient operation that has channeled the approximate equivalent of US\$9.8 million to 348 separate grants over the last five years, the Fund is now turning its attention to evaluating the conservation impacts of its efforts.¹⁶ Two program-level evaluations included substantial consultation with USAID/Mexico and have contributed to an internal, Board-led exercise to prepare a new strategy for the Fund for 2001–2006. FCMN made available a draft of this strategy, *Creating Value for Conservation—Strategic Plan 2001–2006*, to the Assessment Team (FMCN 2001). The Key Result Areas targeted for the

¹⁶ These figures on the amount of funds released to grantees and the number of grants is taken from a PowerPoint presentation prepared by the FMCN.

new strategy amply demonstrate the enhanced capacity for guiding biodiversity and natural resources conservation of a critical USAID partner. They include:

KRA 1: Establish geographic and thematic priorities for strategic and economic support.

KRA 2: Update and improve program and project selection.

KRA 3: Measure the impact of our efforts on the natural environment.

KRA 4: Strengthen the institutional capacity of groups and organizations associated with conservation efforts.

KRA 5: Increase the general public's awareness of the importance of conserving our natural resources.

KRA 6: Increase the amount of resources available for funding conservation projects and strategic initiatives.

A Model for the LAC Region and Beyond. With its ability to replicate lessons learned and thereby widen the impact of USAID investments, FMCN fits well with USAID's expectations of its primary partners. The Fund is well recognized in the region as a successful example of a conservation endowment (GEF 1999). FMCN has also been proactive in other LAC countries by promoting similar endowment funds, along with learning through its participation and leadership of the Network of Latin American and Caribbean Environment Funds (REDLAC). The Assessment Team believes that the experience and skills of the FMCN could also be an asset for guiding the development of similar endowments set up as a result of Tropical Forest Conservation Act (TFCA) agreements between the USG and other countries.

2.2.5 University of Rhode Island-Coastal Resources Center (URI/CRC)

The University of Rhode Island's Coastal Resources Center has been active in Mexico since the early 1990s, when it did design work for the World Bank on an aquaculture project. USAID came to know about the Coastal Resources Center (CRC) through this work and subsequently asked for a proposal to submit to the Summit of the Americas. At the Mission's specific request, that project was intended to build the capacity of an NGO and enhance community-based management of a coastal area in Quintana Roo. The initial project lasted for two years (FY1996–FY1997) and USAID provided an estimated US\$400,000 to finance activities targeted at working with the Amigos de Sian Ka'an to promote community management in Xcalak. In August 1997, URI/CRC helped organize and run a statewide conference on coastal management with the University of Quintana Roo, which provided insight into the region's longer-term needs.

As the Summit of the Americas agreement was winding down, USAID provided URI with a US\$200,000 grant to continue the work in Quintana Roo and to develop a longer-term program for the support of coastal resources management and conservation—one of the priorities identified in the Mission’s 1996 Environment Sector Strategy. The design was also expected to include the Gulf of California. The effort resulted in the agreement for the Conservation of Critical Coastal Ecosystems in Mexico, now funded by USAID/Mexico through a buy-in to the Global Environment Bureau’s Coastal Resources Management Project II Agreement. Total funding from the Mission for this five-year (FY1999–FY2003) buy-in is estimated at approximately US\$2 million.

The URI/CRC program works directly with three local partners: Amigos de Sian Ka’an (ASK) and the University of Quintana Roo (UQROO) in Quintana Roo and CI-MEX in the Gulf of California. Through these partners, the project involves a broad group of community, academic, private sector, government, and non-government stakeholders. Program design specifically targets achievement for each of the four intermediate results foreseen for Mission’s Strategic Objective No. 6. Exhibit 2-5 provides a synopsis of the activities and achievements associated with each IR.

Exhibit 2-5: Activities/Achievements—Conservation of Critical Coastal Ecosystems

Caribbean Coast of Quintana Roo	Gulf of California
Result 1- Site-based management is established and advanced in protected areas and critical ecosystems.	
<ul style="list-style-type: none"> • Government officially declares Xcalak Reef Marine National Park • Community-based coastal management program prepared for Xcalak • La Poza ‘no-take’ fisheries zone voluntarily established • ASK initiated a participatory community monitoring program of reef and fish stocks • First scientific symposium in Chetumal Bay brings together information about Bay issues, providing the impetus for the formation of a working group to prepare status report. 	<ul style="list-style-type: none"> • Committee for the Conservation and Development of Bahía Santa María developed to oversee preparation and implementation of the Bay Strategy • Declaration of Culiacan provides a mandate for intersectoral collaboration in the Bahía • Participatory preparation of BSM Management Plan leads to approval by two local municipalities (Angostura & Navolato) • Draft language for a Trust Fund for Bay management with two municipalities

Caribbean Coast of Quintana Roo

Gulf of California

Result 2- Low-impact practices for environmentally compatible coastal development are defined and utilized more effectively.

- ASK/URI develop and promote use of "Guidelines for Low Impact Tourism Along the Coast of Quintana Roo" with Ministry and local hoteliers.
- Program personnel work with Federal Zone authorities (ZOFEMAT) to apply low-impact development practices for coastal area of the State of Quintana Roo
- USAID/Mexico, via the U.S.-Japan Common Agenda leverages the resources for building the Mahahual Coastal Management Station and asks URI/ASK/UQROO to coordinate its design and construction.
- Community-based tourism cooperatives established and training done in Xcalak and Laguna Guerrero.
- CCD involved in CIMEX/URI shrimp mariculture project with leveraged funds from USAID and the Packard Foundation
- Good management practices are seen as a key strategy to address the "Nautical Route" proposal to create 24 tourism marinas in the Gulf
- Formation of women's group aimed at developing small businesses that will address bay solid waste issues related to shrimp fisheries.

Result 3- Improved policies for conservation and sustainable use of resources are incorporated into management frameworks, and enabling conditions for implementation are enhanced.

- Project team provides technical input for the preparation of the Costa Maya Ecological Land Use Zoning Ordinance.
- Project team contributes to preparation of a strategy statement published by SEMARNAT on the need to develop integrated coastal management in Mexico.
- Pilot democracy-environmental linkages project for Chetumal Bay started with ICMA, including exchange visits between municipal authorities and their counterparts in Sarasota, Florida.
- CONACYT establishes two-year program for funding research and extension on coastal resources management.
- Study on global experience in regional management of coastal areas undertaken in conjunction with CIMEX.
- CCD pursues creation of a trust fund for bay management with two municipalities
- Characterization of mariculture industry practices
- Programmatic strategy developed to address Escalera Nautica proposal

Caribbean Coast of Quintana Roo

Gulf of California

Result 4- Improved capacity enables enhanced site management, adoption of low impact practices, and more effective coastal policy for conservation and sustainable use of coastal resources.

- Community planning and vision exercise undertaken with two additional QR communities (Laguna Guerrero & Raudales), facilitated with UQROO.
- UQROO Extension program in these two communities on ecotourism, environmental education, and waste management.
- Network of local NGOs interested in integrated coastal management (REDMIRC) established; first annual Bay Fair held.
- UQROO establishes its Coastal Resources Program and an ICM seminar course
- USAID South-South project funds Belize-Mexico Alliance for the Management of Common Coastal Resources organizational meeting.
- UQROO creates Center for Geographic Information Systems and a regional working group
- CIMEX staff attend URI Summer Institute in Coastal Management.
- URI/CRC team, including ASK and UQROO, present seminar on their experiences to Bahía de Santa María team.
- CI's enhanced capacity for "managing for results" adopts a logical framework methodology for two sites in the Gulf of California
- Program staff participate in and present case studies in international conferences on coastal resource management

Partnership Assessment Highlights

The Conservation of Critical Coastal Ecosystems in Mexico program conforms very well to the existing USAID/Mexico Environment program. This may reflect the fact that URI/CRC provided in-field experience for the USAID environment sector strategy team in 1996, was closely involved in developing an understanding of the priorities for biodiversity conservation and management in coastal areas, and was specifically tasked by USAID/Mexico to design a longer-term program. Further, URI/CRC specializes in integrated coastal resources management and was thus awarded the Global Environment Center cooperative agreement for coastal resources management. The URI/CRC program has been responsive to the Mission's coastal resources management needs and has helped increase USAID's presence in these critical regions by coordinating with other Mission programs, such as its South-South programs; assisted in programming Japanese funding leveraged by the Mission; and linking with the Global Bureau's Environment Program.

2.2.6 USDA Forest Service (USFS)

The US Forest Service, part of the US Department of Agriculture (USDA), has had a working relationship with its GOM counterpart institutions for exchange of scientific information and

technical expertise for decades. Much of that cooperation has been under the aegis of the North American Forest Commission (NAFC), established in 1958. At present, under the NAFC, a number of working groups are the focal points for the bulk of cooperation between Mexico and the US, including forest health, migratory species and habitat management, atmospheric change, forest inventory and monitoring, and fire management. In addition to the working groups, a number of “Sister Forests” relationships match US National Forests with forests having similar ecological conditions or similar resource management challenges in Mexico. This cooperation and interchange has increased since the 1994 signing of NAFTA.

In 1998, with the outbreak of severe forest fires in Mexico, USAID turned to the US Forest Service to become an important partner in coping with these ecological disasters. USAID and its Office of Foreign Disaster Assistance (OFDA) provided “almost \$8,000,000 in technical assistance, tools, equipment, and funds to assist in this historic fire suppression operation. The USDA Forest Service was tasked to coordinate this unprecedented international wildland fire suppression mission” (Weeden and Martinez, 2001).¹⁷ Following the fires, USAID and SEMARNAP signed a memorandum of understanding (MOU) to implement a national fire-prevention and restoration program.

In addition to providing the funding for the Fires Program within the FMCN under the MOU, there was an agreement to use some remaining funding (approximately US\$1.2 million) from OFDA for a complementary training program to strengthen the capacity of SEMARNAP and other Government partners to manage fires. By September 1998, the North American Fire Management Team (NAFMT), set up between the Forest Service and SEMARNAP, had conducted a comprehensive review of the national fire management program and prepared a detailed institutional strengthening program to significantly upgrade Mexico’s fire preparedness capabilities. Exhibit 2-6 details some of the accomplishments of the Mexico NAFMT.

¹⁷ While the USDA Forest Service played a coordinator role in managing the emergency fire assistance under USAID/Mexico leadership, a number of other US Agencies were actually and often physically involved in working with the Mexicans to control the fires, including the Bureau of Land Management, the Texas Forest Service, and US Forest Service teams.

Exhibit 2-6: Program Achievements of the North American Fire Management Team (NAFMT)

SEMARNAT with funding from USAID (\$30K) provides Basic Fire Fighting Training to more than 1,500 community and ejido volunteers.	An Incident Command System (ICS) is initiated; in August 2000, 94 participants from all over Mexico receive basic training in ICS.
National Training Courses in Wildland Fire Fighting conducted in 1998 and 1999 for 120 individuals from the military, SEMARNAP, and protected areas staff.	In November 2000, with USAID/ Forest Service funding, SEMARNAP conducts an International Training Course in Wildland Fire Fighting.
A helicopter rappel-training program developed and scheduled for implementation in southeast Mexico to quickly attach isolated slash-and-burn fires.	Helibase Manager Course completed in Tuxtla Gutierrez
Training in proper and effective water dropping techniques carried out for 20 Mexican Air Force Helicopter Pilots.	A fire cache system developed including inventory, distribution, control, and reordering of fire tools and equipment.
Training completed in the installation, operation, maintenance, and disassembly of fire radio systems and radio repeaters.	A Fire Danger Rating System based on one developed by the Canadian Forest Service is adapted for Mexico and goes on line via the Internet.

The success of this working partnership between USAID and the USDA Forest Service in responding to the catastrophic fire situation has opened the door to a new and closer working relationship between the two agencies. In August 2001, an Inter-Agency Agreement between the Office of International Forestry of the USDA Forest Service and the Forestry Team at the USAID/Global Environment Center and set aside US \$450,000 for a post-fire international conference, which occurred but was funded at the regional rather than international level. The remaining funds (\$100,000) have been reprogrammed for the Mexican component of the North American Project on Criteria and Indicators for Sustainable Forest Management. There are still funds as yet to be programmed. Additionally, in FY 2001, USAID/Mexico obligated approximately US\$485,000, a portion of which was used to keep a Forest Service employee (Dr. Heather Huppe) on staff at the Mission as an environmental and technical specialist. Of the remaining monies, some US\$100,000 has been earmarked through an agreement between the Forest Service and USAID/Mexico for a project studying forest-fire risks. Discussions are continuing between the Mission and the Forest Service (International Programs Office) to identify how the remaining US\$200,000 are to be used.

Partnership Assessment Highlights

Tapping the Comparative Advantage of a USG Agency. All parties to this partnership, including USDA Forest Service, USAID, and Mexican Forestry authorities, would doubtless characterize the relationship as effective, particularly in terms of the increased capacity within SEMARNAT to develop and manage a wildfire program. USAID/Mexico was charged with coordinating this complex, inter-agency work. In the absence of a Team Leader, the task fell to

the Mission Director. Of special note, the relationship with USAID/Mexico started as a disaster relief activity, so it has been generally outside the SO6 Results Framework. OFDA in Washington has provided most of the funding through the LAC Bureau (rather than activities being funded by the Mission). In fact, these disaster-related results are not part of the Mission's R4 reporting responsibilities. The USDA Forest Service Office of International Forestry, which manages the program, worked closely with the Mission. A series of coordination meetings involving the Mission Director and SEMARNAP representatives were held in Washington for joint development and approval of program activities, including the training matrix. The terms of the agreement with USAID/Washington and OFDA, however, did not require reporting directly to USAID/Mexico.

Bilateral Mission funding for follow-on activities with the USDA Forest Service will require a change in this pattern of partnering. Any future USAID/Mexico activities will need to also be justified using the Forest Service priority of their potential for contributing to the development of forestry knowledge or practices on a wider scale. Similarly, part of the funding for the Inter-agency Agreement is from the Global Environment Center, offering another example of a tripartite partnership involving the Forest Service, USAID/Mexico, and the Global Environment Center.

USAID, USG Agencies, and the Mission Performance Plan. USDA's MOU with SEMARNAT for collaborative work in forest and natural resources serves as an umbrella agreement for all of its bilateral work in Mexico. An MOU also exists between USDA, the DOI, and SEMARNAT for a fire cooperation program along the border. The Forest Service bilateral program has been a long-term participant in USG initiatives along the border—currently Border XXI—and has also worked in this context with the Department of the Interior and its Fish and Wildlife Service on migratory bird issues. Several other agreements exist at the project level between national forests and their counterparts in Mexico.

The relationship between USAID and the USDA Forest Service is likely similar to that of many USG agencies operating in Mexico—a willingness to cooperate when common ground is identified but difficult for either organization to keep fully informed about what the other is doing in-country. USAID funding is being used to support collaborative activities with many USG agencies, including the USDA Forest Service, the Bureau of Land Management, the Environmental Protection Agency, the Department of Energy, the Fish and Wildlife Service, and the Department of Education. Some of these agencies have their own mandate and budgets to operate in Mexico. While willing to coordinate with USAID on jointly funded activities, getting the agencies to share information on how they use their own resources is much more difficult to achieve. One short-term solution to this challenge would be more proactive coordination through the Mission Performance Plan (MPP) process, which is designed for planning and programming

by all USG agencies with activities in Mexico. Improved sharing of information between USAID and its sister USG agencies operating in Mexico could perhaps lead to additional program synergy. Another part of the solution would be to ensure that the USDA Forest Service participated as a member of the USAID/Mexico's Expanded Environment Team.

2.3 SO7: Carbon Dioxide Emissions and Pollution Reduced

USAID/Mexico has two primary SO7 partners: PA Consulting Group (formerly, Hagler Bailly), which is implementing the RMSI contract; and the US Department of Energy's Sandia National Laboratory (SNL), which is implementing the Mexico Renewable Energy Program (MREP). The two primary partners and their subcontractors work directly with numerous Mexican collaborators. Since FY1998, annual budgets have been about US\$1.2 million for PA and about US\$1.0 million for Sandia National Laboratories.

2.3.1 PA Consulting Group

PA Consulting Group worked with USAID/Mexico on energy and pollution prevention activities for most of the past decade. The current Mission-PA partnership is formalized through a Mission buy-in to the Resources Management Systems Initiative (RMSI), Indefinite Quantity Contract (IQC, contract # LAG—I-00-98-00005-00, Task Order No.805) signed between USAID and PA in September 1998. This task order builds on a variety of previous USAID projects in Mexico implemented by PA, including Demand-Side Management, Energy Efficiency, Environment and Pollution Prevention (EP3), and Sustainable Cities - Monterey (see Budget table, Exhibit 1-1 for years and amounts). The contract provides technical assistance, training, workshops, and study tours in the fields of energy efficiency, clean production technology, and environmental management systems.

RMSI is a comprehensive approach to reducing the environmental impacts of industrial processes and other operations (see exhibit 2-7). It integrates pollution prevention and energy-efficiency measures using a lifecycle perspective and tracking resource use from source to final disposal. The RMSI audit process analyzes industrial and/or municipal processes, energy demands, resource flows, and waste streams looking for cost-effective opportunities to increase energy efficiency, reduce pollution, recycle, minimize raw material use, and the like. Pilot projects are developed to implement audit recommendations, thus demonstrating these technologies. A total of 191 pilot projects have been completed.

While the PA contract does not include funds for buying the hardware needed for pilot demonstrations, it does provide all the needed analyses and technical assistance. Shortly after

receiving the final RMSI audit report, factories often implement the low- or no-cost recommendations, about 35 percent of the total. By the end of the first year after the audit, the total increases to about 50 percent, because factories allocate funds to implement some additional recommendations. About half of the recommendations are not implemented. The Mission Energy Advisor is invited to all meetings during each step of the process. The contract also includes important policy and institutional development components.

Exhibit 2-7: The RMS Pilot Demonstration Process

1	With USAID approval, PA and the collaborating Mexican agency select specific industrial sectors and interview officials at specific factories and select the most appropriate.
2	PA, with help from the Mexican agency and factory staff, performs energy and environmental audits/assessments at selected factories.
3	PA and the agency analyze the audit results; check the consistency, reliability, accuracy, and validity of the data; and identify opportunities for savings.
4	PA and the agency draft the final report with specific energy and resource saving recommendations, implementation schedules, and budgets
5	The factory, with technical assistance from PA and the agency, implements the audit recommendations using non-USAID funds.
6	PA and the agency monitor implementation of audit recommendations. PA provides this information to the USAID Mission consistent with the R4 format

The USAID–PA partnership is supported by several contractual requirements. PA submits an annual work plan and budget, as well as individual work plans and final reports for each specific task. It drafts MOUs between USAID and each Mexican collaborating agency to make clear the responsibilities of all parties. Additionally, PA is responsible for the data collection and evaluation plan for each indicator consistent with the Mission’s R4 Performance Monitoring Plan (PMP). Furthermore, PA submits monthly progress reports to the Mission Cognizant Technical Officer (CTO).

Relationships with Mexican Entities

The RMSI contract builds on previous USAID and PA relationships with several collaborating Mexican agencies, including National Energy Commission (CONAE), Energy Savings Trust Fund (FIDE), Mexican Center for Cleaner Production (CMPL), Technical and Professional Association for Energy Applications (ATPAE), and the municipal government of Tlalpan (a community within Mexico City Federal District). New relationships have been established with the Mexican national petroleum company (Pemex), the Government of the Mexico Federal District (GDF), and the Secretariat of Environmental Natural Resources (SEMARNAT). Thus,

under the RMSI contract, nine Mexican entities work with PA to implement the program. These entities and partnerships are represented in exhibit 2-8 below:

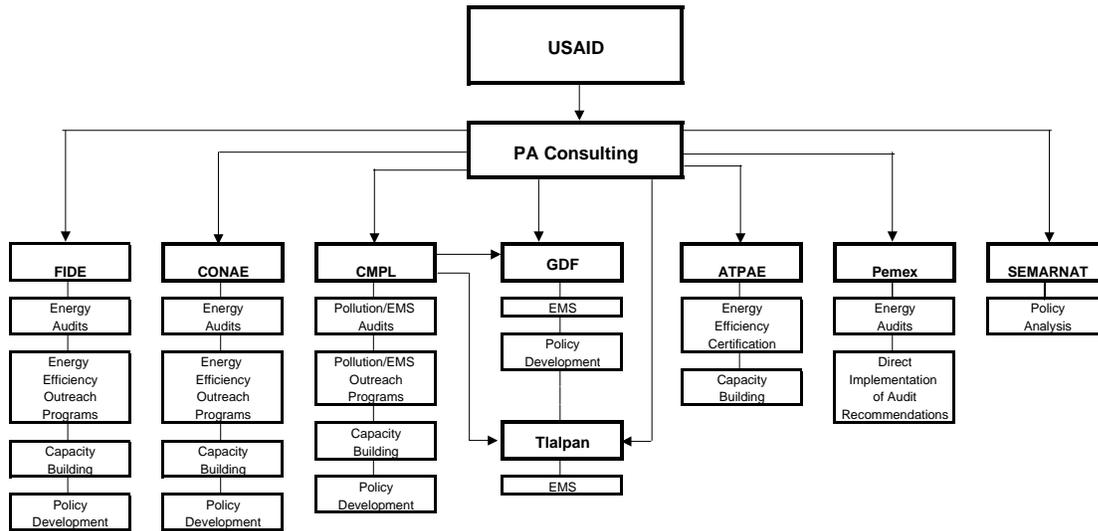


Exhibit 2-8: RMSI Assistance

FIDE

The Mexican Energy Savings Trust Fund (FIDE) is a leading RMSI partner and one of the strongest forces for electrical energy efficiency in the country. Founded in 1990, FIDE is a dynamic, semi-autonomous entity that receives a budget of about \$10 million per year from the Federal Electricity Commission (CFE). FIDE has a permanent staff of about 100, augmented by 250 temporary employees. It engages in numerous energy-efficiency promotional activities, energy-efficiency pilot demonstrations, as well as industrial, commercial, and residential programs. Successful FIDE programs include high-efficiency industrial motors, industrial compressors, and high-efficiency residential lighting. In 1998, FIDE initiated a new \$46-million (\$26M from IDB and \$23M from FIDE) industrial energy efficiency program, which includes support for financing through energy service companies (ESCOs) and commercial loans. FIDE has awarded its “Sello FIDE”, an energy efficiency seal, to 834 different types of electrical equipment manufactured by 16 companies.

USAID-funded technical assistance (TA) from PA since 1993—about \$250,000 per year for FY1993–1997 and about \$115,000 per year since FY1998—has helped build FIDE capacity in such areas as energy efficiency audits, training, promotion, and project/program development. FIDE has grown into a well-financed, professional organization that can likely continue successfully without USAID-funded assistance. However, FIDE finds the technical assistance highly valuable since it provides FIDE with world-class experts and immediate access to the energy efficiency experience and know-how from the Americas and Europe. The technical assistance adds significantly to the quality of FIDE analyses, audits, monitoring/evaluation, training courses, workshops, study tours, and, most importantly, FIDE efforts to set up financing for widespread adoption of energy efficiency technologies.

National Energy Commission (CONAE)

CONAE, part of the GOM Secretariat of Energy (SENER), was established in 1989 as a condition to a World Bank loan. With staff levels comparable to FIDE's, it runs on a smaller budget and, as a government agency, has less flexibility. CONAE's mandate is to provide technical assistance; establish energy efficiency standards for appliances, motors, etc.; and promote and implement energy efficiency and renewable energy programs. To date, CONAE has published over a dozen energy-efficiency standards. While taking a role in energy efficiency policy reform, CONAE claims it lacks the analytical basis to push effectively for needed reforms and the financial resources to make them widespread.

CONAE first received USAID-funded technical assistance in 1994 for a variety of activities including: appliance and building standards;¹⁸ industrial energy efficiency (including a very successful steam efficiency program);¹⁹ information management and exchange;²⁰ energy efficiency standards and labels;²¹ and policy reform, including implementation of an Energy Service Company (ESCO) strategy in Mexico.²² Under the current PA contract, CONAE has received about \$135,000 in technical assistance per year for activities such as industrial energy audits, municipal energy efficiency, ESCOs and other financing mechanisms, linkages with RMSI technology suppliers, policy reform, promotion of GCC information, and building CONAE's institutional capacity. While CONAE has benefited significantly from USAID-funded technical assistance, it mentioned insufficient coordination among and, sometimes, inconsistent messages from PA, USAID/Mexico, and USAID/Washington. CONAE would like to continue

¹⁸ Using Lawrence Berkeley National Laboratory [LBNL] under the Energy Efficiency Project [EEP].

¹⁹ Under EEP.

²⁰ Under EEP.

²¹ Under the Collaboration Labeling and Appliance Standards Program [CLASP].

²² Under the Technology Cooperation Agreement Pilot Project [TCAPP].

receiving help from PA because it provides a mechanism to do many things that the CONAE budget does not cover, such as policy and technical studies, pilot projects, study tours, and the like.

Association of Technicians and Professionals in energy Applications (ATPAE)

Although established in the 1970s, ATPAE was relatively inactive for many years, except for an annual energy efficiency conference. ATPAE currently has a three-person staff and about 350 members, mostly in the Mexico City area. Its main activities remain the annual conference and distribution of a newsletter. More recently, ATPAE has developed a number of committees, including climate change, training, data bases, and, perhaps most importantly, the “Professional Certification in Energy Efficiency.” ATPAE aims to build this certification into an endorsement essential to all energy-efficiency professionals in Mexico. PA-assisted energy-efficiency courses are geared toward the ATPAE certification exam. ATPAE depends heavily on assistance from PA (about \$115,000 per year), which pays the salary of its full-time director and supports many ATPAE activities. The success of the ATPAE Certification Program depends on continued USAID assistance in the near future.

Mexican Center for Cleaner Production (CMPL)

CMPL of the National Polytechnic Institute (IPN) was established in 1995 with assistance from the United Nations Industrial Development Organization (UNIDO). Its mandate is to expand the use of Pollution Prevention (PP) and Environmental Management Systems (EMS) in Mexico through technical assistance; training; publishing guides on pollution prevention and EMS; ISO 9001 and ISO 14000; information dissemination; policy analysis; and factory and municipal EMS audits with follow-on pilot demonstrations. Important pilot demonstrations include municipal government, hospitals, and electroplating, foundry, chemical, and soft-drink bottling industries. CMPL, a relatively small, university-based center, has a young, 15-person staff. IPN covers about half of its costs; the other half is split between PA and CMPL earnings from sales of services, which have increased rapidly from \$5,000 in 1999 to \$180,000 in 2001. Although CMPL has a good strategic business plan, it lacks strong project management and data collection systems. CMPL is establishing effective networks of professionals working on cleaner production. The CMPL Director chairs the Mexican Pollution Prevention Roundtable (MPPR), which includes the Mexican office of the NAFTA Commission for Environmental Cooperation (CEC), environmental groups, and universities, and businesses.

USAID has assisted CMPL with virtually all its activities, first under the EP3 project and now under the RMSI contract, which has provided an average of almost \$285,000 per year. CMPL

has benefited enormously from USAID assistance. PA commissioned a detailed assessment of CMPL management issues in 2000. Implementation of the assessment recommendations is improving and strengthening the Center. Despite being a new, relatively small organization that has suffered through some growing pains, CPML is gaining strength and credibility and is leading the expansion of pollution prevention and environmental management systems in Mexico.

Tlalpan, Mexico City

Since late 1998, PA has been working with CMPL to implement a pilot Environmental Management System (EMS) in Tlalpan, one of 16 delegations (local governmental units) within the Mexico City Federal District (DF). The pilot activity focuses on water use, electricity, green procurement, and waste generation and disposal in four municipal buildings, four hospitals, four factories, and four residential areas.²³ The first of its kind in Mexico, the pilot was the subject of a national conference. Although the Mission considers this pilot activity a success story, the Assessment Team's visit to Tlalpan gave an impression that did not fully corroborate this view. The municipal building and hospital visited exhibited inefficient use of energy, water, and paper and raised some questions about staff and leadership commitment. On the other hand, the small enterprise visited, Farina Tortilla Factory, is clearly a "success story" and a model industrial EMS operation. While the overall Tlalpan EMS raises questions about "success," this important pilot has provided numerous lessons for future municipal-level EMSs. For these lessons to be fully exploited, project-monitoring documentation must be strengthened.

EMS implementation in Tlalpan depends heavily on PA leadership and technical assistance, which totals more than \$800,000 to date. Much of the progress results from the direct efforts of the Mexican consultants hired by PA, the real program "champions." Program dynamism and momentum will decline when these consultants depart at the end of the PA contract. At the same time, the program has support from the GDF and continues to make progress, even though PA assistance has been cut to one person working two days per week. Plans to replicate the Tlalpan EMS in the other 15 delegations in DF will keep attention focused on the Tlalpan EMS experience.

²³ Tepozan Ecological Park is part of the Tlalpan pilot, but does not involve PA. It has renewable energy systems installed under MREP and technical assistance provided through the Institute of Engineering. The Assessment Team visit raised many questions about the technical approach and sustainability of the work being undertaken in the Ecological Park.

Government of the Mexico Federal District (GDF)

Early in 2000, the new Secretary of Environment of the GDF embraced the idea of expanding the Tlalpan EMS program to the GDF and gained USAID and PA support for this effort. The program started with GDF facilities and later will be extended to GDF operations, the other 15 delegations, GDF policy, and, eventually, to industrial and commercial establishments. The program focuses on water consumption, electricity consumption, green procurement, waste generation, and waste disposal. A phased implementation approach will have new units of the GDF joining the EMS effort each year.

While GDF environment staff are technically qualified and committed, considerable room for improvement exists. More systematic tracking and documenting the progress of each project would identify successes and lessons learned, strengthen strategic project management, and contribute to more effective project replication. Some activities appear to be done on an ad-hoc basis. For example, the GDF is assessing the costs and benefits of directive-based regulation, economic instruments, and self-regulatory instruments without a policy forum to discuss and debate the findings.²⁴ Policy instruments need to be presented and discussed in order to manage future program developments more effectively. Despite some weaknesses and requiring a long and difficult process, the GDF program has great potential for expanding sound environmental management in Mexico City and, eventually, throughout the country.

Pemex

Pemex, the world's sixth-largest oil company, is the GOM's main source of revenue and has monopoly control over exploration, development, refining, transportation, storage, and hydrocarbon distribution. Pemex has four primary divisions: exploration and production, refining, gas, and petrochemicals. Pemex operations provide enormous potential for increased energy efficiency and reduction of GHG emissions.

USAID assistance to Pemex started in 2000 on two fronts. First, the USAID/Global Energy Office funded installation of REACH²⁵ technology in one boiler at the Pemex Madero refinery.²⁶ This was a follow-on activity to the 1996 USAID-funded installation of REACH technology in a boiler at the CFE power plant in Manzanillo. USAID's contribution to these two efforts was approximately \$1.6M.

²⁴ With *directive-based regulation*, a public authority sets standards, monitors, and enforces compliance. *Economic instruments* alter price structures to reflect more accurately environmental costs of productions and/or consumption. With *self-regulatory instruments*, like the Tlalpan EMS, systems are self-imposed, without direct government intervention

²⁵ Reduced Emissions and Advanced Combustion Hardware [REACH].

²⁶ Under the Energy Technology and Innovation Project [ETIP].

Second, at the request of USAID/Mexico, PA started a Pemex energy audit training program that involved comprehensive, five- to six-week, train-the-trainers courses. Each of the 75 persons trained in the first year has signed an agreement to train 20 more Pemex staff, resulting in a total of 1,575 trained. PA is tracking all those trained, assisting them with undertaking audits, and working with Pemex to obtain funding for implementing audit recommendations. To date, USAID has contributed about \$550,000 to this effort.

Pemex is enthusiastic about the train-the-trainers program, which could produce very impressive results. Given the size and resource levels of Pemex, a major question arises: “Why should USAID be providing assistance to Pemex, which clearly can afford to pay for its own REACH technology and audit training?” The answer to this question is not as simple as it may seem. As a GOM entity, Pemex receives its annual budget from the Ministry of Finance (Hacienda) and has trouble getting funds for special activities, such as those that USAID has funded. Thus, Pemex managers are often not in a position to undertake new activities that might be perceived as risky.

Partnership Assessment Highlights

The USAID–PA partnership is based on mutual respect and appears to be working quite well, with frequent and open communications. Both parties are willing to make adjustments and compromises. The partnership builds on previous relationships between USAID, PA, and Mexican entities. PA has worked in Mexico on RMSI-type activities for most of the last decade and has developed an extensive network of Mexican specialists who work closely with Mexican energy, industrial, and governmental entities. Furthermore, PA is a recognized leader in energy technical assistance and is very well versed in USAID’s operating procedures and programs. Thus, PA is in a good position to keep the Mission well informed about new technology developments, the views of Mexican entities, and new opportunities for RMSI in Mexico.

USAID and PA have effectively shared leadership for RMSI activities. As a result of its experience and contacts, PA is sometimes thrust into a leadership role, which it has played successfully. For example, when a key EMS proponent was appointed director of the GDF Environment Secretariat, PA requested that the Tlalpan EMS program be expanded to include the GDF. USAID agreed to this request and approved the new initiative. At other times, USAID takes the lead, for example, adding Pemex training to the contract, which took a sizeable chunk of contract resources (almost 50 percent of the FY2001 budget). Also, USAID took advantage of a request from the new Fox Administration and added a policy analysis of agricultural water and electricity subsidies (Tariff 9) to the PA contract. These new initiatives appear to be making solid progress and show real potential for impact.

The Indefinite Quantity Contract (IQC) contractual mechanism appears appropriate for the USAID–PA partnership. The scores of individual Mexican consultants used by PA are gaining valuable experience. Participating Mexican entities have considerable confidence in the technical skills of PA and deeply value the assistance they receive. PA has effectively tailored its assistance to the conditions of each Mexican entity participating in the program. At times, however, PA consultant “champions” have exhibited a bit too much leadership, thereby contributing to the dependence of the Mexican entity and threatening the chances of longer-term sustainability—the Tlalpan EMS program is a case in point. Consultants must always balance their desire to make impressive progress with the need for the participating entity to take the leadership, make decisions, make mistakes, and take full ownership of the program.

2.3.2 Sandia National Laboratories

Sandia National Laboratories (SNL) started renewable energy work with Mexico in 1991 at the request of the US Department of Energy (DOE). The initial focus was to explore and strengthen opportunities for the US renewable energy industry in Mexico. Late in FY1992, USAID/Mexico provided \$650,000 in assistance to the Sandia renewable energy program there. Late in FY1993, Sandia assisted the Mission in securing \$4 million for the program under the “soft” earmark for renewable energy. The Sandia Team also assisted USAID/Mexico with development of the renewable energy portions of its 1998 Strategy.

The current Mission–Sandia partnership for the Mexican Renewable Energy Program (MREP) is formalized in a USAID–DOE Participating Agency Service Agreement (PASA # 523-P-ER-99-00033-00). Through FY2001, USAID had provided about \$8.3 million and DOE about \$5.3 million, for an average of about \$1.36 million per year. The PASA mechanism is similar to a cooperative agreement with respect to reporting and program planning. USAID has a role in reviewing and approving annual work plans, but does not have as much management control as it has in the case of contracts, such as the one with PA. The USAID–Sandia partnership is supported by several required PASA deliverables, including a detailed annual statement of work and budget, detailed monthly activity and financial reports, quarterly database updates with links showing progress on USAID results indicators, and invitations to attend all Sandia-sponsored events in Mexico.

The MREP initially focused on installing cost-share pilot projects. In the late 1990s, the program started putting greater emphasis on sustainable replication and development of Mexican institutional capacity to manage the program. Sandia phased out of cost-share pilots in mid 2000. The 403 cost-share pilot renewable energy systems generate a total of 267 kilowatts and reach

28,387 direct beneficiaries.²⁷ In its final phase, through FY2003, the program focuses on four priority goals: large-scale replication, institutional capacity building, policy influence, and synergies.²⁸

The “Sandia Program”

Sandia National Laboratories initiated the MREP, is directly involved in its implementation, and is widely known in Mexico for its renewable energy expertise; thus it is no surprise that the MREP has come to be known in Mexico as “the Sandia Program.” While Sandia’s MREP documentation and Web site²⁹ clearly indicate that both USAID and DOE provide the funding, not all participating Mexican entities are aware of this fact.

MREP’s stated goals are to promote use of renewable energy systems, enhance economic and social development in Mexico, create new business opportunities for US industry, and offset GHG emissions. The focus is on rural, off-grid, productive-use applications of renewable energy, particularly photovoltaic and small wind systems. *Productive-use applications* are broadly defined as non-domestic uses that provide an economic or social benefit to the user, such as water pumping for agricultural use or lighting for an ecotourism facility. The idea is that these activities can produce income to pay for the renewable energy systems. The MREP works on six basic tenets:³⁰ 1) development and continuation of solid partnerships (with participating Mexican entities); 2) activities focused on capacity building; 3) provision of technical assistance; 4) implementation of pilot projects; 5) replication of installed (pilot) projects; and 6) continued monitoring of technical, economic, environmental, and social impacts of the program.

MREP has been implemented by the “Sandia Team,” which includes SNL and its subcontractors: Southwest Technology Development Institute of New Mexico State University, Winrock International, Ecotourism y Nuevas Tecnologías, Mexican National Solar Energy Association, and the Energy Research Center of the Mexican National Autonomous University. Despite being geographically spread between Mexico, New Mexico and Washington, DC, the Sandia Team operates as an effective and talented unit with impressive relationships with participating Mexican entities.

²⁷ This implies an average of 663 watts per system and 9.4 per direct beneficiary. Sandia defines “Direct Beneficiaries” as 10 times the number of immediate beneficiaries for electrification or communication applications and 2.5 times the number of immediate beneficiaries for water pumping or water purification applications.

²⁸ Sandia, *PASA Statement of Work for FY02*, p.2.

²⁹ The excellent MREP Web site (www.re.sandia.gov) provides a wide range of detailed information.

³⁰ Sandia, *Statement of Work for FY98-FY01 Phase II Activities*.

Relationships with Mexican Entities

FIRCO. The Shared Risk Trust (FIRCO) of the Secretariat of Agricultural, Livestock, and Rural Development (SAGAR) is one of the most important MREP participants. FIRCO's mandate is to promote and disseminate improved approaches and technologies for increasing agricultural productivity, agribusiness, rural development, and rural incomes. Since 1994, FIRCO, with Sandia assistance, has trained 425 individuals and installed 195 pilot renewable energy demonstration systems, predominately photovoltaic (PV) water pumping for livestock on ranches in four states: Chihuahua (41), and Sonora (40), Baja California Sur (44 systems), and Quintana Roo (43). The \$1.55-million cost of these pilots was shared by Sandia (53%), the GOM (32%), and the ranchers/producers (15%).

With assistance from Sandia, FIRCO has developed impressive renewable energy capability. FIRCO can run its own training courses, identify renewable opportunities, procure systems, and oversee installation. It still relies on the Sandia Team for solving particularly difficult technical problems, developing technical specifications, preparing training materials, and developing approaches for obtaining financing. The success of the Sandia–FIRCO relationship and program is evidenced by a \$31-million, nationwide renewable energy replication activity funded by the GEF as part of a \$400-million World Bank agricultural loan. The Sandia Team helped FIRCO design the program and prepare proposal documentation. The program, which started in mid-2000, provides training, technical assistance, promotion, technical specifications, certification, and innovative vendor financing mechanisms. With the funding available under this new program, FIRCO no longer requires MREP assistance.

Secretariat of Natural Resources and Environmental Management (SEMARNAT).

Over 70 pilot renewable energy demonstration systems have been provided in SEMARNAT-managed protected areas, primarily for guard posts and research/training facilities. The simplest systems are uni-functional, such as 70-watt PV streetlights or water pumps for guard posts. The standard renewable energy system for a protected area guard post is about 400 watts and has an installation cost of roughly \$10,000. Larger systems on the order of 1,000 watts (\$25,000) are needed for sites that include dormitories, kitchens, research laboratories, and training facilities. The Sandia–SEMARNAT relationship is complex, because the renewable energy pilots in protected areas involve working directly with several US and local NGOs.³¹ In implementing this program, the Sandia Team has established effective relationships with SEMARNAT and the NGOs.

³¹ WWF, CI, TNC, PPY, IHNE, and ASK. See the SO6 sections of this report for more information on these NGOs and their programs

Chihuahua Renewable Energy Working Group. When MREP started in 1991, no single Mexican agency was charged with promoting renewable energy development. Therefore, Sandia worked with a variety of Mexican entities interested in renewable energy. Sandia assisted with the development of the Chihuahua Renewable Energy Working Group, a regional consortium of more than a dozen private and public organizations. The group is one reason why Chihuahua is a leader in the number of pilot demonstrations installed and the use of innovative financing schemes. Sandia and the Working Group have established an effective partnership.

Secretariat of Public Education (SEP). Sandia is assisting the internationally renowned Rural Telesecundaria Program of the Secretariat of Public Education (SEP). This TV-based distance education program reaches 17,000 secondary schools, several hundred in areas not served by the electricity grid. The Sandia Team has established an effective relationship with SEP, providing assistance with training, evaluation of existing installations, site selection, design, procurement, and commissioning of new renewable energy systems.

Partnership Assessment Highlights

The USAID–Sandia partnership, based on a solid, ten-year relationship, works quite well. Sandia provides USAID with detailed MREP information, and USAID leaves program management to Sandia. Sandia participated in the development of USAID/Mexico Strategy in 1998 and has made changes to MREP over the years to align it more closely with USAID objectives, specifically increasing attention to policy concerns and institutional development.

Communications between the two parties is good, but it could be better. At times, USAID has the impression that Sandia does not actively seek USAID participation in meetings held in Mexico City. The fact that the Sandia program manager is based in the US rather than in Mexico also affects communications between Sandia and USAID. USAID and DOE have different mandates and, as a result, somewhat differing priorities for the program. USAID sees MREP as a program focused on development in Mexico, while DOE emphasizes the impact of MREP on exports of renewable energy equipment and services by US industry. Sandia has worked hard to meet the challenge of trying to satisfy these two priorities.

In summary, the USAID–Sandia partnership appears to be working well. Sandia is the clear leader, which is appropriate since Sandia initiated the program and USAID later provided funding support. Sandia fulfills all the requirements of its PASA with USAID, submits the required monthly reports, and provides USAID with the indicator data it needs for monitoring and R4 purposes. USAID monitors MREP progress and does not meddle in its management. All things considered, the USAID–Sandia partnership is an innovative model of cooperation between two USG agencies.

2.4 Conclusions and Recommendations

Since the departure of the USAID/Mexico Environment Team Leader in September 1999, the remaining team members, all but one of whom were new to USAID, have struggled to keep their programs and the partnership process working. It has not been easy, and they deserve credit for the considerable efforts each of them make to implement this large and fairly complex environment program. For two plus years, the Mission Director became the *de facto* Team Leader while directing an overall Mission program that tripled its budget. However, a series of problems currently inhibit the smooth functioning of the USAID Environment Team, both within the team itself and with and among its primary partners. These problems work against the full effectiveness of these relationships and achieving desired SO results.

On the whole, USAID's Environment program has mature, experienced partners that have in-depth country experience, significant program presence, and are well versed in USAID processes and procedures. These longstanding partnerships have resulted in significant and widespread impact on building the capacity of national organizations.

The Assessment Team believes that rebuilding and strengthening the partner relationships must start in-house with the USAID environment staff. The May 2001 arrival of the new Environment Team Leader and the upcoming Strategic Planning exercise present an important opportunity to reconstitute and reinvigorate the Environment Team and to strengthen its relationship with its partners. A number of practical steps that should be taken include:

- Address Environment Team staffing and program management responsibilities
- Consolidate the Environment Team and get it functioning as a single unit speaking with one voice
- Rationalize relationships and support from the USAID/Washington-based Virtual Team
- Maintain program focus and avoid externally imposed and/or self-generated program creep until such time as the Environment Team can effectively manage new activities
- Establish a functioning Expanded Team and improve cooperation and communication among USAID's primary partners
- Continue initiatives to engage the GOM
- Make the revitalization of the Expanded Team top priority
- Engage other USG agencies and donors
- Improve record keeping and program documentation

2.4.1 Address Environment Team Staffing and Program Management Responsibilities

The Mission has received approval from the LAC Bureau to hire an FSN environment specialist (mid-level appointment, i.e., Masters degree and appointment at FSN 10/11 level) for SO6. This recruitment action should begin forthwith so as to ensure sufficient overlap with the USDA/RSSA NRM Specialist whose term expires in November 2002.

The Assessment Team also believes that the Environment Team Leader and Mission management should review the present workloads of each Environment Team staff member to ensure greater balance and appropriate skills and to identify training needs that could enhance team performance. The Assessment Team understands that Mission Management has initiated a review of all Mission position descriptions, to be completed by the end of this fiscal year and giving high priority to the skills mix, work load, and training needs of the Environment Team staff. Because of the large number of discrete activities and contractual arrangements, the Environment Team Leader will likely need to take on some CTO responsibilities, especially in the near-term while the new FSN comes on board and until the new strategy leads to a more focused and manageable program.

The new FSN will require training to be able to take over his/her responsibilities effectively as both a CTO and eventually as the Mission Environment Officer (MEO) responsible for Reg. 216 compliance. In the interim, MEO responsibilities should be transferred from the USDA/RSSA NRM Specialist to the Environment Team Leader. Given the present status of pending actions related to Reg. 216, the Mission will require the services of the Regional Environment Officer based in Guatemala, both to deal with compliance issues (see Annex C) and to provide Reg. 216 training both for the Environment Team and for all other SO Team Leaders.

Professional interface with the partners must be in Spanish. Despite the highly evident English skills of many of the principals of the partner organizations, Spanish-language skills are still required to read reports or interact with field staff. It is very difficult to plow through a lengthy report in Spanish if one lacks language skills. There is also no reason why partners should feel they have to write reports in English to accommodate a lack of Spanish among USAID staff members. The Mission should recruit Spanish speakers and accelerate Spanish-language training for any on-board staff members who need more fluency.

2.4.2 Consolidate the Environment Team

USAID Directives (Automated Directive System [ADS] Chapter 200, Programming Policy, Section 201.3.5) require that the head of each operating unit (overseas Mission) establishes an

SO team to plan and manage activities. To be considered fully established, an SO team must meet the following minimum requirements: appoint an SO team leader, identify and recruit core members of the SO team, delegate appropriate authorities to core members, identify and recruit other SO team members from within the Mission, and document the establishment of the team.

During a retreat in the fall of 1998, for the first time ever, USAID/Mexico underwent a full re-engineering process using an outside facilitator. SO teams were formed and Expanded and Virtual Teams identified, including El Salvador, LAC, and Global Bureau personnel. Key partners were also identified as Expanded Team members, and Team Charters were developed by each SO team. Unfortunately, a series of unforeseen events resulted in the Environment Team losing all but one of its staff members, including the Team Leader and a key FSN. Much of the progress made in 1998 was lost.

The presence of a new Team Leader and the development of a new USAID/Mexico Strategy is a propitious time for re-examining current roles and responsibilities, as well as the overall structure and functioning of the Environment Team. The Assessment Team recommends that the new Team Leader and Mission Management give urgent attention to re-forming and re-energizing the Environment Team and to developing a communications and coordination strategy between the Team and its key partners. ADS Sections 200.3.4. and 201.3.5 provide the detailed guidance on creating and using SO teams that was used earlier. This work should be examined and strengthened and/or reshaped. In addition, the Assessment Team recommends that the Mission re-establish an Expanded Team (including all key program partners) and Virtual Team (of USAID/Washington support offices), re-draft the Team Management Charter to conform to the new team and new strategy, and prepare a Briefing Book on the Environment program.

2.4.3 Rationalize Relationships and Support from the USAID/Washington-based Virtual Team

Many of the primary environment sector partners of USAID/Mexico tend to look to USAID/Washington as their natural contact with the Agency through the central and regionally funded programs. While some of this is the logical outcome of having central and regional programs and projects, a small Mission like Mexico may find itself overruled by these off-site management partnerships. Such a situation is inappropriate. Furthermore, the Environment Team staff reports that many visitors come to Mexico, adding burdens for the Environment Team.

The LAC Bureau must firmly back up the Mission in its future dealings with USAID/Washington personnel and should find additional ways to respond to Mexico's requests for TDY assistance. Given OE shortages in the Mission, this may require Washington funding. Travelers from Washington should only visit with a written and specific SOW in hand that has

been shared with the Mission and approved, thereby triggering country clearance. All travelers should prepare a trip report, particularly when these include programming suggestions related to regionally or centrally funded programs and follow-up actions that may be required. In no case shall a commitment for support to the sector be made without first briefing the Mission and seeking their concurrence on the scope of such an activity and its fit with the sector strategy. As noted above, the Environment Team should formally re-create its Virtual Team in Washington and outline the roles and responsibilities of Virtual Team members in its Team Management Charter.

2.4.4 Maintain Program Focus and Avoid “Program Creep”

Maintaining program focus requires discipline and a firm stand against taking on what may appear as good opportunities but will result in “program creep.” The Mission is commended for reportedly cutting back from 78 activities to 32 since 1998. No new commitments should be made except after a careful review within the Environment Team about how a new activity will contribute to the realization of the Strategic Objective and an analysis of the management implications of adding it to the ongoing program. The Assessment Team is not recommending against new “targets of opportunity” per se. It does recommend that no new activities be started until the Team can effectively manage what is already underway.

2.4.5 Establish a Functioning Expanded Team and Improve Cooperation Among USAID’s Primary Partners

USAID/Mexico’s Environment Team does not have a functioning Expanded Team. Representatives of the primary partners have not met as a group since the fall of 1998. The Assessment Team did not encounter a great deal of awareness of USAID’s Strategic Objectives for the sector among field-based representatives of the primary SO6 partners. Similarly, the amount of resonance for or mention of SO6 and its IRs varies widely in the SO6 cooperative agreements for the different activities—from good to none. This does not suggest that partner efforts do not lead to achievements fundamental to the realization of USAID’s IRs. Rather, partners do not fully understand the strategy associated with the current distribution of resources within the program and their part in it. A better understanding of USAID/Mexico’s sector strategy and results framework might help to alleviate misunderstandings about indicators, which have generated claims by NGO partners of “micro-management” and counterclaims by USAID staff of non-responsive feedback and reporting. SO7 partners, while involved with the development of SO7 and its IRs, were not fully aware of changes in the USAID/Mexico strategy after it was reviewed by USAID/Washington.

Similarly and perhaps more significantly, program overlap and even competition seems to be growing among the major international conservation organizations that are USAID's primary partners for SO6 (TNC, CI-MEX, and WWF). The Assessment Team has noted certain instances where these partners seem to be planning and programming their activities on specific sites without reference to the work of others. Examples include the announced plans of the CI-MEX Gulf of California team to work in Loreto Bay National Park—a PiP site declared consolidated in 2001; TNC's plans to include the Banco Chinchorro reef as part of PiP without reference to URI's work with the fishermen of Xcalak who fish on the reef; and TNC's intentions regarding eco-regional planning in the Maya Forest without mention of the role of CI. The Assessment Team also notes a persistent tendency in reporting by the international NGOs to avoid mentioning their peer organizations. For example, TNC's view of its work in recent descriptions of its regional programs in Mexico does not even name these other organizations. In contrast, the most recent URI/CRC Annual Report (Year 3) states:

Informal collaboration and coordination has been ongoing with other USAID partners, including International City and County Managers Association, The Nature Conservancy, World Wildlife Fund, and the PA Consulting to help ensure consistency with programs, synergize projects, and minimize overlap (URI/CRC 2001).

A certain amount of program overlap may be unavoidable and even desirable, but every effort must be made to avoid needless duplication of efforts or, worse yet, conflicting plans and approaches for particular protected areas. Overcoming these difficulties have been the reason behind USAID efforts to unite groups of its partners through regional meetings, ecoregional planning, and support to coalitions. Some degree of diversity, including different actors and a range of methodologies, may prove advantageous to Mexico. Partners frequently deal with different dimensions of the conservation challenge. It becomes a problem when people living in and around these field sites become confused by conflicting styles, formats, and proposed solutions. The Assessment Team believes that many more such problems can be avoided or ameliorated with a functioning Expanded Team that meets several times each year—to discuss annual work plans, program progress, and opportunities for collaboration. (ADS Section 202.3.1 provides detailed guidance on Extended/Expanded Teams.)

Furthermore, the SO6 concentration of attention and resources on “premier” protected-area sites may actually limit program expansion to the north, at least that funded by USAID, as was proposed in the last strategic plan for the sector. It may also deprive some of the other sites—among the 155 priority sites identified by CONABIO—of assistance that could be essential to their timely protection. This need for improved inter-partner communications and cooperative efforts will grow exponentially as the overall program makes the transition to the eco-regional

strategy approach, already being funded by the Mission and now seen as the likely next step in building on program achievements.

2.4.6 Continue to Engage the GOM

With the beginning of a more receptive Fox Administration, the Mission is opening up more dialogue with GOM agencies, providing good public relations and the opportunity for synergies in program development and possible cooperation. Many of these organizations have important needs for capacity building and expectations about obtaining additional operational resources. USAID/Mexico is considering entering into an MOU with SEMARNAT or one or more of its agencies with a view to ensuring that its assistance program achieves a better fit with nationally defined priorities. This is laudable and well worth doing, with the following caveats:

1. USAID must avoid raising expectations of direct funding for GOM agencies unless it plans to change the current funding modality of running all resources through NGO partners.
2. USAID must ensure that activities funded through NGOs are seen and understood as being responsive to the government's priorities for the sector, which, per force, include strengthening the internal capacities of the Mexican agencies responsible for the sector.

The latter is not a small challenge. For SO6, at least three such agencies may be hopeful of USAID support, even indirectly through the NGOs, for their programs—CONANP, CONABIO, CONAFOR and various directorates of SEMARNAT itself. Heightened expectations that go unfulfilled could create animosity towards USAID and its partners. Hopefully, this engagement with the central GOM organizations will not overshadow or erode the ongoing and rather progressive programs of developing institutional capabilities of organizations below the national level such as municipalities or state governments. Parallel issues on the SO7 side of the program have proven less problematic because participating GOM agencies like FIRCO, CONAE, SEP, SENER, and Pemex understand that all USAID assistance is channeled through the two primary partners, PA and Sandia.

2.4.7 Make the Revitalization of the Expanded Team Top Priority

The Assessment Team recommends that USAID/Mexico makes revitalizing the functioning of its Expanded Team a major priority for the remainder of the current SO cycle. The emphasis of

this partner-oriented team should be on communication and cooperation.³² To move forward with this recommendation, the following specific activities and achievements are foreseen:

- Each primary partner should name a representative to the Expanded Team and make a commitment to meet at least twice a year with the USAID Environment Team. These Partner Meetings should be practical and action-oriented, with a pre-defined agenda and follow-up responsibilities assigned as needed.
- USAID/Mexico should establish an environment sector-dedicated Web site, or pages on the Mission Web site currently being planned, with hot links that allow partners to post their annual program descriptions and operational plans. This site could also have direct links to a wide range of other relevant Web sites.
- Partners should be expected to contribute information on current sources of funding for their individual activities (protected areas, energy subprojects, etc.) in the form of a brief, tabular synopsis, such as the table being proposed by TNC for each of its PiP sites. Such data and information could be included on the Web site using an interactive, GIS-based national map format.
- Early action objectives for the collective attention of the Expanded Team could include:
 - ◆ Identifying synergies between biodiversity and energy activities;
 - ◆ Updating the Institutional Assessment of Mexican Environmental NGOs, carried out under GREENCOM in August 1995 as a programming guide for USAID, for example, as it seeks to include more training in the SO6 portfolio and program the new Scholarship program;³³
 - ◆ Posting upcoming training events to which other partners might be welcome;
 - ◆ Identifying a sector-wide policy agenda for the consideration of SEMARNAT and other involved Mexican agencies like SENER, CFE, Pemex, etc.;
 - ◆ Posting a schedule of reporting and procurement action deadlines related to the USAID agreements; and

³² Communication and cooperation are possible and worthwhile. Program coordination, a lofty goal, is very difficult to achieve and will perhaps only come about once GOM agencies in charge of the sector reach a level of capabilities that allows them to lead the program successfully, based on nationally defined priorities.

³³ USAID carried out an Institutional Assessment of Mexican Environmental NGOs, under GREENCOM in August 1995. The report presents a chapter (V) on “Recommendations and Future Options,” the latter of which includes an extensive list of training opportunities for Mexican NGOs within Mexico, elsewhere in Latin America, and within US institutions.

- ◆ Choosing particular themes for collective work on compiling, analyzing, and sharing experience about different facets of conservation and development activities common to many protected area sites (e.g., a study on the real costs of conservation and management of protected areas as a guide for GOM planning).
- Use the Expanded Team mechanism as a means to open a continuing dialogue with partners about opportunities for synergy with the Mission's Democracy and Micro-Enterprise SO Teams. All of the present SO6 and SO7 partners are engaged in activities designed to enhance local capacities for the governance of natural resources and/or more efficient use of natural resources, such as energy and water. These partners could doubtless benefit from lessons learned about the most effective approaches for doing so. Similarly, the key to alleviating pressure on the natural resource base often involves finding income-generation and employment alternatives to the unsustainable use patterns now commonly practiced. The micro-enterprise program is geared to developing the micro-finance institutions that could provide capital and know-how for the all-important entrepreneurial aspects of these alternative development activities.

2.4.8 Engage Other USG Agencies and Donors

Other USG agencies involved with environment sector-related programs in Mexico include the Environmental Protection Agency (EPA), the Department of Energy, the US Forest Service, the US Department of the Interior, and the US Department of Agriculture. In the main, these agencies operate, often with relatively abundant financial resources, along the northern border. While the Mission is cognizant of these bilateral engagements and jointly funds some, others are not well articulated with the USAID Strategic Plan, thereby foregoing opportunities for financial, capacity-building, and technical synergies. Active participation in the Mission Performance Plan (MPP) process and regular contact with the Environment, Science, and Technology Office and other agency representatives in the Embassy should be part of the Environment Team Leader's responsibilities.

Similarly, room clearly exists for more proactive work by the Environment Team in dialogue and proactive engagement with other development donors and multi-lateral agencies, for example, World Bank, Inter-American Development Bank, Global Environment Facility, and the United Nations system, building on the Mission-inspired other donor study of FY2000.³⁴

³⁴ The Assessment Team wishes to make it clear that senior Mission management has been doing an excellent job of engaging with other USG Agencies and other donors on environment issues. In fact, in our experience, few Mission Directors are as knowledgeable, committed, and engaged on these issues. The challenge is to transfer much of this responsibility to the Environment Team so that senior management can (once again) focus on bigger-picture issues.

2.4.9 Improve Record Keeping and Program Documentation

The departure of the Environment Team Leader in September 1999 resulted in the loss of some significant portions of the Environment Team institutional memory and historical files. The Mission made a special effort over the last year to sort out the issues with the Environment Team files by hiring a local files management specialist for an extended period. Remaining gaps in the filing system owe to mandatory document retirement rules and missing materials. As a result of this experience with the environment files, the Mission has asked for and been granted approval to fill a Communications and Record Clerk position, who will assume responsibility for Mission files and document control across all SOs. The Mission has also recently acquired the services of a financial analyst, who will assist the Environment SO Team with the essential duties of keeping track of budget obligations and expenditures.

The Environment Team should prepare an operational bibliography for each of its discrete activities and identify the most salient documents (both administrative and technical) needed to facilitate monitoring and administrative management. A concerted effort should be made to obtain copies of documents on activities managed from Washington and from the grantee and contractor partners. Where possible, electronic back-up files should be compiled and separately safeguarded, as is currently done for many SO7 documents. Grantees and contractors are required to provide key documents to CDIE in Washington. This has not been happening. Each partner should be asked to provide copies of all key documents to the CDIE Development Experience Clearinghouse (www.dec.org) within the next several months. In addition to filling gaps in the historical record, this will allow the rich experience, significant accomplishments, and important lessons from Mexico to be used by others.

3. Progress Assessment

3.1 SO6: Critical Ecosystems and Biological Resources Conserved

3.1.1 Introduction

This section of the report analyzes what USAID and its partners have achieved in reaching the general (SO-level) and specific (IR-level) expectations of Strategic Objective 6: Critical Ecosystems and Biological Resources Conserved. The SOW for this assessment component asks the Assessment Team to review a series of concepts related to progress, including:

- “The challenges of critical ecosystems and of biological resources conservation in Mexico”;
- “The various roles of public and private organizations”;
- “Policy accomplishments”; adoption of alternative resource uses and best practices”;
- “Gaps in the development of tools, methodologies or partners”;
- “The effectiveness of small grants programs”;
- “The integration of the environment portfolio and the other strategic objectives of USAID/Mexico”;
- The effectiveness of environmental compliance (dealt with separately in Annex C);
- “How well needs of different customers have been met and sustainability of activities and their results”; and,
- “Whether program implementation is on track.”

This is a tall order, given the complexity of the program, which involves six major partners, numerous smaller partners, and discrete agreements and activities. Rather than adhering dogmatically to this list of diverse themes, the Assessment Team has chosen to report on the program along the lines of the Results Framework designed for that purpose. A number of reasons lie behind this purposeful choice. The Team has noted many shortcomings in the way the Mission reports to Washington on Mission-based and Washington-managed activities and the manner in which its reports are apparently scrutinized and reviewed in Washington (see particularly the section on Intermediate Results, below). The Team is convinced that the Mission and Washington need to maintain focus on the IRs and the story they tell about process and its impact on progress.

Clear and considerable progress has been made in the conservation of biological diversity in Mexico, and USAID and its partners have had a significant role in promoting it. The challenge lies in using this Assessment as an opportunity for linking cause and effect to ensure that these gains can be sustained. By understanding the lessons learned, taking advantage of having a Team Leader in place after one-and-a-half years without one, and developing a revitalized SO Environment Team and an enhanced working relationship with its very able partners, this good work can continue effectively. However, if USAID/Mexico fails to strengthen its capabilities, the smooth transition into a new cycle of sector support may be difficult to accomplish.

The following sections assess the Development Hypothesis and Results Framework, present a progress assessment for each of the IRs, and then discuss the Strategic Objective Level and likelihood of its attainment. The section concludes with a series of conclusions and recommendations related to progress.

3.1.2 Assessment of Development Hypothesis and Results Framework

Development Hypothesis. The SO6 Development Hypothesis presented in the **May 1998 version** of the USAID/Mexico Strategic Plan states:

Support of Biodiversity Conservation in Mexico will lead to enhanced environmental management, protection of shared biological/genetic resources, increased quality of life both in the US and Mexico, reduced illegal migration, and a greater likelihood of both nations reaching their shared sustainable development goals.

This was changed after the review in USAID/Washington of the Strategic Plan and annual R4 noted “that the Development Hypotheses for each SO do not clearly explain the ‘if-then’ statement embodied in the Results Framework as they are supposed to do” (State 141508, 4 August 1998). The new version, which appears in the **September 1998 version** of the Strategic Plan, reads as follows:

If USAID/M supports activities, which demonstrate improved management of critical ecosystems and sustainable use of biological resources, and combines these demonstration activities with policy reform and institutional strengthening, which will promote sustainable practices beyond USAID/M interventions, then the USAID/M SO 1 team will conserve critical ecosystems and biological resources.

Assessment. Clearly, the September 1998 version of the Development Hypothesis fits better with the purpose for which it is intended as part of the strategic plan development guidance.³⁵ That is, “The development hypothesis in the strategy is the tentative and testable explanation of causal linkages between an SO and its IRs” (USAID Web Site–Managing for Results Training Materials–Unit 1.3: http://www.usaid.gov/pubs/ads/200/unit1p_1.pdf). The Assessment Team recommends that the USAID/Mexico Environment Team members familiarize themselves with these training materials as they begin the process of defining a new strategy for the next cycle.

Results Framework. The Assessment Team has a number of observations about the SO6 Results Framework (see exhibit 3-1) and about the R4 reporting and review process. These observations are presented here to set the stage for the discussion of program progress at the IR and SO levels that follow.

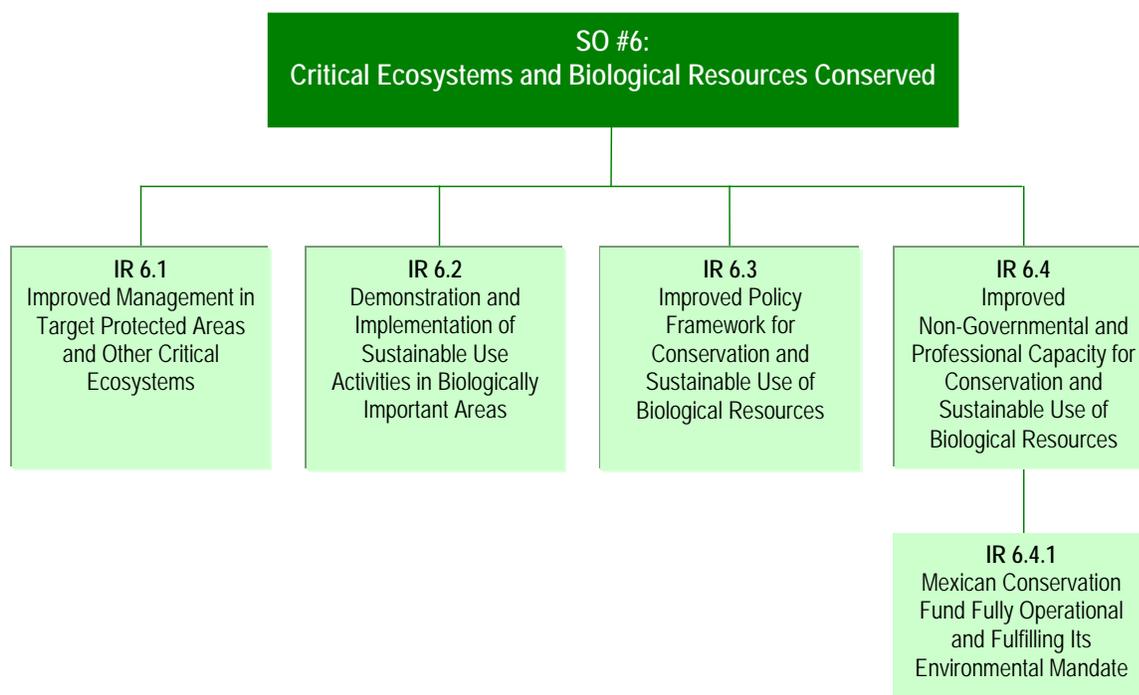


Exhibit 3-1: SO6 Results Framework

³⁵ Even in the September 1998 version of the Strategic Plan there are two versions of the development hypothesis. In the case of SO6, one appears on page 10 and another on page 17. The latter is the corrected version and the version on page 10 is an editorial oversight.

Results “Frozen in Time”? While significant results associated with USAID/Mexico’s support to the environment sector are well worthy of praise by all concerned, the more recent reporting on these achievements seems, in certain instances, to be frozen in time. It is unclear whether this issue with reporting represents changes in the way Washington wants indicators reported, deficiencies in the Mission’s approach, poor or confused reporting by partners, or all of the above. A persistent tendency appears within USAID/Mexico’s reports (R4s and recent Mid-Term Strategy/Portfolio Review) of still claiming credit for results that were part of the mid-1990s. For example, in the USAID/Washington PiP project, heavily co-funded by USAID/Mexico’s buy-in, the Mission in its Mid-Term Strategy/Portfolio Review reports on the

Consolidation of six sites (8 parks) directly supported by USAID/Mexico has strengthened their professional capacity, infrastructure, and local support. TNC and the Mission are now working to identify strategic approaches to extend this experience and address key policy issues throughout Mexico ... (USAID/Mexico, 2001)

This statement is surprising in that TNC actually reports eight sites as being consolidated (see exhibit 2-1), seven of which were consolidated before the start of the present strategy (only Ajos-Bavispe National Forest was consolidated during the current strategy period, in September 2001). Furthermore, at some point in 1998, the Mission included similar activities by other cooperating international NGOs in specific areas as part of the targets for this indicator, although the target figure does not seem to have increased accordingly.

Discrepancies in Reporting on Indicators. Apparent discrepancies in the way these indicators are reported in the R4s complicate an understanding of how they are tracked by the Mission or USAID/Washington. For example, the March 1997 R4 reports that:

The figure in Indicator Table 2.1 refers to the number of protected areas in the PiP program that have “consolidated,” that is, reached a sufficient stage of development so that USAID funding can be stopped even as the conservation effort continues.... Three sites consolidated in FY 1996 ... It is expected that all seven (two of the areas are managed as a single unit) of the target protected areas will consolidated by 1998. (USAID/Mexico, 1997)

It should be further noted that in this same R4, the IR Indicator Table 2.1 reports only two sites consolidated. The March 1998 R4 reported a target of only five and an achievement of five sites, despite acknowledging “after experimenting with this Parks in Peril Scorecard, the strategic objective team is expanding it to our other programs” (USAID/Mexico, 1998). By March 1999, the R4 was reporting a target of six sites, an actual achievement of six sites and also included the area in hectares so affected, in this case, 1.75 million hectares. The March 2000 version of the R4 shows the actual achievement under this indicator again as only six sites and the same area,

although in both years the discussion of the indicator/description actually only names five sites (USAID/Mexico 2000).³⁶ Somewhat surprisingly, the latest R4 (March 2001) again reported only six sites targeted and consolidated. Even more disconcerting is the way in which this

SO6 Strategic Objective and Intermediate Results Indicators in the 1998 Strategic Plan

Strategic Objective No. 1: Critical Ecosystems and Biological Resources Conserved

Indicator 1: Number and area of critical ecosystems, in target areas, with adequate management.

Indicator 2: Average change in annual rate of deforestation in target areas.

Indicator 3: Index of degradation rates in non-forest ecosystems.

Intermediate Result 1.1 Improved Management of Target Protected Areas and Other Critical Ecosystems

Indicator 4: Number of sites meeting pre-determined management goals.

Intermediate Result 1.2 Demonstration and Implementation of Sustainable Use Activities in Biologically Important Areas

Indicator 5: Number of men and women in target areas practicing sustainable activities promoted by USAID.

Indicator 6: Number and percent of new coastal zone enterprises in target areas using best management practices advocated by the USAID-sponsored Coastal Management Program.

Intermediate Result 1.3 Improved Policy Framework for Conservation and Sustainable Use of Biological Resources

Indicator 7: Percent of Policy Agenda Completed.

Intermediate Result 1.4 Improved Mexican NGO and Professional Capacity for Conservation and Sustainable Use of Natural Resources

Indicator 8: Number of target Mexican NGOs demonstrating improved ability to manage environmental projects effectively.

Indicator 9: Number of individuals participating in training and technical exchange programs

Sub Intermediate Result 1.4.1 Mexican Nature Conservation Fund Fully Operational and Fulfilling its Environmental Mandate

Indicator 10: Total dollar level of Mexican and other donor capitalization of the Fund

Indicator 11: Number of new grants disbursed each year by the Mexico Nature Conservation Fund

Source: The FY 1999 - FY 2003 Country Strategy for USAID in Mexico (USAID/MEXICO 1998a).

indicator was reported in this last R4, wherein three apparently different Performance Data Tables were presented for the same measure.

What happened in terms of targeting and achievement after the Mission decided to “expand the indicator to other programs” could not be determined. These apparent reporting lapses might be excused as a mere matter of numbers. The Assessment Team feels, however, that the importance of this indicator—the **only one involving all of the primary partners and their real conservation achievements and the one closest to being a real measure of the SO (Critical Ecosystems and Biological Resources Conserved)**—demands greater rigor.

Reporting Progress to Washington: A Moving Target. Another serious issue impeding an understanding of how the R4 process has been used by either the Mission or USAID/Washington to track performance is the limited number of indicators actually being reported out of the 11 identified in the 1998 Strategic Plan. The Assessment Team realizes that USAID/Washington has asked missions

³⁶ USAID is not the only partner confused about the PiP site count. The *USAID Mexico Mission FY 2002 Program Description* also known as the *USAID Mexico PIP GCC FY 2002 Scope of Work*, prepared by TNC, confuses the count as well, counting nine PiP sites in Mexico but listing ten (TNC, 2001).

to reduce the number of indicators. The box above includes the indicators established in the Strategic Plan.

The Assessment Team has not been privy to copies of all of the cabled responses reporting on the review of the R4s in Washington and, therefore, does not have the information essential for understanding any changes made in the reporting formats. That said, the instructions from Washington must have been drastic. All but two of these indicators (Nos. 2 and 3) had established baselines and targets. In 1999, the R4 for this SO included only three Performance Data Tables: Indicator 1 (the SO level indicator), Indicator 4, and Indicator 5. The year 2000 had five Performance Data Tables. Of these, the first two, as mentioned above, appear to report on the SO level indicator, the third on Indicator 4 (an apparent duplication of Indicator 1), and the final two on Indicator 5 (disaggregated by gender). In effect, out of a planned 11 indicators, the two R4s have only addressed the SO level indicator and two others (Nos. 4 and 5).

Baselines with Targets Moving Up or Moving Down? How these chosen indicators are quantified and baselines and targets set is another compelling question. For example, Indicator 5 (Number of men and women in target areas practicing sustainable activities promoted by USAID) appears to have very modest planned targets. This is especially notable because actual performance exceeded the target by orders of magnitude. Further, this same indicator was reported the year before the new strategy was approved; it had **both much higher targets and results** (see May 1998 R4). Even more surprising, the targets for the out-years for this indicator under the present SO were actually projected to **decline** ... from 200 men and 60 women in 1998 to 60 men and 30 women in 2003 (USAID/Mexico, 1998a).

R4 Performance Narratives. In addition to indicators, the R4s also report on performance in a narrative format for each SO. However, these write-ups do not appear to be systematically treated. They are sometimes confused and confusing and are often barely anecdotal in nature, as illustrated from two of the more recent R4s. The March 1999 R4 reports that:

Mexico's experience (with the FMCN) has been so successful that the GOM and the USG have decided to administer a major portion of the new \$32 million Mexico Fires Program through the FMCN.

What "new \$32 million Mexico Fires Program"? Perhaps the text is referring to OFDA contributions to the 1998 fire control campaign, which was largely administered through the US Forest Service. In the March 2000 R4, the Mission reports that:

USAID/Mexico's partners working on coastal resource management reported more than 80% of the progress planned on policies was achieved under IR 1.3....

Although other partners work on strategy (sic), they have been hesitant to predict annual goals given the subtleties of working in this arena.

In fact, the Country Strategy specifies very little discussion of the “annual statements of policy objectives” and no quantitative reporting at all on this important program element.

USAID/Mexico is not unaware of the issues surrounding how it uses the indicators to report on performance in achieving results.³⁷ The April 2001 R4 referring to SO6, comments that:

Working closely with its partners, SO 1 has been reviewing its indicators to develop more effective means of understanding and measuring the progress of its programs. A series of new indicators will be proposed in next year’s R4. (USAID/Mexico, 2001a)

An even more in-depth review of the situation was prepared in preparation for the December 2001 Mid-Strategy Review held in Washington (see Annex F: Summary of the State of SO6–Strategy and Indicators [Huppe 2001]). However, the findings of this paper were not incorporated into the Summary of Portfolio Review, and it would appear that these important issues were not dealt with during this event.

USAID/Washington Reviews. The task for any USAID Headquarters staff person participating in the annual review of the R4s for the Mexico Mission is a challenging one. However, it would not appear to have been a very rigorous process in recent years. For example, one could cite the double counting associated with Indicators 1 and 4, the very subjective narrative reporting on other achievements, and a series of recommendations to the Mission that have gone unheeded. Possible reasons for this situation include: the recognition that the SO Team has been without a Team Leader for one-and-a-half years, the in-house adaptation of the process of R4 reporting, and the mandate to reduce indicators. The Assessment Team is particularly concerned that the disarray over indicators—something that has gone on practically since the inception of the new strategy in FY 1998—may be selling the efforts and achievement of USAID/Mexico and its partners short. In today’s world of ever-diminishing resources for international development efforts, no program can afford such a situation at the risk of losing its funding levels.

3.1.3 Assessment of Progress at the Intermediate Results (IR) Level

The following sections review each of the four IRs of the SO6 Results Framework. The Assessment Team has not set about to audit progress based on targeted expectations and

³⁷ The August 1998 cable reporting on USAID/Washington’s review of the R4 and the Strategic Plan stated: “It was agreed that USAID/Mexico will work collaboratively with USAID/Washington to finalize its indicators” (State 141508, 4 August 1998).

achievements. Doing so was clearly beyond the scope of this Assessment. Adding to the complexity of any analysis of progress is the fact, mentioned above, that the third and fourth IRs have not been reported on at all in quantitative terms (using performance data tables). Instead, the intent of the Assessment has been to consider these IRs and the process and progress made in responding to each of them.

IR 6.1: Management of Target Protected Areas and Other Ecosystems Improved.

The three indicators of achievement for this Intermediate Result are:

- Number and area of critical ecosystems, in target areas, with adequate management;
- The average change in annual rate of deforestation in target areas; and
- An index of degradation rates in non-forest ecosystems.

In addition, the R4s sometimes seem to be using Indicator 4 (the number of sites meeting pre-determined management goals) from the 1998 Strategic Plan to report on performance under this IR (USAID/Mexico, 1998a). This brings up the question of why the Mission and its Partners are using two indicators treating supposedly the same theme—Indicators 1 and 4. URI/CRC notes this apparent redundancy and reports on them together. All concerned seem to have forgotten that, in the past, the difference between these two indicators was that Indicator 1 was for protected areas and Indicator 4 was for areas outside the protected areas.³⁸

Assessment. In almost all cases, USAID’s international and national partners have made great progress in ensuring the continuing integrity of these protected natural areas (see Annex A: Map of SO6 Program Sites). Indeed, the places where USAID resources have been used are typically shining stars in a pantheon of important biodiversity conservation sites in the country. The Assessment Team has concluded that the impact in terms of conservation and management of specific protected areas in Mexico far exceeds what the casual reader might glean from reviewing USAID reports. Even so, no comprehensive list exists wherein anyone (USAID, an NGO, GOM personnel, or multilateral organization staff) can easily ascertain what resources each of the specific protected areas has received over the years, either from USAID or from other sources. It is small wonder, then, that this IR’s performance continues to be gauged against a

³⁸ The descriptions of these indicators in the March 1997 R4 is as follows: “IR Indicator Table 2.1—Number of core areas in targeted parks and reserves demonstrating improved administrative capability, including management and operational plans, data/information systems, trained staff and improved infrastructure. This indicator was designed to track the progress of the Parks-in-Peril Program (PiP);” and “IR Indicator Table 2.2—Number of target areas and their buffer zones being managed according to NGO work plans, i.e., meeting a target of 80% compliance. This indicator captures the results of activities to improve management of target areas, and in particular, their buffer zones, by the Biodiversity Support Program, the World Wildlife Fund, Conservation International, and their local NGO partners.” (USAID/Mexico, 1997).

target of six sites, more than half of which had actually been “consolidated” before the strategy period started.³⁹

The lack of easily accessible data about conservation finance and programming may be leading to over-funding of these flagship sites while overlooking other promising or priority sites. Exhibit 3-2 below lists the sites currently included in some of the primary conservation programs in Mexico. As a result of considerable program overlap, this list adds up to only 25 distinct sites in all out of 155 identified as priority conservation areas in Mexico by CONABIO.

Exhibit 3-2: Sites in the Primary Donor-funded Conservation Programs in Mexico

Parks in Peril Sites in Mexico	FMCN/USAID Fires Program	GEF I FMCN/FANP	GEF II FMCN/FANP
El Triunfo/La Sepultura	Sierra de Manantlan B.R.	Calakmul B.R.	Alto Golfo de California
El Ocote B.R.	El Ocote B.R.	El Triunfo B.R.	Sierra Gorda
La Encrucijada	El Triunfo B.R.	Isla Contoy Special B.R.*	Cuatro Cienagas
Sian Ka'an B.R. Calakmul B.R.	Calakmul B.R.	Islas del Golfo de California Special B.R.*	Sierra de los Alamos
Rias Celestun/Lagartos	Ria Lagartos B.R.	Sierra de Manantlan B.R.	Sierra de Huautla
El Pinacate B.R.	La Sepultura B.R.	Monarch Butterfly Special B.R.	La Sepultura
Loreto Bay N.P.& Islas del Golfo de California	Sierra Gorda B.R.	Montes Azules B.R.	Pantanos de Centla
Ajos-Bavispe N.F.	Pantanos de Centla B.R.	Ria Lagartos Special B.R.*	La Encrucijada
Cuatro Cienagas N.W.R.	Montes Azules B.R.	Sian Ka'an B.R.*	Tehuacan- Cuicatlan
	Sierra de Arteaga Region	Vizcaino B.R.**	Chichinautzin-Zempoala
	Chimalapas Region		Banco Chinchorro
			Los Tuxtlas

Table Notes: A number of interesting attributes of this table are worth noting. Those sites marked with an asterisk in the GEF I column also have funding provided by the European Commission under a trust fund managed by FMCN. Beginning in 2000, the Vizcaino Biosphere Reserve** also benefits from a US\$1.5-million trust fund from the Spanish Agency for International Cooperation managed by the FMCN. Ajos-Bavispe is destined to benefit from a US\$1.5-million trust being promoted by the US Department of the Interior for its San Pedro River watershed portion and funded by the National Fish and Wildlife Foundation. The GEF II contribution to the FMCN Protected Areas Fund was expected to be approved in 2001. Finally, many other sites have

³⁹ For the record, the six sites reported as having been consolidated are: El Triunfo, Rias Lagartos/Celestun, El Ocote, Sian Ka'an, La Encrucijada, and Calakmul. El Pinacate was also consolidated but, as very limited amounts of USAID/Mexico funds were used for that purpose, it is not now being counted against this target. The future target sites are Ajos-Bavispe, Gulf of California Island Reserves (Loreto Bay National Park), Bahía Santa Maria, Xcalak Marine National Park, and Cuatro Cienagas. This listing, drawn from the R4 report of March 2001, overlooks a number of the sites in the tables in this section receiving USAID resources (e.g., Montes Azules and Sierra de Manantlan) and at least two other sites where USAID-funded substantial activities—the Sierra Madre Occidental in Chihuahua and the El Cielo Biosphere Reserve in Tamaulipas, which were part of the WWF-implemented MEP.

undoubtedly received USAID funding through the Conservation Fund endowed by USAID and the GOM, but it was impossible to prepare a separate column because these funds are not earmarked nor necessarily reported on a specific site basis.

Observations on the TNC Conservation Scorecard System. The consolidation scorecards used in the USAID/Washington PiP project offer a highly useful mechanism for reporting on the conservation of specific protected areas. The scorecards focus attention of all concerned—the CONANP staff responsible for the area, the NGO staff working with them, and the TNC staff who support both—on the real threats to these areas and the actions required to mitigate them. In effect, the consolidation scorecards turn the attention of all concerned outward toward the threats to these areas, rather than inward with concern for only the stability of the protected area and its infrastructure and staffing needs. The Assessment Team believes that this approach is the pinnacle of the conservation paradigm and the best approach to successful and sustainable biodiversity conservation. Since the scorecards have been instituted as a conservation tool, however, a number of issues have emerged in how they are used and applied. TNC is reportedly currently looking at the scorecards and considering adaptations to account for the platform-site approach under PiP 2000 and the eco-regional programming thrust now taking off in Mexico.⁴⁰

With the possible evolution of the scorecard system in mind, the following points need to be considered:

- **Progress, Product, or Results?** USAID/Mexico has expressed concern about the scorecards and their ability to track progress from year to year. The scorecards report on consolidation. Sites are either consolidated or in process. This approach overlooks and undervalues the many important things that are happening on a protected area in the course of its consolidation and would stress that these interim activities and achievements are as important as whether the site is consolidated or not. Under the present system, they are under-reported, given the manner in which USAID collects information on progress in this program. Certainly, critical lessons can be learned about the process and achievements in bringing an area to the status of consolidation. Although TNC and its local partners also carry out annual self-evaluations for each site, tracking the advance of the different points on the checklist would be too onerous for USAID purposes. Hopefully, this vital information on the “process of conservation” is being recorded and could be usefully communicated, perhaps as case studies prepared by TNC and other conservation NGOs involved in the program.

⁴⁰ A recent unpublished paper received from TNC, *Thoughts on Comparative Advantage for Sites to Develop High Leverage/System Level Objectives & The Life Cycle of Platform Sites*, provides some insight into how the approach will evolve in coming years.

Further, PiP self-evaluations that occur after consolidation sometimes report setbacks. Such was the case with Calakmul the year after consolidation, but overall scoring was not lowered to reflect these setbacks. Situations like this appear to be the reason why USAID/Mexico continues to employ Indicator 4, which is seen as a means for tracking “progress towards consolidation” (H. Huppe, personal communication). However, the June 1998 review of its R4 stated that: “Indicator 1 also overlaps with indicator 4, ‘number of sites meeting pre-determined management goals.’ Hence, indicator 1 should be moved to IR 1.1, and indicator 4 should be dropped” (State 141508, 4 August 1998). This fundamental matter, at the heart of the scorecard system, needs to be resolved.

- ***Making the Scorecards a More Adaptive Management Tool.*** In some cases, the scorecards do not seem to be a good measure of the causality for success in conservation of protected natural areas. The Assessment Team has no mandate to analyze the USAID/Washington PiP Program and its implementation. The Team also recognizes that these tools have been formulated to deal with conditions across the full range of conservation challenges found throughout Latin America. The Team, however, believes that consideration of two additional measures would make the scoring itself less subjective and a better indicator of progress for Mexico and elsewhere.

At present, the 16 measures of consolidation do not provide **a measure of land-use change**. Is this not the bottom line—the degree to which the habitat and ecosystem have been protected from alienation or conversion to other uses? Mapping land cover is a time-consuming task, although modern technologies (improved satellite imagery, GPS tools, and GIS technology) have made it much easier. Although original indicators for the USAID Strategic Plan (Indicators 2 and 3) included such an analysis, their implementation has been postponed over concerns about the practicalities of their application. Three years later, this situation has apparently not been resolved, despite the fact that CI-MEX has set up a workable, real-time, satellite-based monitoring system for Montes Azules in Chiapas. Such a measure need not be an annual process everywhere. Clearly, the periodicity of monitoring land-use changes could be based on a perception of the degree of threats and might change over time as the protected area is brought under conservation. The Assessment Team believes that building these capabilities for the larger protected areas is fundamental and something that many may already have accomplished. Additionally, such a system has many applications for developing a science-based management plan that would justify the staff and expenses required to operate it. This capability will also be particularly important in Mexico, because the protected area system includes so many biosphere reserves in which the alienation of

land-use is much more of a threat than in a gazetted national park (more typical of the type of sites in other Latin American countries where PiP operates).

The other measure that the Assessment Team believes needs greater attention is **the matter of long-term financing**. The PiP scorecard uses two measures for this dimension—one related to the NGO and its self-financing plans and the other about the long-term financing for the site itself. Considerable and reassuring progress has been made on both fronts, as witnessed by the leveraged funding available for many sites and the NGOs that manage them. In both cases, the approach is to develop long-term financing plans aiming at self-sufficiency. Unfortunately, in the case of the site itself, quantitative information on the real costs of protection and management are not provided. Thus, there is no way to actually gauge whether any measure of self-sufficiency is being reached.

This matter is further complicated by the fact that much of the leveraged funding that so many of the sites and NGOs attract is earmarked for certain types of activities and may not be used for other purposes. CONANP has entrusted the management of these sites to NGOs, while simultaneously assigning Resident Directors and staff and paying for them with national funds and GEF I grant proceeds. Accordingly, the Assessment Team believes that developing clear statements of indicative budgeting requirements for the core activities of protection and management is basic to guiding the future development of the protected-areas system in Mexico.

An improved understanding of conservation costs, built on the real experiences of these sites, will be crucial for convincing GOM of the policy need to provide government resources for that purpose. Such information also forms an essential backdrop against which to compare tangible conservation benefits arising from environmental services and ecotourism and recreation earnings. This type of information can help convince policymakers to accord sites the needed budgetary support. The conservation community (NGOs, donors, and general public) must continue working to inculcate the notion that paying for conservation is a worthwhile investment and that other policy decisions should not undermine people's attitudes about land-use changes.

Observations on the PiP Program. At present, **program documentation provided by the current SO6 partners** provides very **little mention of an exit strategy**. Similarly, there is no discussion of leaving the activities in the hands of local NGOs. The Assessment Team shares what it perceives as ample ambivalence about expecting the international NGOs to withdraw their support from a given area. TNC pointedly notes in its paper about the “life cycle of platform sites” that: “No site ever dies ... as long as it's part of the Mexican National Portfolio”

(TNC, n.d.). Alliances working toward system goals through eco-regional planning and conservation are clearly the next program step. This next step, however, does not necessarily imply sequential action. Rather, it will require actions on a parallel track that ensure the continuing protection and management of original pilot sites.

That said, there are clear feelings and specific statements within USAID about ending funding for PiP sites and those of other partners after they have been consolidated. Some PiP sites are expected to become “platform sites” under PiP 2000 and be used to build eco-region-wide programs along the lines of TNC’s Conservation Blueprint approach.

The reality, however, appears to be something else, albeit still very unclear because of confusing documentation provided by TNC describing the PiP 2000 program. For example, the USAID/Mexico PIP GCC 2002 Scope of Work says, “The following PIP sites will serve as platforms to address priority multi-site threats...” and then lists all ten of the current PiP sites. Perhaps that is so and indeed makes sense. Unfortunately, nowhere in the more detailed list of tasks related to each of the four [sic] objectives of PiP 2000 in Mexico is there a clear description of what will happen on the already consolidated sites.⁴¹ In the list of Anticipated Outcomes, it says,

The Conservancy will determine the most strategic approach to biodiversity protection in each of these priority-one eco-regions, while concurrently working to *consolidate a platform site in each ecoregion* (italics added).

The Assessment Team believes that a perceived inability to define an exit strategy from sites began more than a decade ago. Real or imagined, this perception could prove to be the Achilles’ heel of the PiP Program as regards continuing USAID Mission or Washington support. The Team also believes that the failure to define a reasoned exit strategy for individual sites by the international NGOs may be taking the pressure off of those in the GOM who must decide to allocate budget resources for biodiversity conservation and improved natural resources management that will benefit the nation and its people.

IR 6.2: Demonstration and Implementation of Sustainable Use Activities in Biologically Important Areas.

The indicators of achievement for this IR are:

- The number of men and women in target areas practicing sustainable activities promoted by USAID, and

⁴¹ This document (TNC 2001) lists five strategic objectives but only addresses four of them in the more specific list of tasks and activities.

- The number and percent of new coastal zone enterprises in target areas using best management practices advocated by the USAID-sponsored Coastal Management Program (USAID/Mexico, 1998a).⁴²

Assessment. The issue of low targets for this indicator, mentioned above, suggests very modest impact expectations for these activities. Similarly, targets for these results do not appear to be disaggregated during the work plan process among the cooperating organizations. All of this is surprising, since one of the principal threats to any protected area is the choices local people make about how they will use these areas. In Mexico, the situation is particularly acute, **because 70 percent of the land within the terrestrial protected areas is in community or private hands**, either as *ejido* holdings or in private ownership. Substantial program resources are dedicated to attempting to demarcate the boundaries of these areas, improve the capacity for protecting them, and make sensible management plans that are compatible with both biodiversity conservation and sustainable use. In most cases, particularly in biosphere reserves, these efforts must be participatory, because the State cannot make arbitrary decisions about land use on either private or *ejidal* lands.

This situation has become particularly acute with the passage of Article 27 of the Constitution reforming the Agrarian Law and reaffirming tenure rights, thereby guaranteeing more decision-making freedom regarding the disposition (sale or rental) of both individual and common land holdings (Martinez Rodriquez, 2000). The intent of this reform was to do away with the legacy of inhibitions to initiative and productivity by individuals because of the old communal system. Both private initiative and productivity have indeed increased, but the reforms have also opened the door for a more active land market. Small farmers are being tempted by short-term gains to sell their lands to others for livestock ranching and some agribusiness enterprises (e.g., large-scale chili production).

The conservation community has reacted by placing greater emphasis on improved sustainable production activities or by promoting alternative enterprises related to nature-based tourism and recreation. This emphasis aims to enhance incomes and improve livelihoods, thereby slowing the conversion of natural areas. This is a sound strategy; conservation cannot be built on the backs of those least able to afford it. The Assessment Team reviewed reports about this activity stream and visited a number of sites where they were being implemented. Although the Assessment

⁴² The second indicator regarding the application of improved coastal development practices is not being implemented: see URI/CRC 2000 and 2001 annual reports, wherein URI says “good management practices” are a part of the Costa Maya Land Use Ordinance but that there is no way to measure whether they are being implemented. The reason why it has not been feasible to monitor this indicator is the fact that the GOM, not the funded partners, is implementing ordinances and environmental impact assessments. Despite many efforts to promote government tracking of this, no official mechanisms have been set up to monitor this. This would require, in the view of URI/CRC, reprogramming activities and resources, as well as identifying incentives for government officials to monitor such practices.

Team applauds the intent of these activities, it found serious issues with both their approach and implementation:

- ***The finance and economic of alternative development programs.*** The most disconcerting thing the Assessment Team noticed about alternative development activities was a wholly inadequate understanding and/or discussion of their finance and economics among the partner staff promoting them. These activities are intended to leave local people economically better off, and those promoting them must have a sound understanding of financial reality. Many interventions proposed for intensifying or making agriculture more sustainable—agroforestry, organic farming, community forestry—are typically more labor intensive. While people involved in marginal farming usually have low opportunity costs for their labor, there is a limit to how much of their time they may be willing to invest or how much makes sense against the prospect of finding off-farm employment. Understanding the financial structure of these interventions is highly important—both proponents and participants need to see them as investments and be able to decide whether or not they are satisfied with the outcome. This same principle must be part of the argument about why it makes better sense to leave natural areas intact to favor biodiversity conservation—there are values involved.

A grasp of the economics of alternative development must also start with a recognition that many protected areas are still intact because they have marginal production conditions or are physically/geographically isolated. These factors will continue to affect the feasibility/profitability of alternative development schemes and need to be kept in mind. Failure to do so runs the risk of earnest work accomplishing nothing more than institutionalizing subsistence agriculture, which is highly unlikely to ensure conservation in the long run.

Another important economic element of these programs is the cost of promoting them for the NGO. The model's replicability will partly depend on the costs per participant or per unit area treated. For example, a pilot program to introduce and train local people in an alternative production practice might have to be discarded because it is too staff intensive and would require a huge budget to sustain it among a large number of potential participants. What the upper limit of administrative overhead costs for extending a technology should be depends on the values of what will be lost (both productivity and environmental services) if the status quo of gradual degradation and deforestation goes on unabated.

- ***Creating entrepreneurial skills and capabilities to market the products and services of alternative development activities.*** The Assessment Team found **no examples** of studies

related to the supply and demand for these activities and/or a good understanding of marketplace realities. Some examples include programs promoting bee-keeping in southern Mexico that seemed to be operating without any understanding of the collapse of the honey and beeswax marketing cooperatives; capital-intensive deer farming with no clear market; indigenous people trained as tourism guides to speak English and present nature themes but operating without brochures or price lists; ironwood-carving artisans unable to enter the marketplace because of over-supply; local furniture makers operating on a piece-meal basis; improved agriculture schemes with local woman unable to market produce because of a phyto-sanitary barrier between them and the marketplace; and hotel infrastructure investments without clientele. Another common misconception was lots of discussion of the need to avoid the “*coyotes*” or middlemen in the marketplace, demonstrating some social convictions but very little understanding of the nature of the real world in the marketplace. This contrasts sharply with the highly successful market penetration of organic coffee being produced in Chiapas.

- ***Alternative development as entitlement.*** The Assessment Team came away from its visits to these community sites sensing a perception among local people that some of these alternative development activities are “entitlement” programs wherein they continue to ask for and expect subsidies. For historical and socio-economic reasons, the *ejidatarios* have grown very accustomed to government subsidies and incentives, which they have received over many years and continue to feel they deserve. The GOM is trying to break with these traditions and encourage more self-reliance and personal initiative. However, some farmers may also rightly realize the limitations of production from marginal lands and that even under the best of circumstances (fully productive, sustainable systems with good market access), their destiny linked to such lands is limited. Thus, they continue to ask for subsidies or incentives because subsistence is not enough. This situation results partly from the above two issues—failing to deal with finance and economics and/or building entrepreneurial skills. Except in rare and special cases, a program should not attempt to “buy conservation” unless it has the money and staying power to pay for it. USAID and its partners also need to consider if the incentives and subsidies for conservation send the wrong message—that conservation is exclusively the purview of the state and the donors and that they will buy it from the peasants. This would be a direct contradiction of the stated rationale for these alternative development activities.

IR 6.3: Improved Policy Framework for Conservation and Sustainable Use of Biological Resources.

The indicator of achievement for this Intermediate Result is:

- The percent of policy agenda completed (USAID/Mexico, 1998a).

Assessment. As noted above, this indicator has as yet to be reported on using Performance Data Tables in the R4s, although achievements have been the subject of some of the narrative accounts. The difficulty of measuring progress in the policy arena is commonly an issue for USAID Missions and partners. In Mexico, the difficulty appears acute. The Performance Data Table in the Country Strategy describes how this indicator would be measured:

Policy advances, although difficult to quantify, are an important component of USAID/M's conservation portfolio. Progress will be measured by asking each partner to develop an annual statement of policy objectives. At the end of each year the mission and its partners will evaluate the percent progress towards goals. (USAID/Mexico, 1998a)

Not surprisingly, the Assessment Team finds it difficult to assess progress in this area.

There have certainly been some modest policy achievements, with actions and processes put in place to continue moving toward an improved policy framework. Some examples, drawn from the narrative portion of the last R4 (April 2001) include the declaration of Xcalak National Marine Park, a decree doubling the protected area around El Ocote, and the "official announcement of the intent to expand Ajos-Bavispe National Forest and Wildlife Refuge and reclassify it as the Mavai Biosphere Reserve."⁴³ However, these policy achievements and similar achievements found in the annual reports of the partners appear to be localized, mostly related to working with some level of authority (federal, state, or municipal) to agree to enhanced protection of the protected areas and, in some cases, expansion of the same. Most often, these activities and achievements are more about building institutional capacity for land-use planning and decision-making—both bona fide and important results—rather than a matter of policy reform. Even so, the most important policy issue associated with natural resource conservation and management in Mexico may be the lack of enforcement of existing rules and regulations. One asks how enacting new restrictions and/or regulations will change the situation.

In reviewing the 1998 R4 and the new Strategic Plan, USAID/Washington counseled the Mission to develop a "policy matrix" capable of tracking "progress on the specific policies targeted under the natural resource SO" (State 141508, 4 August 1998). Little progress has been made in addressing that mandate. "This year, partners have been asked to report by narrative on policies using a policy question guideline [see text box below] and to comment on the completeness and

⁴³ The previous R4 of March 2000 mentions, albeit rather vaguely, identifying policy issues and building capacity to address them as part of the Mission's program with the Environmental Law Institute. In addition to its vagueness, it is a bit out-of-date as the ELI contract began in FY1992 and last had funds obligated for it in FY1997 and, in fact, was not identified as a component of the current strategy or partners concerned with policy issues.

usefulness of that tool” (Huppe, 2001). While these instructions would almost certainly enhance the picture of what is happening on the policy front, they beg the question of the policy agenda or policy matrix that was supposed to be the baseline against which to measure progress.

The Assessment Team believes that a number of things are being overlooked here. First, the policy arena—where partnership shines—involves defining and working together on a common agenda based on collective experience in the field. This features precisely the kind of development challenge well suited and partly responsible for the USAID Partnership approach under the re-engineering principles. These policy agenda shortcomings offer a cogent example of missed opportunities for bringing the SO6 partners together on a regular basis so as to ensure that the impact of their collective work exceeds the simple sum of their individual activities. This area has also acutely felt the lack of an Environment Team Leader—someone who could lead the dialogue with the GOM and build confidence and trust.

USAID/Mexico Draft Questions for Policy Reporting

The following questions can be used to guide policy reporting:

Policy name or title:

Note that policy work should be aimed at some identifiable process, regulation, or guideline that can be targeted for improvement or change, and there should be some identifiable entity or entities responsible for it.

Policy description:

- Will this policy address an existing policy or create a new one?
- By whom will this policy be adopted?
- By whom will this policy be implemented and enforced?
- Will this policy impact protected area management, sustainable use, institutional capacity or some other issue relevant to conservation?
- At what level will this policy impact conservation policy— institutional, local, regional, national or international?
- What role will your organization play?

Level of policy development:

General levels of policy work include preparation (this can include development of information to inform policy content), presentation, adoption, implementation, and enforcement. Note that sometimes a partner's involvement will target only one or two levels; for example, our partner may not be responsible for enforcement of a policy even when they have been key to the adoption of the policy; frequently the adopting agency is not responsible for implementation or enforcement. If the policy has advanced past the level of our partner's direct involvement, please note who is or will be assisting in the policy promotion at the other levels.

- Level targeted for the partner's involvement
- Level expected this fiscal year
- Level reached last fiscal year
- If level is not expected to change this year, why?
- If the policy has advanced this year, briefly explain.
- If the policy has advanced past the partner's targeted involvement, whom is now involved or responsible for advancing this policy?

(from Huppe 2001)

Experience worldwide has demonstrated that policy interventions can often accomplish considerably more for conservation with one important reform than can the cumulative effect of many field programs working from the ground up. This is particularly true in areas such as tenure, agriculture and livestock development policy, land taxes, and free market initiatives. Instead of attempting to measure the so-called policy achievements of four to five partners, each with a diverse and localized agenda, USAID would find it far more efficient to measure progress along the continuum of the national policy agenda.

Similarly, projects, programs, and NGOs don't make policies; their role is mainly to support the policy process. For example, raising an issue to the level of a common agenda item among the conservation leaders of civil society may be all that is

required to convince the political and/or administrative powers to resolve it. The common agenda also implies working together to discern an agreed-upon solution and being able to address decision-makers with a common voice. Too often, policy issues drag on because vested interests play off conflicts about the issue or lack of resolution among the different members of the conservation community.

What NGO and other partners can also do, of course, is facilitate the preparation of studies that allow the decision-makers to make the right choices from a policy perspective. Nothing works worse than asking high-powered decision-makers to address a policy issue without arming them with the information to make an educated decision. The Assessment Team has the impression that sluggish movement on policy issues also results partly from a lack of clarity at USAID/Mexico and among its partners about what to do about the policy agenda in operational terms. Exhibit 3-3 offers two different views of how the partners might address policy issues—one drawn from the URI/CRC reports and another, the approach of the author.⁴⁴

Exhibit 3-3: Demystifying the Policy Component

The URI/CRC View of Policy Work

The Action Memo/White Paper Approach

⁴⁴ For another approach see IRG/ EPIQ, *Environmental Policy : Lessons Learned*. Washington, DC: IRG (in draft)

Policy Steps:

1. **Policy preparation and presentation.** Draft bill, policy or regulation, vetted through relevant stakeholders in government, non-government, the private sector and civil society, and introduced for debate in appropriate legislative, regulatory, or governmental body.
2. **Adoption.** Policy intervention is approved and adopted by the appropriate administrative agency or legislative body. Can take the form of the voting on a law; the issuance of a decree, etc.
3. **Implementation and enforcement:** Actions that put the policy interventions into effect, such as agency personnel trained in procedures, appropriate institutions created or strengthened, or legislation implemented through the appropriate government agency.

Policy Categories:

- T - facilitates improved land use planning
 - V - facilitates establishment & conservation of protected areas
 - W - improves integrated coastal management
 - Z - clarifies and improves land and resource tenure
 - O - other (please specify)
- (URI/CRC 2001)
-

Policy Steps:

1. **A Common Agenda.** Partners work together to define a modest number of policy issues that seem to be a common constraint for all in advancing conservation. Ideas mentioned to the Assessment Team over the course of this exercise include tax free status for A.C.s in Mexico; declarations of core or nucleus areas within biosphere reserves adding to the tenure issues; failure to enforce existing environmental regulations and/or political interference in these processes; fisheries being treated as production assets and not natural resources by new Government; etc.; the tenure issue itself and its multiple complications and facets, especially the impact of Article 27 of the Constitution.⁴⁵
2. **Brainstorming about the Options for Resolving the Issue.** There is usually a range of solutions to every policy issue; these need to be identified and clearly defined so that decision-makers are able to see the choices before them.
3. **Analyzing the Advantages/Disadvantages of each Option.** Assembling the data and information essential to understanding the likely outcomes—positive and negative—of a given option.

IR 6.4: Improved Non-governmental Organization and Professional Capacity for Conservation and Sustainable Use of Biological (Natural) Resources.

The indicators of achievement for this intermediate result are:

- The number of target Mexican NGOs demonstrating improved ability to manage environmental projects effectively, and
- The number of individuals participating in training and technical exchange programs (USAID/Mexico, 1998).

The lack of quantitative examples of real reporting on this indicator makes it difficult to objectively judge progress toward its achievement. Clearly, the Mexican NGOs are the heart and soul of this operation, as they should be, given the explicit statements in USAID's Strategic Plan: "... increased Mexican management capability..." and "Over the life of the SO, USAID expects to develop a critical level of capability that will allow sustainable biodiversity conservation in

⁴⁵ The most cogent example of a policy study identified during this assessment was the analysis of Article 27 amendment to the Constitution done by the Sonoran Institute on the impact of relaxed regulation of *ejidos* and their newly found right to land transfers (Martinez Rodriguez, 2000).

Mexico” (USAID/Mexico, 1998). All of USAID/Mexico’s primary partners, several of whom are themselves national organizations, only accomplish their activities in close collaboration with other Mexican NGOs.⁴⁶ Virtually all of Mexico’s conservation leaders have had some support from and involvement in USAID programs and continue, in one way or another, to be key collaborators with the program.

The USAID/Mexico Environment Program attaches high importance to capacity building. Sadly, the chosen indicators and reporting shortcomings in this area most often appear to sell achievements short. For one thing, these institutional development achievements are not limited to Mexican NGOs; they include governmental (at several levels) and academic institutions, as well. For example, the FMCN has had a profound impact in enabling many other local NGOs and academic institutions across Mexico to raise their capabilities through operational and institution-building grants. Program involvement with national governmental institutions, such as SEMARNAT, CONABIO, and CONANP, has helped these organizations increase their capabilities, particularly in fire prevention and control and in the administration and management of the protected areas system. Work with governmental institutions at the state (in Sonora with IMADES) and municipal (in Chetumal and around the Bahía de Santa Maria) levels helps ensure that the decentralization thrust includes the capacity to take on new responsibilities for environmental management.

Present formulation of the IR makes it clear that USAID/Mexico, despite the importance it attributes to capacity building, does not have a well-defined strategy for addressing it within the SO. While Mexico is a large country with great potential from the human resource and institutional perspectives, the country has many needs. Additionally, several crosscutting themes affecting the environment sector further reinforce the need for a clear and consistent approach to capacity building. These include the continuing emphasis on decentralization and the challenge to spread the benefits of development more widely (both geographically and socially); the emerging eco-regional thrust essential to replicating pilot-effort achievements at much larger scales; the growing importance of civil society in contributing to sustainable development; the expectations of the South-South program and Mexico’s relationship with its Central American neighbors; and the profound importance of ensuring that the role of women and linkages to gender issues are fully accounted for in addressing environmental issues and opportunities.

⁴⁶ A number of USAID’s primary Mexican Partners are typically the subject of reporting about institution-building achievements, and deservedly so, including Pronatura, Amigos de Sian Ka’an, Conservation International-Mexico and the University of Quintana Roo. Lost in the shuffle, or so it would seem, are other organizations with USAID support and which are making great strides as conservation leaders in their own areas, including CUCSUR of the University of Guadalajara, Niparaja A.C. in the Gulf, IMADES in Sonora, the Instituto de Historia Natural de Chiapas, Ecosolar A.C., and CASMAC. Doubtless, many others have a base worth building upon.

For USAID/Mexico and its SO6 partners to realize the full potential of their combined efforts, they should take the following special circumstances into account in reformulating their approach to capacity building:

- ***Rebuilding partnerships, starting with the Expanded Team.*** Because of its historical commitment to the environment sector and widespread impacts, USAID/Mexico is well positioned to use its influence and modest resources with maximum effect. Its small staff, unlikely to expand in the future, will not be able to do this itself and so must count on its partners to achieve the multiplier effect and synergy inherent in addressing the many targets of opportunity. Such a situation demands sound partnership relations built on the basis of a functioning Expanded Team but branching out to a wide variety of institutions, organizations, and professionals throughout the country. USAID/Mexico must take this course in order to reclaim the stature its ongoing commitment and resources deserve and to ensure that it achieves its current and future sought-after results.
- ***A tactical approach to institutional development opportunities.*** The magnitude of the institutional development opportunities related to Mexico's environment sector demands a sound tactical approach. USAID/Mexico, working in close association with its partners and other donors, should update the *Institutional Assessment of Mexican NGOs* study carried out by GreenCOM with USAID resources in 1995 and include an analysis of the needs of governmental institutions, as well. Such a study could also address the urgent requirement of an up-to-date training needs assessment linked to the plans and studies of USAID's partners in Mexico, along with the institutional frameworks needed to move emerging eco-regional development initiatives forward (e.g., Gulf of California, Selva Maya).
- ***Links to the new USAID Training/Scholarship Program.*** USAID/Mexico should ensure the use of a portion of the new \$50-million Training/Scholarship Program to bolster the environment sector's institutional development strategy, which would emerge from the study mentioned above.
- ***A National Environmental NGO Apex Organization.*** Great potential appears to exist for stimulating creation of a national environmental NGO apex organization, bringing together the many Mexican Conservation NGOs into a concerted network. Such a mechanism could be the means for achieving greater synergy for dealing with some of the larger issues that affect them all, including sector communications, cooperation, and coordination as a forum for discussing policy issues and lobbying with government, for addressing common research and development needs, and for greater efficiency in

meeting training needs. Such an initiative would strengthen linkages between USAID/Mexico's Environment and Democracy/Governance programs.

- ***Recognizing outstanding achievement.*** There is a need to promote the sense of a career path for Mexican conservationists in NGOs so as to deter, at least in part, the problem of persistent turnover among the staffs of local organizations. Formal and informal recognition for hard work and significant accomplishments, such as a series of national awards for outstanding performance, should be instituted and even linked to similar international programs and awards. The major international NGOs carrying out important parts of the program are well positioned to help create such a facility.
- ***Strengthening financial management.*** Both USAID and its primary financial partner, the FMCN, have insisted upon rigorous adherence to sound financial management capabilities among its grantees. A number of USAID's partners have already participated in workshops sponsored by the Mission to enhance their financial management skills. Far from being onerous, these capabilities go a long way toward helping many organizations become more business-like and professional and are at the heart of ensuring that they reach self-sufficiency. Credible financial management capabilities and actions also facilitate continued attraction of additional resources and ensure effective and efficient operations. Developing sound cost accounting capabilities is also fundamental for identifying and ensuring the feasibility of the full range of biodiversity conservation and natural resources management interventions as replicable solutions to the large-scale challenges and opportunities in Mexico.
- ***Supporting/nurturing decentralization and municipal development.*** The Mission is to be commended on its efforts of working with local NGOs. This work has helped support the decentralization thrust of GOM policy and, under the right conditions, could also be helpful for building the anticipated environmental management capabilities that municipalities will need to take up their new mandates. However, care must be taken so that eco-regional planning efforts do not lead to contradictions with decentralization efforts. Do actions substantiate the words and ensure that "*planes de ordenamiento territorial*" involve all stakeholders? It appears that ongoing eco-regional planning exercises often involve the "convinced talking to the convinced" and that not enough has been done to involve the perceived opposition—those who use the natural resource base: the agriculturalists, the livestock sector, the fishermen, and the tourism industry. All concerned must also be wary of the potential pitfalls of decentralization of the land-use planning process to the most local levels, where local people in power might decide it is their turn "to make the deals." Simply because environmental management becomes

more local does not guarantee that all options will be examined and that the best choices will be made. Programs in this arena will also promote synergy between USAID/Mexico's Environment and Democracy/Governance objectives.

Sub-IR 6.4.1: Mexican Nature Conservation Fund Fully Operational and Fulfilling Its Environmental Mandate.

The indicators of achievement for this sub-intermediate result are

- “Total dollar level ... of capitalization” and
- The “number of new grants disbursed each year” (USAID/Mexico, 1998a).

Assessment. Establishment and capitalization of the FMCN is clearly one of the most important achievements of USAID/Mexico and its partners during the current Strategic Plan period. However, several issues deserve attention, including the balance between capitalization and program expansion, monitoring issues and technical concerns with the USAID/FMCN Fire Prevention and Restoration Program, and assessing program impact.

- ***Capitalization versus Program Expansion at the FMCN: Seeking the Right Balance.*** USAID looks to the Fund as “a source of permanent funding for conservation,” and “total dollar level of Mexican and other donor capitalization of the fund” is one of the specific indicators for the Environment Strategic Objective. Within the Mission and among Fund staff, there is a belief that the planned target of “capitalization” of the Fund has been achieved (L. Rosenzweig, personal communication).⁴⁷ Accordingly, this indicator has not been reported on since the March 1999 R4. However, the key idea of an “endowment” is important: The intention was to create this “permanent source of funding” by contributing to an endowment that would generate earnings on its capital as a lasting source of finance. USAID and the GOM have completed their contributions as planned, providing approximately US\$30 million for the conservation endowment. However, several subsequent contributions are “sinking funds” for which the Fund provides administrative and financial management.

⁴⁷ What is the target figure for the capitalization of the FMCN? Several different versions of this indicator now appear in the R4s and in USAID and FMCN reports. An interesting note about the subject was found in one of the reporting cables from USAID/Washington; it is cited here as a matter of record, to wit: “USAID/Mexico was asked why its Year 2000 target for capitalization for the Mexico Nature Conservation Fund (MNCF) was reduced from US Dols 100 million (The Congressional Notification Level) to Dols 50 million. It was clarified that the MNCF Project Paper, finalized a year after the CN, reduced the Year 2000 capitalization target to Dols 50 million, since this was considered a more realistic target (State 146973, August 4, 1997).

Clearly, the Fund has developed into a credible private institution able to finance conservation and manage financial resources for that purpose. The primary indicator of operational capacity agreed upon between USAID and the Fund is the amount of its capitalization. The targeted amounts fixed in the Country Strategy were as follows: 1999, US\$48 million; 2000, US\$48 million; 2001, US\$60 million; 2002, US\$79 million; and 2003, US\$80 million. One of the concerns in scrutinizing the achievements of the Fund is the ratio of “sinking funds” to “capital funds.” The accumulation of additional resources in the form of sinking funds is testimony to the capabilities of the Fund and its staff, something recognized by USAID itself and inherent to the agreement to allocate US\$5.7 million for the Wild Fire Prevention and Restoration Program (PPIRA - Programa de Prevención de Incendios y Restauración). A number of other donors and organizations have similarly entrusted the Fund with resources, although most of these are sinking funds earmarked for special purposes. Each of them, however, also adds to the FMCN staff work load and its administrative overheads. The Assessment Team believes that the many supporters of the FMCN and, more importantly, the FMCN staff need to be concerned about whether or not these sinking funds distract the organization from its original purpose as a “permanent source of funding.”

- ***The USAID/FMCN Wild Fire Prevention and Restoration Program: Monitoring Issues and Technical Concerns.*** When the USAID-funded Wild Fire Prevention and Restoration Program was established, the Mission noted that it did not intend to establish a “separate results framework and indicator” for the program. “Progress will be reported in future R4 narratives” (USAID/Mexico, 1999). In fact, the R4s in 2000 and 2001 barely mention the achievements of the Fires Program, despite significant activities and results, notably 31 projects being approved as the result of RFPs in 2000 with an aggregate value of approximately US\$1.85 million. The Mission further noted in its 2001 R4 that “Indicator 10 was originally designed to track only grants awarded by the FMCN Endowment Fund, but will be adapted to report all small grants awarded under USAID’s several capacity-building activities in Mexico” (USAID/Mexico, 2001).

The Assessment Team does not agree with such a course of action for several reasons. First, the Mission has never reported on Indicator 10 in the past. Second, while the amount of money made available for conservation is important, the quality of its impact, both on the ground and in terms of building capacity, should not be measured in dollars. Third, tracking performance based on the awarding of grants does not do justice to the ancillary activities supported by the Fires Program, which have *inter alia* helped to create national capacity, including the damage assessment work and the Wildfire Information

System carried out with CONABIO or the fire control training offered in conjunction with SEMARNAT.

The Assessment Team has concerns about the Mission's capacity to manage the Wild Fires Program and its reliance on the USDA Forest Service for technical insights. Had more detailed monitoring of the performance of the Fires Program taken place, been analyzed, and reported by the USAID Mission, one of these concerns might have surfaced. The Fund reports that 35 percent of the Fires Program funding so far (year 2000 grants) has gone to "restoration," which is almost all some form of conventional reforestation. The little that was seen of the restoration efforts (e.g., pure plantations of Spanish Cedar and Mahogany in Campeche all attacked by the *Hypsiphyla* Stem Borer), however well intentioned, were decidedly amateurish. Further, lands replanted with seedlings often became even more fire prone than before because of inadequate maintenance of herb and grass invasion after planting. Finally, it is hard to imagine that the biodiversity assets of the chosen "priority areas," mostly declared national protected areas, would be favored by reforestation even with native species.

Reforestation on burned sites in tropical forests is seldom necessary, as the fires rarely kill all the roots and seeds. In the Pine-Oak ecotypes, fire may actually enhance pine tree regeneration. The only case where a more affirmative reforestation program might be justified is in steep areas with significant erosion potential. Even there, natural regeneration will likely cover the site more quickly than can planted seedlings, and a less site-disturbing intervention like direct seeding of native leguminous species would be an even better choice. The best choice on any sites where human intervention would appear to be justified would be assisted natural regeneration, where feasible.

For all restoration grants, local implementers should maintain control plots to monitor natural regeneration capability under site conditions, as the very able personnel at the University of Guadalajara, are doing for their USAID/FMCN restoration grant in the *Reserva de la Biosfera Sierra de Manantlan*. This will eventually lead to the development of an improved understanding of the science of restoration, when it is needed, and as a basis for comparison with other human interventions. Understanding the real costs of restoration is the key to knowing whether it can be applied efficiently (cost/benefit analysis) and effectively (macro-economic analysis—unit cost per hectare treated as compared with the potential area requiring such treatment).

Restoration programs should also be used for preventive maintenance at high-risk sites by investing in pre-commercial thinning, cleaning, and brush removal that will allow for the right kind of fire—low intensity and cool—thereby bringing fire back into the woods as a

management tool. In both types of restoration—revegetation or reducing biomass on a neglected site—significant challenges clearly underscore the importance of focusing fire-control activities on changing human behavior so as to prevent forest fires in the first place. Mitigating the prevalence of forest fires is fundamental to bringing the costs of control and restoration down to acceptable annual levels.

- ***Assessing Program Impact: Quality and Demonstrable Impact Counts, Especially at Program Outset.*** An important Fund initiative is a decision to analyze how to ensure that the grants awarded are having the desired positive environmental and social impacts. Having successfully established the operational modalities for delivering grant resources to local NGOs and academic institutions in an efficient and transparent manner, the Fund is strengthening its impact-measurement ability. This is foreseen in its new organizational strategy for the period 2001 to 2006. USAID/Mexico has promoted this effort and cooperated in the development of the evaluation. With more than 350 grants in place, the Fund constitutes an extremely broad opportunity to learn lessons about what works and what doesn't in promoting conservation in Mexico.

Both USAID and the Fund are already aware of what does not work—tardy provision of budgetary resources to fund the implementation of the selected grants. Field operations of the first year of Fire Program grants were substantially delayed because failure to comply with requirements led to USAID's inability to release the funds in time. This is unacceptable, because, like any natural resource management project, timing of activities is critically linked to the biological calendar, which cannot—especially in the case of fire control and preparedness programs—be either hurried or delayed. This was a hard lesson but one that has helped the Fund gain a better understanding about the need to meet donor requirements in a timely manner.

3.1.4 Assessment of Progress at the Strategic Objective (SO) Level: **SO6: Critical Ecosystems and Biological Resources Conserved**

The three indicators of achievement for the Strategic Objective are the same three used for IR6.1, namely:

- Number and area of critical ecosystems in target areas with adequate management,
- Average change in annual rate of deforestation in target areas, and
- Index of degradation rates in non-forest ecosystems,

Assessment. The environment SOs in the Strategic Plan are based on the 1996 Environment Strategy prepared for the Mission. The USAID Environment Team apparently does not look at

the Strategic Plan very regularly or carefully. Not until early December, two months into this Assessment exercise, was the Team able to produce the correct version of the approved plan. Further, **none** of the partners seemed very familiar with it, except in terms of what was expected of them in responding to IRs. This is unfortunate, because both the Strategic Plan and the Environment Strategy behind it provide a rationale for the choice of activities being carried out with USAID resources.

For example, Figure 4 of the Strategic Plan discusses the “Adjustments” in the strategic approach to the sector. These adjustments provide an overarching set of indications about the directions of the program, notably that:

Geographic focus has shifted from SE Mexico to encompass high-priority sites throughout Mexico, such as upland, arid, and semi-arid habitats (e.g., pine-oak forests), as well as threatened marine and aquatic ecosystems. (USAID/Mexico, 1998).

Somewhat surprisingly, this predicated shift to the arid and semi-arid areas does not seem to have taken place or at least has not progressed beyond the point where it was at the inception of the strategy. Indeed, it may even have regressed as a result of USAID discontinuing funding of the MEP in FY1998. MEP was responsible for the major part of USAID-supported initiatives and activities in the desert north.⁴⁸

The adjustments noted in the Strategic Plan were also expected to include enhanced linkages between climate change and biodiversity programs. Two examples were given: asking the CFE (Federal Energy Commission) to internalize the costs of watershed protection in the El Triunfo watershed of Chiapas and watershed protection in the rural areas of the Tlalpan Municipality near Mexico City.⁴⁹ Although some progress has occurred along these lines in Chetumal, the two examples featured do not seem to have borne fruit, because the GOM was reluctant to take this step. Finally, the adjustments were also expected to lead to: “... streamlined reporting focusing

⁴⁸ The Mission Director has subsequently informed the Assessment Team that he purposefully delayed the decision to move north because of the absence of an Environment Team Leader, who would have been required to initiate the development of any large new programs.

⁴⁹ The Assessment Team visited the latter and found an over-funded, overly ambitious, and stalled program working in a small part of the watershed (Parque Tepozan) and unlikely to have any major impact on the watershed function. This site, often touted as an example of success, is a classic example of throwing money at the wrong set of issues. More than US\$800,000 has been invested in the whole Tlalpan program. Many of the physical works related to watershed management were inappropriate and are now unfinished. The real issue—that of a small community’s efforts and rights to resist the temptation to sell its land for development—upscale housing in this case, despite land-use restrictions, in the face of pressure from local leaders and developers—is not being addressed. This effort is both unsustainable and should not be replicated because of the precedents it is setting related to “buying conservation.”

on objectives, indicators, and results.” This remains a huge challenge, as much of this Assessment amply notes.

Other important Strategic Plan elements include the critical assumptions and causal relationships. Both give pause to wonder about the likelihood of achieving the Environment SO. The critical assumptions include:

- “Social, political and economic stability in Mexico”—all three of which are clearly at risk;
- “Continued support for biodiversity policies and actions in Mexico, the US and the international donor community”—something that does seem to be holding steady; and
- “Public sector resources both in the US and in Mexico ... sufficient to finance reform actions”—also at risk both in the US and in Mexico.

In terms of causal relationships, the Strategic Plan does not include a commitment to measure replication, even though it has as its primary SO6 indicator “demonstrated” on-the-ground conservation coupled with recognition of the small area of the protected areas system and the premise of building from site-based pilots to eco-regional impacts. Some efforts were made in FY1999 and FY2000 to correct this issue for both SOs, but especially SO7. However, as noted in the discussion about indicators, further effort on this front is needed.

In short, progress in reaching the strategic objective level goals appears to be poorly understood. This assessment exercise is the first attempt to review USAID-sponsored program performance since well before the start of the present strategy period. Notwithstanding difficulties in objective corroboration, faulty indicators, and reporting and review shortcomings, the Assessment Team is privileged to confirm significant progress toward achieving the strategic objective.

3.1.5 Conclusions and Recommendations

The most important finding of this Progress Assessment, in the opinion of the Assessment Team, should be to **“work smarter, not harder.”** The Team found the Mission and its partners to be hard working, very committed, and clearly making a difference in the environment sector in Mexico. However, primarily because of organizational issues (involving Washington and the Mission, and because of staffing limitations, not the least of which was the absence of an Environment Team Leader for the first part of the strategy period), they are **neither working entirely to plan nor achieving the synergy and multiplier effect expected of teams and partners in the USAID system.** Of greater concern: deficiencies in their ability to report succinctly and clearly on their achievements **sells short their own accomplishments.** A more

pessimistic view of the situation suggests growing frustrations between USAID and some of its partners, possibly even stifling the expected spread of program accomplishments to other protected areas and geographic regions or in terms of policy, institutional, and technological results. The Assessment Team believes that this Progress Assessment concurs with the Partnership Assessment of this report and confirms the urgent need to bring together the Expanded Environment Team and resolve the issues associated with the Results Framework, its indicators, and effective and efficient reporting.

In almost all cases, USAID/Mexico's SO6 resources are used to buy into larger USAID/Washington programs and, in effect, into the larger NGO conservation programs for Mexico. These larger programs mean that USAID/Mexico's modest resources contribute to an overall, widespread program that achieves impacts well beyond the specific performance indicators and intermediate results built into the Cooperative Agreements. Both sides of the partner relationship should keep this reality in mind. From the USAID perspective (whether Mexico- or Washington-based), these program-level impacts should satisfy anyone's expectations of the Mission and serve as a justification for curtailing the current program creep. Too much of USAID/Mexico's R4 reporting amounts to counting programs, agreements, and their good intentions, both big and small, without really analyzing whether programs actually achieve their purposes. Similarly, the partners need to recognize, as some already do, that USAID's often substantial contributions make their programs whole and possible.

General Recommendation: Consolidating Progress

The Assessment Team believes that the Mission and its partners should **spend the remainder of the current strategy period (until 2003) consolidating progress across the board and compiling lessons learned about the key to biodiversity conservation and sustainable natural resource management as a result of their collective investments and experience.** For its part, USAID/Mexico should steadfastly refuse new program commitments (both imposed and self-generated) and ask its Washington-based partners to assist in this consolidation process. On the partners' side, continuing efforts are needed to improve communication and cooperation and to ensure that the team is coalescing rather than competing.

The Mission and its partners need **fewer activities, clearer indicators, and an agreed-upon and effective method for reporting on them.** Sorting out these difficulties, which are, in effect, the contractual basis for the USAID/NGO partnership, is fundamental and will ensure a clear vision of what has been accomplished to date. The important lessons learned will guide the future and contribute to smooth working relations for the next cycle of USAID assistance to the environment sector in Mexico.

Issues and Opportunities for the Remainder of the Current Strategy Period

This Assessment has identified **a number of issues that need urgent attention** as part of an effort to ensure that the present activities of the network of partners lead to IR achievement for this SO. USAID/Mexico and its partners on the Expanded Team may wish to consider the possibility of asking one or the other of the partners to take the lead in specific joint activities critical to addressing these issues and thereby improve their partnerships. The challenge lies in getting the Expanded Team working to develop a more refined version of the indicators, to be submitted to USAID/Washington as soon as practicable.⁵⁰ Where such an agreement is reached, supplemental resources should be included in the annual budgets of the partners involved, commensurate with their degree of involvement and as reflected in their annual work plans. The following section identifies the issues and, in some cases, suggests which of the partners might take the lead:

IR 6.1: Management of Target Protected Areas and Other Ecosystems Improved.

1. Ask Washington to work with TNC to improve the consolidation scorecards and their applicability to Indicator 4 and assist the other partners to understand the transition from a protected area approach to the eco-regional level;
2. Ask Washington to request TNC to tackle the task of assembling a complete list of the protected areas benefiting from the USAID portfolio and the fiscal data on the financing available for each;
3. Ask CI-MEX to help other partners develop their capabilities and those of protected areas management staff with systems to regularly monitor land-use changes;

IR 6.2: Demonstration and Implementation of Sustainable Use Activities in Biologically Important Areas.

1. Ask each of the partners to pick a particular alternative development activity and compile the information essential to an understanding of the state of the art of its design, implementation, and practice;

⁵⁰ The Assessment Team knows that USAID/Washington has been examining the present reporting systems (the R4s) and is issuing new guidance regarding reporting requirements to all Missions. This guidance calls for an Annual Report to be ready in February 2002. Therefore, it may not be possible to resolve the indicator issues with the SO partners in time for this report. However, whatever USAID/Washington requires for an annual report does not preclude the Mission from seeking to clarify its expectations with its partners about reporting on program achievements

2. Ask the FMCN, whose grants fund so many small-scale activities related to conservation around the country, to develop a financial and economic analysis methodology for alternative development and natural resources management interventions and provide a training course for the partners (and others);
3. Ask one of the partners to work with the Mission's Micro-Enterprise Program team to understand how micro-finance institutions can best contribute to biodiversity conservation and sustainable natural resources management; and
4. Ask Washington to request TNC to address the issues of the opportunities and approach for community-based sustainable natural forest management as an alternative development option in the forests surrounding protected areas.

IR 6.3: Improved Policy Framework for Conservation and Sustainable Use of Biological Resources.

1. Ask the WWF Mexico Program Office to take the lead in the development of a common policy agenda and a methodology for addressing it, both conceptual and operational; and
2. Ask URI/CRC to continue to work with the technical advisors of the Mission's Democracy Program to develop the concepts and methodology for strengthening institutional capabilities at the municipal level for coastal resources management.

IR 6.4: Improved Non-governmental Organization and Professional Capacity for Conservation and Sustainable Use of Biological (Natural) Resources.

1. Ask Pronatura (SEDE) to take the lead on carrying out a study on the keys to the institutional development of national conservation NGOs in Mexico;
2. Identify a suitable partner or other mechanism to carry out a preliminary training-needs assessment for the environment sector in Mexico; and
3. Ask certain partners to manage portions of the scholars' program.

Enhanced Reporting

No one who has carefully read the preceding text will be surprised to learn that reporting needs a lot of attention, both substantively and methodologically. This is **not** to say that a great deal of information on program activities and achievements is not available; quite the opposite might be true. As noted, the narrative portions of the reports of many of the cooperators and contractors

invariably offer more informative (albeit decidedly descriptive and occasionally anecdotal) information than any attempt to report on activities following the Indicators set up for the Strategic Plan. This says a lot about the Indicators and suggests the need for their major revision.

Revisions to the Indicators and the designated reporting format should involve a joint effort between the partners and USAID/Mexico. The nature of the contractual arrangements with the majority of the SO6 partners—cooperative agreements—means that this issue cannot be decided unilaterally by USAID. During the remainder of the present cycle, the Assessment Team suggests that the Expanded Environment Team should work together to identify one Indicator for each IR and a suitable methodology to report on it in terms of a performance data table. Doing so, of course, will depend on addressing some of the issues and opportunities mentioned above.

The USAID/Mexico Environment Team may also wish to consider four practical matters related to performance reporting:

- ***Calendar Year vs. Fiscal Year Reporting.*** One issue that adds to the difficulty in tracking performance is that the budgets are implemented, at least by some NGOs, on a calendar-year basis, while both budget expenditures and results need to be reported to USAID on a USG fiscal-year basis. This creates extra work and unnecessary confusion. A number of USAID Missions do their results reporting on a calendar-year basis, simply noting this in each Performance Data Table.
- ***Organizing the Narrative Reports.*** Narrative reporting in the R4s needs to be more carefully organized, with subheadings used to ensure that what is being said is being written in response to the specific IRs and can be so interpreted.⁵¹
- ***Periodic Newsletter.*** USAID/Mexico's Environment Team may wish to consider preparing a periodic program newsletter, drawing on contributions from its partners as a means for better publicizing the program, its goals, and achievements.
- ***Reporting Responsibilities for Regional Programs.*** The Environment Team would do well to work with USAID/Washington to clarify the reporting responsibilities for regionally or centrally funded programs such as PiP, especially in the light of the new reorganization within the Agency in Washington.

⁵¹ The Assessment Team realizes that the R4 methodology is in the process of being modified and that, in the future, USAID Missions and partners will report using an Annual Plan format. This format will still require effective performance reporting.

3.2 SO7: Carbon Dioxide Emissions and Pollution Reduced

3.2.1 Introduction

This section presents an assessment of results achieved to date under the current Results Framework, commentary on the SO7 Development Hypothesis, and recommendations for the remainder of the current strategy period. The current Mission strategy, written in 1998, was the first to separate the environment program into two Strategic Objectives: “Critical Ecosystems and Biological Resources Conserved” and “Carbon Dioxide Emissions and Pollution Reduced.” The latter Strategic Objective grew out of an Intermediate Result in the previous strategy, which was stated as, “Adoption of renewable energy and energy efficiency technologies.” Thus, the framers of the 1998 Strategy did not start with a blank slate. Rather, they wrote a strategy that would encompass and rationalize ongoing energy activities—a strategy development approach commonly used by USAID missions with ongoing portfolios. USAID/Washington’s review of the 1998 strategy resulted in some significant changes.⁵² Specifically, the Development Hypothesis was completely rewritten, and a new IR was added between the SO and four original IRs. Exhibit 3-4 presents the SOs and IRs in the graphic of the Results Framework.

3.2.2 Assessment of the Development Hypothesis and Results Framework

The Development Hypothesis for SO7 presented in the SOW for this Assessment is:

If the Mission can demonstrate viability of RMSI and renewable energy technologies at the pilot level while supporting selected policies, institutional strengthening, and financial sustainability to promote wider application of these technologies, the GOM, private sector, and other donors, will adopt RMSI and renewable energy technologies and then carbon dioxide emissions and pollution will be reduced.

In fact, the September 1998 Strategic Plan has *two* Development Hypotheses; the one above on page 33 and a different one on page 11, which is from the draft strategy submitted to USAID/Washington for review and approval.⁵³ The review resulted in the Mission being instructed to change the Development Hypothesis; thus the version on page 33 was developed.

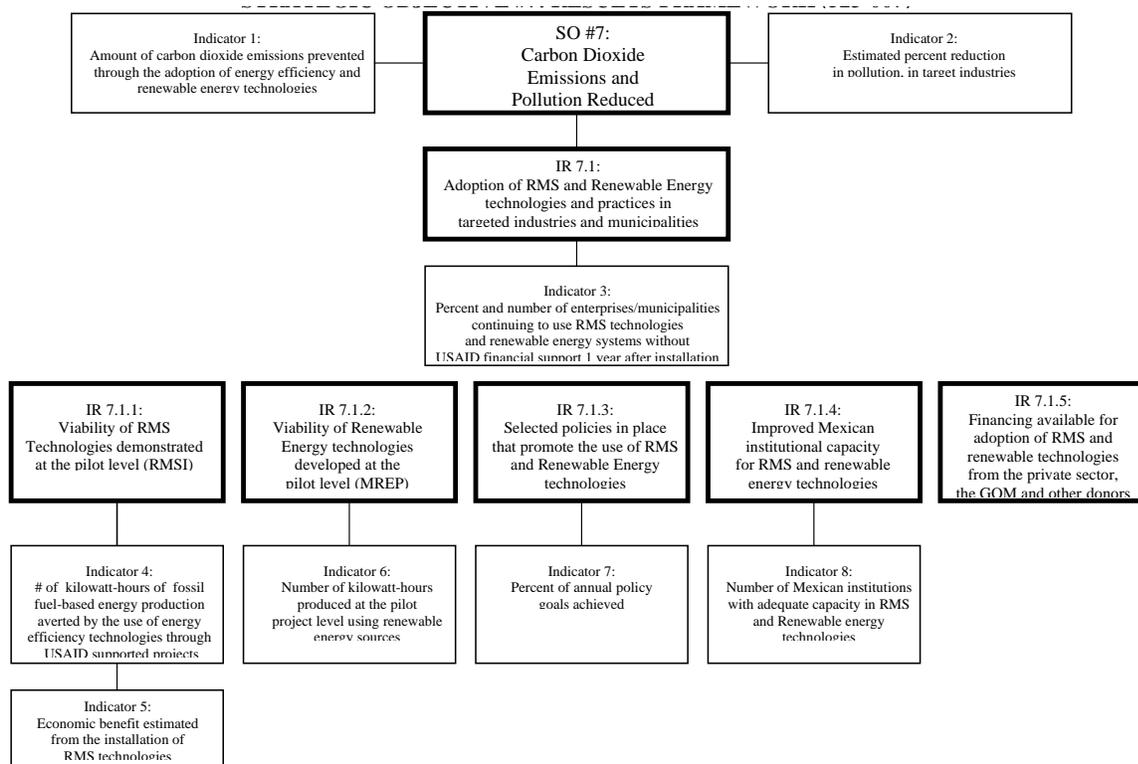
⁵² LAC/DAEC Strategy Review Cable, STATE 141508, dated 18 August 1998, 4F(1).

⁵³ USAID/Mexico, *The FY 1999 – FY 2003 Country Strategy for USAID in Mexico*, September 1998. The Development Hypothesis on page 11 is: “Preventing pollution and mitigating the effects of global climate change in Mexico will lead to enhanced environmental management and protection, reduced health risks, sustainability of industrial production processes, increased quality of life in the U.S. and Mexico, and a greater likelihood of both nations reaching their shared development goals.” Apparently, USAID/Washington did not approve this version because it is not stated in an explicit “if-then” format and the causal direction appears backwards, i.e., preventing pollution does not *lead to* enhanced environmental management.

Although an incomplete historical record causes some confusion, for purposes of this review, the above version is assumed to be the current and approved Development Hypothesis for SO7.

The Development Hypothesis is generally valid, but weak and imprecise. While “demonstrating viability of...technologies” is clear, the word “supporting” causes some problems. Like the word “trying,” it suggests effort, but implies no effect or impact.

Exhibit 3-4: SO7 Results Framework



3.2.3 Assessment of Progress at the Intermediate Results (IR) Level

In reviewing achievement of results, this report starts with the lower-level IRs and works up to the SO.

IR 7.1.1 *Viability of Resource Management System (RMS) Technologies Demonstrated at the Pilot Level*

The indicators of achievement for this IR are:

- Number of kilowatt-hours of fossil-fuel based energy production averted by the use of energy efficiency technologies through USAID-supported projects, and
- Economic benefit estimated from the installation of RMS technologies.

Assessment. The two indicators above measure the “size” of USAID-supported pilots, but say relatively little about demonstrating “viability” of RMS technologies.⁵⁴ Because the indicators are not very useful in gauging progress, our assessment is based on other information about these programs

The efforts of PA and participating Mexican entities have resulted in 191 pilot demonstrations in companies (or municipalities) for the five years from 1996–2000. These pilots include in-depth RMS process audits resulting in final reports with recommendations for saving energy or natural resources. The companies use their own resources to implement the audit recommendations. While the expected benefits exceed the costs (on paper) for all the audit recommendations, the majority of recommendations are not implemented for a variety of reasons.⁵⁵ Companies have competing priorities, lack the necessary financing, delay implementation so it can be combined with other process changes,⁵⁶ or may question the audit analysis or perceive the recommendations as risky. The percentage and number of companies that had implemented and were continuing to use at least 50 percent of the RMS actions recommended in their audit report was 70 percent (40 of 57 companies) in 1998; 68 percent (36 of 53 companies) in 1999, but only 36 percent (4 of 11 companies) in 2000.⁵⁷ The decline in number of companies reflects a shift in focus from pilot demonstrations to promotion of replications. It is not clear why the percentage was so much lower in 2000. The relatively low percentage of audit recommendations implemented calls into question their technical and/or financial viability as well as the entities’ commitment to carry out the remaining recommendations.

On the other hand, the participating companies clearly thought the implemented audit recommendations were viable, because they used their own funds to cover the hardware and installation costs.⁵⁸ Demonstrating the viability of a technology to a company participating in a pilot is one thing; using that pilot to demonstrate viability to other potential adopters poses a far

⁵⁴ For example, installing a large, inefficient, uneconomical energy efficiency pilot could generate large numbers of kilowatt-hours of fossil fuel-based energy averted, but would not demonstrate viability. Furthermore, the first indicator multiplied by a conversion factor is virtually the same as the SO indicator, tons of CO₂ averted. The second indicator ignores “cost,” a very important factor in “viability.”

⁵⁵ For 1996–2000, only 95 of 191 companies implemented at least half of their recommendations, and no companies implemented all.

⁵⁶ In some cases, companies intend to implement the recommendations, but have postponed action, such as replacing a 75-hp dust-collecting motor with a 20-hp high-efficiency motor, which would use far less electricity and do the job as well as or better than the larger motor. PA Consulting, *USAID/Mexico RMSI Data Base for Project Monitoring and Tracking*, February 2001, p. 165.

⁵⁷ PA Consulting, *USAID/Mexico RMSI Data Base for Project Monitoring and Tracking*, February 2001, p. 120.

⁵⁸ Many of the measures in the audit reports can produce enormous savings at relatively low costs. For example, Aceros Tangamanga SA de CV saved \$30,000 per month in electricity demand charges just by changing from one eight-hour work shift using two electric furnaces to two shifts, each using one furnace. Quimica Fina Farmex SA de CV is saving \$95,000 per year by insulating condensate tanks and pumps. Quimir SA de CV stopped air leaks in the compressed air system for a saving of about \$13,000 per year.

greater challenge that requires detailed benefit/cost reports and comprehensive promotion activities.

The RMS program illustrates that environmental initiatives will sustain themselves and grow within a company only when they deliver specific, measurable business benefits, particularly in a company's core business functions. Past debates about business and the environment has been framed in simplistic yes-or-no terms: "Does it pay to be green?" Business people in Mexico are skeptical that the answer is always "yes," since they instinctively reject this all-or-nothing thinking in other business contexts: "Does it pay to hire more staff?" "Should I substitute cheaper raw materials for the more expensive high-quality materials?" The answer is "It depends." So it is with cleaner production initiatives. According to the Director of CMPL, "That is why facility managers are beginning to look at environmental problems as business issues." They want to make environmental investments for the same reasons they make other investments: because they expect them to deliver positive returns or to reduce risks. For example, the Farina tortilla plant carried out business analyses concurrently with environmental analyses, with PA and CMPL assistance. The process identified clear winners and encouraged Farina to implement an ISO 14001 management standard.

Demonstrating the viability of municipal Environmental Management Systems (EMS), such as the Tlalpan and Quintana Roo EMS pilots, is very difficult because administrations change every three years, staff turnover is high, morale is weak, salaries are low, and awareness of environmental issues is poor. On the other hand, the potential impact of municipal EMSs is very significant and EMS activity with GDF provides an excellent platform for expanding EMS to many municipalities. Implementing successful EMS pilots is an uphill struggle requiring a great deal of technical assistance and patience. Seen in this light, the Tlalpan EMS pilot has made progress and gained lessons with respect to water and energy efficiency in municipal buildings, municipal waste separation, green procurement, residential water efficiency, and cleaner production in local industries. The industrial clean production and some of the water and energy efficiency measures have taken hold and continue to be implemented, even though the level of technical assistance to the municipality has been reduced by 80 percent (from ten person days per week to 2). More complete reporting on this pilot would be very useful. In addition, there is scope for greatly improved coordination with the municipal development activities supported by the Mission's Democracy Program and with three new municipal EMS pilots funded by USAID/Washington and USEPA through the Environmental Law Institute (ELI).⁵⁹

⁵⁹ The three municipalities are Zapotlan, Jalisco; Piedras Negras, Coahuila; and Nogales, Sonora (a new 2001 USEPA-USAID/G/ENV/EET initiative with TA from the Environmental Law Institute). This is an example of "program creep" in SO7.

Some companies have reaped substantial benefits from RMS audit recommendations. However, only half of participating companies implemented at least 50 percent of audit recommendations, and most RMS audit recommendations remain unimplemented. Furthermore, the Tlalpan EMS has generated lessons but has made only limited progress in demonstrating the viability of municipal EMS technologies

Lessons Learned. Participating companies often do not implement specific audit recommendations with very attractive benefit-cost ratios (payback periods as short as a few months). Considerable effort is needed to change company attitudes and to convince companies to invest requisite time and funds. Getting participating companies to make investments in the pilot demonstration activities is only the first step in a successful demonstration program; comprehensive monitoring, detailed analyses, report preparation and dissemination, and aggressive promotion must follow it.

IR 7.1.2 Viability of Renewable Energy Technologies Developed/Demonstrated at the Pilot Level.

The indicator of achievement for this IR is:

- Number of kilowatt-hours produced at the pilot project level using renewable energy sources.

Assessment. Progress in demonstrating the “viability” of renewable energy technologies is difficult to measure. The indicator addresses the overall size of the pilot demonstrations but says very little about their viability. MREP’s successful pilot demonstration program has gone a long way to overcome a Mexican bias against renewable energy based on previous GOM-sponsored programs that were poorly designed, installed, and operated. The *technical viability* of selected RE technologies was clearly demonstrated by MREP’s 403 renewable energy pilot systems: more than 90 percent of these were still operating one year after installation. The percentage for photovoltaic (PV) systems, which have no moving parts and are relatively problem-free, was even higher: 98 percent.⁶⁰ In contrast, wind systems have significantly more problems and require regular and diligent maintenance. Hybrid systems are the most complicated and also require the most service. The complicated large-scale hybrid system at Xcalak in Quintana Roo, which was not USAID-assisted, offers an example of what can happen when proper service is lacking. The system, funded by federal and state governments, has not operated in more than a year, largely because the community never felt any ownership for the system nor responsibility

⁶⁰ Problems may occur if users by-pass safety equipment and draw down batteries too much. Theft of batteries or PV panels is the main reason why some systems were not still operating a year after installation. A problem for PV systems in Yucatan is getting hit by lightning. Though rare, these events completely incapacitate the system and require a highly skilled technician to make the needed repairs and replacements.

for maintaining it. The highly visible Xcalak system gives renewable energy technology a black eye. In contrast, the large-scale, USAID/Sandia-supported hybrid system at San Juanico in Baja California continues to operate and has strong community involvement. Unfortunately, the San Juanico system is rather unique and very remote and, thus, does not have a large demonstration impact.

Demonstrating the *economic and financial viability* of renewable energy technologies is more difficult because these systems, particularly PV systems, have extremely high up-front costs on a dollars-per-watt basis compared to other technologies, such as diesel or gasoline generators. However, they can be the least-cost solution in specific situations, particularly water pumping and other applications that do not require battery storage.⁶¹ When battery storage is required, renewable energy systems are less financially competitive.⁶² Given the environmental benefits of PV systems and the noise and nuisance of diesel generators, PV systems would offer an attractive alternative, particularly in isolated locations. That MREP technologies are being replicated rather widely (see discussion below of IR7.1) suggests that MREP has indeed demonstrated *economic and financial viability* of renewable energy technologies. The use of renewable energy technologies, especially small-scale PV systems, is not a viable approach for reducing CO₂ emissions.⁶³

Even though MREP stopped buying hardware for pilot demonstrations in 2000, thousands of new renewable energy systems are being installed in Mexico under several GOM programs.⁶⁴ These programs demonstrate the advantages and disadvantages of renewable energy technology.

The continued operation of MREP-installed renewable energy systems years after installation indicates progress toward demonstrating *technical viability*. However, MREP has yet to demonstrate *the economic and financial viability* of these systems.

Lessons Learned. Renewable energy systems can be very dependable and be operated without problems for many years. Unfortunately, few technicians in Mexico know how to repair

⁶¹ Robert Foster, Gabriela Cisneros, Charles Handley, "Life-Cycle Cost Analysis for Photovoltaic Water Pumping Systems in Mexico," 2nd World Conference on Photovoltaic Energy Conversion, 6–10 July 1998, Vienna, Austria. Also available on www.re.sandia.gov.

⁶² A 1,000-watt PV system costs about \$20,000, with a 20-year cost of about \$25,000 (\$5,000 for battery replacement and maintenance). A comparable diesel generator costs about \$1,000, with a 20-year cost of about \$15,000 (fuel, generator replacements, maintenance, etc.). Given these numbers, it is doubtful that PV systems will rapidly replace diesel generators.

⁶³ The CO₂ reduction from an investment of \$20,000 for a 1,000-watt PV system could easily be achieved with a \$200 investment in industrial energy efficiency. Alternatively, replacing twenty 75-watt incandescent bulbs with twenty new high-efficiency compact florescent bulbs (15-watt, but providing the same amount of light) would reduce CO₂ emissions more than the \$20,000 PV system.

⁶⁴ Programs of: FIRCO, SEP, Secretariat of Energy with National Indigenous Institute, and SEMARNAT.

problems when they arise. During MREP implementation, Sandia learned and explicitly identified the following lessons:⁶⁵

- Solid partnerships with in-country entities are essential to program success.
- Programs must be focused to make the most of available resources; in other words, do one thing well rather than many things poorly. In general, many more options for partnering and tapping into opportunities exist than resources can support. Therefore, focus, limit, and succeed in a few locations, then expand when appropriate. (This lesson appears to apply across the Mission's environment program.)
- Development issues must be integrated with and even given precedence over technology or environmental issues. Pilot projects must not be seen as an end in themselves, but rather as a means for training, building local capacity, and stimulating sustainable replication.
- Provisions should be made to improve local business capacity to supply renewable energy systems.
- Contracting mismatches between US and in-country agencies must be addressed properly.
- Measuring replication requires a concerted effort and significant resources.
- Multi-year planning and budgeting are essential—it is very difficult to implement a multi-year program successfully and efficiently with uncertain, year-to-year funding.

IR 7.1.3 Selected policies in place that promote the use of RMS and renewable energy technologies

This IR's indicator of achievement is:

- Percent of annual policy goals achieved (by SO7 partner organizations).

Assessment. As mentioned earlier, assessing policy progress poses a challenge, because identifying acceptable indicators is notoriously difficult. The Mission has developed a questionnaire-based policy indicator and performance monitoring system. However, the system is subjective and does not allow for a rigorous assessment of progress on this sub-IR⁶⁶. Thus,

⁶⁵ SNL, *Renewable Energy*, Volume I – 1999, Albuquerque, New Mexico, p. 16.

⁶⁶ Each year, FIDE and CONAE answer six open-ended survey questions on EE policy, CMPL addresses five pollution prevention (PP) questions, and FIRCO answers five RE questions. While the surveys provide useful information, converting survey responses into an overall indicator score is highly subjective. Interestingly, the indicator scores align almost perfectly with

lacking any common policy agenda against which results can be measured, qualitative and anecdotal information must be used to assess progress.

A number of RMSI activities have contributed to policy discussions. The PA-funded study for SEMARNAT of electricity subsidies for agricultural water pumping (Tariff 9) is contributing to policy discussions with Congress and other federal agencies. PA's training and technical assistance have helped put energy efficiency on the screen of senior Pemex management and contributed to Pemex's internal emissions trading program. CONAE has had some success at putting energy standards in place. FIDE programs have brought attention to energy efficiency and heightened the demand for appropriate energy efficiency policies. The CMPL-organized Pollution Prevention Roundtable is informing decision-makers of pollution prevention opportunities. In addition, the CMPL white paper on pollution prevention policy was submitted to SEMARNAT. MREP policy efforts have focused rather narrowly on establishing renewable energy policies and programs *within* FIRCO, SEP, and SEMARNAT.⁶⁷

The 1998 Strategy was aware of Mexican sensitivities about USAID involvement in policy; but included this IR as part of the SO7 program. Aside from some energy standards promulgated by CONAE, the program has not succeeded in having "policies *in place*." Nor has it achieved other SO7 policy objectives of the 1998 Strategy, which include (p. 38) "assistance for reforming and completing the energy efficiency law and pollution prevention regulatory framework" and "inclusion of renewable energy programs in higher instances [sic] of the energy regulatory framework."

Lessons Learned: Policy is a sensitive subject in Mexico. The GOM does not welcome the direct involvement of donors in the policy process. That said, there are important openings for policy analysis and for contributing either directly or indirectly to policy discussions.

IR 7.1.4 Improved Mexican institutional capacity for RMS and renewable energy technologies

The indicator of achievement for this IR is:

- Number of Mexican institutions with adequate capacity in RMS and renewable energy technologies.

the Mission's targets. A RIG/Audit Report (RIG/San Salvador (10/98) Audit Report No. 1-523-99-0001-P) found that the indicator did not meet the ADS standard for validity because criteria were lacking to determine if the goal was achieved. In conclusion, the Mission's policy indicator and performance monitoring system does not adequately measure progress toward putting selected policies in place.

Assessment. The Mission's indicator for assessing improvement in institutional capacity is based on annual surveys of FIDE, CONAE, ATPAE, CMPL, and FIRCO in which they score themselves from one to ten on leadership, programs, human resources, financial resources, and communications.⁶⁸ Renewable energy is only a small part of FIRCO's responsibilities, so only FIRCO's renewable energy capabilities are covered by the survey. Although the self-scoring system raises some questions of objectivity and comparability across institutions, the survey provides acceptable information for tracking institutional capability.

Based on the R4 indicator, none of the five, targeted Mexican institutions had adequate capacity in 1998, the baseline year. By 1999, FIDE and CONAE were judged to have adequate capacity; thanks, in part, to PA assistance. Exhibit 3-6 shows the institution's self-scoring on the five categories in 2000.⁶⁹ The exhibit is a bit misleading because the institutions are very different in size and function. FIDE, CONAE, and FIRCO are large organizations with more than 100 permanent employees, while CMPL has a staff of 15 and ATPAE has a full-time staff of three, with the director paid by PA Consulting under their contract with USAID/Mexico. Obviously, PA's impact has been far greater on ATPAE and CMPL. USAID-funded training and technical assistance have helped build the human resources and programs of all five organizations. However, USAID's contribution to leadership, financial resources, and communications in the three larger institutions is difficult to determine.

⁶⁷ MREP policy accomplishments sometimes stretch the definition of "policy," for example, sending someone to a gender-in-energy conference, or installing 180 pilot RE systems (USAID/Mexico SO7, *Database for Project Monitoring and Tracking*).

⁶⁸ 1-3 points, training activities are urgent. Partner organization's achievements are minimal and are inconsistent with its missions' expectations [sic]. 4-7 points, training is clearly needed to help partner organization to better define their strengths and weaknesses. 8-10 points, Minimal assistance needed. Partner organization has achieved significant results and has a solid organizational structure. Periodic evaluation processes have been adopted. Clear willingness for training activities are incorporated into an institutional strengthening program. At this level, the partner organization could be an excellent ally in assisting other institutions.

⁶⁹ Handout at Mission Portfolio Review, 11/13/01, taken from PA Consulting, *USAID/Mexico RMSI Data Base for Project Monitoring and Tracking*, February 2001, pp. 135, 181. Note: because CMPL had particular institutional growing pains, an independent consultant did its scores.

Exhibit 3-6: Self-scoring on Five Categories of Capacity Building in 2000

Category	Institution				
	FIDE	CONAE	ATPAE	CMPL	FIRCO
Leadership	10	8	7	9	8
Programs	9	9	7	8	10
Human Resources	9	8	6	8	7
Financial Resources	10	8	6	7	10
Communications	8	10	8	8	6
Total	46	43	34	40	41

Based on the indicators and qualitative information, significant progress has been made in building capacity at *FIDE*, *CONAE*, *ATPAE*, *CMPL*, and *FIRCO*. A key issue is how well these institutions will sustain their SO7 activities when USAID assistance is phased out in FY2004. This is especially important for *ATPAE* and *CMPL*.

Lessons Learned. Capacity-building efforts must be tailored to fit the institution’s characteristics. Clearly, the type of assistance provided to *CMPL* differs greatly from that provided to Pemex. At times, the need to make progress on a pilot activity and the need to build institutional capacity may be at odds. In such situations, consultants must be careful not to push the program ahead too quickly—the institution must be allowed to make leadership decisions, make mistakes, take full ownership of the program—even though the process could delay aspects of program implementation.

IR 7.1.5 Financing Available for Adoption of RMS and Renewable Energy Technologies from the Private Sector, the GOM, and Other Donors (independent of USAID assistance).

No indicator is provided for this IR because it is “independent of USAID assistance.”

Assessment. USAID claims that the availability of financing for adoption of RMS and renewable energy technologies is “independent of USAID assistance.”⁷⁰ However, numerous

⁷⁰ The USAID results reporting system has trouble incorporating IRs and sub-IRs (like IR7.1.5) that are “independent of USAID assistance.” Often, USAID programs can and should influence such IRs, but Missions are reluctant to include them as regular IRs because they do not want to be held responsible for their achievement.

USAID efforts have contributed to obtaining financing from the GOM, other donors, and the private sector. USAID made considerable effort to identify private financing and establish Energy Service Companies (ESCOs) through its RMSI, TCAPP, Environment Enterprises Assistance Fund, and the Development Credit Authority (DCA). Unfortunately, these efforts have had only limited success in establishing sustainable private financing programs for energy-efficient technologies. PA assistance contributed directly to a \$46-million, electrical energy efficiency program with FIDE, funded by the IDB (\$23M) and GOM (\$23M). Sandia National Laboratories helped FIRCO arrange financing for a new \$31-million, nationwide renewable energy replication activity funded by GEF, the World Bank, and GOM. MREP also assisted with the establishment of Mexico's first renewable energy financing program through the Chihuahua state bank (FIDEAPECH). Under the Sandia program, consultants helped SENER prepare a proposal to obtain funds for a \$5-million off-grid rural electrification program. Furthermore, the Secretariat for Public Education (SEP) continues to fund the use of renewable energy technologies in its distance education programs, and it appears that SEMARNAT will continue to support renewable energy technologies in protected areas.

Progress in obtaining financing from the *GOM and other donors* has been good, but progress in obtaining financing from the *private sector* has not fared as well. Mobilizing private sector credit for RMS and renewable energy technologies is the most important obstacle to widespread adoption.

Lessons Learned. While USAID cannot ensure that financing is available for widespread replication of its pilot activities, it can make an important contribution to lining up such financing. In this case, there was little need for the Mission to have classified IR7.1.5 as “independent of USAID assistance.”

IR 7.1 Adoption of RMS and Renewable energy technologies and practices in targeted industries and municipalities

The indicator of achievement for this IR is:

- Percent/number of enterprises or municipalities continuing to use RMS technologies and renewable energy systems without USAID financial support one year after installation

Assessment. The 1998 Strategy (pp. 38, 41) clearly asserts that this IR was to focus on widespread replication of the technologies beyond the USAID-supported pilot demonstration activities, as well as continuation of the pilots after USAID support was completed.⁷¹ The

⁷¹ 1998 Strategy (pp. 38, 41) If IR7.1 is assumed to focus only on continuation of the USAID-funded pilot projects (as implied by the indicator), then it merely restates IRs 7.1.1 and 7.1.2, and the logic of the Results Framework is flawed because IR7.1 is then

Strategic Plan Review/Management Contract cable specifically directed the Mission to report on “adoption of USAID-demonstrated technologies and practices outside target areas and organizations” in each R4 and include “an analysis of how the Mission efforts will be modified to improve replication and adoption beyond the target areas” in these reports.⁷² However, the Mission did not do this. Instead, it selected an indicator with little relationship to “adoption...outside target areas and organizations” and focused only on continuation of pilot activities, making it of little use in assessing the progress of this IR.⁷³ The subsequent three R4s prepared by the Mission (1999, 2000, and 2001) did not report on the adoption of RMS and renewable energy technologies beyond USAID-supported pilot projects. Because the Mission’s indicator is not useful for measuring adoptions, qualitative and anecdotal information must be used. Unfortunately, anecdotal information on adoptions is very limited. Some reports suggest that FIRCO and SEP renewable energy systems in remote areas have stimulated the adoption of renewable energy systems for home electrification. Furthermore, CMPL has been hired to do an EMS activity by the municipality of Naucalpan, which is in the Federal District of Mexico and has a population of one million. Three other municipalities also are interested in hiring CMPL for EMS work.

The Mission will make considerable progress toward IR7.1 as a result of the new programs funded by the GOM and other donors. Having the host government and other donors follow USAID pilot activities with large-scale replication programs fulfills a model pursued by USAID Missions around the globe. USAID/Mexico has impressive accomplishments in this regard. That said, prospects for widespread adoptions, aside from those funded by GOM and other donors, are relatively weak for several reasons: All the partners suggest that lack of financing creates the key constraint to widespread adoption. Additionally, lack of RMS replications may result from the expense entailed in obtaining audits and related technical assistance. Companies may not be willing to spend money on audits and other analyses without a guarantee that real savings will be forthcoming. Participants in the RMS pilots did not pay for the audits and other analyses, but did pay for the hardware. Participants in renewable energy pilots did not pay for analyses, design, or most of the hardware (the most expensive part).

not dependent upon achievement of IRs 7.1.3 – 7.1.5. The Assessment Team did not find any record of USAID/Washington questioning the indicator that was selected and reported on nor any discussion that the guidance in the strategy review cable on reporting adoption “outside target areas and organizations” was not being followed.

⁷² State 141508, para F, August 18, 1998. Anecdotal evidence is often used for adoptions because accurate data on adoptions is extremely difficult to collect.

⁷³ The latest R4 states that the indicator is “Reported as the total number clients participating in the pilot projects divided by the number of successful installations” (underline added). USAID/Mexico, “R4”, 4/6/01, p. 26, “Comments”. Also note that numerator and denominator in the last statement are reversed; the percentage should be “successful installations divided by total number clients participating in the pilot projects.”

Discussions with the CMPL Director, along with evidence garnered during visits to Tlalpan and the Pemex and Farina companies, indicate that both public and private sector decision-makers in Mexico have begun to believe that environmental problems are best analyzed as business and efficiency problems. Whether enterprises are attempting to differentiate their products, reduce internal costs, manage risk, or even reinvent or modernize their facilities with new technologies, the basic tasks laid out before them do not change when the word “environmental” is included in their decisions. A systematic RMS does not focus on competitors or regulations, but rather on internal cost reductions. When facilities take action, such as reducing solid-waste generation and cutting water and energy use, they cut costs and improve environmental performance simultaneously.

Promotion activities and broad information dissemination from successful pilots should stimulate replications, assuming the claims in the promotional materials are accurate and credible. In most cases, the project documentation cites very impressive cost recovery periods for RMS interventions. However, in some cases, not all costs are included in these projections. In Tlalpan, for example, the Assessment Team was told that high-efficiency lighting had a payback period of two years. However, upon questioning, the Team learned that this payback period did not include many costs, such as for the energy audit, the technical analysis that went into identifying this intervention, transactions for procurement and delivery, or the labor to install the new bulbs. When payback periods exclude many of these hidden costs, their credibility is called into question. As a result, widespread replications may not be forthcoming.

The limited data available on adoptions makes assessment difficult. This is unfortunate, as achievement of this IR is the most important piece of SO7. Relatively widespread adoption of RE technologies will result from the new and continuing RE programs of FIRCO, SEP, SENER-INI, and SEMARNAT. This points to good progress in achieving this IR.

Data on RMS adoptions are even more limited. The \$46-million FIDE electrical efficiency program, an impressive follow-on to a USAID-initiated program, uses funds approved at about the same time as the Mission Strategy. The prospects for widespread adoption of RMS technologies in Pemex appear very good. The same cannot be said for private sector-funded adoptions of RMS and renewable energy. Little information exists to demonstrate private sector funding. Finally, with respect to the municipal programs, it is encouraging that some municipalities are seeking CMPL assistance with EMS activities.

Lessons Learned. Stimulating broad adoption of piloted technologies is never as easy as it first seems, and measuring such adoptions and replications accurately is even more difficult. Although the pilots may clearly demonstrate the economic and technological advantages of new processes, prospective users, as well as potential financiers, remain reluctant and may still

perceive these new processes as risky. Widespread adoption requires strong promotion and demonstration activities.

3.2.4 Assessment of Progress at the Strategic Objective (SO) Level: SO7: Carbon Dioxide Emissions and Pollution Reduced

The indicator of achievement for the Strategic Objective is:

- Tons of CO₂ emissions prevented through adoption of selected energy efficiency measures and adoption of renewable energy technologies

Assessment. The Global Climate Change (GCC) Initiative started in 1998 without new funding from Congress. Missions were encouraged to identify ongoing programs that had positive GCC impact and count them toward the CGG Initiative. In response to this situation, USAID/Mexico articulated its energy SO in terms of carbon dioxide emissions reduced, and USAID/Washington approved the SO. This proved to be a poor decision for at least three reasons. First, emission reduction carries the connotation of obligatory reductions, which the GOM feels would restrict industrial and economic development, an important GOM priority. Second, it is a poor choice for an SO that includes MREP, which focuses primarily on small-scale PV systems that are extremely uneconomical in terms of CO₂ reductions per dollar expended. (This does not imply that the Mission should have stopped supporting MREP; rather, it suggests that the Mission's selection of reduced CO₂ emissions as the SO was a poor choice.) Third, the Mission may have set itself up for failure by suggesting that its \$2- to \$3-million-a-year energy program could have an impact on Mexico's CO₂ emissions, the twelfth largest in the world.⁷⁴ Given the Mission's SO7 program, a better choice would have been to continue its previous energy objective, namely, "adoption of renewable energy and energy efficiency technologies."

The indicator used to measure progress has a serious limitation. The indicator was defined as CO₂ emissions averted over the lifetime of the subproject.⁷⁵ An indicator of CO₂ emissions averted in a given year would have enabled the SO results to be compared to other activities and to the annual emissions of the country or to sub-sectors thereof.

The most recent R4 table (reproduced below) indicates that the Mission achieved 237 percent of its target in 1998. This suggests that the target was set too low and that higher targets should be

⁷⁴ If the Mission did not intend to have an impact on Mexico's overall CO₂ emissions, then it should not have selected reduced CO₂ emissions as its energy Strategic Objective.

⁷⁵ For example, if the subproject (improving industrial fuel combustion) had a 20-year life, then the annual CO₂ savings would be multiplied by 20 and reported for one year only.

set for subsequent years. Surprisingly, the target for 1999 (which was 58 percent lower than the 1998 target) was not changed. Not surprisingly, the Mission achieved 416 percent of the low 1999 target. The data suggest that these SO7 targets are not useful in assessing SO7 progress. It is encouraging to note that the Mission raised the original targets for 2000–2003 by an average of 53 percent. However, none of these targets are as high as the 1998 target.

Exhibit 3-7: Reduction of CO₂ Emissions

Year	Planned	Actual
1998	158.96	376.55
1999	68.10	283.63
2000	100	108
2001	125	NA
2002	125	NA
2003	150	NA

R4, April 6, 2001, page 25. Unit of measure: thousands of metric tons

As discussed above, the R4 figures are “project lifetime” not annual CO₂ emissions and cannot be easily compared to Mexico’s total CO₂ emissions. To determine how many tons of CO₂ emissions are being *averted in a given year* by SO7 activities, the lifetime numbers must be converted to annual numbers,⁷⁶ which are presented in exhibit 3-8 below. The exhibit indicates that, in 2000 (the most recent data available), SO7 activities averted 58,069 tons of CO₂ emissions. This figure represents **only about 0.015 percent of Mexico’s annual CO₂ emissions** (about 378 million tons), or **about 0.5 percent of the annual increase in CO₂ emissions** (3% or 11 million tons).⁷⁷ One RMSI activity, CONAE’s industrial steam and combustion efficiency, accounted for 88.9 percent of the SO7 total for 1998–2000. Other RMSI activities accounted for 12.4 percent, while renewable energy accounted for only 1.3 percent.

Exhibit 3-8: Annualized SO7 Targets and Actual Accomplishments

Year	Planned	Actual
1998	7,948	48,305

⁷⁶ To do this, lifetime numbers for each subproject must be divided by the project life of the individual subprojects, and then accumulated over the years since the beginning of the subproject.

⁷⁷ Annual CO₂ emissions are about 378M tons (105M tons carbon) and are increasing at about 3 percent per year. Marland, G., T. A. Boden, and R. J. Andres. 2001. “Global, Regional, and National CO₂ Emissions” in *Trends: A Compendium of Data on Global Change*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A.

1999	11,353	58,845
2000	16,353	58,069

Units: thousands of metric tons. Source: PA SO7 tracking system.

The SO Statement is not appropriate for the SO7 activities it encompasses. While targets have been met and, in many cases, greatly exceeded, real progress toward achievement of the SO has been overshadowed by a poor choice of SO.

Lessons Learned. To avert CO₂ emissions, some interventions are far more cost-effective than others. For SO7, industrial steam and combustion improvements accounted for the vast majority of the CO₂ emissions averted, while renewable energy contributed only a very minute amount.

A USAID Mission with limited resources needs to think carefully before selecting a high-level SO such as reducing CO₂ emissions. The USAID contribution to achieving such an SO will appear very small, no matter how well the Mission implements its program.

3.2.5 Conclusions and Recommendations

The overall Assessment Team recommendation for SO6, “**work smarter, not harder,**” applies equally to SO7. The Mission, PA Consulting, Sandia National Laboratories, and the participating Mexican entities appear committed, cooperative, and hard working. However, like their SO6 colleagues, their work does not appear to be sharply focused on specified objectives nor guided by the 1998 Mission Strategy.

Considerable work has gone into the SO7 Performance Monitoring Plan, its indicators, and data collection systems. Unfortunately, the **indicators are not well conceived and do not appear to measure the desired results of the Strategy.** Responsibility for this situation rests with both the Mission and LAC Bureau in Washington. Furthermore, other SO7 documentation does not give a readily understandable picture of the status and progress of the wide range of Mission and USAID/Washington-funded activities under the SO7 umbrella.

At times, over enthusiasm and exaggerated claims of success by the Mission stretch credibility and put a strain on relationships with PA and Mexican entities. For example, the Mission claimed that the Tlalpan EMS was a “success story,” but an Assessment Team visit to Tlalpan and discussions with PA and GDF staff did not substantiate this view. An even clearer example is the Mission’s “Mid-Strategy Review,” which states that:

Several funding mechanisms for replication projects ... have been established by partners...as a result of the USAID-funded pilot activities ... 3) an estimated \$100 million from PEMEX for EE projects identified by USAID's train-the-trainers program on energy audits...⁷⁸ (underline added)

In pursuing this issue with Pemex and Mission staff, the Assessment Team learned that PA was providing training to PEMEX financial staff so that they could prepare a \$100 million proposal for submission to the Ministry of Finance. Calling this an established \$100-million funding mechanism does more than just mislead—it is flat-out wrong.

As was noted for SO6, **a priority action is the formation of an active and effective Expanded Team** (including representatives from key partners, participating Mexican entities, and relevant Mission and El Salvador-based support staff) and **Virtual Team** (including key USAID/Washington actors). While managing these teams requires time and effort, they offer an effective means of obtaining and maintaining a clear, shared vision of objectives and accomplishments to date. Teams can resolve strategic issues associated with the Results Framework, its indicators, and data collection systems. Furthermore, participation on such teams keeps all members informed, encourages accurate reporting, stimulates sharing of lessons learned and cross-fertilization, and engenders confidence and trust among participants. These teams can also establish a foundation and forum for developing and assessing new strategic options for the next planning period, FY2004–2008.

General Recommendation: Consolidating Progress

The Assessment Team believes that the Mission and its SO7 partners should **spend the remainder of the current strategy period consolidating progress across the board and compiling the lessons learned**. The focus should continue to be on widespread adoptions and replications of RMS and RE technologies. Responsibility for SO7 activity leadership should be moved more and more to the participating Mexican entities, which could involve increased institutional-strengthening efforts. As with SO6, the Mission should steadfastly refuse new program commitments (either imposed or self-generated) and ask USAID/Washington to help with this consolidation effort.

Issues and Opportunities for the Remainder of the Current Strategy Period

This Assessment has identified a number of issues that need attention. As discussed above, an important early priority is the formation of active, effective Expanded and Virtual Teams. An

⁷⁸ USAID/Mexico Summary of Portfolio Review for the Mid-Strategy Review, December 17–20", p. 13.

important early Team activity should be to clarify and resolve issues surrounding the logic of the Results Framework and the indicators used to monitor progress.

Improved reporting is a priority for SO7, as it is for SO6. Now that R4s have given way to Annual Reports, the Mission should develop a reporting strategy that fulfills its management needs and meets Washington's informational needs. A few well-written documents should provide clear descriptions of USAID-supported activities in Mexico, budget levels, goals and objectives, and accomplishments to date. These documents should be written for each SO and for the USAID/Mexico program as a whole. Given existing staff workloads, the Mission might consider hiring a professional writer to develop these documents. Once the documents are in place, Mission staff could update them on an annual or semiannual basis.

IR 7.1.1: Viability of RMS technologies demonstrated at the pilot level

1. Continue the phase-down of resources devoted to pilot demonstrations. Phase-out of most energy efficiency pilots, except those in Pemex. Be selective in allocating resources to pollution prevention and EMS pilots.
2. Discard current indicators and develop a better approach for tracking and reporting on pilot demonstrations. The new approach might focus on numbers and percentages of pilots of different types of technologies that are still operating successfully one year (or two or three years) after installation.
3. Continue monitoring pilot demonstrations, especially those with potential to provide valuable lessons or potential for stimulating widespread replication.
4. Improve reporting, financial analyses of benefits and costs, and promotional materials based on pilot demonstration activities.
5. Improve coordination with other pilot activities such as the three new municipal EMS pilots initiated by the Global Environment Center and USEPA.
6. Investigate why about half (96 of 191) of the participating companies have not implemented at least 50 percent of the audit recommendations and why so many recommendations remain unimplemented. Is lack of financing the only reason? Are some of the audit recommendations impractical? Do the audit recommendations include all (financial and other) costs? Are the benefits overstated? Are the risks acceptable?

IR 7.1. 2: Viability of Renewable Energy technologies demonstrated at the pilot level

1. Continue phase-out of technical assistance and other resources devoted to specific pilot demonstrations. With 403 successful MREP pilot demonstrations and new FIRCO, SEP, and INI programs going ahead, MREP pilot demonstrations are no longer needed.
2. Discard the current indicator and develop a better approach for tracking and reporting on pilot demonstrations. The new approach might focus on numbers and percentages of pilots of different types of technologies that are still operating successfully one year (or two or three years) after installation.
3. Improve reporting and dissemination of financial and economic analyses of pilot demonstrations and conditions where renewable energy technologies compete favorably with conventional technologies.
4. Continue monitoring pilot demonstrations, especially those which potential to provide valuable lessons.
5. Maintain contact with Mexican renewable energy programs and continue promoting synergies among them.

IR 7.1.3: Selected Policies in place that promote the use of RMS and Renewable Energy technologies

1. As discussed in the recommendations for SO6, use the Expanded Team to develop a common policy agenda and to define the appropriate role and opportunities for USAID assistance to Mexican policy reform efforts.
2. Compile a list of policies in place, policies being considered by Congress and other GOM institutions, current policy work underway, and needed policy analyses.
3. Discard the current policy indicator and identify a workable (perhaps qualitative or anecdotal) approach for tracking policy progress.
4. Think seriously and realistically about the role of policy in the new USAID environment strategy for FY2004–FY2008.

IR7.1.4: Improved Mexican institutional capacity for RMS and renewable energy technologies

1. Continue to transfer leadership of SO7 activities to Mexican entities. This may require some focused institutional-strengthening efforts.
2. Take steps to ensure the sustainability of SO7 programs that depend heavily upon USAID. This is especially important for ATPAE and Tlalpan, and perhaps CMPL, though CMPL has rapidly gained strength.
3. Identify and articulate the institutional requirements needed to successfully implement various aspects of municipal EMS programs. Use this as a tool for identifying appropriate EMS activities for municipalities with different levels of institutional capacity.

IR 7.1.5: Financing available for adoption of RMS and RE technologies from the private sector, the GOM, and other donors

1. Continue support and monitor progress of the renewable energy financing program through the Chihuahua state bank (FIDEAPECH).
2. Given that financing is the major constraint to widespread private sector adoption, investigate this and search for innovative solutions. Consider engaging expertise from the financial community, as well as the World Business Council for Sustainable Development office in Mexico City, to assist in this effort.
3. Identify approaches for convincing financial decision-makers (including private sector bankers) of the benefits of investments in RMS and renewable energy technologies. This will not be an easy task, but unless/until it happens, these programs will have limited replication and impact.
4. Continue to assist Mexican entities with efforts to obtain GOM and other donor assistance. Efforts with Pemex appear to have considerable potential.

IR 7.1: Adoption of RMS and RE technologies and practices in targeted industries and municipalities

1. Discard the current indicator, which does not measure adoptions.
2. Identify a cost-effective way to track adoptions. Collect and collate anecdotal evidence of adoptions from whatever sources are available. Consider some type of informal survey to collect information. The survey could be distributed to ATPAE members, individuals attending RMS and ER workshops and training courses, or via the Internet. Brainstorm

options with the Expanded Team. While difficult, tracking adoptions is very important. Without solid information on adoptions, it is impossible to determine overall progress on SO7.

3. Focus efforts on promoting adoptions. A forum such as the World Business Council for Sustainable Development could facilitate such efforts. Develop convincing promotional materials from pilot demonstrations and disseminate these widely.
4. Review the MREP Web site (www.re.sandia.gov) and identify possible additions or changes that would help promote adoptions.
5. Establish a user-friendly RMS Web site that focuses on adoptions.

4. A Crosscutting Theme: Global Climate Change

4.1 The Difference Between GCC and SO6/SO7

USAID/Mexico's Global Climate Change (GCC) program is not a Strategic Objective (SO), so it lacks the Intermediate Results or Performance Indicators through which USAID measures SOs. The mission GCC program was initiated in 1999 in response to USAID's Global Climate Change Initiative (1998–2002), which never had a budget level similar to those of established SOs. The previous US administration aimed to show the impact of work conducted under sustainable energy and biodiversity conservation (and, perhaps, other strategic objectives) upon GCC, rather than to create a separate work program. The advisability of this approach for the current US administration will be discussed in the Strategic Options section of this review.

4.2 Partnerships

A small but important component of the GCC program is the capacity-building opportunities it has offered to Mexican stakeholders. Over the past two years, 18 people have been trained in monitoring and verification techniques, macroeconomic modeling of climate change, and market mechanisms for environmental protection. All three USAID/Washington training sessions have been found extremely useful.

In terms of projects, the GCC program currently has one completed project and six active projects. Exhibit 4-1 identifies the institutions with which the GCC program works in Mexico, and exhibit 4-2 identifies GCC program funding. Institutions that receive direct or indirect USAID funding are designated as contractors/implementers. Institutions that may have requested particular projects (i.e., ATPAE on energy baselines and SEMARNAT on the deforestation rates analysis) or that are working closely with USAID in project implementation are designated as principal partners.

By plan, most of the project contractors and partners overlap with either the SO6 or the SO7 programs and have been described under the respective assessments. This GCC assessment presents the views of partners only as they refer to the GCC program, not to the SO6 or SO7 programs.

Exhibit 4-1: GCC Program Partners

	Project	Contractor/ Implementer	Principal Partners
Completed Project	Carbon Potential of Wildfire Restoration	Winrock with ECOSUR, Inst Ecol UNAM	SEMARNAP, PRONARE
Active Projects	Energy Sector Baselines	PA Consulting with SAIC, Tellus, CySTE	ATPAE, CONAE
	Avoided Deforestation Baselines	IRG with Winrock, CCMSS, Instituto de Ecología (UNAM), EcoSecurities, ECOSUR, GEOMOD	INE, SEMARNAT
	Deforestation Rates	ARD with Grupo Darum	SEMARNAT
	Renewable Energy	Winrock with EIC, AWEA, FMDR	CONAE, INE, SENER, Government of Oaxaca
	Tlalpan	Grant with Instituto de Ingeniería (UNAM)	Delegación Tlalpan, INE
	TCAPP	NREL, CONAE	INE, GDF

ARD	Associates in Rural Development, Inc.
ATPAE	Asociacion de Tecnicos y Profesionistas en Aplicacion Energetica
AWEA	American Wind Energy Association
CCMSS	Consejo Civil Mexicano de Silvicultura Sostenible
CONAE	Comision Nacional para el Ahorro de Energia
CySTE	Consultoría y Servicios en Tecnologías Eficientes
ECOSUR	El Colegio de la Frontera Sur
EIC	Econergy International Corporation
FMDR	Fondo Mexicano para el Desarrollo Rural
GEOMOD	Geographic Modelling Services
GDF	Gobierno Distrito Federal
INE	Instituto Nacional de Ecologia
NREL	National Renewable Energy Laboratory
PRONARE	Programa Nacional de Restauración
SAIC	Science Applications International Corporation
SEMARNAP	Secretaria de Medio Ambiente, Recursos Naturales y Pesca
SEMARNAT	Secretaria de Medio Ambiente y Recursos Naturales
SENER	Secretaria de Energia
Tellus	Tellus Institute
UNAM	Universidad Autonoma de México

Exhibit 4-2: GCC Program Funding

Fiscal Year	Project (Completion Date)	Amount	Source	Mechanism
FY96 – 99	Mexico Climate Change Action Plan -- Tlalpan Project (December 2001)	\$850,000	SO # 6	Grant with Instituto de Ingeniería – UNAM
FY00	Carbon Potential at Wildfire Restoration Sites (December 2000)	\$50,000	GCC plus-up*	EPIQ IQC
	Energy Sector Baselines (March 2002)	\$150,000	GCC plus-up*	Energy IQC
	Avoided Deforestation Baselines (March 2002, if EPIQ is not extended)	\$79,271	USAID/Washington (GCC Incentive Fund)	EPIQ IQC
FY01	Energy Sector Baselines (March 2002)	\$100,000 (incremental)	SO # 7	Energy IQC
	Avoided Deforestation Baselines (March 2002, if EPIQ is not extended)	\$49,711 (incremental)	SO # 6	EPIQ IQC
	Deforestation Rates (August 2002)	\$300,000	SO # 6	BIOFOR IQC
	Renewable Energy (September 2002)	\$150,000	SO # 6 (includes assessing potential benefits of improved watershed management)	Winrock LWA
FY02	Avoided Deforestation Baselines	\$100,000	SO # 6	Winrock LWA

*GCC Plus Up is the only funding that has been specifically allocated to GCC work.

4.2.1 Contractors

PA Consulting. As the prime contractor for the energy sector baselines project, PA Consulting has assembled a team that includes Tellus Institute and SAIC, as well as CySTE as the local subcontractor. PA has encouraged local participation in the project and is now pressing ATPAE to move toward self-financing, an effort that ATPAE is starting. Although an accounting glitch delayed slowed down the PA’s salary payment to ATPAE, the issue has been resolved.

ARD. ARD is unique to the GCC program as the only contractor not involved in an SO7 or SO6 project. ARD is clearly delighted with USAID’s management of the deforestation rate project and pleased with the GCC advisor’s personal involvement and commitment. The advisor effectively insulates the contractor from USAID’s bureaucratic burden, allowing the contractor

to concentrate on project implementation. The project's shortcoming is the lack of planned follow up, which would ensure that methodologies agreed upon as a result of the project get "officialized" by national institutions.

National Renewable Energy Laboratory (NREL). As the contractor for the Technology Cooperation Agreement Pilot Program (TCAPP), NREL pays the salary of one person assigned to CONAE to coordinate TCAPP issues. Under TCAPP, the GCC program is implementing work on solar water heaters, and SO7 manages the ESCO work. While NREL would like to continue activities, TCAPP offers a clear example of the type of activities in the past where USAID/Washington would identify a project and fund it without full buy-in from USAID/Mexico. It also illustrates the lack of differentiation between SO7 and GCC. The work centers on dissemination of technologies (solar water heaters, energy efficiency), but the project carries a GCC label and has thus caused confusion. After a complete review of TCAPP, USAID/Washington has determined to stop funding TCAPP work in Mexico (and elsewhere), although USAID/Washington still puts a priority on technology cooperation activities.

IRG/Winrock. As the IRG subcontractor for efforts regarding the carbon sequestration potential at wildfire restoration sites, Winrock took the lead for the carbon baselines work. The wildfire study was well managed by IRG and enthusiastically received by Mexican partners. However, there is still no clarity as to where restoration activities might best take place. The current avoided deforestation baseline project successfully manages a wide array of technical subcontractors—indicating both excellent technical knowledge and the challenge facing much of GCC work, which demands pulling skills from a wide gamut of organizations. Some concerns exist regarding the baseline project: IRG management of the project did not encourage direct communication with the Mission; funding restrictions did not allow the inclusion of some desired Mexican partners in the study; and concern existed over insufficient coordination with existing methodologies and archival data. New data, including adequately documented methodologies, needs to be archived so that it is accessible for future verification.

4.2.2 Mexican Partners

SEMARNAT. The working relationship between USAID and the previous Mexican administration was very good, both in terms of specific technical support when requested, as well as open communications and information exchange between USAID climate staff and Mexican SEMARNAT officials. The 1998 forest fires demonstrated that alliance when, for the first time ever, Mexico agreed to direct USAID assistance to a GOM entity. The USG rented a helicopter, purchased fire-fighting equipment, and performed an overall fire prevention study that included the carbon potential of forest restoration. The new administration is still in the process of

restructuring SEMARNAT. Although the overall responsibility for climate issues has been given to Dr. Francisco Szekely, Subsecretary of Planning and Policy, his views on climate policy do not yet have broad support in either the public or the private sectors. The lack of a consensus position is further compounded by the fact that SEMARNAT is in the process of clearly defining who will be taking the lead on which parts of GCC. This makes it difficult to coordinate with the GOM on macro-GCC issues.

Instituto Nacional de Ecología, SEMARNAT. INE played a central role in GCC issues in the past. However, restructuring has divested INE of its implementation roles, and, as a result, INE will now only coordinate research in certain areas. It appears that INE will continue in a technical role to SEMARNAT, once GOM has defined institutional responsibilities in the climate arena. From that perspective, USAID may well continue to coordinate with INE in methodological or research-oriented activities.

ATPAE. USAID leadership on the energy sector baselines has made an important contribution to solving methodological controversies while strengthening ATPAE's operations and positioning it as a communication channel among dissenting institutions. The GCC Advisor has been highly effective in obtaining the resources necessary to perform the study. This seems to be one of the GCC program's most successful projects, due to the technical understanding reached through the comparison of methodologies and to the non-partisan and highly participatory process.

CONAE. This Mexican partner in energy sector baselines and large-scale renewable energy projects also implements TCAPP. There are admitted, longstanding turf battles among the various institutions working in the energy sector in Mexico. The GCC Advisor's involvement in the solar water heater project has been instrumental in creating a positive working environment between CONAE and the Government of Mexico City, as well as in promoting constructive communication between ATPAE and CONAE. The energy sector baseline project is opening a space for CONAE to play a legitimizing role in the adoption of baseline methodologies, a new area for CONAE, as well as an opportunity for GCC.

4.2.3 Mexican Implementers

Consultoría y Servicios en Tecnologías Eficientes. CySTE, the Mexican subcontractor for the energy sector baselines project, has an excellent working relationship with USAID. CySTE's involvement in USAID projects has allowed CySTE to enhance its ability to project itself into the marketplace. However, consulting in the energy, environment, and clean technologies is still young in Mexico and thus fraught with risks.

Grupo Darum. As the Mexican subcontractor to ARD for the deforestation rate project, Grupo Darum has proved a good choice as a local counterpart, given the consensus-building goal of the project. The various Mexican institutions operating in the forestry sector have had a longstanding debate on how to establish deforestation rates, with each institution pushing its own preferred methodology. Along with its excellent technical skills, Grupo Darum had not taken sides in the debate and is perceived as neutral with respect to the various positions being presented.

Instituto de Ingeniería, UNAM. This recipient of the Tlalpan grant took part in a project that focused on developing cost estimates for various GHG mitigation options, assessing the potential for carbon sequestration projects in the metropolitan area, demonstrating energy efficiency and renewable energy technologies, and developing a detailed GHG inventory for the municipal district. The mixed results of the Tlalpan project that fall under SO6 and SO7 have been addressed in the foregoing sections of this assessment. The GHG inventory was very well done and has, in fact, been included in Mexico's Second Communication to the UNFCCC. From the GCC perspective, the grant helped consolidate a well-trained technical team, which has moved to the City of Mexico's Environment Ministry and is doing impressive work there. Despite the project's other shortcomings, it has established a positive working relationship with the government of Mexico City, a basis upon which there is opportunity to build.

4.2.4 Other US Agencies Not Funded by USAID

US Environmental Protection Agency (EPA) has been active in GCC in Mexico since 1991. Over the years, the EPA program has focused on four major areas: information and capacity building, policy analysis, pilot projects, and stakeholder engagements. Under information and capacity building, EPA helped Mexico produce its GHG inventory in 1996, 1998, and 2000 and prepare the first and second national communications to the UNFCCC Secretariat. Under policy analysis, EPA carries out economic analysis as well as marginal abatement cost curves in the land use sector. Some funds may be devoted to procure GIS equipment to support forest and land use inventory efforts. EPA is also starting an effort to assess the vulnerability of northern Mexico water resources to GCC and adaptation options.

EPA's full-time attaché at the US Embassy in Mexico is doing important GCC work, notwithstanding a marked lack of effort to coordinate activities between USAID and EPA. The arrival of the GCC Advisor has improved the relationship between the two agencies, as evidenced by their complementary work on the forestry baseline project. However, the agencies continue to act at a distance from each other, foregoing the opportunity to maximize collaboration.

The **Department of Energy (DOE)** does not have a full-time person in residence in Mexico. DOE works through contractors, such as the Center for Clean Air Policy (CCAP). Last year CCAP, with DOE funding, worked with INE and CONCAMIN (Confederación de Camaras Industriales) to develop standardized baselines; yet, the necessary information was never forthcoming. Now CCAP has started a new project, co-funded by DOE and the Tinker Foundation, to encourage the use of renewables in Mexico. With CONAE and SEMARNAT, CCAP will organize a workshop on green energy marketing in Spring 2002. Relations between USAID and DOE are cordial, but no deliberate effort is made to maximize each other's efforts in Mexico, with the exception of some renewable energy work.

4.3 SWOC Analysis

The absence of Intermediate Results or Performance Indicators in the GCC program makes it impossible to measure progress in the traditional USAID manner. Thus, after consulting most of the US-based and Mexican collaborators, the GCC program was submitted to a SWOC analysis, being assessed for its strengths, weaknesses, opportunities, and constraints.

Program Strengths:

- Responsiveness to Mexican partners' specific requests—moving away from Washington-imposed projects toward projects that arise from specific needs of Mexican partners
- Highly participatory processes—involve all relevant stakeholders
- Honest-broker approach—facilitates open discussions and promotes consensus building, recognizing that effective collaboration of involved stakeholders poses a greater challenge than technical problems
- Transparency—was highly evident during competition for two contracts involving Mexican stakeholders in drafting the TOR and in the evaluation panel
- Expanded possibilities—makes possible projects that introduce new technologies and/or have high risk
- Supportive attitude—toward private sector entry into new market niches
- Strategically advancing—both Mexico's participation in UNFCCC and US interests in GCC.

Program Weaknesses:

- Conceived assuming US would be part of Kyoto Protocol—Much of the work had the double intent of increasing Mexico’s ability to assess its own emissions and of strengthening Mexico as a potential key trading partner. The program needs to be repositioned given the US withdrawal from the Protocol.
- No assigned budget—GCC Advisor is required to negotiate funding from several sources, making use of too many contracting vehicles, each with its own procedures (Exhibit 4.2). The seven projects have used four different sources of funding (SO6, SO7, GCC Plus-up, and USAID/Washington and five different funding mechanisms (Energy IQC, EPIQ IQC, BIOFOR IQC, Winrock LWA, and one grant). Furthermore, the GCC Advisor must wait for the other advisors to make funding decisions before he can move ahead, and this usually means having to obligate funds at an accelerated pace at the end of the fiscal year.
- Exclusive concentration on mitigation—with no attention to vulnerability and adaptation issues.

Program Constraints:

- The Mexican GCC program cannot operate in a sectoral vacuum. Climate change mitigation occurs through the actual implementation of either energy/industry or forestry sector projects. GCC must necessarily build on active and successful SO6 and SO7 programs.
- The Mexican USAID GCC program must reposition itself to promote the non-Protocol interests of the USG, which are based on the broader UNFCCC agreements. However, the sensitivity of the Mexican government about its future participation in the Convention challenges GCC to identify areas of potential collaboration.
- Given the political nature of the climate change debate and the current positions of both governments, GCC must continue and, in fact, strengthen its strategic approach; yet, strategic activities are not easily “measurable.”

Program Opportunities:

- Continue to be an active channel of strategic information exchange between the US and Mexico.

- Consolidate the work on methodologies by attaining national and international official recognition of the results of the ongoing projects.
- Lay the analytical and instrumental basis for a broad Mexican participation in the UNFCCC, complementing what Mexico will pursue in order to participate in market-based mechanisms, such as the Clean Development Mechanism.
- Become a model USAID GCC program, from which other missions can learn as they adapt to their own reality.
- Open a window of opportunity for the USG to develop GCC alternatives to the Kyoto Protocol, without getting ahead of USG policy.

Conclusions and Recommendations

Two main leitmotifs run through the GCC program:

- The tension between USAID/Washington initiatives and Mission-promoted activities; and
- The demarcation between sector-specific activities, which are technical, social and/or economic in nature, and broader cross cutting activities, germane to GCC itself.

Both issues merit discussion here.

Prior to the arrival of the GCC Advisor in the Mexico Mission, all GCC activities were initiated and funded by USAID/Washington, often without full buy-in from the Mission. The arrival of the Climate Change Advisor has reversed this trend, as the current GCC program is built upon direct requests from Mexican institutions. The responsiveness to Mexican needs clearly forms a positive aspect of the USAID GCC program, and Mexican colleagues expressed their appreciation of this. However, given the fact that the GCC program does not have its own budget (with little possibility of changing this in the near future) and that certain opportunities do arise within the USAID/Washington context, it would be advisable for the GCC program to function more proactively in a bridging capacity, strategically channeling USAID/Washington resources toward on-the-ground perceived needs. The program would be strengthened by closer coordination between Washington and the Mission.

It is helpful to understand the intimate relationship between the sector-specific activities of SO6 and SO7 and GCC's overarching and cross-cutting activities. Clearly, climate change mitigation

effects can only be achieved through the successful implementation of a certain subset of the sector-specific projects. In that sense, GCC is undeniably linked to SO6 and SO7. Ultimately these programs seek to lower the barriers to dissemination of cleaner technologies in energy or to best practices in land use. Resolving these programs' challenges, which are fundamentally technical and economic, leads both to a more sustainable energy matrix and improved land use and to positive climate effects. However, those climate effects are ancillary benefits, not the *raison d'être* of the projects. To attempt to measure SO6 or SO7 activity performance in terms of attained climate benefits (as is attempted in SO7) is a clear case of the tail wagging the dog. At the same time, GCC is a crosscutting challenge and goes well above and beyond SO6 and SO7 activities. In fact, the fundamental nature of the GCC debate is not sector specific. GCC focuses on determining *whether* the climate benefits of projects—whatever the sector—are to be measured, *how* they should be measured, and *what use* can/should be made of the measurements.

The Mexican USAID GCC program has done an excellent job of distilling from each of the SO6 and SO7 sectors those issues that are fundamentally GCC challenges. The three projects focusing on methodologies offer a clear example and could be considered the program's core activities. The results of these three projects are an invaluable contribution to the international efforts of standardizing measurements.

However, the loop needs to be closed with respect to the sectoral aspects of the GCC program. Just as it is important to extract and work with the crosscutting challenges of GCC, it is equally important to periodically measure actual global benefits achieved through the implementation of specific sectoral projects. The Mexican GCC program would be strengthened by an effort to measure and report on the GHG reductions achieved in both SO6 and SO7 projects. While the success of SO7 projects cannot be measured in terms of emission reductions, reductions become an ancillary benefit. Further, the GCC program's purview is to measure and report these. SO6 projects have not been measured for their GHG benefits. Here again, the GCC program should incorporate quantification of benefits in the land-use sector as an ongoing program activity. SO6, SO7, and GCC should not stand side by side as three parallel programs. They are intimately linked through GCC, and that integration needs to be made more explicit.