



## Global Environment Facility

1818 H Street, NW  
Washington, DC 20433 USA  
Tel: 202.473.0508  
Fax: 202.522.3240/3245  
Internet: [www.gefweb.org](http://www.gefweb.org)

April 30, 2003

Dear Council Member,

The World Bank, as the Implementing Agency for the project, ***Guatemala: Western Altiplano Integrated Natural Resources Management***, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with the World Bank procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by the Council in February 2001 and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by the World Bank satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

In approving this project, the Secretariat notes the comments provided by Council members, particularly on the social processes associated with it, the large number of subprojects, absorptive capacity, including new topics such as environmental services, and the new environment institutional set-up. Such issues should be carefully considered during implementation.

We have today posted the proposed project document on the GEF website at [www.gefweb.org](http://www.gefweb.org). If you do not have access to the Web, you may request the local field office of the World Bank or UNDP to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

*for* Mohamed T. El-Ashry  
Chief Executive Officer and Chairman

cc: Alternate, Implementing Agencies, STAP

# OFFICE MEMORANDUM

DATE: April 23, 2003

TO: Mr. Mohamed El-Ashry, CEO/Chairman, GEF

FROM: Lars Vidaeus, GEF Executive Coordinator



EXTENSION: 3-4188

SUBJECT: **GUATEMALA: Integrated Management of Natural Resources  
In the Western Altiplano  
Submission for Final CEO Endorsement**

1. Please find attached the electronic file of the GEF Project Document for the above-mentioned project for your final review and endorsement. This project was approved for Work Program entry at the February 2001 Council meeting, under streamlined CEO endorsement procedures. The scheduled Board date for this project is May 27, 2003. We would appreciate receiving your response, so that we may finalize the Bank Board submission, by May 7, 2003.
2. The GEF Project Document is fully consistent with the objectives, scope, and overall cost of the proposal approved at the February 2001 Council meeting. Because of delays in Guatemala, two years have passed since its work program approval. Preparation continued during this period and the project's design has been improved and fine-tuned but no major changes have been made in project design. Adjustments have been made, primarily concerning institutional arrangements, triggered by changes in Guatemala, such as the creation of a Ministry of the Environment. GEFSEC, STAP, and Council comments have also been addressed. Modifications to the Project Document and how comments have been addressed are detailed below.
3. Comments of the GEFSEC. Written comments were received from the GEFSEC on 22 January 2001. These were discussed at a meeting between the Region and GEFSEC on 25 January 2001 and all comments were addressed at that time or through mutually-agreed changes that were subsequently made to the Project Document submitted to the Council.
4. Comments of the Technical Review from the STAP. The STAP reviewer's comments were received in late 2000 and were already addressed in the version submitted for Council approval (with detailed notes explaining how all comments were taken into account).
5. Comments of the Council. The Project was approved by the Council in February 2001 with a number of comments made by different Council members. These comments proved to be helpful during the final stages of design and have been fully addressed in

project preparation. The following are the specific comments made by various Council members and a description of how they were addressed:

6. Comments of Council member from France. The principal comment was a concern about the sustainability of the conservation investments given that they seemed to exceed considerably the operating budget of CONAP in the Western Altiplano at that time. The project team agrees that the sustainability of conservation investments remains a long-term risk. However, it was incorrect to compare the budget of the MIRNA project to CONAP's operating budget because the bulk of conservation investments planned under the GEF project are intended to be major one-time investments in creation and consolidation of key protected areas and they don't imply the need for a continuing long-term investment at the same scale. The issue of sustainability of the project has also received considerable additional focus (see the project document Section F) but it can be noted that the project's extremely decentralized approach to conservation (working largely with local communities rather than with central government) is considered key in that the project intends to build up local capacity for management of natural resources rather than depending on central government agencies to carry out that function.
7. Comments of Indonesia. The project was endorsed with no comments.
8. Comments of Switzerland. The comments were generally highly supportive but raised several issues which are addressed point by point here:
  - Insufficient information on project outputs and indicators. In the last two years of more detailed preparation work, the project document has been greatly improved in these areas. Annex 1 (Log-frame) has information on project indicators. Table 2 of Annex 2 provides more specific information on the indicators by project component. Additional background studies have been done specifically on the monitoring approach in the project which are available in the project files.
  - Unclear cofinancing for the conservation and environmental services component. The Council member expressed hesitation about accepting the subprojects component (mostly financed by IBRD) as representing significant cofinancing for the conservation part of the project. The design of the subprojects component was probably not sufficiently clear at that time but it should now be more evident that the bulk of the conservation focused GEF funds will be disbursed at a local level through a "subproject" mechanism. In other words, it was not correct to assume the subprojects represented only traditional rural development investments when in fact an important proportion of them will target biodiversity conservation. Cofinancing and counterpart funding arrangements have been revised in the latest version of the document and is now much clearer in that the Bank IBRD loan represents very significant cofinancing of the GEF-financed components. Note that the bulk of the financing for the environmental services component and biodiversity conservation component is now loan/counterpart funds and not GEF funds.

- Unclear conservation strategies and relationship to the Mesoamerican Biological Corridor (MBC). In response to these comments, the project team greatly improved the conservation planning aspects of the project. A major six-month study was carried out by The Nature Conservancy (TNC) to better identify the conservation goals of the project. This study has been touted by the conservation community as one of the best examples of ecoregional planning in Central America. With regard to the comment that the relationship to the MBC was not very clear, note that in the above-cited TNC study, biological corridors were one of the principal determinants of conservation priorities that has determined the investment areas of the project, of both GEF and IBRD funds. This study is available in the project files.
  - Coordination with Helvetas MSP. Two years ago the NGO Helvetas was about to start a GEF-funded medium-sized project in the Altiplano. Unfortunately, because of delays in processing the project through UNDP, that MSP has never been approved. Nevertheless, in the meantime the MIRNA project team has continued to closely collaborate with Helvetas. Earlier this year we received the evaluation of their previous work in the Altiplano (which has now formally ended) and continue to consider their work as a model for MIRNA. In the event that they do eventually receive funding for the MSP, it is expected that the two projects will be very complementary (the Helvetas project being in a geographically circumscribed area and focused on municipal protected areas, thus with an approach different from MIRNA).
  - Institutional arrangements in the context of the emergence of a new Ministry of the Environment. Indeed, in the last two years a Ministry of Environment (MARN) has been newly created in Guatemala. This did result in the need to rethink the institutional arrangements, which have been modified to take this into account. The project's counterpart is the Ministry of Agriculture but the project direction is under a joint committee of Agriculture and MARN with other collaborating institutions in advisory positions.
9. Comments of Sweden and USA. The project was endorsed and there were no comments specific to the MIRNA Project.
10. Comments of Germany. The following points were made:
- Allocation to municipalities could create tensions. The allocations to municipalities are based on detailed studies of municipal needs and capacities, project priorities (in large part based on conservation priorities), and availability of other sources of funding. Nevertheless, we agree that municipal targeting will need to be monitored carefully and if necessary, revised during first years of project.
  - Ambitiousness of achieving social cohesion goals. The project team concurs this is very risky but the project's approach is backed up by a very comprehensive social assessment (see Annex 13). Annex 11 (Indigenous People Development

Plan -- IPDP) also provides information on gender issues. Subsequent to the project's review by the Council, the project team obtained an additional PHRD grant specifically to look at gender and social development issues in the project design, and project design issues to address these have thus been greatly improved. Specific documents are also available in the project files.

- Administrative burden of a large number of subprojects. This is a risk that will need to be carefully monitored. However, it should be noted that it is not the intention to have the subprojects monitored by a Project Coordination Unit but rather that these functions be contracted out, if necessary to several organization to ensure sufficient administrative and technical capacity. Please let me know if you require any additional information to complete your review of the project document. We look forward to receiving your endorsement of the project for Bank Board approval.

Many thanks.

#### Attachments

cc: Messrs./Mmes. King, GEF PROGRAM COORDINATION (GEFSEC); K. Ahmed, D. Graham, E. Bresnyan, J. Smyle, K. Shepardson (LCSES); M. Raine (LCC2C); E. Somensatto (LCCGT); C. Sobrevila, R. Khanna, S. Wedderburn, D. Aryal (ENV); ENVGC ISC; IRIS2

Document of  
The World Bank

Report No: 25660-GU

GEF PROJECT DOCUMENT  
ON A  
PROPOSED LOAN  
IN THE AMOUNT OF US\$32.8 MILLION  
TO THE  
REPUBLIC OF GUATEMALA  
AND  
A GRANT FROM THE GLOBAL ENVIRONMENT FACILITY  
TRUST FUND OF US\$8.0 MILLION  
FOR THE  
WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

April 30, 2003

**Environmentally and Socially Sustainable Development  
Central American Department  
Latin America and the Caribbean Regional Office**

## CURRENCY EQUIVALENTS

(Exchange Rate Effective December 13, 2002)

Currency Unit = Quetzal  
Q\$1.00 = US\$0.13  
US\$1.00 = Q\$ 7.52

## FISCAL YEAR

January 1 -- December 31

## ABBREVIATIONS AND ACRONYMS

AA	- Administrator Agent
CIPREDA	Center for International Cooperation in Agricultural Pre-Inve
CONAP	- National Protected Areas Commission
CONTIERRA	- National Comm. for the Resolution of Rural Land Conflicts
FIS	- Social Investment Fund
FOGUAM	- Guatemalan Fund for the Environment
FONAGRO	- Agricultural Fund
FONAPAZ	- Peace Accords Fund
FSDC	- Solidarity Fund for Community Development
GIA	- Interinstitutional Group For Development of Env. Services
GOG	- Government of Guatemala
ICTA	- Institute of Agricultural Science and Technology
INAB	- National Forestry Institute
LAC	- Latin America and Caribbean Region
MAGA	- Ministry of Agriculture, Livestock, and Food
MARN	- Ministry of Environment and Natural Resources
MBC	- Mesoamerican Biological Corridor
MIS	- Management Information System
NGO	- Nongovernmental Organization
SEGEPLAN	- Secretary of Planning
SIGAP	- Guatemalan Protected Areas System
TNC	- The Nature Conservancy
UTM	- Municipal Technical Unit
WWF	- World Wide Fund For Nature

Vice President:	David de Ferranti
Country Director:	Jane Armitage

Sector Manager:	John Redwood
Task Team Leader/Task Managers:	Jim Smyle

**GUATEMALA**  
**WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

**CONTENTS**

	<b>Page</b>
A. Project Development Objective	
1. Project development objective	
2. Global objective	
3. Key performance indicators	
B. Strategic Context	
1. Sector-related Country Assistance Strategy (CAS) goal supported by the project	
2. Main sector issues and Government strategy	
3. Sector issues to be addressed by the project and strategic choices	
C. Project Description Summary	
1. Project components	
2. Key policy and institutional reforms supported by the project	
3. Benefits and target population	
4. Institutional and implementation arrangements	
D. Project Rationale	
1. Project alternatives considered and reasons for rejection	
2. Major related projects financed by the Bank and/or other development agencies	
3. Lessons learned and reflected in the project design	
4. Indications of borrower and recipient commitment and ownership	
5. Value added of Bank and Global support in this project	
E. Summary Project Analysis	
1. Economic	
2. Financial	
3. Technical	
4. Institutional	
5. Environmental	
6. Social	
7. Safeguard Policies	
F. Sustainability and Risks	
1. Sustainability	

2. Critical risks
3. Possible controversial aspects

#### G. Main Conditions

1. Effectiveness Condition
2. Other

#### H. Readiness for Implementation

#### I. Compliance with Bank Policies

#### Annexes

Annex 1: Project Design Summary

Annex 2: Detailed Project Description

Annex 2a. Preliminary Eligibility Criteria and Subproject Financing

Annex 3: Estimated Project Costs

Annex 4: Cost Benefit Analysis Summary / Cost-Effectiveness Analysis Summary

Annex 5: Financial Summary

Annex 6: Procurement and Disbursement Arrangements

Annex 7: Project Processing Schedule

Annex 8: Documents in the Project File

Annex 9: Statement of Loans and Credits

Annex 10: Country at a Glance

Annex 11: Indigenous Peoples Development and Participation Plan Summary

Annex 12: Environmental Analysis and Environmental Management Plan Summary

Annex 13: Summary Institutional Analysis

Annex 14: Institutional and Implementation Arrangements

Annex 15: Social Assessment Summary

Annex 16: Comments of the STAP Reviewer

Annex 17: Monitoring and Evaluation Plan

Annex 18: Incremental Costs and Global Environmental Benefits

Annex 19: Globally Important Biodiversity of the Western Altiplano

GUATEMALA  
WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

**GEF Project Document**

Latin America and Caribbean Region

LC SER

<b>Date:</b> April 30, 2003 <b>Sector Manager/Director:</b> John Redwood <b>Country Manager/Director:</b> Jane Armitage <b>Project ID:</b> P064883 <b>Lending Instrument:</b> Specific Investment Loan (SIL)	<b>Team Leader:</b> James W. Smyle <b>Sector(s):</b> General agriculture, fishing and forestry sector (100%) <b>Theme(s):</b> Other rural development (P), Land management (P), Biodiversity (P), Indigenous peoples (P), Decentralization (P)
--	--

<b>Global Supplemental ID:</b> P068292 <b>Sector Manager/Director:</b> John Redwood <b>Lending Instrument:</b> Specific Investment Loan (SIL) <b>Focal Area:</b> B - Biodiversity <b>Supplement Fully Blended?</b> Yes	<b>Team Leader:</b> Douglas J. Graham <b>Sector(s):</b> General agriculture, fishing and forestry sector (100%) <b>Theme(s):</b> Biodiversity (P), Environmental policies and institutions (P), Other environment and natural resources management (P), Rural policies and institutions (P), Rural non-farm income generation (P)
--	---

**Project Financing Data**

Loan     Credit     Grant     Guarantee     Other:

**For Loans/Credits/Others:**

**Loan Currency:** United States Dollar

**Amount (US\$m):** 32.80

**Borrower Rationale for Choice of Loan Terms Available on File:**  Yes

**Proposed Terms (IBRD):** Fixed-Spread Loan (FSL)

**Grace period (years):** 5

**Years to maturity:** 17

**Commitment fee:** .85% on undisbursed balances, beginning 60 days after signing, for first four years and 0.75% thereafter

**Front end fee (FEF) on Bank loan:** 1.00%

**Payment for FEF:** Capitalize from Loan Proceeds

**Initial choice of Interest-rate basis:** Maintain as Variable

**Type of repayment schedule:**

Fixed at Commitment, with the following repayment method (choose one): customized

Linked to Disbursement

**Conversion options:**  Currency     Interest Rate     Caps/Collars:

Financing Plan (US\$m):	Source	Local	Foreign	Total
BORROWER/RECIPIENT		8.60	0.00	8.60
IBRD		24.90	7.90	32.80
LOCAL COMMUNITIES		6.20	0.00	6.20
GLOBAL ENVIRONMENT FACILITY		6.60	1.40	8.00
<b>Total:</b>		46.30	9.30	55.60

**Co-financing for GEF Supported Activities:** x

**Borrower/Recipient:** GOVERNMENT OF GUATEMALA

**Responsible agency:** MINISTRY OF AGRICULTURE

Address: 7A Avenida 12-90, Zona 13, Guatemala City, Guatemala

Contact Person: Hon. Edin Barrientos

Tel: 011-502-362 4764

Fax: 332-8302

Email: magadisf@inteln.net.gt

**P064883 Estimated Disbursements ( Bank FY/US\$m):**

<b>FY</b>	2004	2005	2006	2007	2008	2009		
<b>Annual</b>	2.30	5.10	7.70	9.10	6.40	2.20		
<b>Cumulative</b>	2.30	7.40	15.10	24.20	30.60	32.80		

**P068292 (GEF) Estimated Disbursements ( Bank FY/US\$m):**

<b>FY</b>	2004	2005	2006	2007	2008	2009		
<b>Annual</b>	0.60	1.30	1.90	2.20	1.50	0.50		
<b>Cumulative</b>	0.60	1.90	3.80	6.00	7.50	8.00		

**Project implementation period:** 5 years

**Expected effectiveness date:** 08/31/2003 **Expected closing date:** 12/31/2008

OPCS PAD Form: Rev. March, 2000

## **A. Project Development Objective**

### **1. Project development objective: (see Annex 1)**

The Western Altiplano is characterized culturally by its majority indigenous (Mayan) population, and geographically as encompassing the departments of Sololá, El Quiché, Totonicapán, Quetzaltenango, San Marcos, and Huehuetenango. The region has a GDP per capita that is one fifth of the national average and (with the exception of the department of Quetzaltenango) has the highest incidence of social exclusion nationwide. Almost 60% of the economically active population is engaged in smallholder agriculture (*minifundio*) and reliant upon an increasingly degraded and declining natural resources base.

*Project Development Objective:* The project aims to improve the management and conservation of natural resources and biodiversity and the incomes of the people who depend upon these resources, in the Western Altiplano of Guatemala. The project would help to alleviate rural poverty, reduce pressures upon and improve management of the natural resources base by: (a) increasing social capital around natural resources management, through support to communities, organizations and local authorities (traditional and municipal) to jointly define and implement a local development vision which takes natural resources management and sustainability objectives into account; (b) increasing opportunities to sustainably improve productivity and diversify farming and other (off-farm) livelihood systems; (c) extending and strengthening ongoing efforts of indigenous communities to establish permanent conservation areas within broader zones of biodiversity of global importance and to maintain the habitats which sustain this diversity; and (d) establishing and piloting a framework for environmental services markets to sustain local incentives for conservation. The proposed project will form a part of the Government's program of interventions in the implementation of the Peace Accords for the Western Altiplano. As some 95% of the population of the proposed project area are Mayan, the proposed project can also be considered an indigenous (Mayan) peoples development project.

The project will assist municipal governments, communities and local groups to incorporate sustainable natural resources management into local development planning and investment, while building upon the successful Western Altiplano experiences that have been generated by NGO (e.g., HELVETAS, Movi Mundo), bi-lateral (e.g., GTZ) and government (e.g., INAB/BOSCOM) programs. The project will provide rural households, community groups and local authorities (traditional Mayan and local government) with instruments to improve rural incomes, create incentives for increasing environmental sustainability of production practices, and value and protect globally important biodiversity.

### **2. Global objective: (see Annex 1)**

The proposed project would improve management of natural resources and conservation of globally important biodiversity within the framework of the Mesoamerican Biological Corridor.

### **3. Key performance indicators: (see Annex 1)**

- Number of municipalities strengthened, with municipal development plans under active implementation;
- Number of local organizations strengthened to carry out planning, administration, and management of their own productive and natural resources management activities.
- Total area of globally important biodiversity in the Sierra de Cuchumatanes and Volcanic Belt under strengthened/improved biodiversity and natural resource conservation regimes and the total adjacent areas under sustainable productive use regimes;

- Increase in per capita income and social welfare of households participating in subprojects;
- Number of families benefited and jobs created from subproject investments;
- Increased participation by women (30% of direct participants are women);
- Natural resources mapping and information system effectively tracks changes in natural resources conditions; and
- National policy framework for environmental services markets in place with institutional arrangements for payment of environmental services successfully piloted.

## **B. Strategic Context**

### **1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1) Document number: 24235-GU Date of latest CAS discussion: June 25, 2002 (Progress Report)**

The proposed project supports both the Peace Accords and the CAS priorities of:

- *Building social cohesion and strengthening participatory decision-making processes* by supporting local forums and traditional indigenous authorities for participatory planning, decision-making and conflict management; decentralization; and equitable participation of local stakeholders;
- *Reducing poverty* by providing increased opportunities for the poor to engage in economic activity;
- *Modernizing the public sector to make it more effective at essential tasks* by developing and institutionalizing instruments for decentralized and privatized service provision and assisting public agencies to perform their functions in decentralized and participatory implementation environments; and
- *Protecting the environment* by investing in sustainable natural resources use and in non-resource based economic activities; supporting and extending locally managed protected and biodiversity conservation areas; and establishing a monitoring system to track outcomes.

#### **1a. Global Operational strategy/Program objective addressed by the project:**

The proposed project is consistent with the GEF Operational Strategy for long-term protection of globally important ecosystems. This project supports Operational Programs No. 2 (Coastal, Marine and Freshwater Ecosystems), No. 3 (Forests Ecosystems) and No. 4 (Mountain Ecosystems). The emphasis on ecosystemic or ecoregional conservation strategies is an explicit design element of the proposed project. The GEF specifically endorses programs in the Mesoamerican Biological Corridor (MBC), where the project is located. Furthermore, the intent of the National Council for Protected Areas (CONAP) is to design protected area strategies which encompass connectivity and are representative of ecosystems across the Western Altiplano. The emphasis on sustainable use is reflected in the close coupling of GEF and World Bank financing in support of improved productivity and sustainable use of natural resources. The project's emphasis on the inclusion/participation of indigenous people and communities is consistent with the GEF objectives of working with local, and particularly indigenous, communities.

#### **2. Main sector issues and Government strategy:**

##### **Main Sector Issues:**

*Declining Natural Resource Base.* More than one-half of the population of Guatemala lives in rural areas and depends directly on natural resources for food, shelter, income, and spiritual sustenance. Agriculture and forestry account for 60% of land use, with agriculture providing more than 50% of employment, 24% of GDP, and 60% of export value nationwide. However, factor productivity in agriculture is very low,

and productive investments in the sector amount to only 10% of gross national investment, reflecting the high degree of neglect and the unsustainable extractive practices in the sector. While providing important opportunities for sustainable development, the nation's renewable natural resources are subject to increasing pressure: some 60% of the national territory is estimated to be subject to accelerated soil erosion from human activity, with soils being unsustainably exploited under current production systems. Countrywide, approximately 90,000 hectares annually are deforested. Protection of remaining forests within the Guatemalan Protected Areas System (SIGAP) is strongly threatened by extractive practices, the expansion of the agricultural frontier (particularly in the Western Altiplano and the Petén) and weak management of the SIGAP.

*Rural Poverty.* Despite relative macroeconomic stability, moderate growth, low external debt, and a fairly open economy, Guatemala scores relatively low on poverty and social indicators. In 2000, over half of all Guatemalans – 56% or about 6.4 million people – lived in poverty. About 16% lived in extreme poverty. Rural residents account for over 81% of the poor and 93% of the extreme poor. Three quarters of all rural residents fall below the full poverty line (US\$547) and one quarter under the extreme poverty line (US\$242).

Although the indigenous represent about 43% of the national population, they account for 58% of the poor and 72% of the extreme poor. Over three-quarters of the indigenous population live in poverty, as compared with 41% of the non-indigenous. Poverty is also deeper and more severe among the indigenous. The ENCOVI 2000 also reveals that there are important differences in poverty rates between indigenous groups. The largest indigenous groups are the K'iché, the Kaqchiquel, the Mam, and the Q'eqchi. Among these, the Mam and Q'eqchi have the highest poverty rates.

*Loss of Social Cohesion.* The protracted civil war strongly impacted indigenous communities in the Western Altiplano. In the struggle between the army and the insurgency, the social fabric was torn apart, inter-ethnic trust was severely damaged, and community organizations and local power structures were destroyed. The signing of the Peace Accords between 1994 and 1996 ended most of the (overt) conflict and established a framework for development. While more peaceful community relations and organizations are slowly re-emerging, there is still very little trust in institutions.

## **Government Strategy**

*Fostering Social Inclusion, Peace and Alleviating Poverty.* The Peace Accords outline the Government's inclusive development strategy for the Western Altiplano and other affected regions of the country. The Accords state that, in order to construct a lasting peace in Guatemala, the poverty, especially rural poverty, must be tackled. The Accords call for a reduction in social inequities, increased participation of indigenous and other groups in economic growth, sustainable management of natural resources, and regular Government dialogue with civil society on development of policy and legal instruments.

*Natural Resource Management and Rural Development.* A strong and consistent set of natural resource policies exist, with the notable exception of water law and policy. Current public policies foster an atmosphere that permits decision-makers to make rational economic choices that can lead to sustainable economic growth and resource conservation. A market-oriented model with an open trade regime has been put into place over the past decade. Evidence suggests that policy makers now increasingly view companion environmental and natural resource policies as a necessity for a modern Guatemala and less as a constraint to economic growth. The current government has further contributed to this framework through the *National Strategic Environmental Agenda 2000 - 2004* which proposes a framework for the integration of environmental policy into agriculture, industry, commerce, tourism, oil and natural gas, as well as providing direction on biodiversity, climate change, desertification and drought. Created by legislative decree in 2000, the Ministry of Environment and Natural Resources (MARN) is charged with

implementing this policy. The challenge for MARN is to lead a process which creates a public system of environmental management, which in the specific case of natural resources management, brings together the roles of the Ministry of Agriculture (MAGA), the National Protected Areas Commission (CONAP), the National Forestry Institute (INAB) and Municipal governments.

*Decentralization.* A recent World Bank report concluded that a limiting factor of decentralization in Guatemala is the coordination between the central level and their departmental and/or regional units. Little has been done to build the capacity of public or private sector groups to assume their roles and the extension of rural development support services on the part of government institutions has not been sufficient. Central government transfers to municipalities currently are used almost exclusively for financing public infrastructure and to servicing municipal debt. Many municipalities lack the incentives and have only limited capacity to approach local development in an integrated manner and to include management of local natural resources. On the other hand, municipal governments do have the constitutional authority to manage natural resources and the necessary participatory mechanisms are supported through the Decentralization Law; these latter offer a long-term foundation for resource management. They have, however, demonstrated little technical competence to do so.

*Biodiversity and Protected Areas.* The country's policies for biodiversity conservation and protected areas are contained in: (a) the National Biodiversity Strategy (published in early 2000 with assistance from GEF funding through UNDP), (b) the National Policy for the Development of the Guatemalan Protected Areas System (SIGAP), (c) CONAP's Strategic Plan 1999 - 2010; and (d) the *National Strategic Environmental Agenda 2000 - 2004*. The central priority of all these is the *in situ* conservation of biodiversity, mainly through strengthening of the SIGAP.

### **3. Sector issues to be addressed by the project and strategic choices:**

*Thematic and Geographical Focus.* A cross-cutting approach to poverty reduction and watershed management is proposed, focusing on local communities and municipalities and their management and conservation of the remaining forest areas in the Western Altiplano's upper catchments. Given both Government and Bank priorities to reduce poverty under the Peace Accords, a program with a strong productive and local development focus is proposed. Fifty-four (54) municipalities were selected covering some 60% (about 14,000 sq. km) of the land area of the Western Altiplano and containing about 50% of the region's population (1.65 million people). Based on SEGEPLAN's poverty data (SEGEPLAN, 2002) data, developed with World Bank assistance, forty-seven (47) of these have an incidence of poverty above 70%, with all but two of the remaining seven with over 50% local population below the poor line.

*Targeting of Resources.* Currently, only about 7% of financing from the social funds and other formal sources in the Altiplano goes to productive activities, and most of these are off-farm, infrastructure investments. The project would not fund social infrastructure investments (e.g., roads, bridges, potable water, electricity, clinics, schools) as local demand is largely unmet for livelihood improvement, natural resources and environmental management needs. Under the project, increased emphasis will be placed on linking communities to private sector assistance and markets for productive (on- and off-farm) opportunities. Community subproject grants will be targeted to the rural poor who do not currently have access to either subsidized or market-rate credit, and who as individuals are too costly to be served by financial institutions due to high risk and high transaction costs. The grants will be seed money with which communities and local groups are expected to undertake a wide range of productive and natural resources management activities and initiate local savings and credit schemes. Also, by supporting traditional natural resource management systems and practices of the Maya, the project would strengthen social capital in a manner consistent with local cultural norms and long term sustainability through

existing traditional rules and systems that, to date, have been greatly responsible for conserving what natural resources of value remain.

*Conservation of Biodiversity.* The project area of the Western Altiplano harbors biodiversity of global importance. Using the WWF/WB ecoregion classification, it includes two ecoregions (Central American Pine-Oak Forests and Central American Mountain Forests) and which are poorly protected at present in Guatemala. A detailed study undertaken by The Nature Conservancy (TNC) revealed two large biogeographic units in the project area (the Volcanic Belt and the Sierra de Cuchumatanes) which are of the highest global priority due to levels of endemism, high diversity, and lack of protection. In the absence of GEF funding, the Government of Guatemala would not be able to effectively address the conservation needs of the area. As a result, this project includes a request for \$8 million of incremental GEF funding. The main conservation gains in the Altiplano will be achieved through *in situ* conservation of biodiversity under a strengthened SIGAP and by working with local communities and indigenous groups consolidating traditional resource management approaches favorable to biodiversity.

*Environmental Services Markets.* Natural resources in the Altiplano provide critical environmental services including hydrologic stability, soil conservation, habitat for biodiversity, scenic beauty, and reduced vulnerability to natural disasters. Recognition of the value of these services and development of appropriate market-based approaches and instruments that contribute to their maintenance is a key element for ensuring long term environmental sustainability. At present, there are no ready local or national markets for these services; international markets continue to develop, especially for carbon. In this same context, the expected GEF donation is effectively a payment by the international community to Guatemala for the effort to be reflected in the project to conserve biodiversity of international importance. Over the medium to long term, the potential exists to create markets through strengthening the link between the resource managers that provide environmental services and the consumers of those environmental services. Under such arrangements direct payments or other forms of compensation (e.g., access to additional development assistance or opportunities, in-kind assistance from downstream beneficiaries) may be made in exchange for ensuring continued provision of the services. Experience with a variety of operational and policy mechanisms (more mature in the OECD context, incipient in much of the LAC region with exceptions such as Costa Rica) suggests that successful mechanisms are country and situation specific. Therefore, the project would work with a broad range of stakeholders and test and pilot those mechanisms identified as most appropriate at the local level, while simultaneously supporting the development of the required national policy framework and instruments.

## **C. Project Description Summary**

### **1. Project components** (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The total project cost is US\$55.6 million, of which the World Bank will finance US\$32.8 million, Government of Guatemala \$8.6 million, the GEF US\$8.0 million, and project beneficiaries an estimated \$6.2 million. The latter primarily in-kind.

**Component 1 (Sustainable Livelihoods)** is oriented toward improving the welfare of the rural poor through promotion of sustainable use and conservation of natural resources. The component consists of two subcomponents: Subproject Grants and Local Institutional Strengthening.

*Subproject Grants:* will provide grants to rural community associations in the 54 targeted municipalities to finance an estimated 760 small-scale sustainable production, natural resources management or conservation subprojects, identified by these groups as priority investments to improve community

well-being. The grants will include financing of necessary technical assistance and training. A maximum of US\$3,500 of grant financing over three years will be available per participating household. The average size of a grant project is expected to be on the order of US\$37,600, though larger grants would not be excluded where justified. The maximum individual grant would not exceed US\$150,000. Subproject funds will be disbursed directly to community associations with legal status and verified capacity to manage funds.

This subcomponent will also provide those cross-cutting services required to ensure the functioning and impact of the local capacity building and subproject grants subcomponents. These include: (a) land and resource access conflict resolution assistance, consisting of rapid diagnostics in each municipality over communal forests and water sources and support to informal (local) and formal (CONTIERRA) efforts to resolve such conflicts; (b) strategic regional services such as subject matter specialists to provide specific, short term assistance on project needs and, as jointly developed with the *Instancias Locales*, technical assistance to address needs that are broader than single subprojects such as improving marketing and commercialization opportunities for 'green' produce, applied research and market studies, and formation of strategic alliances between local and national farmers' organizations, exporters and international trade promotion groups; (c) training for municipal-level promoters, leaders, and service providers in participatory planning and the project cycle, biodiversity and environmental management, organization development, marketing, non-farm income generation and informal savings and credit schemes; and (d) community-interchange program to allow local leaders and participants in subprojects to visit and exchange learning with other successful communities.

*Local Institutional Strengthening:* will provide grant resources to participating municipalities to finance specialized technical assistance, training and other services as needed. The Project Coordination Unit (PCU) will maintain a roster of pre-qualified service providers and facilitate the contracting of these services. Municipal capacity assessments will be conducted for each municipality to ensure their ability to administer funding. The grants will assist municipalities, their communities and local organizations, and participating GOG agencies in participatory planning, formulation and execution of local projects and programs for the use and management of natural resources. Technical assistance will be provided to: (a) develop consensus on a municipal development agenda which incorporates natural resources management concerns; (b) strengthen municipal-level forums (*Instancias Locales*, see Annex 2) in local development and natural resources planning; (c) strengthen an estimated 850 community associations in participatory planning and proposal development and provide assistance in obtaining legal status; and (d) build the capacity of MAGA and MARN Departmental Coordinators and INAB Regional/Subregional staff to carry out their roles in the implementation of the program; this latter would include purchase of vehicles, computer equipment and training in participatory planning, conflict management and environmental management.

**Component 2 (Biodiversity Conservation)** will finance activities to strengthen local and national capacity to conserve natural habitats containing globally important biodiversity and other areas providing locally and nationally important environmental services. The component comprises activities for:

*Protection of Sites of Global Importance:* consisting of a set of inter-related activities to strengthen local and national institutional capacity for conservation and co-management of natural resources in target areas, including (i) regional coordination of planning for development and conservation of targeted protected areas; (ii) strengthening of CONAP; (iii) expansion of the SIGAP; (iv) strengthening traditional tenure and management systems for natural resources; (v) strengthening local capacity for management of natural resources; and (vi) special studies of biodiversity and conservation. Local biodiversity protection and supporting natural resources management subprojects will be financed through subproject grants made under Component 1.

*Inter-cultural Environmental Education:* to increase public awareness of environmental issues, values,

and management practices and to share this knowledge across the cultures of the Western Altiplano. Specific activities to be financed would include: (i) development of an environmental communications strategy; (ii) development of multilingual materials for radio, video and other communications media (including printed materials) in the nine principal languages of the region on environmental issues relevant to the seven environmental protection target areas; (iii) community environmental communications programs to stimulate awareness of environmental issues and draw on traditional knowledge; (iv) formal environmental education in collaboration with the Ministry of Education to develop a multilingual training program on environmental education and pilot this in primary schools.

*Biodiversity Conservation Monitoring and Evaluation:* to strengthen CONAP's biodiversity monitoring and evaluation capacity by establishing a comprehensive biodiversity information system for the Western Altiplano. CONAP will implement these activities and (i) upgrade its GIS with new equipment, computer programs, and data; (ii) update ecosystem maps for INAB; (iii) establish a central database on protected areas within the SIGAP and other areas of natural habitat under other types of protective and use regimes (this system will have linkages to Western Altiplano regional offices and form part of a national system).

### Component 3 (Environmental Services Markets)

The Component will (i) develop the framework for policies and markets for environmental services, through the elaboration of a National Strategy for Environmental Services; (ii) provide local and foreign technical assistance for research and special studies and training for local and national officials working in areas related to development of environmental services policy, legal framework and pilot programs; and (iii) design and implement pilot projects aimed at developing capacity, methodologies and instruments for market-based incentives for provision of environmental services. The development of environmental services markets is seen as an essential element of a longer term strategy to achieve the sustainable use and conservation natural resources. A national-level group will be formed by MARN to coordinate efforts and share experiences on environmental services in Guatemala; the *Grupo Interinstitucional de Acompañamiento* (GIA), which was previously organized for this purpose but which has limited GOG participation, will be invited to participate.

### Component 4 (Administration, Supervision, Monitoring and Evaluation)

The Project Management Component will finance (i) project administration and planning; (ii) program monitoring and evaluation; (iii) incremental PCU salaries and operating costs, vehicles and equipment; and (iv) such studies as required for purposes of project implementation and follow up, including the development of investment proposals.

### Project Financing by Subcomponents and Financiers

Component	Indicative Costs (US\$M)	% of Total	Bank Financing (US\$M)	% of Bank Financing	GEF Financing (US\$M)	% of GEF Financing	GOG Financing (US\$M)	% of GOG Financing	Bene-ficiary Financing (US\$M)	% of Bene-ficiary Financing
<b>1. Sustainable Livelihoods</b>	<b>40.6</b>	<b>73.0</b>	<b>24.4</b>	<b>74.4</b>	<b>4.3</b>	<b>53.8</b>	<b>6.0</b>	<b>68.6</b>	<b>6.2</b>	<b>100</b>
1a. Subproject Grants	32.5	58.5	19.7	60.1	2.9	36.3	3.8	44.2	6.2	100
1b. Local Institutional Strengthening	8.1	14.6	4.7	14.3	1.4	17.5	2.1	24.4	0.0	0.0
<b>2. Biodiversity Conservation</b>	<b>6.8</b>	<b>12.2</b>	<b>2.3</b>	<b>7.0</b>	<b>3.0</b>	<b>37.5</b>	<b>1.3</b>	<b>15.1</b>	0.0	0.0
2a. Protection of Sites of Global Importance	3.8	6.8	0.8	2.4	2.0	25.0	0.9	10.5	0.0	0.0
2b. Inter-cultural environmental	2.2	4.0	1.1	3.4	0.7	8.8	0.3	3.5	0.0	0.0

education										
2c. Biodiversity Conserv. Monitoring and Evaluat.	0.8	1.4	0.4	1.2	0.3	3.8	0.1	1.2	0.0	0.0
<b>3. Environmental Service Markets</b>	<b>2.3</b>	<b>4.1</b>	<b>1.7</b>	<b>5.2</b>	<b>0.2</b>	<b>2.5</b>	<b>0.4</b>	<b>4.7</b>	<b>0.0</b>	<b>0.0</b>
<b>4. Administrat., Superv., Monitoring and Evaluation</b>	<b>5.6</b>	<b>10.1</b>	<b>4.1</b>	<b>12.5</b>	<b>0.5</b>	<b>6.3</b>	<b>1.0</b>	<b>11.6</b>	<b>0.0</b>	<b>0.0</b>
<b>TOTAL PROJECT COSTS</b>	<b>55.3</b>	<b>99.5</b>	<b>32.5</b>	<b>99.1</b>	<b>8.0</b>	<b>100.0</b>	<b>8.6</b>	<b>100.0</b>	<b>6.2</b>	<b>100.0</b>
Front-end Fee	0.3	0.5	0.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL FINANCING REQUIRED</b>	<b>55.6</b>	<b>100.0</b>	<b>32.8</b>	<b>100.0</b>	<b>8.0</b>	<b>100.0</b>	<b>8.6</b>	<b>100.0</b>	<b>6.2</b>	<b>100.0</b>

### Project Financing Summary

Component	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Bank financing	GEF financing (US\$M)	% of GEF financing
1. Sustainable Livelihoods	40.60	73.0	24.40	74.4	4.30	53.8
2. Biodiversity Conservation	6.80	12.2	2.30	7.0	3.00	37.5
3. Environmental Services	2.30	4.1	1.70	5.2	0.20	2.5
4. Program Management	5.60	10.1	4.10	12.5	0.50	6.3
<b>Total Project Costs</b>	<b>55.30</b>	<b>99.5</b>	<b>32.50</b>	<b>99.1</b>	<b>8.00</b>	<b>100.0</b>
<b>Front-end fee</b>	<b>0.30</b>	<b>0.5</b>	<b>0.30</b>	<b>0.9</b>	<b>0.00</b>	<b>0.0</b>
<b>Total Financing Required</b>	<b>55.60</b>	<b>100.0</b>	<b>32.80</b>	<b>100.0</b>	<b>8.00</b>	<b>100.0</b>

### 2. Key policy and institutional reforms supported by the project:

Policy analysis studies undertaken for project preparation reveal an enabling and positive policy environment. Five principal policies – agrarian, environmental, biodiversity, protected areas policies and forest policy and law – underpin the GOG’s approach to natural resource management. Institutionally, the project implementing agencies promote the principles of decentralization and deconcentration of responsibilities and implementing resources. Principal weaknesses are lack of practical mechanisms and institutional arrangements for implementation of these policies through cooperation and coordination with private organizations (NGOs), local governments and communities. Therefore, the project will support key government, private and community sector actors to design and execute activities based on local priorities and approaches to conservation, sustainable use of natural resources for livelihood purposes and contribute to the GOGs capacity to manage natural resources in the Western Altiplano.

The project will assist the central-level institutions responsible for natural resource policy formulation and oversight (MAGA, MARN, INAB, and CONAP) to develop and institutionalize instruments for delivery of decentralized and privatized public services for natural resource management. Training and “in-service” project experience will provide regional and departmental-level public sector staff with practical skills to work with communities and local governments in a decentralized and participatory manner.

Government extension and rural development efforts have been mainly directed towards men. MAGA

recognizes the importance of women in development, especially in the Altiplano, where men often leave the region for seasonal work elsewhere. Furthermore, in the aftermath of decades of violence, the percentage of women-headed households is the highest in the country. At MAGA's request, the project supports MAGA's development of a gender policy and the design of implementing mechanisms.

Municipal governments and the local, traditional Mayan authorities (e.g., *alcaldias auxiliares*) will be assisted to facilitate the participatory development of municipal-level "sustainable development agendas" for natural resource use and conservation by means of participatory priority-setting mechanisms. An analysis of the municipalities proposed for inclusion in the project revealed a relative abundance of grassroots organizations, committees, formal rural associations and cooperatives, and of private sector entities, particularly NGOs, specializing and working in natural resource conservation and sustainable production technologies. These organizations provide a sound foundation on which to build effective civil society and private sector cooperation for planning and establishing local natural resources management and conservation priorities, as well as establish privatized service delivery mechanisms and implement technically sound investments in response to the local demands.

### **3. Benefits and target population:**

The great majority (90-95%) of primary project beneficiaries will be members of one of 13 Mayan ethno-linguistic groups (K'iché, Mam, Jalcalteco, Ixil, Tzutzujil, K'akchik'el, Chuj, Kanj'obal, Sacapulteco, Uspanteco, Aguacateco, Sicapanense, and Tectiteco) in the Western Altiplano project area. At the same time, ladino community members will be provided with equal access to project resources. The project, as a whole, can be considered an Indigenous Peoples Development Plan (see Annex 11).

This project has four types of primary beneficiaries: i) communities in 54 municipalities in the Western Altiplano where some 760 local subprojects would be financed; ii) municipal corporations that would receive capacity building assistance for planning and development; iii) communities that manage and benefit from communal forests and other conservation regimes; and iv) communities near and within the priority areas for biodiversity conservation which would receive assistance in natural resource management, conservation, and be eligible to access subproject grants. It is expected that the subprojects would directly benefit some 52,000 people directly and over 250,000 persons indirectly (16% of the population of the project area). The 54 municipalities were targeted based on: GOG's Poverty Reduction Strategy; watershed management priorities; presence and degree of vulnerability of biodiversity of global importance; and absence of other large public or donor-financed projects with similar objectives. A minimum of 60% of grant financing would go to households with less than 1 hectare of land, and a minimum of 30% to women.

Direct beneficiaries of productive and natural resources management investment grants will primarily be poor rural farming households whose livelihood strategies are based on: (i) maize and bean production, generally on very small (< 0.7 ha) hillside plots; and (ii) sales of seasonal labor in coastal plantations, small-scale vegetable and coffee production, and semi- and unskilled labor in larger towns and cities (or illegal emigration to the United States). Female-headed households in particular will be targeted. Other direct beneficiaries include farming households with up to 10 hectares of land and micro-enterprises with potential to contribute to the diversification of the local economy and job creation.

Direct local benefits are expected to include: (i) increased household incomes among small farming and landless households and local micro-entrepreneurs; (ii) increased ability of local people and organizations to manage their own development programs and relations with central government and other institutions; and (iii) improved management of natural resources leading to more sustainable and

stable production systems and a more amenable environment for human habitation. At the regional and national levels, beneficiaries include private sector and NGO staff who will be provided with additional training and employment as service providers for project activities. Central, regional and departmental government agencies (MAGA, MARN, CONAP, and INAB) will benefit from strengthened capacity to manage decentralized development, technical training, improved relationships with indigenous communities, and replicable models for rural development and biodiversity conservation. Downstream consumers of environmental services, particularly water, will also benefit by: (i) stabilizing forest cover and watersheds; (ii) demarcating and establishing community co-management plans for protected areas; (iii) improving local and national capacity to sustainably manage community forests and protected areas; (iv) improving government agency capacity to support decentralized development; (v) developing incentives to maintain protected areas and natural habitats in the long-term; and (vi) improving the quality, quantity, and sustainability of environmental services produced in the region.

Global benefits will include the protection and conservation of globally important biodiversity.

#### **4. Institutional and implementation arrangements:**

**Implementation Period:** Five years

##### **4.1 Executing Entities**

**Project Oversight:** The Borrower for the Loan is the republic of Guatemala. MAGA is the official project counterpart for the World Bank loan and GEF grant, and responsible for overall project execution. This responsibility will be shared, through cooperative agreements with MARN, CONAP and INAB. MARN will provide leadership in environmental management, CONAP on protected areas, and INAB on forestry. MAGA, MARN, CONAP and INAB's regional, departmental and municipal offices will contribute to coordinating and liaison and some limited promotion, supervision, technical and information services. MAGA, CONAP and INAB all have experience in overseeing complex, externally financed projects. CONAP will receive considerable logistical support to shore up its overall capacity to carry out its mandated functions. See Section E.4 for more detail.

##### **Key project Stakeholders:**

- *Community Associations:* are organized groups of rural citizens, legally constituted or in the process of becoming legally constituted, with common interests who identify, prepare, implement, operate and maintain community subprojects;
- *Instancias Locales:* are municipal-level entities, operating within the framework of the municipal *Consejos de Desarrollo Local*, which represent indigenous villages and communities, producer groups, and NGOs with a local presence, the municipal government, and local civil society bodies linked to "wise use of resources" (*parcialidades*, traditional religious fraternities, councils of elders, *principales*, shamans, and auxiliary mayors). Their role is to facilitate the participatory development of municipal-level "sustainable development agendas", set local financing priorities, promotion, and monitoring of program activities. The municipal technical units would function as their technical secretariat.

##### **Subproject Cycle:**

- Community Associations determine their local priorities, develop subproject proposals and submit them to the *Instancias Locales*;
- *Instancias Locales*, in regularly scheduled public meetings, review, prioritize and approve subprojects within a pre-determined resource envelope;
- PCU (through a registry of qualified private service providers) technically evaluates approved

subprojects and the capacity of the subproject proponent to administer the subproject grant and confirms compliance with operational guidelines before releasing funds;

- Subproject grant agreements are signed between the PCU and the community association, detailing the terms for financing, execution, ownership, operation and maintenance of the subproject;
- Funds for subproject implementation are transferred directly to the bank account of the community association;
- Community associations are responsible for contracting goods, works and technical assistance for subproject execution, bear responsibility for operation and maintenance of all investments, and may request technical assistance to develop administrative capacity, and operation and maintenance programs and techniques.

**Project Management:** A Project Coordination Unit (PCU) will be established within MAGA, under Ministerial Decree, and it will be located in the project areas in the Western Altiplano to provide for overall coordination of component activities and carry out project management functions. Specifically, the PCU will be responsible for implementation, the day-to day coordinating among implementing agencies, coordination and promotion, preparation of annual work programs, budgets, procurement and financial management, general supervision, and monitoring and evaluation. The PCU will be supported by the participating agencies, mainly through their regional offices and local staff; no administrative management is involved.

The PCU, managed under the responsibility of a project coordinator, will include: an administrative unit in charge of the financial and procurement management; a unit for component coordination with qualified technical staff coordinators of each project component; and a unit for Monitoring and Evaluation. Also, the PCU will be assisted by a part-time legal counsel (on retainer). The terms of reference for the head of the PCU and the financial officer and the procurement specialist unit will be reviewed prior to negotiations. Selection of the Coordinator and principal staff will be a condition of effectiveness. An internal auditor, acceptable to the World Bank, will be selected prior to effectiveness. They will report to the project's Executive Steering Committee.

An Executive Steering Committee will be established, supported by a larger Technical Advisory Group (TAG), to be responsible for project oversight, policy setting and inter-institutional coordination within the production, natural resources and biodiversity conservation activities. The former would comprise the Ministers of MAGA and MARN and would be responsible for overall project oversight and coordination, policy setting and the approval of the Annual Work Program. The latter would comprise the heads of the agencies (MAGA, MARN, CONAP, INAB) or their representatives with the PCU coordinator acting as the Technical Secretary. The responsibilities of the TAG would include, among others, intra and inter-institutional coordination necessary for Project implementation and the preparation of each of the four institutions' annual work programs within the project.

**Project Operational Procedures:** Project management and responsibilities will be governed by the Project Implementation Plan (PIP) and associated Operation Manual. The functions and responsibilities of the PCU, project management and all other aspects of project implementation and procedures will be governed by the Project Operational Manual, which will include detailed guidelines for the preparation of the POA, staffing and assignments with specific responsibilities, supervision, community subproject guidelines and procedures, environmental standards applicable to all production and conservation investments and pilot projects, flow of funds, special accounts, budgeting, auditing and reporting, as well as procurement and disbursement procedures. The Operational Manual would be updated according to project circumstances and project strategies, implementation experience and project objectives, and activities set forth in the PAD and Project Legal Agreement. A Project Operational Manual, acceptable to

the World Bank, will be a condition of Project Effectiveness.

**Monitoring and Evaluation Arrangements:** The PCU will be responsible for ensuring that project results and impacts are monitored. Detailed project performance monitoring indicators and a draft Monitoring and Evaluation proposal have been prepared and was reviewed at appraisal. A finalized version will be made available prior to Project Negotiations. A Mid-Term Review would be carried out to provide an in-depth evaluation of project performance and outcomes based on the agreed targets presented in Annex 1.

**Procurement Arrangements:** The bulk of the project funds will finance demand-driven subprojects that will be implemented by pre-existing, rural community associations in fifty-four municipalities. The PCU will coordinate project activities. It will also maintain a roster of pre-qualified service providers (for provision of goods, works and services), which will be upgraded frequently, to facilitate the contracting of these services by the communities. There will be no prior review of contracts carried out by these community associations since that will include mostly contracts of small value. One or more qualified firms or individuals will be hired to provide procurement support and supervision and the PCU will carry out post reviews of sampled subprojects every six months during at least the first two years of implementation; including an independent review every year. The frequency of post reviews and independent reviews may be reduced based on progress of project performance. Capacity assessment of municipalities, to assess their ability to administer funds, were carried out for the first 18 municipalities. Capacity assessment of the remaining municipalities will be conducted subsequently. It has been agreed that periodic procurement audits would be carried out for subprojects. TORs were reviewed at appraisal and will be finalized at negotiations.

**Accounting, Financial Reporting and Auditing Arrangements:** See section E.4 and Annex 6.

## **D. Project Rationale**

### **1. Project alternatives considered and reasons for rejection:**

*Watershed management vs. cross-cutting thematic approach:* The original GOG proposal to the World Bank restricted the project focus to investments in specific watersheds. This was rejected as it hindered the Bank's and GEF's comparative advantages to work on cross-cutting issues in a number of equally critical and threatened watersheds. No single project or program can effectively address all the myriad multi-sectoral development and investment needs for an entire watershed. The targeted region requires provision of services which span several watersheds and whose 'boundaries' are better defined by administrative divisions (i.e., municipalities). Of necessity, the project's GEF-financed biodiversity and environmental services activities extend beyond single watersheds.

*Centralized, top down (cluster) vs. local initiative approach:* An initial, centrally-determined, emphasis on agro-industrial and forestry investments within the concept of sectoral "clusters" was advocated by the previous Government. It was strongly debated in the light of the Bank's commitment to rural poverty alleviation and collectively changed to support for small-scale farmers and entrepreneurs based on local initiative and demand-driven investments. Nevertheless, this does not imply that the commercial and market-oriented farm sector is excluded from project benefits. On the contrary, during preparation, studies on a number of promising commercial crops for promotion within regional, national and export markets (shade and organic coffee; fruits; vegetables; potatoes; cardamom) were carried out in reference to the National Competitiveness Program (and the Bank's Competitiveness Project under preparation), and links to the Agricultural Export Promotions Agency - AGEXPRONT, with regional offices in Quetzaltenango, will be fostered as, and wherever, opportunities arise.

*Conservation vs. sustainable use approach:* The option of focusing exclusively on environmental issues and activities and natural resource conservation was never a serious option for this project, given the pressing social needs in the region. The project, to be acceptable locally and nationally, needs to include a strong productivity-enhancement element. Experience with similar projects in Guatemala and other countries clearly demonstrates that without the provision of financial and economic incentives to the rural poor, efforts to stimulate changes in behavior from unsustainable resource use and production practices will not prosper. Poor farmers cannot risk changing their traditional production practices unless the alternative practices result in tangible benefits (e.g., improved productivity, income, food security). In the project area, the need to provide alternative (off-farm) income-generating opportunities to reduce pressure on natural resources has also been recognized. Bank-financed conservation projects increasingly adopt such combined production-conservation incentives mechanisms.

*Centralized vs decentralized technical services approach:* In Guatemala, the provision of centralized government services as a means of implementing project activities was rejected as part of the movement and policies to modernize the state. However, downsizing of public institutions, decentralization and privatization of services has reduced the public sector to the point where selective investments in strengthening (reformed) public institutional capacity to facilitate local services is required. The project supports locally-identified and client-managed assistance to producer groups and municipal governments on a cost-sharing basis as an alternative to centrally-driven extension services, although some regional government offices (MAGA, MARN, INAB, CONAP) will be eligible for targeted institutional strengthening, while avoiding rebuilding bureaucratic inefficiencies.

*Choice of Financing Mechanisms:* During preparation a number of alternative rural financing mechanisms (RIMs) were considered, analyzed and weighed. They ranged from selecting among the existing social funds (FIS and FONAPAZ), environmental funds (FOGUAM and FONACOM), and sectoral funds (FONAGRO). All of them were rejected for a number of discrete reasons, namely: a) the social funds have no capacity for promoting and supervising productive, environmental or natural resources management investments, neither technically nor administratively, nor do they have institutional links or incentives to embark on programmatic approaches to environmental or natural resources management; b) the other funds, while offering interesting options, have in the past suffered from undue political interference and, in any case, may be restructured under GOG's initiative (supported by the Bank) to rationalize the country's funding mechanisms. The choice was to utilize the PCU to implement the grant financing program (technically and administratively) and to have a separate disbursement/financial administration service - the Administrator Agent (AA).

## **2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).**

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
<b>Bank-financed</b>			
Inefficiencies in infrastructure	Private Participation in Infrastructure TA (Ln. 4149)	S	S
Corruption, contract enforcement	Judicial Reform (Ln. 4401)	S	S
Production inefficiencies	Competitiveness (Ln. 7044)		
Limited capacity of local government and community organizations	Reconst/ Local Development San Marcos (Ln. 4379)	S	S
Legal and institutional framework for land registry and cadastral services	Land Adm. (Ln. 4415)	S	S

Inequitable access to land resources and poor title registration systems	Land Fund (Ln. 4432)	S	S
<b>Other development agencies</b>			
IDB	Watershed management; Forestry; Disaster Management Project		
USAID	Environmental disaster mitigation		
European Union	Rural Development		
HELVETAS-Probosques	Community protected reserve management		
IFAD/Netherlands	Rural Development		
Plan de Acción Forestal - Maya	Local-level forestry–		
INAB/BOSCOM	Communal forest management		
Defensores de la Naturaleza	Protected area management		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

The GEF has supported several biodiversity conservation projects in Guatemala. The World Bank, as implementing agency, had one recent GEF project in Guatemala -- a mid-sized project for the conservation of Laguna del Tigre National Park in the Petén. Through the UNDP as implementing agency, the GEF supports the RECOSMO project in nine protected areas in northeastern Guatemala, the preparation of the National Biodiversity Strategy (through an Enabling Activity Grant), the Small Grants Program, and a proposed mid-sized project in the Altiplano with the NGO Helvetas.

### 3. Lessons learned and reflected in the project design:

*Natural Resource Management.* Bank experience demonstrates that fundamental to the success of this type of program are: (i) long-term security of land tenure/resource access; (ii) assurance of local buy-in (ownership) of project activities coupled with strengthening of local management capacity in regards to the forests, watersheds, land/soils, habitats and biodiversity upon which people rely or live around; (iii) mechanisms for managing resource-demand and access conflict; (iv) decentralizing decisions and support systems responsive to local demands and needs; and (v) providing all actors with enhanced access to useful and up-to-date information, training and technical assistance which expands the range of alternatives open to them. Project design builds on these principals and on the positive pilot community forests/natural resources planning and management experiences of local governments and NGOs (HELVETAS, Movi Mundo), other international donors (GTZ), and GOG agencies (INAB/BOSCOM) in the Western Altiplano and supports mainstreaming these successful models within the GOG's line agencies (MAGA, MARN, CONAP, and INAB).

*Agricultural Services Provision.* Extension programs worldwide are being decentralized and privatized and general management reforms are being introduced. Successful rural extension programs include: (i) decentralized services, allowing for local innovation and adaptation in response to locally identified needs; (ii) involve farmers in planning, implementing, and financing services to assure program relevance and effectiveness; (iii) emphasize involvement of producer organizations in providing services for small farmers; (iv) strengthen producer organizations; (v) provide alternatives from which farmers can select and adapt the practices and systems most relevant to their conditions; (vi) link farmers to private sector activities in input sales and product marketing; (vi) facilitate horizontal and vertical interactions at various levels between farmers, researchers, policy-makers and the private sector; (vii) make coordinated

use of all available communications channels (especially radio) for efficiently and effectively transmitting information; and (viii) include new technology and adaptive research as a complementary activity to extension. The above-mentioned lessons and prescriptions, are equally relevant to adaptive research, small enterprise support and agro-enterprise development activities and are included in the project design.

*An information campaign*, important to ensure transparency and effective dissemination of the program objectives, is incorporated in the project design.

*Productive subprojects* must be subject to rigorous selection criteria, provide services for a significant proportion of community members, and assure operational sustainability and maintenance by establishing the collection of user fees where appropriate.

*Participation* by beneficiaries in the selection, financing, execution, and operation and maintenance of subprojects has ensured that investments meet genuine community needs, led to cost savings, and has increased community ‘ownership’ leading to improved sustainability of investments. This methodology will be continued under the new project.

*Poverty targeting mechanisms* that are simple, verifiable and based on objective criteria, can foster transparency, minimize political interference in project resource allocation and ensure that project resources reach the poorest areas. The project allows communities to self-select through the demand-driven mechanism for subprojects.

*Biodiversity Conservation.* Through an extensive portfolio of GEF and World Bank biodiversity conservation projects in Central America, the Bank has solid experience in the execution of conservation projects in the region. Emerging lessons include: (i) the value of biological corridors to protect reserves that are otherwise “isolated islands”; (ii) the importance of incorporating local communities and local governments into biodiversity conservation planning; (iii) the need for financial mechanisms to fully cover operational costs; and (iv) the importance of institutional strengthening of the agencies responsible for conservation.

#### **4. Indications of borrower and recipient commitment and ownership:**

In March 2000, SEGEPLAN (GOG’s General Planning Secretariat) endorsed the project concept as important for both sustainable development and achieving goals set by the Peace Accords. In March 2002, the Ministry of Finance formally advised the Bank of its support for the proposed project and in December 2002, the Minister of Finance confirmed that the project was a priority and that the Ministry of Finance would include adequate financing for the project in the national budget. MAGA, MARN, CONAP and INAB have demonstrated strong support for the project and have designated staff to assist in its preparation, as has the Minister of MARN. The GEF Focal Point is the Minister of MARN, who provided an endorsement letter for the project proposal in January 2001.

#### **5. Value added of Bank and Global support in this project:**

The Bank supports a rich portfolio of natural resources management, forestry and communal forest management, watershed rehabilitation projects in several Central and South American countries, from which important lessons have been captured for application in this project. The current Guatemala portfolio includes related projects in land administration, local initiatives and municipal development, and social infrastructure (through its support to the Guatemala FIS and FONAPAZ).

*Biodiversity conservation:* The Bank has wide experience and will help target project activities to zones of critical ecological importance and mobilize appropriate technical assistance. The Bank has been active in regional dialogue on environment, sustainable use and conservation of natural resources within the framework of the MBC in Central America and Mexico and has many similar projects in the region.

*Demand-driven, competitive funds:* The Bank supports agricultural extension, social infrastructure, rural investment programs and natural resources management throughout the region. Sharing of experience from these other funds will greatly shorten the learning curve for establishing the financing mechanism for local institutional programs.

*Agricultural technology programs:* The Bank has acquired broad experience with financing agribusiness development and producer and community organizations and can bring this experience to bear in project design and implementation.

*Land Administration and Land Funds:* The Bank supports key projects in Guatemala's rural sector: the Land Fund (Ln. 4432-GT), Land Administration (Ln. 4415-GT) , and the Reconstruction and Local Development Project (Ln4379-GT). Coordination among projects has been discussed and opportunities for synergies have been identified.

*Natural resources conservation and watershed protection:* The Bank finances many such projects worldwide. Experience from these initiatives has been incorporated into the project design, including good practices in private service provision and private sector development.

*Integration of production and conservation* activities to encourage reduced environmental degradation; demand-driven priority setting and planning; support to "farmer" (client-driven) agendas for improved income security versus "agency" (supply and centrally driven) agendas seeking conservation outcomes through non-sustainable external pressures.

*Environmental Services Markets:* Although new for Guatemala, the World Bank is involved significantly in major environmental services projects or components in Mexico, Costa Rica, El Salvador, Belize, and Colombia. A network of experts and a web page with resources has been created. This area is one in which the Bank has developed cutting edge experience and thus is able to provide significant value-added.

## **E. Summary Project Analysis** (Detailed assessments are in the project file, see Annex 8)

### **1. Economic (see Annex 4):**

Cost benefit      NPV=US\$ million; ERR = % (see Annex 4)

Cost effectiveness

Incremental Cost

Other (specify)

The project is expected to generate a variety of benefits, including building or strengthening social capital, increasing productivity in natural resource use (agricultural, forestry, off-farm, and tourism

enterprises) in a sustainable manner, promoting biodiversity conservation, strengthening institutions at the central and local level in the agriculture and natural resource sectors, and contributing to the implementation of the Peace Accords. The economic and financial analyses focus on the productive and natural resource management subprojects, which amount to about 50% of total project costs, or about 62% of World Bank financing. For other project activities, criteria are discussed to compare project costs to suitable benchmarks in terms of effectiveness or cost norms.

As required under GEF financing guidelines, an Incremental Costs Analysis is also included (Annex 4b). Over the five years of implementation, the capacity of the Government of Guatemala to implement the types of new approaches envisaged in this project are estimated at US\$157 million. Available baseline financing (e.g., government funds, World Bank and counterpart funding under the project) is on the order of US\$149 million vis-à-vis the requested US\$8 million of incremental GEF funds.

### **A. Economic and financial analysis of the community subprojects**

A number of farm models were developed during preparation to evaluate the economic and financial viability of the different types of subprojects that may be submitted for financing. Models were assessed both from the beneficiary point of view (i.e., the financial assessment including grant financing at the applicable percentage), and from the perspective of the project as a whole (i.e., in economic terms). The majority of the models have benefit-cost ratios from 1.0 and 2.0. The Net Present Value (NPV) evaluated at a 12% discount rate ranges between US\$4,000 and US\$0.6 million, or, in per family terms, between US\$560 and US\$21,500.

Estimating aggregate measures of value for this sub-component faces the problem that the number of subprojects demanded for each sub-type is unknown ex-ante. To provide indicative benchmarks, a range of NPV was calculated, in the two extreme cases in which the entire demand concentrates in subprojects with the lowest, and highest individual NPV, respectively. Taking into account the subprojects' cost and therefore the maximum number of subprojects that could be financed for the given sub-component budget, the aggregate NPV would be in the range of US\$0.8 million – US\$55 million; NPV per family would correspondingly be in the range of US\$120 to US\$20,000, and the number of family benefited would be in the range of 1,300 to 29,000. The number of subprojects that could be financed varies between 25 and 1,190. For purposes of the analysis, it was assumed that some 500 projects worth an average of US\$37,600 each would be financed.

### **B. Other project activities**

Conservation subprojects: It was assumed that the demand for conservation activities will correspond to about 20% of project resources, that the average conservation subproject would cost US\$25,000 and would affect an average area of 100 ha. Based on these assumptions, some 250 conservation subprojects were projected to be financed over an area of 25,000 ha at a cost of US\$6.28 million. The resulting cost of US\$250 per ha would appear reasonable as compared to: PINFOR reforestation payments of US\$1,600/ha over five years for reforestation; US\$573/ha for PINFOR/PRODEFOR reforestation over five years; or US\$20 to US\$46 per ha/yr for INAB incentives for sound forest management.

Institutional strengthening (subcomponent 1b): Some US\$5 million would be made available for this subcomponent. Given the demand-driven nature of the fund allocation, it is not possible to know in advance how many and which municipalities would be benefited. However, assuming distribution of resources proportional to the population of the 54 municipalities included in the project area, this sub-component would provide an average of US\$0.60 per capita per annum. In 1998, the weighted average of fiscal transfers to municipalities in the three departments of El Quiché, Huehuetenango and San Marcos was US\$20 per capita, so that the project would add a modest 3% on average to the municipalities' current transfer absorption levels.

Biodiversity Conservation (Component 2): Total component cost is US\$6.34 million; the expected outcome is improved protected area management and biodiversity conservation over an area of 2,100 square km. This gives a cost per square kilometer of some US\$3,019, or US\$604 per annum for the five-year project period. This cost compares reasonably well with typical costs of biodiversity conservation in the LAC region: according to a recent review (Castro and Locker, 2000), biodiversity funding per square km in the region (in the period 1990-1997) can be clustered in five broad ranges, comprised between a "low" US\$0 - US\$30 (or US\$0 - US\$4.2 per annum) range prevailing in countries such as Chile and Argentina, and a "high" range of US\$210 to US\$12,000 (or US\$30 to US\$1,700 per annum) observed in Colombia, Ecuador, and much of Central America. The proposed project would then be in the middle of the "high" range, which is not surprising for a country like Guatemala, where a combination of high biodiversity priorities, and of complex social, economic and institutional threats to biodiversity are likely to make costs of protection high in regional comparative terms.

## **2. Financial (see Annex 4 and Annex 5):**

NPV=US\$ million; FRR = % (see Annex 4)

From the beneficiary point of view, the subprojects, at the indicated co-financing ratios, have benefit-cost ratios exceeding 2 (a reasonable threshold to induce adoption). The range of NPV (in financial terms) was estimated with the approach described above (i.e. assuming concentration of demand at the lower and higher end of the distribution of individual sub-project returns), and is between US\$5 million and US\$90 million. IRR were not calculated because of the lack in most subprojects of initial negative values of net benefits.

### **Fiscal Impact:**

The counterpart contribution for GOG to the project is US\$8.6 million over 5 years. The majority of these resources (US\$6.0 million) are for the Sustainable Livelihoods Component and a smaller portion is for administrative costs (US\$1.0 million), biodiversity (US\$1.3 million) and environmental services (US\$0.4 million). Incremental recurrent costs for expanded activities of MAGA, CONAP, MARN, and INAB would total about US\$0.35 million per annum. This represents 6% percent of these institutions' current operating budget in the Western Altiplano of some Q 34 million (US\$4.7 million). The required annual counterpart requirements for the Project represent about 1.5% percent of the total MAGA budget. The fiscal impact of the project on local resources is limited and the Ministry of Finance has confirmed that, from their perspective, the required co-financing (amount and availability) present no problems.

Tax revenue generation in Guatemala (9% of GDP in 1997) is among the lowest in the LAC region, and is clearly insufficient to finance the required levels of development and public goods social services. The Bank is seeking commitment from the government to meet targets for higher fiscal revenue collection (12% by 2002). This will to a large extent determine the sustainability of any expanded public investment in rural development and poverty alleviation in the Western Altiplano and the country at large. However, under assumptions of maintenance of current levels of rural development financing over the medium-term through GOG's primary programs (e.g., FIS, FONAPAZ, FSDC) in the Western Altiplano, it is expected that the framework established by the project would enable the demand for local productive and natural resources management financing to be articulated and financing from these existing sources to significantly fill that need. The average annual investments in local subprojects proposed by the project represent less than 20% of the total rural development financing transferred to the project municipalities.

## **3. Technical:**

The project builds on proven approaches to promoting rural productivity increases, natural resources management and biodiversity conservation among the rural poor. Given the opportunity and access to reliable technical support, the rural poor have the capacity to identify their most pressing needs and develop innovative responses. Project preparation studies have confirmed the availability of local resource management innovations that are financially viable and technically feasible (see Annex 8). All proposed subprojects will be subject to technical, economic and environmental analyses to better focus investment on the more promising opportunities. The institutional analysis and social assessment revealed a considerable presence of local development services providers and NGOs active in the project area, which can be drawn upon to contribute to the project.

The project assigns a substantial implementation role to the municipal governments, most of which are not adequately prepared and equipped to promote and facilitate local development projects. Substantial capacity-building support to the municipalities is anticipated in planning, project preparation, implementation and supervision, with support from the *Instancias Locales* and Municipal Promoters. The municipal technical units (UTMs) will be strengthened, through the hiring and equipping of a Municipal Promoter, to be able to assume the continuing development and facilitation/implementation support of local projects. Technical support will be drawn from a multi-sector pool of qualified and registered technical service providers, made available upon demand and financed by the project. These experts will provide services to the municipal UTMs and strengthen the capacity of the Municipal Promoters, *Instancias Locales* and producer groups in planning, production, marketing, resource conservation, protected area management, legal issues, and organization strengthening.

#### **4. Institutional:**

During preparation, a set of exhaustive analyses of institutions and appropriate institutional arrangements were produced (see Annex 8). GOG policy is to limit the role of central and regional public agencies to policy and regulatory functions and to stimulate local governments, communities, civil society, NGOs and the private sector in providing many sectoral and rural development services. In the project area, central and regional government agencies (especially MAGA, MARN, CONAP, and INAB) would concentrate on facilitating, regulating, monitoring and evaluating project progress but play a very limited role in project implementation. Most implementation and execution of project activities and technical services would be procured through private sector providers, local NGOs, producer associations and universities.

##### **4.1 Executing agencies:**

*MAGA* has coordinating offices in each of the participating departments, with small technical teams of some six professionals, responsible for facilitating and regulating regional agricultural investments. They have a nominal task of convening, supporting and strengthening grassroots farmer organizations to assume bottom-up development and natural resources management activities. The project will assist *MAGA* to become effective in their mandated functions, and give the regional offices the role of municipal-level coordinating/liaison and annual planning of internal institutional strengthening, as well as facilitating linkages between the PCU and the field activities.

*MARN* was created in early 2001 (Legislative Decree 90-2000) as the institution responsible for the formulation of policy for conservation, environmental and natural resources protection and management. Implementation of that policy is to be carried out jointly with or through the relevant institutions and line Ministries. During its short existence, *MARN* has established departmental delegations throughout the country, put in place municipal-level promoters in the majority of the project area municipalities, and

established a national network with NGOs and civil society organizations active in environmental management. The project will assist MARN and its decentralized staff to strengthen their outreach to municipalities in areas of environmental management, planning and compliance. In addition, the project will assist MARN to lead the elaboration of a National Strategy for Environmental Services.

*CONAP* is a dependency of the Executive branch of government and is responsible for the management and administration of protected areas and biodiversity conservation nationwide. It currently has only one regional office within the project area (Quetzaltenango). Its capacity to oversee protected areas in the region is severely limited and will be built up with project resources (see Annex 2). At the central level, *CONAP* is a strong supporter of the project and promises to be a reliable and committed institutional partner and counterpart. It will be chiefly responsible for the execution of the GEF-funded activities in protected areas. To balance interests at the central level, the project promotes a strategy of extending greater capacity to manage protected areas to municipalities.

*INAB* is a deconcentrated agency of *MAGA*, whose mandate is to implement national forest policy and facilitate access to technical services and financial resources to private actors and producers and forest managers through a reforestation/forest management/forest conservation incentive programs such as *PINFOR* at three levels: municipalities, communal forests, and private plantations. It maintains a presence in municipal forest management through joint municipal/*INAB* extension offices (where significant forest resources exist), providing training and support to municipal forest management programs, and forest fire prevention and control. *INAB*'s participation in the project is important and would take place at all levels, working through its Regional Offices and associated municipal offices, which in turn will be enabled to assume more responsibility and control of regional forests.

*Municipal governments* will play a key role in project execution. They are vested constitutionally with increasing development responsibilities, receive up to 10% of the national budget in transfer payments, are nominally structured to be able to carry out their mandate through Municipal Technical Units (*UTMs*) with agricultural and environmental promotion, forest and water resources management, and planning functions. In most of the municipalities in the project area, the *UTMs* are rudimentary and weak. The project will support the municipalities logistically and technically to be equipped to prepare "municipal development agendas" which will ultimately form the basis for subproject identification and selection, and will aim to significantly improve the municipalities' capacities to plan and execute these agendas by the end of the project.

To assist in project implementation, a variety of technical services will be contracted. Typical of the entities and services that will be contracted are:

- *ICTA* is responsible for agricultural research in Guatemala and, like *INAB*, its regional offices have greater technical substance than does *MAGA*. It has a degree of autonomy and is less politicized than *MAGA*. Its services will be contracted as required in generation, validation and diffusion of new technologies and as technical reviewer of subprojects, as appropriate.
- *Universities*. Natural resources management is a new area for most of the national universities. However, institutions such as the Universidad Rafael Landivar, which has regional branches in the project area, will be drawn upon for support in agricultural extension, research and specialized training and review of locally-generated technical subproject proposals. Their services will be included in the project's Registry of Qualified Service Providers and drawn upon as needed.
- *Private entities* which will be drawn upon include consulting firms, foundations, commercial enterprises, local NGOs, producer associations and organizations. Most of these entities, except for the transnational commercial enterprises, are fragile but of great importance for project implementation. They can and will be subject to strengthening and support in return for providing technical and management services to the project, as required.
- *Financial and banking services* are available in all departmental capitals, led by *BANRURAL*

and BANCAFE. They manage a variety of development funds and trust funds on behalf of NGOs active in the region. There are also private entities which support micro-enterprise support programs (e.g., FAFIDES and Genesis International) and many *bancos comunales* in the region, particularly in Huehuetenango. During project implementation, based on a prior analysis, links with some of these private entities to leverage resources and support to the project would be sought.

Technical services have historically been limited in the region, however the policy shift in recent years to decentralized and privatized public services has encouraged the formation and increased the supply of service providers (private, NGO, farmer's organizations). As yet their presence is concentrated in the departmental capitals. One entity with significant potential to the project is the *Asociación Gremial de Exportadores de Productos no Tradicionales* (AGEXPRONT) with a long established office in Quetzaltenango and currently establishing departmental offices, including within the project departments. It facilitates the association of agricultural produce exporters in order to facilitate exchange of market and production information, needs, and problems, and provides services in commercial information analysis and diffusion, training and technical assistance, and marketing. Its services are available to any kind of producer and marketing groups, and in the project area has had particular success in working with small, poor producers and marketing regional handicrafts abroad. It has been a pioneer in the development, promotion and marketing of organic and other types of "certified" agricultural and horticultural products. This organization will be drawn upon to provide training in business, marketing and other cross-cutting strategic services for small farmers and local development planning.

#### 4.2 Project management:

The execution of the project would be decentralized through the PCU, supported by the participating agencies regional and local staff, together with the *Instancias Locales* (which include the UTMs). The latter entity will be defined flexibly in each Municipality to draw upon already existing entities (e.g., municipal and traditional authorities, Environmental and Development Committees; auxiliary mayors and other local stakeholders). In substance, they would function as the *Consejos de Desarrollo Municipales* 'sub-committee' where productive and natural resources interests are represented and articulated, and priorities are negotiated. The PCU will be responsible for ensuring that the development of the project's Annual Plan includes the relevant inputs from the municipal development agendas and project area stakeholder consultations.

#### 4.3 Procurement issues:

A procurement capacity assessment of the Project Preparation Unit at MAGA was carried out and approved by the RPA's office on March 14, 2003. The overall risk assessment is considered HIGH. It is recommended that the Bank provide close procurement supervision, especially during the first year of project implementation. It is expected that by the second half of this year the Bank will have a procurement specialist permanently in Guatemala who will facilitate closer assistance. The risk is expected to reduce with time as experience is gained by the PCU. Risk factor will be reassessed after the first year of project implementation and the risk assessment will then be upgraded if appropriate (See Annex 6).

#### 4.4 Financial management issues:

**Assessment.** As the PCU is to be created under the project, the Bank's financial management assessment concluded that MAGA did not have in place an adequate financial management system for the project. It was agreed that MAGA would implement the recommendations in the action plan included in this report, to ensure that an adequate financial management system, acceptable to the Bank, will be in place by effectiveness. Some of the key recommendations in the action plan are: (a) hire qualified financial, procurement, and administrative staff; (b) hire of an internal auditor and contract the external auditors; (c) develop the project operational manuals, including the administrative and subproject manuals; (d) contracting of qualified consulting firms/NGOs/Associations for the strengthening of community organizations and NGOs implementing subprojects, though training in financial, procurement, monitoring, and proposal and reporting preparation procedures; (e) implement a accounting information system; (f) a system/ controls for the monitoring of physical progress of project activities; and (g) contract the Administrator Agent (See Annex 6).

To ensure adequate flow, transparency, efficiency, and opportune disbursement of project funds, MAGA and the participating implementing institutions have agreed to hire the services of an Administrator Agent (AA). The AA will be in charge of the custody of funds transferred from the Special Accounts (SA) provided through the loan and grant agreements, as well as the counterpart funds; making the disbursements approved by the PCU; and ensuring that these disbursement follow procurement and disbursement procedures agreed with the Bank. The specific entity to be contracted as the AA was identified by MAGA as "CIPREDA" from among the firms whose capacity to meet World Bank requirements had been previously verified; these were UNDP, IICA, and CIPREDA. CIPREDA (*Centro de Cooperación Internacional para la Preinversión, Agrícola*), is an international organization created pursuant to a Memorandum of Understanding dated April 10, 1997, signed between MAGA and the Mexican Secretariat for Agriculture, Livestock and Food. According to the *Acuerdo Gubernativo* No. 242-2000, MAGA may enter into direct agreements with CIPREDA for purposes of fund administration of its' programs. The costs of CIPREDA will be paid from GOG counterpart funds for administration of both the loan and the GEF grant. A Financial Management Assessment of CIPREDA was completed prior to negotiations.. The results of the financial management assessment of CIPREDA indicated that it has demonstrated experience and capacity in the management of funds for projects funded by international donors and the GOG. Prior to its contracting, several specific requirements identified in the assesment will be be met. The contracting of the Administrative Agent is a condition of Loan Effectiveness. Any possible issues arising from having the PCU in the Western Altiplano and an AA in Guatemala City will be addressed in the AA agreement. The PCU will be responsible for accounting and financial management of all project resources, including signing contracts, authorizing payments, approving disbursement of funds to be paid by AA, consolidating project accounts and information, budgeting, preparing financial reports, and establishing internal controls, reporting to the Bank and the implementing agencies.

**Counterpart contribution.** MAGA will ensure, until the completion of the Project, that the required counterpart funds are incorporated in the GOG budget, including the financing for CIPREDA, and follow-up the opportune transfer of funds to the Project, and will coordinate with the participating implementing institutions that the agreed counterpart contribution is included in their annual budgets and that the funds will be transferred to the project account opened by the AA, which, according to the current MHCP's procedures, would be monthly, or at least on a quarterly basis. The required counterpart contribution of the project's first year of execution is estimated to be approximately US\$740,000, which will be included in the revised MAGA's budget to be submitted to the Congress by June 15, 2003.

## **Flow of funds**

Two SAs will be opened, one for the World Bank loan and one for the Grant, will be opened in BANGUAT and subject to the same arrangements:

- The Loan SA will be maintained in US Dollars. Although the account will be named after the project, the signatories will belong to the National Treasury of the Ministry of Public Finance. The National Treasury will withdraw funds from the loan SA only upon instructions from the PCU for: (i) payments in US Dollars for foreign expenditures; and (ii) transfers to the project accounts in Quetzales. The latter will be: (i) maintained in BANGUAT (or a commercial bank acceptable to the World Bank), managed by the AA, and used only for all payments in Quetzales; and (ii) maintain a zero balance since it is used for payments already committed.
- Grant Funds will be disbursed to a project SA in Dollars, from which the PCU will transfer funds to the project AA account to cover the project needs of eligible expenses.

Bank's disbursement will be transaction-based (i.e. against Statement of Expenditures, (SOEs), full documentation, direct payments or special commitments, or transfer to the project AA).

..

**Audit compliance.** As of the date of appraisal, there were no projects with overdue audit reports in the country portfolio.

**Project financial reporting arrangements.** Quarterly financial monitoring reports (FMRs) will be prepared by the PCU and submitted to the Bank within 45 day after the end of each reporting period (See Annex 6).

**Audit arrangements.** Annual audits of the project financial statements will be conducted by an independent accounting firm, selected following Bank's procedures. The audit reports will be submitted to the Bank within the 6 months after the end of the fiscal year (See Annex 6).

## **5. Environmental:** Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

During project preparation an environmental analysis of the Western Altiplano (see InfoShop: *Analisis Ambiental General del Altiplano Occidental de Guatemala del Proyecto MIRNA*) was conducted (Annex 12). The analysis finds that environmental risks associated with the proposed project are minimal and that overall impact should be expected to be highly positive for land, watershed, forest and biodiversity conservation.

5.2 What are the main features of the EMP and are they adequate?

The principal features of the environmental analysis and mitigation plan include: (i) analysis of environmental challenges in the Western Altiplano, their causes and possible mitigating measures (CODERSA 2000); (ii) preliminary environmental screening criteria and procedures for application in the subprojects review and approval process, to be included in the Project Operational Manual (screening will take place at several levels and times during subproject preparation: in the field with the beneficiary and Promoter/Extension agent, at the municipal-level with the *Instancia Local* and, depending on the size and nature of the subproject, by higher level technical/environmental experts); (iii) a negative list of subprojects which will not be financed on environmental grounds; (iv) a Monitoring and Evaluation program with detailed project performance, compliance and impact indicators; and (v) supervision and oversight procedures which would provide early warning and trigger immediate responses to potentially

negative environmental impacts.

Given the objectives and nature of the project, as well as the fact that most investments will improve and rehabilitate environmental quality and conserve natural resources, the measures summarized above are considered to be adequate.

### 5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft: October 2000

### 5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

This is a "B" category project and primarily will finance locally-defined, demand-driven productive, natural resources management and conservation subprojects. Consultations on the project concept, objectives and design were carried out at several levels during project preparation, including: (i) a comprehensive Social Assessment over the six Western Altiplano Departments (see Annex 13); and (ii) additional stakeholder consultations with national and regional stakeholders with regional mayors, auxiliary mayors and NGOs (see project files). Stakeholder groups consulted during project preparation and pre-appraisal include: Plan de Acción Forestal Guatemala/PAF-G, ASOREMA, Defensores de la Naturaleza, Plan de Acción Forestal Maya/PAF-Maya, IDEADS, Madre Selva, HELVETAS-Probosques, MoviMundo, AGEXPRONT, ANACAFE, and PROARCA, as well as mayors, auxiliary mayors, Mayan spiritual leaders, representatives of local catholic and protestant development organizations, leaders of local development committees, representatives of local and national NGOs, and community members (including men, women, and elders).

Provision will also be made in the Project Operational Manual for subproject-level environmental screening and consultations (e.g., by the *Instancia Local*, representing local community and municipal interests), as a condition for financing. The Project Operational Manual will be further reviewed with target and stakeholder groups prior to project effectiveness with additional refinements made based on the outcomes of these discussions.

### 5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

The Environmental Analysis found the proposed project to have positive impacts on the environment and natural resources of the Western Altiplano. Compliance with Bank and GOG environmental assessment requirements would be assured in that: (i) independent technical reviews of all subprojects would assess potential environmental impacts as required given the size and/or nature of the subproject and implementing agencies would be required to screen subproject proposals for compliance with environmental management provisions prior to approval; (ii) implementing agencies would coordinate monitoring of subproject compliance with environmental mitigation measures and report on environmental impacts of subprojects; (iii) a set of basic environmental indicators has been established for monitoring subprojects, a negative list identifies types of ineligible subprojects; and (iv) all these procedures are to be included in the environmental management specifications of the Project Operational Manual.

## 6. Social:

### 6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

Any project in the Western Altiplano must accommodate and build on the strengths of local cultural

diversity. The development goals and cultural relationship to land and resources of indigenous (90-95% of total) and *ladino* (5-10% of total) residents will be reflected in subproject proposals they submit. The presence of communal resource management systems and sacred areas, high levels of poverty, and local impacts of civil war will be taken into account in project implementation. The issues outlined below are of primary concern and have been incorporated into project design:

*Indigenous peoples* (see Annex 11): The indigenous people of the Western Altiplano belong to 13 ethno-linguistic Mayan groups. While in most towns the indigenous population is bilingual, in many of the outlying communities, Spanish is spoken at only a rudimentary level. Women and older people are more likely to speak only Mayan languages. The project will provide culturally appropriate (bilingual, as much as possible) technical assistance to farmer and artisan groups and community forest management committees (along with all other stakeholders) to stimulate increased productivity and conservation of natural resources. Funds have been made available to the planning team to prepare technical information in local Mayan languages and to prepare culturally appropriate communications strategies for use during project implementation. At the same time, the project will respect *ladino* culture and promote *ladino* participation in the project.

Historically, indigenous peoples have been mistrustful of government agency representatives, and government agencies have not placed trust in, or invested in improving, the capacity of indigenous communities. The Social Assessment and the Indigenous People's Development Plan recommend trust-building learning activities between indigenous peoples and government agencies. These will be included in the project institution-strengthening activities, especially at the municipal and local levels.

*Gender*: Female-headed households are very common in the rural Western Altiplano, making it important that the project provide special support to their productive capacities. The Social Assessment presents findings and recommendations focused specifically on the role of women in natural resources management and production. The project fosters women as equal agents of change, innovation and project implementation. Rural women's productive and natural resources management (e.g., soils, forest and watershed management) activities will be eligible for grant-financed subprojects, as will efforts and programs to facilitate their participation in (culturally appropriate) decision-making and planning forums. During project preparation, additional funds were acquired to enhance the gender focus of the project.

*Post-conflict reconstruction*: Decades of violence have strained the social fabric of Western Altiplano communities. The project will contribute to rebuilding social capital in the region by (i) strengthening existing traditional and other local organizations; (ii) supporting local leadership development; (iii) providing access to project benefits without prejudice to ex-combatants, returned refugees, ex-civil patrol members and others who remained in their communities during the violence; (iv) fostering participatory decision-making in regard to project implementation and conflict management and providing training and technical assistance as needed; (v) working at the community and municipal levels and with other local demand-driven development approaches; (vi) strengthening or building local capacity for self-development and stimulating active engagement in problem-solving; (vii) providing opportunities for local community co-management of protected areas and for planning and implementing grant financed subprojects; and (viii) fostering better relations between indigenous and *ladino* populations and government officials in an effort to rebuild trust between government and civil society in the Western Altiplano.

*Resettlement*: The project will not finance any involuntary relocation of people as defined in the Bank's operational directive on involuntary resettlement (OD 4.30). A Process Framework providing guidelines for addressing potential adverse economic impacts is available (in Spanish) through the Bank's Infoshop

(see Annex 8).

## 6.2 Participatory Approach: How are key stakeholders participating in the project?

The project is designed to be responsive to local needs as defined by the beneficiaries. Local self-development is supported through beneficiary identification, design, and implementation of subprojects. The sustainability of local organizations' ability to continue the type of activities and technologies supported by the project is buttressed through the project's local organizational strengthening initiatives.

*In project preparation:* Representatives of stakeholders at all levels (e.g., GOG, municipal mayors, community auxiliary mayors, producer cooperatives and associations, communal forest management committees, local pro-development committees, Mayan elders, women's groups, and small local NGOs) participated in the design of the project through a series of local stakeholder/beneficiary workshops in the project area, subsequent consultations and verification meetings, and in field visits.

*In project implementation:* All subprojects will be based on community-driven development initiatives, with stakeholders and beneficiaries active in their planning and implementation. Protected area management and biodiversity conservation activities necessarily require strong local involvement and will draw on local knowledge and indigenous resource management practices and experience. All activities will be designed to ensure the participation of community organizations and other civil society groups (e.g., Mayan elders, ex-combatants, women, and displaced peoples). Much of the support services provided to these beneficiary groups will be provided by local firms and NGOs.

*In project oversight and monitoring:* Stakeholders will also participate in project oversight and guidance, help assure transparency of project objectives and activities, and monitor project outcomes through their representatives on the Technical Advisory Group and municipal-level *Instancias Locales*.

*In project monitoring and evaluation:* Impacts of the subprojects and the institutional strengthening activities supporting them will be measured through participatory monitoring based on indicators discussed and designed by direct beneficiaries and within the *Agendas Municipales de Desarrollo Sostenible* and the *Instancias Locales*. The impacts of conservation activities financed under the project will be measured through participatory monitoring by the most immediate beneficiaries of these activities (e.g., the communal forest and protected areas committees and members of adjacent communities) as well as through data gathering among indirect beneficiaries (e.g., downstream water users).

## 6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

A wide variety of actors participated in project preparation, and the consultative and collaborative processes used in that phase will be maintained throughout project implementation as part of project monitoring and on-going collaborative efforts. As part of preparation, a multidisciplinary team carried out an analysis of local stakeholders and held regional consultation workshops and focus groups with a broad range of local stakeholder representatives (e.g., communal forest managers, selected mayors, auxiliary mayors, indigenous leaders, women, and Mayan and *ladino* community representatives) in the departments of Sololá, Quiché, San Marcos, Huehuetenango, and Quetzaltenango (see Annex 8). The input of producer associations was solicited through consultations with RADEAS (department-level producer associations) and through field visits with producer association leaders.

Consultations were also held with COPMAGUA (a national indigenous organization), ASOREMA (the

coordinating board for NGOs working in environmental and sustainable development issues), private sector producer associations (AGEXPRONT, ANACAFE, Quetzaltenango regional potato producers association), and key national and international NGOs (PAF-Maya, Saq'be Ixil, PRODESAGRO, Defensores de la Naturaleza, Caritas parochial rural assistance offices, HELVETAS, CARE, CRS, UNDP) through individual meetings and through workshops. Project experience and lessons from many NGOs working in the Western Altiplano were also incorporated into the project design. TNC and FLACSO collaborated directly in the design process. Coordination and, where possible, collaboration with NGOs working in the Western Altiplano will be facilitated through periodic meetings as agreed during the project's stakeholder consultation workshop in September 2000. The majority of the technical and institutional strengthening services contracted through project funds will be provided by qualified NGOs and other civil society organizations (see below and Annex 2).

#### 6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The results and recommendations of the Social Assessment are incorporated into the project design and will contribute to achieving social development outcomes in the following ways: (i) the project's entire approach is community- and demand-driven; (ii) financing priorities will be established locally by representative bodies constituted of local stakeholders; (iii) the central-level oversight mechanism will include the participation of civil society representatives; (iv) attention to collaborative decision-making and conflict management will strengthen civil society and improve cohesion within communities; and (v) the strengthening of traditional and other existing local organizations' ability to plan and implement their own development activities will improve the opportunities for social development after the projects itself ends.

The project is designed to support decentralization and strengthen civil society's ability to both provide and contract crucial development support services. NGOs, private firms, universities and other civil society organizations will participate in the project as beneficiaries (of training) and, more importantly, as providers of services to local-level beneficiary groups. Eligible organizations will be enrolled in a Registry of Qualified Service Providers, after which they can be contracted by local beneficiary groups to provide technical and institutional support services (see Annex 2).

#### 6.5 How will the project monitor performance in terms of social development outcomes?

The project Monitoring and Evaluation system will measure impacts on people (e.g., level of satisfaction with project processes and outcomes, level of women's participation within beneficiary organizations) and on institutional performance (e.g., gauging improvements in a producer organization's ability to effectively market its products or in a community pro-development committee's ability to prepare subproject proposals). Grant-financed subproject proposals will contain social and economic baseline information which will be transferred into the management information system for periodic tracking and monitoring, and each subproject will include a monitoring plan with a set of indicators (including indicators to measure social impacts, some which will be defined by beneficiaries). Direct beneficiaries of subprojects and residents of communities bordering protected areas will participate in carrying out some aspects of the monitoring and analysis, and impacts on indirect beneficiaries will also be monitored.

In addition, Project Operations Plans (POAs) will be prepared by the PCU in coordination with the Technical Advisory Group for submission and no objection to the Bank. Bi-annual Progress Reports will be prepared and submitted to the Bank in advance of Bank supervision missions and will be combined into a single Annual Progress Report. A Mid-term Review (MTR) and Implementation Completion

Report (ICR) will be carried out, at which time stakeholder workshops will be held to share and review project progress and outcomes/impacts, including social outcomes. Where necessary, modifications based on monitoring and evaluation recommendations will be made to the Project Operational Manual. The PCU will prepare all project reports and the Executive Steering Committee will review, comment and sign off on these reports and monitoring results. A Monitoring and Evaluation Coordinator will be placed within the PCU and given adequate logistical support to allow him/her to carry out these data gathering and evaluation functions.

## 7. Safeguard Policies:

### 7.1 Are any of the following safeguard policies triggered by the project?

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Forestry (OP 4.36, GP 4.36)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Pest Management (OP 4.09)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Cultural Property (OPN 11.03)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Indigenous Peoples (OD 4.20)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Involuntary Resettlement (OP/BP 4.12)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Safety of Dams (OP 4.37, BP 4.37)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	<input type="radio"/> Yes <input checked="" type="radio"/> No

### 7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

**Environmental Assessment (OP 4.01).** Simplified environmental screening and assessments will be required for all subprojects to be financed under the project. Standard formats and checklists will be developed to facilitate preparation and review of assessments. These measures were reviewed by the Bank at appraisal and will be included in the Project Operational Manual. A detailed environmental analysis, *Analisis Ambiental del Altiplano Occidental de Guatemala y del Proyecto MIRNA* (prepared by CODERSA) was submitted to the Bank in October 2000. In accordance with the Bank's Information Disclosure Policy (BP 17.50), copies of this report (in Spanish) are available for public viewing at the MIRNA office in Guatemala City and through the Bank's InfoShop. The key findings and recommendations from this report are reflected in the project design. Additional studies have yielded important information (see Annex 8). The Policy and Institutional Analysis study is of particular significance, as it reveals that Guatemala has, on balance, a very satisfactory set of policies in regard to natural resources management, but almost no capacity to see them implemented. This provides a strong justification for the institutional strengthening activities proposed in the project.

**Natural Habitat Policy (OP 4.04).** The project (through its primarily GEF-financed Component 2) is designed to maximize protection of existing remaining natural habitats and increase the amount and representivity of all such habitats within the national protected areas system (SIGAP). Component 1, through which rural sustainable livelihoods will be enhanced, has criteria which strictly prohibit project financing from encouraging further incursions into and conversion of natural habitats, including forests, upland meadows and dry forests and wetlands. Checklists and screening mechanisms governing the selection of demand-driven local subprojects will filter out any proposals which could be harmful to such natural habitats. On the contrary, community-managed forests and private conservation efforts will be encouraged and supported, financially and with expert technical assistance and information. Information on all the relict natural habitats within the Western Altiplano will be generated, stored within the monitoring data base (GIS) and divulged through the environmental information and public education

programs (in indigenous languages wherever possible).

**Forestry (OP 4.36).** The project will: (i) support community-based forest management processes and practices which would retain as much natural forest as possible in areas where such forests still exist and are viable; (ii) improve the environmental aspects and reduce waste and unsustainable practices of current forest use and management practices, seeking to diversify current forest use patterns into more sustainable non-timber/non-consumptive uses including development of environmental services markets; (iii) stimulate the revegetation of degraded lands and watersheds with natural and planted forests, wherever conditions allow for this to occur in a sustainable and efficient manner; (iv) contribute to the monitoring of existing forest cover within the project area (baseline) and changes in this cover, assisting MAGA, CONAP and INAB to address any incentives and identifiable causes which lead to forest conversion and degradation; (v) work with municipal governments and communities in improving the management of existing and encouraging expansion of forests, wherever such expansion is viable and sustainable (e.g., for the generation of chargeable environmental services); and (vi) protect samples of rare and threatened forest types within protected areas and parks and in general address all manner of threats to existing forests (fire, poor grazing practices, unsustainable extraction of forest materials) through improved management capacity building at the regional (INAB), municipal and community levels.

Regarding extraction of forest-based products (including timber, stakes, firewood, forest litter used as farm fertilizer, medicinal plants, etc.), the project will promote sustainable practices through financing community forest management plans, provide communities with forestry specialized technical assistance, and support traditional management approaches which have shown to retain viable forest stands while allowing for low-intensity use of the forests. During preparation, exhaustive analysis and consultations were carried out on national policy and legal frameworks; forest land tenure and conflicts; cultural, social, environmental and economic values of forests in the project area; and institutional capacity around forests.

**Pest Management (OP 4.09):** The project does trigger this Bank OP, in that almost all commercial farmers and gardeners in the project area use chemical inputs, such as chemical fertilizers, pesticides and herbicides. The use of chemical inputs in traditional corn, beans and squash crops (*milpa*) and in production for home consumption is negligible; rather, traditional organic inputs such as those obtained from the forest floor, are preferred. The incidence of malpractice in regard to the application of chemical inputs is high. The project's aim will be to raise agricultural productivity within the project area while also substituting for natural resources-degrading practices and reversing their effects (erosion, contamination, mining of fertility, and replacement of forest with agricultural and livestock production). This process will take time, as well as require investments in public environmental education. Community subprojects will be screened for environmental compliance and farmers trained in appropriate applications of chemicals as needed. Thus, the project is expected to contribute to an overall reduction in the volume and toxicity of the chemical inputs, and do so gradually by substituting toxic substances for less toxic ones, large and inappropriate applications for more appropriate quantities, and generally promote sustainable practices (e.g., integrated pest management) over those deemed environmentally unsustainable. In addition, no procurement of agrochemicals within the WHO Class 1 or 2 list would be allowed and, where agrochemical usage is an issue, all relevant subprojects will be required to include such elements as soils testing to reduce over-fertilization, training on appropriate use and storage and disposal of agrochemicals and containers, cleaning of equipment and personal precautions to be taken. Strong gains will be made in these objectives through the environmental education and information programs, the local-level extension and advisory services.

**Cultural Property (OPN 11.03 and draft OP 4.11).** During preparation, the project contributed to financing a series of workshops in the project area on indigenous (Mayan) natural resources planning and management practices. The results of these workshops, the Social Assessment and the close participation of the indigenous *Plan de Accion Forestal Maya* (PAF-Maya) in the project preparation process, have been drawn into the project design and are reflected in the project delivery and management structure, through which decisions and proposals are generated and decided upon at the local level, with the full participation of local village and community authorities and representatives, including the women. (See Annex 11).

**Indigenous Peoples (OD 4.20):** Some 90-95% of rural people in the project area belong to Mayan indigenous ethnic groups. As such, the project should be regarded as an Indigenous Peoples Development and Participation Plan (IPDP), and has been designed as per the Bank's definitions and policies set out in OD 4.20. In addition, based upon the Social Assessment and its recommendations, and in compliance with the Bank's OD 4.30, a stand-alone IPDP has been prepared (Annex 11). Most important for the project design is the commitment for the project to work within traditional Mayan cultural and natural resources and land use practices to achieve improvements in income and in natural resource conservation. A copy of the IPDP (in Spanish) has been placed in the Bank's InfoShop.

**Involuntary Resettlement (OD 4.30 and draft OP 4.12):** The project would not support any involuntary relocation of people as defined in the Bank's OD 4.30 and the Draft OP 4.12 paragraph 2A. Nevertheless, a Process Framework has been prepared which summarizes current GOG legal provisions and instruments regarding rights of populations in and around protected areas. The Process Framework also provides guidelines and outlines means (such as extra assistance in preparation of proposals and access to subproject funds) for addressing potentially adverse economic impacts that might result from project-supported implementation of existing and new, collaboratively designed management plans that include restriction of access to national protected areas and natural resources protected under other local regimes. A copy of the Process Framework document (in Spanish) is in the Project files and available through the Bank's InfoShop.

## **F. Sustainability and Risks**

### **1. Sustainability:**

Incentives for stakeholders to implement the project are considered to be the most important investment in the sustainability of project outcomes. The project will establish partnerships with stakeholders (e.g., communities, indigenous groups, the private sector, local municipal governments, and NGOs) for local planning, subproject identification, selection and implementation. These groups will benefit from investments under the project through capacity-building and training, helping to ensure that project objectives are owned locally and nationally, with the capacity in place to replicate the successful experiences and processes elsewhere in the region and country. The project would model decentralized, demand-driven development processes and private sector services delivery in agriculture, forestry and biodiversity conservation, thus making up for the near total absence of any such public services in these sectors. The degree to which these processes are successful and take hold among the beneficiaries will be a measure of project success and sustainability.

The project will improve the ability of national and local agencies (i.e., MAGA, MARN, CONAP, INAB, NGOs and private groups) to integrate natural resources and biodiversity conservation values into development planning at all levels. The project will furnish and make available to local governments and

communities planning information (e.g., GIS) previously held in tight control by centralized agencies in the capital. Decentralized regional MAGA, MARN, CONAP, and INAB personnel will have been exposed to participatory resources management approaches and, together with the private technical service providers, will be better placed to contribute technical services to the rural populations in the project area.

The project's gender focus (during preparation, grant resources to support MAGA in articulating a gender policy were secured) and diffusion of culturally appropriate information should make a permanent contribution to the capacity of rural women and indigenous people to gain greater acceptance and contribute to the regional economy and the care and conservation of natural resources.

The project will help ensure financial sustainability beyond the project period by developing cost recovery and financing mechanisms to recoup the management costs of protected areas (through tourism, concessions and user fees) and capture payments for conservation of environmental capital and services. In addition, it will develop the institutional capacity, methodologies and instruments for accessing other demand-driven rural development funding sources (e.g., FIS, FONAPAZ, FSDC) to finance local productive and natural resource management needs. The most durable investments are represented by the improved production and resource conservation practices it will foster, test and mainstream, combined with the institutional structures to carry them on into the future.

Government support beyond the project phase is nominally assured by the current decentralizing natural resource and rural development and agrarian policies. The project builds on these concepts and will test implementing mechanisms for their application. It is hoped that these will be successful and can become a model for continued practice in the future.

### 1a. Replicability:

### 2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
<p><b>From Outputs to Objective</b> Institutional, political and policy instability at the national level undermine the ability to achieve effective decentralization of decision-making and operate through local demand-driven and participatory processes.</p>	H	<p>The project operates within the ongoing GOG decentralization agenda, associating processes with legally mandated local development committees and expressed sectoral policies. Significant promotion, participation, communications, and transparency-related activities are included in the design. Continuous dialogue with GOG during project implementation.</p>
<p>With elections in 4th Quarter 2003 and a change of government thereafter, project startup significantly delayed by election cycle and changes in sectoral authorities</p>	S	<p>Government has committed to provide significant resources, to be retroactively financed, to allow project start up to be advanced by six months in order to gain momentum.</p>
<p>Unavoidable degree of complexity associated with decentralized, demand driven and natural resources programs results in significant delays in</p>	S	<p>Project designed to take a phased approach. Design capitalized to the extent possible on previous experiences in Guatemala. Flexible approach allowed for in each municipality to</p>

implementation.		build on existing capacity. Monitoring and evaluation system to be central to quality control and learning.
Local capacity is insufficiently developed to absorb capacity-building effort and manage subprojects.	S	The site selection process includes local institutional capacity considerations. Capacity building activities will be tailored to local needs and capabilities.
Pilot arrangements cannot effectively internalize environmental services in the absence of a complete reform of national policies and/or further positive developments in the Kyoto Protocol's enabling framework for land use carbon.	S	The project will develop consensus on the importance of valuing environmental services and on the design of mechanisms and institutional arrangements for doing so as well as on pilot mechanisms to test these.
Management regimes for key protected areas are not sustainable (financially and socially).	M	The project will support the SIGAP in the design of management plans that include social considerations and options to improve financial sustainability.
Higher production leads to extension of the agricultural frontier, rather than intensification.	M	Subprojects include technical assistance for their design; GEF funds will support environmental awareness and information dissemination on sustainable, intensive agricultural practices.
<b>From Components to Outputs</b>		
Willingness to pay for environmental services cannot be adequately identified and tapped.	H	GOG Counterpart obligations are relatively small (15%) of total project cost; local communities' counterpart contributions assured via demand-driven mechanisms.
Resources are not disbursed in a timely manner.	S	Project support to development of co-management plans, specialized studies to strengthen traditional land tenure systems and specific conflict inventory and resolution activities.
Political risk cannot be managed such that critical PCU staffing is unstable.	S	Design of national strategy for environmental services; pilot projects to internalize environmental services.
Resource access conflicts are sufficiently severe to disrupt conservation initiatives.	M	Continuous dialogue with GOG during project implementation.
<b>Overall Risk Rating</b>	S	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

### 3. Possible Controversial Aspects:

The project is consistent with Government policy for the sector and the region, has its full support, and has been widely agreed to by local community, municipal and other civil society representatives. The main contentious element concerns indigenous communal land rights, resource access and uses (e.g., communal and municipal forests), given the absence of a GOG policy on communal lands to give full legal recognition to community-held land rights and titles. The project will address land tenure issues through facilitating linkages and cooperation with other public programs and investments such as the

Bank-financed Land Fund and Cadastre projects and the GOG agency CONTIERRA. The project will seek to support and respect local and traditional land use systems. It will also make resources available to communities to engage legal and other technical counsel in regards to such elements, where it is judged to be helpful and appropriate. This will occur within the context of demand-driven subprojects. As part of the development of the Municipal Sustainable Development Agendas, inventories of land and resource access conflicts will be carried out and wherever demand exists, access will be facilitated to both informal and formal (e.g., with CONTIERRA, through a Memorandum of Understanding) conflict resolution mechanisms. Synergies will be sought with the World Bank-financed Land Fund project, also implemented through MAGA, which has developed capacity to work in resolution of land tenure conflicts.

## **G. Main Loan and Grant Conditions**

### **1. Effectiveness Condition**

- That the Operational Manual, including a first-year operating plan (POA) and detailed procurement plan satisfactory to the World Bank, has been issued and put into effect;
- That the PCU has been properly staffed including the selection of a Procurement Officer and a Financial officer satisfactory to the Bank.
- That financial management system, satisfactory to the Bank and in accordance with the time-bound action plan, shall have been established by MAGA and become operational;
- That the Administration Agreement, for the purposes of providing assistance to MAGA in the administration of Project funds, has been entered into.

### **2. Other [classify according to covenant types used in the Legal Agreements.]**

No other conditions have been identified.

## **H. Readiness for Implementation**

- 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
- 1. b) Not applicable.
- 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
- 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
- 4. The following items are lacking and are discussed under loan conditions (Section G):

## **I. Compliance with Bank Policies**

- 1. This project complies with all applicable Bank policies.
- 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

---

James W. Smyle  
**Team Leader**

---

John Redwood  
**Sector Manager/Director**

---

Jane Armitage  
**Country Manager/Director**

## Annex 1: Project Design Summary

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p><b>Sector-related CAS Goal:</b> Foster sustainable economic growth, social cohesion and environmental protection through improved participation and productive opportunities for the poor within the framework of the National Peace Accords.</p>	<p><b>Sector Indicators:</b> Rural poverty and natural resource depletion rates decline, and social capital increases</p>	<p><b>Sector/ country reports:</b> Ministry of Finance, MAGA, MARN, INAB, CONAP and International databases and reports.</p>	<p><b>(from Goal to Bank Mission)</b></p>
<p><b>GEF Operational Program:</b> Improve management of natural resources and conservation of globally important biodiversity within the framework of the Mesoamerican Biological Corridor.</p>	<p><b>Outcome / Impact Indicators:</b> Better and more representative protection of globally important habitats and ecosystems.</p>	<p>MAGA, MARN, INAB, CONAP and International databases and reports.</p>	<p>Policies and institutions remain stable and congruent with project objectives</p>
<p><b>Project Development Objective:</b> Improve management and conservation of natural resources and biodiversity and the livelihoods of the peoples dependent upon them in the Western Altiplano of Guatemala.</p>	<p><b>Outcome / Impact Indicators:</b></p> <ul style="list-style-type: none"> <li>● 20 % increase of household incomes for 52,000 participants.</li> <li>● 30% of direct participants are women.</li> <li>● 850 local organizations strengthened in admin., mgmt., and planning</li> <li>● Biodiversity and natural resource conservation upgraded in 210,300 ha of priority areas for globally important biodiversity in the Sierra de Cuchumatanes and the Volcanic Belt.</li> <li>● National policy framework for markets for environmental services in place with institutional arrangements successfully</li> </ul>	<p><b>Project reports:</b></p> <ul style="list-style-type: none"> <li>● Economic assessments</li> <li>● MAGA and CONAP reports</li> <li>● Independent assessment</li> </ul>	<p><b>(from Objective to Goal)</b></p> <ul style="list-style-type: none"> <li>● National commitment to overcoming economic, social and inter-ethnic inequities is sustained.</li> <li>● Social and economic incentives for maintaining local &amp; national conservation mechanisms remain strong.</li> <li>● National and international fiscal environments evolve so as to favor functional markets for environmental services.</li> <li>● Social, agricultural and environmental policies remain stable and congruent with project's development objectives.</li> </ul>

	piloted.		
<p><b>Output from each Component:</b></p> <p><u>1. Sustainable Livelihoods</u> Effective sustainable production and resource and biodiversity conservation initiatives designed and managed by capable municipalities, communities, and local producer and resource management groups.</p> <p><u>2. Biodiversity Conservation</u> Biodiversity conservation enhanced through consolidation of the SIGAP and strengthening of locally managed conservation regimes</p> <p><u>3. Environmental Services Markets</u></p>	<p><b>Output Indicators:</b></p> <ul style="list-style-type: none"> <li>● About 760 local subprojects executed with at least 80 % rated Satisfactory or better.</li> <li>● Support services facilitate effective implementation of local development activities.</li> <li>● In 54 Municipalities, <i>Instancias Locales</i> formed, oriented, trained; promoters, hired, and trained and Municipal Agendas Prepared</li> <li>● 425 organizations legally registered</li> <li>● Conservation in priority areas improved through strengthening of CONAP and local management organizations and implementation of sound management plans.</li> <li>● Environmental education programs reach community and school audiences.</li> <li>● Natural resources mapping and information system effectively tracks changes in natural resources conditions.</li> <li>● Strategy and national policy for capturing value</li> </ul>	<p><b>Project reports:</b></p> <p>Project monitoring and supervision reports</p> <p>Technical audits of design and execution of subprojects</p> <p>MAGA and INAB reports</p> <p>Independent assessment</p> <p>Project monitoring and supervision reports</p> <p>Project supported analytical, institutional and sector studies</p> <p>CONAP and MARN reports</p> <p>Annual reports of forestry and agriculture institutes</p> <p>Project monitoring and supervision reports</p>	<p><b>(from Outputs to Objective)</b></p> <p>Institutional, political and policy stability at the national level foster the ability to achieve effective decentralization of decision-making and operate through local demand-driven and participatory processes.</p> <p>Elections in 4th Quarter 2003 and subsequent change of government will not delay project startup significantly.</p> <p>Degree of complexity associated with decentralized, demand driven and natural resources programs does not result in significant delays in implementation.</p> <p>Local capacity is sufficiently developed to absorb capacity-building effort and manage subprojects.</p> <p>Pilot arrangements effectively internalize environmental services in the absence of a complete reform of national policies and/or further positive developments in the Kyoto Protocol's enabling framework for land use carbon.</p> <p>Management regimes for key protected areas are sustainable (financially and socially).</p> <p>Higher production leads to intensification of the agricultural frontier.</p>

<p>National policy, strategy and instruments to internalize the value of key environmental services designed and tested through participatory processes.</p> <p>4. <u>Project Management:</u> Effective project management, monitoring, and evaluation .</p>	<p>of environmental services developed.</p> <ul style="list-style-type: none"> <li>● Trained GoG staff conduct studies resulting in design of feasible valuation and market testing pilots.</li> <li>● 4 pilot projects provide effective lessons for environmental services markets development.</li> <li>● Project Coordination Unit effectively facilitates project implementation.</li> <li>● Project monitoring system accurately measures project impacts.</li> <li>● Existing M&amp;E systems of implementing agencies strengthened.</li> </ul>	<p>Project supported analytical, institutional and sector studies</p> <p>Bank supervision missions</p> <p>Annual Project Reports</p> <p>Mid-Term Review</p>	
<p><b>Project Components / Sub-components:</b></p> <p><u>1. Sustainable Livelihoods</u></p> <p>1a Subprojects Grants 1b Local Institutional Strengthening</p> <p><u>2. Biodiversity Conservation</u></p> <p>2a Protection of Sites of Global Importance 2b Inter-cultural Communications 2c Biodiversity Conservation Monitoring and Evaluation</p> <p><u>3. Environmental Services Markets</u></p> <p><u>4. Project Management</u></p> <p>4a Project Administration 4b Project Monitoring and Evaluation</p>	<p><b>Inputs: (budget for each component)</b></p> <p><u>US \$40.6million</u></p> <p><u>US \$ 6.8 million</u></p> <p><u>US \$2.3 million</u></p> <p><u>US \$5.6 million</u></p>	<p><b>Project reports:</b></p> <ul style="list-style-type: none"> <li>● Copies of contracts</li> <li>● Field management reports</li> <li>● Financial management, evaluation and quarterly and annual reports</li> <li>● Field management reports</li> <li>● Financial management, evaluation and quarterly and annual reports</li> <li>● Field management reports</li> <li>● Financial management, evaluation and quarterly and annual reports</li> <li>● Copies of contracts</li> <li>● Field management reports</li> <li>● Financial management, evaluation and quarterly and annual reports</li> <li>● Supervision missions by the</li> </ul>	<p><b>(from Components to Outputs)</b></p> <p>Resources are disbursed in a timely manner.</p> <p>Resource access conflict are not severe enough to disrupt conservation initiatives .</p> <p>Willingness to pay for environmental services can be adequately identified and tapped.</p> <p>Political risk can be managed such that critical PCU staffing is stable.</p>

		GOG and the World Bank	
--	--	------------------------	--

## Annex 2: Detailed Project Description

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

#### By Component:

##### Project Component 1 - US\$40.60 million

#### Sustainable Livelihoods

The component will primarily finance community-driven investments in sustainable production, natural resource management, and conservation. Secondly, the component will strengthen the institutional capacity of municipalities, community associations, producer and resource management associations to plan and manage development activities.

#### Subcomponent 1a: Subproject Grants

The subcomponent will finance subproject grants to community associations to increase productivity, stimulate innovation and generate employment, thereby increasing rural incomes and improving natural resource management. Subprojects will be financed across three categories:

- *Sustainable Production*, such as (i) improvement of production systems which require substantial use of inputs and technology (e.g., greenhouses); (ii) production for export or high-value domestic markets (e.g., vegetables, cardamom, shade coffee); (iii) value-added processing of local products; (iv) improvements and development of small-scale artisanal and cottage industries or microenterprises to increase off-farm employment; and (v) small-scale and community reforestation;
- *Natural Resource Management*, for example (i) improved resource management of traditional cropping and grazing systems and community and municipal forests and environmental services within existing traditional, multiple-use systems; (ii) other activities to reduce extractive pressures on protected areas; and (iii) environmental management of public goods (e.g., land and soils rehabilitation, stabilization of heavily eroded or slumping slopes, and non-commercial reforestation or revegetation on heavily degraded lands; and
- *Conservation*, including: (i) creation and/or improvement of protected areas managed by communities, municipalities or local NGOs; (ii) improved management of community forests, aquifer recharge zones and potable water sources; (iii) natural disaster mitigation activities; (iv) recreational and ecotourism areas; and (v) the protection of sacred natural sites (*jicham witz*).

#### Subproject Cycle:

- Community Associations determine their local priorities, develop subproject proposals and submit them to the *Instancias Locales*;
- *Instancias Locales*, in regularly scheduled public meetings, review, prioritize and approve subprojects within a pre-determined resource envelope;
- PCU (through a registry of qualified private service providers) technically evaluates approved subprojects and the capacity of the subproject proponent to administer the subproject grant and confirms compliance with operational guidelines before releasing funds;
- Subproject grant agreements are signed between the PCU and the community association, detailing the terms for financing, execution, ownership, operation and maintenance of the subproject;
- Funds for subproject implementation are transferred directly to the bank account of the community association;
- Community associations are responsible for contracting goods, works and technical assistance

for subproject execution, bear responsibility for operation and maintenance of all investments, and may request technical assistance to develop administrative capacity, and operation and maintenance programs and techniques.

Grant financing ceilings have been established for each municipality, based on a per capita distribution scheme. Total financing available to a given municipality is roughly equivalent to one annual per capita allocation (based on 10% of general revenues) of funds made to that municipality by the GOG. The ceilings represent the maximum indicative amount which the municipality can receive from the project. Municipal allocation ceilings will be reviewed and adjusted annually, in light of total grant financing still uncommitted from the previous project year. Eligibility and financing criteria for community subprojects would be detailed in the Project Operational Manual.

**Regional Subprojects:** As a result of interchanges between *Instancias Locales* it is expected that some regional proposals (from so-called “mancomunidades”) for cross-cutting subprojects of strategic importance for the sustainable development of the Western Altiplano will be developed. These might include: applied research, market studies and marketing; special training or information programs; and strategic alliances to strengthen local institutions (e.g., alliances between local and international potato, fruit, or livestock research programs; alliances between local and national farmers’ organizations; local exporters and international trade promotion groups). The ceilings for these would initially be raised to \$250,000 and would require approval by the Executive Steering Committee, as well as a no-objection from the World Bank. Funds for these would be proportionally discounted from each participating municipalities funding allocation.

Subproject grants will finance: technical assistance, training, services, studies, limited goods and equipment, small works and infrastructure, and limited fixed and working capital investments. GEF funds will primarily finance the Conservation Subprojects and incremental costs for biodiversity conservation within the sustainable production and natural resource management subprojects. Recurrent costs, particularly for agricultural inputs, will not be financed after the first production cycle.

**Training and Technical Assistance:** The PCU will contract the design of modules for training in Project/Program Orientation, Participatory Planning and Project/Program Implementation, Participatory Monitoring and Evaluation, Biodiversity and Environmental Conservation, Local Organization Development, Marketing, and Non-Farm Employment. The target audiences for these modules would be: (i) municipal-level promoters, (ii) *Instancia Local* leaders, (iii) municipal government staff and (iv) community association leaders and members. Subproject-specific technical training will be financed as a part of subprojects in response to client demand. In addition, a limited number of training scholarships will be provided to increase the expertise of indigenous and female professionals in rural development and natural resources conservation. The PCU will also contract local and/or international experts to provide short-term technical assistance in response to client requests and project needs on specific issues (e.g., technical review of subproject proposals where expertise is not available within the Registry of Service Providers, diagnosis of crop diseases, legal assistance in preparing contract documents, design of an irrigation system, design of packaging materials for export products, clarification of legal land and resource rights, etc).

**Subproject Targeting:** Fifty-four (54) municipalities in the Western Altiplano (out of a total of 132 in the region) would be prioritized under the project. Eighteen municipalities would participate in year one, an additional 18 in the second year and the remaining 18 would be added in the third year. Twenty-two municipalities, representing the highest importance for biodiversity would be favored for the GEF-financed subprojects (see project files for details). Prioritization of these municipalities within the

Western Altiplano is based on: (i) GOG's Poverty Reduction Strategy; (ii) total forest area and percent of watershed under forest cover; (iii) habitat or ecosystems critical for biodiversity conservation and (iv) absence of other large public or donor-financed projects with similar objectives. Ultimately, eleven (11) upper watersheds were prioritized in the Western Altiplano for project intervention, resulting in the selection of the 40 municipalities with significant land areas in those watersheds. Subsequently, these were compared against GOG's poverty reduction priorities (as identified in the National Poverty Reduction Strategy) and an additional 14 municipalities, mostly contiguous to the initial 40, were included in order to enhance project support for poverty reduction objectives (See Table 1).

### **Subcomponent 1b: Local Institutional Strengthening**

This subcomponent will provide grant resources to participating municipalities to finance specialized technical assistance, training and other services as needed. The PCU will maintain a roster of pre-qualified service providers and facilitate the contracting of these services. Municipal capacity assessments will be conducted for each municipality to ensure their ability to administer funding under the grants.

The grants will be trached based on successful completion of successive steps in the institutional capacity building program. Municipalities and local organizations will be expected to co-finance 10% of total costs of activities financed under the municipal grants. These grants will be used to: (i) establish, or strengthen the *Instancia Local* in order to develop a Municipal Sustainable Development Agenda (*Agenda de Desarrollo Sostenible*), prioritize and select local subprojects; (ii) employ, train and equip a municipal promoter (*Promotor Municipal*) to work with the *Instancia Local* to support municipal development planning and subproject grant activities; (iii) promote identification of local conservation and productivity subproject proposals to submit for project or other financing; and (iv) strengthen local organizations, as required, to enable them to access subproject grant financing for participatory planning; establishing or improving financial accounting, planning, and management systems; multi-stakeholder collaborative decision-making and problem solving; developing leadership skills; membership training, participatory monitoring and evaluation, gender inclusion, and cultural communications skills; cross-visits to learn from successful groups; and linkages with other organizations and programs; (v) improve the design of conservation and productive subproject proposals; (vi) supervise on-going subproject implementation; and (vii) hold regular discussion forums on conservation and development issues, plans, and innovations.

Municipal grants would also provide support to the *Instancias Locales* to: (i) interact with the groups they represent and with other *Instancias Locales* to identify and prioritize the broader types of assistance required to create opportunities to achieve economies of scale for key services (e.g., commercialization and marketing, economic diversification, development of local savings and credit mechanisms, etc.); (ii) seek financing from other sources to meet priorities not financed through this program; and (iii) support occasional departmental or region-wide forums for interchange between local producer groups, state agencies, and other similar ongoing programs. Additionally, staff of regional, departmental, and municipal MAGA, MARN and INAB offices will receive limited financing to improve the effectiveness of their decentralized and deconcentrated support for local development through the project, such as training in environmental and social aspects of natural resources management, technical extension services, participatory planning, and monitoring and evaluation.

### **Project Component 2 - US\$6.80 million**

The component will strengthen local and national capacity to: (i) conserve natural habitats, especially those containing globally important biodiversity; (ii) maintain locally and nationally important environmental services and (iii) do so wherever possible through support to local natural resources

management, religious and cultural traditions which contribute to biodiversity conservation objectives. The component will finance: (i) protection of sites of global and local importance; (ii) intercultural communications and education on environmental issues; and (iii) monitoring and evaluation of biodiversity conservation. Seven target areas were selected, based on: the presence of important biodiversity; representation in the national protected areas system (SIGAP); contribution to strengthening the Mesoamerican Biological Corridor (MBC); presence of unique geomorphologic traits or cultural sites; watershed and environmental services; and synergies with other activities in the area (See Annex 12 and project files for more details).

**Protection of Sites of Global Importance:** A set of inter-related activities, designed to strengthen local and national institutional capacity for conservation and co-management of natural resources in target areas, will include:

*Planning for Protected Areas:* Within the seven areas targeted for improved protection, CONAP with the support of the PCU, in consultation with municipalities, *Instancias Locales*, development and conservation programs in the region, community members and other local stakeholders, will develop plans for co-management within the seven priority areas for conservation.

*Strengthening CONAP:* CONAP will be strengthened in its role as a facilitator of develop and implement reforms designed to strengthen its program of biodiversity conservation in the Western Altiplano. Specifically, its regional capacity to interact with civil society and facilitate local biodiversity conservation initiatives would be strengthened as would the capacity of its central offices to support its decentralized staff in the project region. An institutional training program would be developed and implemented for CONAP's staff in key topics such as leadership, strategic planning, conflict management, intercultural communications, participatory processes, etc.. Regional technical staff would also be trained in wildlife management and protection. The project would also finance an extensive review of biodiversity conservation experiences in the region, including extensive consultations and participatory analysis, leading to a possible revamping of the SIGAP (concepts, protected areas categories, declaration processes) in light of traditional rights, territoriality and cosmovision of the Maya and their spiritual values which promote conservation.

*Expanding the SIGAP:* CONAP, in coordination with *Instancias Locales* and municipal promoters, will provide communities with technical assistance for special studies, local training and workshops, multi-stakeholder participatory planning, and legal services required to establish new protected areas under a variety of management regimes (e.g., municipal regional parks, private reserves). These will only be established at the behest of the local communities and where doing so contributes to broader biodiversity conservation objectives.

*Strengthening Traditional Tenure Rights and Management Systems:* CONAP will conduct special studies and provide targeted assistance as requested by communities to (i) strengthen traditional tenure and management systems for natural resources (principally community forests) and (ii) to resolve local conflicts over resource ownership. Biodiversity conservation promoters will identify candidate communities by consulting with local leaders and institutions, RADEAS, *Instancias Locales*, and municipal governments. Case studies of these interventions will provide a better understanding of issues relating to traditional tenure rights and management systems for community forests and form the basis for modifications to the regulatory framework for rights and management of community resources.

*Special Studies:* The PCU will contract qualified local or international organizations or individuals to complete studies on topics such as ecological evaluations of specific areas, flora and fauna inventories, hydrological studies, studies of tenure and management systems, or others. These will be closely coordinated with the Environmental Services studies (Component 3) to avoid duplication of efforts. The project will publish the completed studies and make these available on a CONAP central database.

The component will finance: technical assistance; travel and operating costs for CONAP promoters; costs of annual workshops for target protected areas; vehicles and equipment, training, and technical assistance for CONAP; special studies; and technical assistance and training for community activities; and small public works to improve protected areas' infrastructure.

**Strategy for Intercultural Environmental Education:** An Environmental Communications Strategy will be developed and implemented, based on extensive consultations with institutions active in the project area and other stakeholders with relevant expertise. CONAP, assisted by the PCU, will contract local institutions to produce multilingual materials (on environmental issues relevant to the seven environmental protection target areas) for radio, video and other communications media (including printed materials) in the nine principal languages of the region. A series of multilingual interactive community environmental programs, designed to stimulate awareness of environmental issues and draw on traditional knowledge, will also be integrated with the Formal Environmental Education initiatives under the overall strategy. The implementation services provider will collaborate with the Ministry of Education to develop a multilingual training program on environmental education and pilot this in primary schools. The component will finance technical assistance for development of multilingual environmental communications programs and mass media products; community environmental programs; costs of broadcasting, printing, and or performing environmental communications materials; training for teachers; and costs for schools to introduce environmental elements in the curricula.

**Biodiversity Conservation Monitoring and Evaluation:** The component will strengthen CONAP's biodiversity Monitoring and Evaluation capacity by establishing a comprehensive biodiversity information system for the Western Altiplano. CONAP will implement these activities and (i) upgrade its GIS with new equipment, computer programs, and data; (ii) update ecosystem maps for INAB; (iii) establish a central database on protected areas within the SIGAP and other areas of natural habitat under other types of protective and use regimes. This system will have linkages to Western Altiplano regional offices and form part of a national system. The component will finance: equipment, training, travel expenses, and technical assistance for CONAP to develop and implement an expanded biodiversity monitoring and evaluation program.

### **Project Component 3 - US\$ 2.30 million**

#### **Environmental Services Market**

The objective of this component is to increase the provision of environmental services, which currently are not recognized in the market, by creating the conditions for the development and implementation of appropriate mechanisms to create markets, sell environmental services and establish payments to land managers for provision of these services. The Component will (i) develop the framework for policies and markets for environmental services, through the elaboration of a National Strategy for Environmental Services; (ii) provide local and foreign technical assistance for research and special studies and training for local and national officials working in areas related to development of environmental services policy, legal framework and pilot programs; and (iii) design and implement pilot projects aimed at developing capacity, methodologies and instruments for market-based incentives for provision of environmental services. As there exists wide interest and several years of prior work by various institutional and bi-lateral actors on this emerging theme in Guatemala, MARN will seek to capitalize on this by forming a national-level coordination group to share and disseminate experiences and learning. The so-called *Grupo Interinstitucional de Acompañamiento* (GIA), which was loosely formed previously to provide a forum for coordination on environmental services in Guatemala can serve as "seed capital" for the organization of the national-level group.

### **Project Component 4 - US\$5.60 million**

## **Administration, Supervision, Monitoring and Evaluation**

The Project Management Component will finance: (i) project administration and planning; (ii) program monitoring and evaluation; (iii) incremental PCU salaries and operating costs, vehicles and equipment; and (iv) such studies as required for purposes of project design, implementation, and follow up. The PCU will be responsible for project execution, coordination between MAGA and other relevant government institutions (MARN, CONAP, and INAB), procurement and disbursement, and meeting the Project's reporting requirements to the World Bank. An office consisting of: a Project and Component Coordinators, a Procurement Unit, an Administrative Unit, and a Monitoring and Evaluation Unit will be set up. Agency staff from MAGA, MARN, CONAP and INAB will be incorporated into the PCU to ensure appropriate linkages with the institutions and to provide technical support. Specialists with proven experience in social and indigenous and gender will be contracted. The component will finance: (i) salaries of non-government PCU staff and operating costs, vehicles and equipment, (ii) training and technical assistance for functioning of the PCU; and (iii) equipment, and incremental operating costs for component-coordinating agency offices (MAGA, MARN, CONAP, INAB). A series of studies will also be carried out, among them: (i) annual independent financial and technical audits; (ii) studies and technical assistance as required for purposes of project implementation and follow up, including the development of investment proposals, and (iii) mid-term and final reviews.

**Project Coordination:** A Project Coordination Unit (PCU) will be established within MAGA and located in the Western Altiplano to provide for overall coordination of component activities and carry out project management functions. Specifically, the PCU will be responsible for implementation, coordination and promotion, preparation of annual work programs, budgets, procurement and financial management, general supervision, and monitoring and evaluation. The PCU will also have some limited technical and implementation responsibilities, in terms of administering and supervising contracts for the implementation of support services, intercultural communication, and other cross-cutting institutional strengthening activities. The PCU will be responsible for preparing Annual Operating Plans (POAs), to be agreed upon with the Bank. All project activities will be planned jointly with MAGA, MARN, CONAP or INAB staff.

The responsibility for implementation of Component 2, will be vested in CONAP with the PCU assisting through the Biodiversity Conservation Component Coordinator and staff. CONAP offices in the Western Altiplano will facilitate and monitor all component activities. The PCU will contract technical and implementation support services from an institution (such as a qualified NGO or other private organization) with recognized capacity in biodiversity conservation. This institution will contract, train and equip biodiversity conservation promoters and an environmental communications specialist to work with CONAP on implementation of the Biodiversity Conservation Component. The Project Operational Manual will incorporate detailed terms of reference for the CONAP regional offices, the Biodiversity Conservation Component Coordinator, and the contracting of the technical and implementation support services.

The PCU will manage some support services directly and others through contracts. Some required support services are identified in advance, and included in the Registry of Qualified Service Providers, for core training services, subproject preparation, local organization and participatory planning, subject matter specialist advisory services, and mass media information services. Other support services will be (i) identified in response to client demand; (ii) triggered by project monitoring and evaluation results pointing to the need for special support; and/or (iii) hired to prepare and implement strategic subprojects which involve more than one municipality/*Instancia Local*.

*Registry of Qualified Service Providers:* To facilitate contracting of technical services for subproject design and implementation, the PCU will establish and maintain on behalf of MAGA a Registry of

Qualified Service Providers. Service providers will include NGOs, universities and other educational institutions, private firms, cooperatives and community organizations, and government agencies. To be registered, service providers must demonstrate evidence of legal status, a bank account, and technical qualifications in an area of technical expertise related to the project (environmental conservation, institutional strengthening, agricultural production, off-farm employment, etc.). Criteria for technical qualification will be detailed in the Project Operational Manual.

The Executive Steering Committee and Technical Advisory Group will carry out an *ex post* review of the "packages" of approved projects at least twice a year, as a basis for recommendations of changes in financing policies, project operational manuals and regulations, and to enhance the impacts from use of the funds.

**Information Campaign:** As part of its duties, the PCU will ensure an ongoing information campaign in the project area to continuously disseminate information about the project and its guidelines to all potential beneficiary communities, thereby increasing awareness, transparency and participation. For this campaign, the project will finance: (i) local technical assistance in the design and development of the campaign; and (ii) the implementation costs, including appropriate, simplified posters, leaflets, radio spots and videos. An information campaign acceptable to the Bank would be prepared in the first year of the project.

**Project Operational Manual:** The Project Operational Manual will describe the procedures for the identification, preparation, evaluation, approval, financing, monitoring, auditing and evaluation of subprojects, including: (i) criteria for selecting and approving eligible beneficiaries and eligible subprojects, respectively; (ii) implementation arrangements and responsibilities and functions of regional GOG agency staff, PCU and the *Instancias Locales*; (iii) templates for the Subproject Grant Agreement and, where applicable, the Municipal Grant Agreement; (iv) standard documentation and detailed procedures for community contracting; (v) detailed procedures for establishing and maintaining the Registry of Qualified Service Providers; (vi) accounting, reporting and auditing procedures to be followed by the PCU, and subproject participants in carrying out their respective parts of the subproject grants; (vii) monitoring and evaluation arrangements; (viii) guidelines for procurement of works, goods, consultant services and training; and (ix) environmental screening procedures. As a condition of project effectiveness, an Operational Manual satisfactory to the World Bank will have been issued and put into effect. Among the required elements of a satisfactory Operational Manual will be: a first-year operating plan (POA) satisfactory to the World Bank and terms of reference, acceptable to the World Bank, for the preparation of an information campaign for the first year of the project; the establishment of the MIS; the project baseline study and the overall evaluation framework. The Project Operational Manual is the governing document which details the procedures to be followed in project implementation.

**Monitoring and Evaluation:** The PCU will be responsible for supervising Monitoring and Evaluation work within each of the project component activities, consolidating information for required project reporting and contracting special impact and evaluation studies. A Management Information System (MIS) maintained by the PCU will continuously register and update a series of key parameters regarding subproject implementation, community associations, *instancias locales* and ongoing technical assistance and training activities. Project monitoring and evaluation systems would provide, *inter alia*, routine, detailed information on a series of indicators of indigenous peoples' and women's participation and benefit from project activities. If participation or benefit falls significantly below established targets, the Project Annual Reviews would recommend corrective actions. Local actors will participate in the design of indicators and in impact monitoring. The implementing agencies (MAGA, MARN, CONAP, INAB) will establish a joint working group to ensure that relevant elements of the M&E system developed are incorporated into their agencies' M&E system, thus contributing to the strengthening of these and the

sustainability of the investments. During appraisal, the project team reviewed the key parameters. Terms of reference for the establishment of the MIS are required in the Operational Manual; the Operational Manual is a condition of loan effectiveness.

The project would implement evaluation studies to assess subproject impact and provide feedback to improve future project operations. These studies would include: (i) annual physical performance reviews to assess the quality and sustainability of common types of financed subprojects, including reviews of community-based procurement; (ii) an evaluation/implementation review, carried out at mid-term, to include beneficiary consultations to evaluate project performance and impact as perceived by its beneficiaries; and (iii) a rigorous and comprehensive impact evaluation. Specifically, the impact evaluation would assess (a) poverty targeting of beneficiaries relative to the income distribution of the population at large; (b) household welfare; (c) social capital formation at the community level; (d) improved governance at the municipal level; and (e) ex-post cost-benefit of productive investments. Terms of Reference for the project baseline study and for the overall evaluation framework will be included in the Operational Manual.

**Table 1. Eligible Project Municipalities & Preliminary Subproject Grant Ceilings**

	Municipality	Population (est.) **	No. Aldeas	Watershed	Indicative Subproject Grant Ceiling
<b>Department of El Quiché</b>					
1	Chajul *	31,780	36	Xacbal, Chixoy	\$ 469,793
2	Chicamán	25,280	75	Chixoy	\$ 373,706
3	Chiché	19,762	25	Motagua	\$ 292,135
4	Chichicastenango	107,193	68	Motagua	\$ 1,584,598
5	Chinique	8,009	21	Motagua, Chixoy	\$ 118,394
6	Cunén	25,595	42	Chixoy	\$ 378,362
7	Joyabaj	52,498	60	Motagua, Chixoy	\$ 776,060
8	Nebaj*	53,617	84	Xacbal, Chixoy	\$ 792,602
9	Sacapulas	35,706	86	Chixoy	\$ 527,830
10	San Antonio Ilotenango	17,204	26	Motagua, Chixoy	\$ 254,321
11	San Juan Cotzal	20,050	20	Chixoy	\$ 296,392
12	San Pedro Jocopflás	21,782	57	Chixoy	\$ 321,996
13	Uspantán	41,892	130	Chixoy	\$ 619,275
<b>Department of Huehuetenango</b>					
14	Aguacatán	41,671	40	Chixoy	\$ 616,008
15	Chiantla *	74,978	123	Ixcán, Selegua, Chixoy	\$ 1,108,374
16	Colotenango	21,834	21	Selegua	\$ 322,765
17	Concepción Huista *	16,961	24	Azul, Selegua	\$ 250,729
18	Cuilco *	46,407	112	Selegua, Cuilco	\$ 686,019
19	Jacaltenango	34,397	30	Nentón, Azul	\$ 508,479
20	La Libertad	28,563	71	Selegua	\$ 422,237
21	Nentón *	28,983	60	Nacapoxlac, Nentón	\$ 428,446
22	San Gaspar Ixil	5,809	12	Selegua, Cuilco	\$ 85,872
23	San Idelfonso Ixtahuacán	30,466	48	Selegua, Cuilco	\$ 450,368
24	San Juan Atitán *	13,365	31	Selegua	\$ 197,570
25	San Juan Ixcoy *	19,367	48	Ixcán	\$ 286,296
26	San Mateo Ixtatán *	29,993	83	Ixcán, Nacapoxlac	\$ 443,376
27	San Miguel Acatán *	21,805	65	Nentón, Azul	\$ 322,336
28	San Pedro Nectá	26,025	53	Selegua	\$ 384,719
29	San Pedro Soloma *	35,590	72	Ixcán	\$ 526,115
30	San Rafael la Independencia *	10,830	24	Ixcán, Azul	\$ 160,096
31	San Rafael Petzal	6,420	11	Selegua	\$ 94,905
32	San Sebastián Coatán	18,410	78	Ixcán, Nentón, Azul	\$ 272,149
33	San Sebastián Huehuetenango *	21,198	35	Selegua, Chixoy	\$ 313,363
34	Santa Bárbara	15,318	41	Selegua, Cuilco	\$ 226,441
35	Santa Cruz Barillas *	75,987	202	Xacbal, Nacapoxlac	\$ 1,123,290
36	Santa Eulalia *	30,102	71	Ixcán	\$ 444,988
37	Santiago Chimaltenango	5,811	15	Selegua	\$ 85,902
38	Tectitán	7,189	35	Cuilco, Coatán	\$ 106,273
39	Todos Santos Cuchumatán *	26,118	77	Ixcán, Azul, Selegua, Chixoy	\$ 386,093
<b>Department of San Marcos</b>					
40	Comitancillo	46,371	64	Cuilco	\$ 685,487
41	Concepción Tuluapa	49,363	81		\$ 729,716
42	El Tumbador	35,507	113	Suchiate, Naranjo	\$ 524,888
43	Esquipulas Palo Gordo	8,613	20	Suchiate, Naranjo	\$ 127,323
44	Ixchiguán *	20,324	38	Cuilco, Suchiate	\$ 300,443
45	Nuevo Progreso	26,140	81	Naranjo	\$ 386,419
46	San Cristobal Chucho	13,928	23	Naranjo	\$ 205,893
47	San José Ojotenam	16,541	46	Cuilco, Coatán	\$ 244,520
48	San Marcos *	36,325	38	Cuilco, Suchiate, Naranjo	\$ 536,980
49	San Pablo	36,535	94	Suchiate	\$ 540,084



**Table 2: Project Performance Indicators**

<b>Component I. Sustainable Livelihoods</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>TOTAL</b>
<b>A. Subproject Grants Program</b>						
Establishment Registry of Service Providers	1					1
Finalization Reglamento del Programa	1					1
Community Subprojects Approved	36	108	180	240	196	760
Project Promotion Campaign	1	1	1	1	1	5
Participatory Design Special Support Programs	2	3	1			6
Execution Tech. Assistance Special Support Programs	2	2	3			7
<b>B. Strengthening Local Capacity</b>						
Instancias Locales formed, oriented, trained	18	18	18			54
Municipal Strengthening grants	18	18	18			54
Municipal level promoters, hired, and trained	18	18	18			54
Municipal Agendas Prepared	9	18	18	9		54
Training of organizations in proposal preparation	56	144	250	250	150	850
Legal registration of organizations		25	100	150	150	425
Strengthening MAGA, MARN, INAB decentralized offices	6	3				9
Equipment purchase (Municipal, GOG offices)	21	27	18			66
Short term local training (GOG offices)	6	6				12
Technical Assistance Planning (GOG offices)	6	6	6			18
Technical Assistance Environmental Impact Assessments	6	6	6	6	6	30
<b>Component II. Biodiversity Conservation</b>						
<b>A. Protection of Sites of Global Importance</b>						
Development Long Term Management Plans		2	3	2		7
Training modules for CONAP staff	4	4	4	4	4	20
Short term technical assistance	2	7	7	7	7	30
Equipment purchase	1	1				2
Special biodiversity studies		1				1
<b>B. Intercultural Environmental Education</b>						
Mass Media Campaign	5	10	10	10	10	45
Media Coordinator Contract	1					1
Media preparation	5	10	10	10	10	45
Media dissemination	5	10	10	10	10	45
<b>C. Biodiversity Conservation M&amp;E</b>						
Establishment Environmental Management System		1				1
Short term international GIS training	8		8		8	24
Technical Assistance Survey and Mapping Study	3	3	3	3	3	15
Equipment purchase	1	1	1			3
Short term local training	1	1	1	1	1	5
Technical Assistance Planning	1	1	1	1	1	5
Technical Assistance Environmental Impact Assessments		1	1	1	1	4

<b>Component III. Environmental Service Markets</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>TOTAL</b>
Technical Assistance Contracts	4	3	1			8
Identification of pilots	5	10				15
Valuation Studies	5	5				10
Feasibility Studies		8				8
Workshops	2	2	1	1	4	10
Publications	1	1	2		2	6
In-country training	5	5	5	5		20
Pilot Project Grants			2	2		4
Develop and promote adoption of National Strategy for Environmental Services			1	1	1	3
<b>Component IV. Proj. Admin, Sup., M &amp; E</b>						
<b>A. Project Management and Supervision</b>						
Contracting PCU personnel	1	1	1	1	1	5
Orientation PCU	3					3
Training PCU Staff	2	2	2	2	2	10
Procurement office equipment	1					1
Contracting Administrator Agent	1					1
Financial Management System	1					1
International short term technical assistance	4	4	4	4	4	20
Local short term technical assistance	8	10	15	15	15	63
<b>B. Monitoring and Evaluation</b>						
Management Information System	2	2	2	2	2	10
Project monitoring program			1			1
Technical Assistance Project output studies	2	2	2	2	2	10
Technical Assistance Program Annual Review			14	20	20	54
Workshops	2	2	2	3	2	11
Midterm evaluation			1			1
Technical Assistance Annual implementation plans	1	1	1	1	1	5
Technical Assistance Preparation of follow-up project					1	1
Existing M&E systems strengthened in implementing agencies				4		4
Technical Assistance Preparation of PCR					1	1

**Table 3. Indicative Costs of Consulting Services**

<b>Consulting Services</b>	<b>US\$ millions</b>
<b>Implementation Studies</b>	<b><u>6.08</u></b>
<i>Technical Studies in Support of Local Investments</i>	<i>3.37</i>
<i>Technical Studies in Support of Municipal Strengthening</i>	<i>0.22</i>
<i>Technical Studies and Design for Program Administration</i>	<i>0.11</i>
<i>Technical Studies Protected Areas</i>	<i>0.48</i>
<i>Policy Studies</i>	<i>0.25</i>
<i>Monitoring and Supervision</i>	<i>0.96</i>
<i>Research</i>	<i>0.69</i>
<b>Technical Assistance</b>	<b><u>4.45</u></b>
<i>Information Dissemination for Local Development</i>	<i>0.20</i>
<i>Community and Municipal Strengthening</i>	<i>1.63</i>
<i>Strengthening of GOG agencies</i>	<i>0.07</i>
<i>Orientation of Service Providers</i>	<i>0.04</i>
<i>Environmental Education</i>	<i>2.15</i>
<i>Specialty Support from International Consultants</i>	<i>0.36</i>
<b>Performance Audits</b>	<b><u>0.15</u></b>
<i>Independent technical audits</i>	<i>0.15</i>
<b>Project Coordination Unit (technical and administrative staff)</b>	<b><u>3.52</u></b>
<i>Program Management</i>	<i>1.11</i>
<i>Project Administration</i>	<i>0.89</i>
<i>Technical Support</i>	<i>1.30</i>
<i>Specialty Support</i>	<i>0.11</i>
<i>Annual Independent Financial Audits</i>	<i>0.11</i>
<b>Total</b>	<b><u>14.20</u></b>



### Annex 3: Estimated Project Costs

#### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million
Sustainable Livelihoods	36.20	2.64	38.84
Biodiversity Conservation	3.83	1.55	5.38
Environmental Services Markets	1.21	0.75	1.96
Administration, Supervision, Monitoring and Evaluation	3.05	1.60	4.65
<b>Total Baseline Cost</b>	44.29	6.54	50.83
<b>Physical Contingencies</b>	0.65	0.27	0.92
<b>Price Contingencies</b>	1.36	2.19	3.55
<b>Total Project Costs<sup>1</sup></b>	46.30	9.00	55.30
Front-end fee		0.30	0.30
<b>Total Financing Required</b>	46.30	9.30	55.60



## **Annex 4: Cost Benefit Analysis Summary**

### **GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

#### **Summary of Benefits and Costs:**

The Project aims to integrate activities for natural resources conservation, sustainable productivity, and improved rural livelihoods to enhance value of the natural resource base of the Western Altiplano.

Benefits from the Project would include:

- Social capital built in local organizations, decentralized government units, and new institutional arrangements: This social capital is essential to future social and economic development of the area.
- Productivity increases from sustainable agricultural, forestry, off-farm, and tourism enterprises made possible by Project investments: These productivity increases and the sustainable employment generated by the Project are important parts of national strategy to reduce the high poverty levels of the area.
- Conservation of natural resources and biodiversity: Natural resources of the area provide both essential local environmental services and globally important biodiversity. Environmental services market and policy development would establish a basis for future supply of essential environmental services.
- Development and demonstration of a viable strategy and institutional arrangement for government financing of rural development: The mechanisms being developed by the Project would serve as a basis for wider national investments in sustainable management and use of natural resources.
- Contribution to implementation of the Peace Accords, national integration and avoidance of future civil strife: Rural developments in the area are a government commitment and are essential to overcoming the distrust and disruption of past civil war.

Clearly, few of these benefits lend themselves to estimation in quantitative terms, and fewer to evaluation in monetary terms. Furthermore, given the wide range and diverse nature of the benefits that are expected to be generated by the project, aggregation into single measures of project worth is particularly problematic in methodological terms, with results difficult to interpret.

Project costs involve the application of financial resources and contributions from project beneficiaries, largely in the form of own labor.

The economic and financial analysis illustrated in this annex focuses on project activities that are amenable to reasonable estimation and aggregation of expected benefits: i.e., the sub-project grants in the productive and natural resource management categories, which amount to about 50% of the entire project budget, and to about 60% of World Bank financing. For other project activities, this annex provides a brief characterization of the costs and benefits, comparing them where feasible to suitable benchmarks in terms of effectiveness or cost norms. At the end of the Annex, the quantitative analysis of costs and benefits for the entire project is summarized and related to those benefits that have not been measured

#### **B. Economic and financial analysis: community subprojects**

##### **Methodology**

Based on a number of studies, completed during project preparation, farm models were developed to

evaluate the economic and financial viability of a group of different types of subprojects that may be submitted for financing, in accordance with the eligibility criteria to be included in the operational manual (CODERSA, 2000 b-g). The farm models provide information on costs and benefits under a “with” and “without” subproject scenario. The comparison of these two scenarios yields the profitability of each activity according to three different indicators: (i) cash flow effects on project beneficiaries, (ii) net private returns to project beneficiaries (including own labor costs); and (iii) net economic returns to the economy (including investment under the project). These figures are calculated both in terms of simple totals over the five-year project horizon for each activity and also in terms of discounted net present values (NPV). In order to reflect the higher opportunity cost of capital faced by farmers, a private discount rate of 15% is applied to cash flow and private returns and an economic opportunity cost of capital of 10% is applied to the economic returns.

Cash flow analysis determines whether adoption of new technologies financed by the subproject will increase or decrease cash flow to farmers. The analysis of private returns reproduces the decision faced by beneficiaries by modeling all costs and benefits that accrue to them, regardless of whether they reflect (i) cash transactions, (ii) changes in allocation of household resources, or (iii) the availability of subsistence production for own consumption. The net economic returns portray the net benefits as they accrue to the Guatemalan economy and serve as a useful indicator of the utility of the subprojects to the overall economy, ignoring any distributional effects.

In addition, information on the contribution to total economic costs under the project can be extracted from the models. In other words, the costs that are included in the analyses consist of:

- cash flow costs for purchased inputs and labor made by beneficiaries;
- own labor invested by beneficiaries; and
- project investments in fixed and variable costs of developing the subprojects.

The benefits consist largely of cash-flow benefits from the sale of products. In a number of cases, the “without” subproject scenario consists of subsistence production and, thus, the benefits are not considered as cash flow benefits but rather as part of the private and economic returns. In addition, the provision of family water tanks implies a benefit that is derived from the savings in labor that would otherwise be spent collecting water. This benefit also accrues only as a private and economic benefit and not a cash flow benefit.

Profitability can then be assessed against the characteristics of the products, including the number of families and hectares involved and the amount of labor provided. Thus a series of indicators that can be used to evaluate and compare individual activities. These include:

- net cash flow per producer;
- net private returns per family and per hectare;
- net economic returns per hectare; and
- employment generated and cost per job created.

An additional indicator that was calculated includes the relationship between the net creation of employment on a given activity and the net economic returns of moving to the “with” project scenario.

## Farm Models

The models analyzed include a mix of sustainable production and natural resource management subprojects, covering a broad range of income-generating activities suited to the various conditions present in the western Altiplano (e.g., agro-ecological zones, levels of organization, degree of access to markets). The models reflect actual experiences and practices of sustainable production by development organizations operating in the Altiplano. The activities assessed are detailed below, along with the “with” and “without” subproject activity (Table 4.1). Key summary information on each of these activities are summarized in Table 4.2.

**Table 4.1 Summary of Farm Models**

Subproject Category	“With” subproject scenario	“Without” subproject scenario
<i>Sustainable Production</i>	Semi-stabled Sheep; vegetables	free-range sheep
	Greenhouse Vegetables	traditional production of maize and beans
	Maize and Medicinal Plants	traditional production of maize and beans
	Beekeeping	(new activity; no alternative assessed)
	Ecotourism	(new activity; no alternative assessed)
	Organic Manures	
	Organic Vegetables	conventional production of vegetables
<i>Natural Resource Management</i>		
	Agroforestry	traditional production of maize and beans
	Family Water Tanks	traditional water collection

**Table 4.2 – “With” Subproject Scenarios, characteristics of investments**

“With” subproject scenario	Hectares Employed	Number of Families	Subproject Cost (US\$)	Total Employment <sup>1</sup> (days)	Net Employment Created <sup>2</sup> (days)
Sheep and Vegetables	28	20	37,402	1,407	771
Greenhouse Vegetables	1	25	57,950	25,541	22,815
Beekeeping	800	20	71,654	5,220	5,220
Ecotourism	Na	45	79,525	9,878	9,878
Organic Manures	33	25	15,975	6,544	4,903
Maize and Medicinal Plants	25	25	4,025	2,855	1,492
Organic Vegetables	8	25	72,595	67,132	32,363
Agroforestry	10	25	1,855	9,714	714
Family Water Tanks	Na	25	27,908	-	-

<sup>1</sup>with” project scenario.

<sup>2</sup> increase in direct employment of beneficiaries in moving from “without” to “with” project scenario.

Net cash flows for “with” subproject scenarios are all positive, both in terms of their simple totals and discounted net present value (Table 4.3). This is an expected result, as many of the subprojects fund the purchase of inputs in return for families’ contribution of increased labor – in place of previous activities that required some outlay of cash resources. The biggest impact is the increase in production of marketable commodities, substituting for subsistence production. The sale of vegetables, medicinal plants, honey and ecotourism services all provide new cash benefits to farmers. Net cash flows per family are quite significant, ranging roughly from \$70 per family per year (agroforestry) to over \$10,000

per year (greenhouse vegetables). Returns to family water tank investments include an increased livestock production due to the availability of water; the benefits accrue as labor savings (no direct family labor is involved in the construction of these tanks).

**Table 4.3. Cash Flow Analysis Results**

<b>“With” subproject scenario</b>	<b>Net Cash Flow (US\$)</b>	<b>Annual Net Cash Flow per Family (US\$)</b>	<b>Net Cash Flow (discounted US\$)</b>	<b>Net Cash Flow per unit Labor (discounted US\$/day)</b>
Sheep and Vegetables	138,717	6,936	93,643	121.45
Beekeeping	108,975	5,449	73,060	14.00
Ecotourism	144,000	3,200	96,542	9.77
Agroforestry	8,694	70	5,678	7.96
Greenhouse Vegetables	266,305	10,652	178,539	7.83
Organic Manures	53,150	2,126	35,633	7.27
Maize and Medicinal Plants	13,790	552	9,245	6.20
Organic Vegetables	229,325	9,173	153,747	4.75
Family Water Tanks	12,105	484	8,115	na

The extra cash gained by investing additional labor (over and above that employed in the “without” project scenario) in these activities (i.e., net cash flow per unit of labor) is perhaps the most crucial indicator of the incentive these investments provide for beneficiary involvement. These values are all positive and range from US\$4.75 (organic vegetables) to US\$121 (sheep and vegetables) in daily incremental income per unit of incremental labor. This compares quite favorably with the opportunity cost of labor used US\$3.50/day. Annual net cash flows per family are also substantial.

After incorporating the economic opportunity cost of family labor, all activities continue to display positive net returns (Table 4.4). Net present values are primarily useful in making capital allocation decisions. While capital may be scarce and potentially hinder beneficiaries in adopting these innovations, most of the activities require minimal capital outlays and make use of land and labor – items which are in relatively more plentiful and which could be devoted to higher end uses. Consequently, net returns to labor are uniformly positive. Returns to land display greater variability. Vegetable production has high returns, ranging from US\$3,000 to over US\$100,000 and reflecting the intensive use of land and complementary inputs. Conversely, agroforestry, organic manures, maize and medicinal plants – more traditional land-based activities -- yield much lower returns, from US\$171 to US\$742.

**Table 4.4: Net Private Returns: Results**

<b>“With” subproject scenario</b>	<b>Net Private Returns (discounted US\$)</b>	<b>Net Private Return/Family (discounted US\$)</b>	<b>Net Private Return/net Unit Labor (discounted US\$ per day)</b>	<b>Net Private Return to Land (discounted US\$ per ha)</b>
Greenhouse Vegetables	121,167	4,847	5.31	96,933
Organic Vegetables	77,736	3,109	2.40	10,365
Sheep and Vegetables	91,867	4,593	119.15	3,281
Organic Manures	24,119	965	4.92	742
Agroforestry	5,272	211	7.39	527
Maize and Medicinal Plants	4,284	171	2.87	171
Apiculture	61,414	3,071	11.77	77
Ecotourism	73,021	1,623	7.39	na
Family Water Tanks	52,215	2,089	na	na

The results for the analysis of net economic returns are presented in Table 4.5. All the subprojects generate benefits beyond those in the “without” project scenario. In the case of agroforestry, the incremental benefits are low as they consist only of a single harvest of firewood in year 4 of the activity. The economic internal rate of return exceeds 40% in most cases and net present values (i.e., net economic returns) are substantial. Finally, the net economic returns per net unit of labor invested are all positive, yet lower than the similar figure for private returns, given the subsidy provided by the grant financing, as well as any technical assistance provided.

**Table 4.5 Economic Returns: Results**

<b>“With” subproject scenario</b>	<b>Incremental Economic Benefits (discounted \$)</b>	<b>Economic Internal Rate of Return (%)</b>	<b>Net Economic Returns (discounted \$)</b>	<b>Net Economic Returns per net Unit Labor (discounted \$ per day)</b>
Greenhouse Vegetables	198,846	1463%	89,270	3.91
Sheep and Vegetables	97,602	Na	72,070	93.47
Family Water Tanks	59,047	121%	33,677	na
Organic Vegetables	93,291	Na	31,671	0.98
Ecotourism	109,175	46%	16,864	1.71
Organic Manures	40,296	73%	12,752	2.60
Beekeeping	82,620	44%	11,482	2.20
Agroforestry	1,044	178%	4,362	6.11
Maize and Medicinal Plants	8,776	68%	1,491	1.00

Most of the subprojects require a substantial investment either in capacity-building and strengthening of local organizations or in covering investment and input costs. Most subprojects range in total cost from US\$15,000 to US\$80,000, of which a significant percentage is allocated to direct technical assistance to the communities. Agroforestry and medicinal plants activities require little in the way of resources, needing only a small initial allocation of technical assistance and materials to generate firewood and medicinal plants alongside the traditional production of maize and beans. The beneficiary co financing is highly volatile. In agroforestry, reduced use of artificial fertilizers would lead to cost savings for the beneficiaries, implying a negative co financing percentage. With the production of medicinal plants and

organic manures, the large increase in labor implies that beneficiaries are contributing relatively more in terms of co financing.

**Table 4.6 Economic Returns: Fiscal Results**

Activity	Total Subproj. Cost (US\$)	Technical Assistance and Training (\$ in 5 years)	(% of total)	Beneficiary Co-financing (\$ in 5 years)	Cost per net job created (\$ per net day)
Family Water Tanks	27,908	na	na	0%	na
Organic Vegetables	72,595	17,125	24%	10%	2.24
Greenhouse Vegetables	57,950	28,100	48%	81%	2.54
Agroforestry	1,855	1,600	86%	-360%	2.60
Maize and Medicinal Plants	4,025	2,000	50%	129%	2.70
Organic Manures	15,975	11,725	73%	108%	3.26
Ecotourism	79,525	28,000	35%	44%	8.05
Beekeeping	71,654	10,700	15%	24%	13.73
Sheep and Vegetables	37,402	21,320	57%	-20%	48.51

From an economic and environmental perspective, the project will provide resources to the communities in the Western Altiplano to improve their development prospects while conserving natural resources and improving the environment. From a fiscal perspective, adopting these new or different technologies will, in many cases, require more labor input to generate the higher cash benefits. The end product will be greater employment opportunities in the project area. A legitimate question is whether the subprojects constitute a cost-effective way of generating employment. The final two columns of Table 4.6 tackle this issue by ranking the subprojects according to the cost of generating a day's worth of employment. These costs range from US\$2-3 for all but three of the activities: ecotourism, apiculture and sheep and vegetables. Ecotourism and beekeeping require relatively larger inputs and provide relatively less in the way of employment. As mentioned earlier, the sheep and vegetables activity either requires very little labor input or this input is under-budgeted. As a result the cost per unit of labor generated is quite high.

It is important to stress that this indicator does not take into account the profitability of the activity, being rather a measure of cost-effectiveness. Indeed, in allocating available capital, decisions are best taken based on the net present value of the economic returns. However, if poverty reduction is an explicit target alongside economic development, then such figures might well be compared to those of other public sector projects to judge their relative cost-effectiveness. As a caveat it should be stressed that the employment generated in terms of the hiring of consultants to undertake the technical assistance and training is not included here, merely the employment generated amongst the rural workforce.

### **Scaling-up Financial Models to Reflect full Subproject Investments**

Estimating aggregate measures of value for subprojects poses a challenge, given the ex ante absence of demand data. The actual allocation of beneficiaries' demand across the different subproject types will be a function of several factors, such as relative profitability, agro-ecological suitability to each specific location, degree of subproject complexity and co-financing requirements, among others. For illustrative purposes, the potential net economic benefits of the subproject models were distributed across the various categories and scaled-up to an aggregate subproject investment level of approximately US\$26.5 million. Given the emphasis on conservation, as well as the characteristics of the western Altiplano, the agroforestry activity is scaled up at 25 percent of total costs, while the productive components each receive 10 percent of investment. Family water tanks are allocated 5% of costs.

**Table 4.7**

	Allocation	Project MIRNA	Beneficiary Co-financing	Beneficiary Families	Job Creation	Lands Managed	Net Private Returns to Families	Net Economic Returns
	(%)	(\$ million)	(\$ million)	(No.)	(job years)	(hectares)	(discounted \$ million)	(discounted \$ million)
<b>A. Productive Subprojects</b>	70%	18.5	9.9	26,270	19,092	53,736	26.4	14.4
Sheep and Vegetables	10%	2.6	(0.5)	1,420	228	1,988	6.5	5.1
Greenhouse Vegetables	10%	2.6	2.2	1,150	4,373	58	5.6	4.1
Apiculture	10%	2.6	0.6	740	805	29,600	2.3	0.4
Ecotourism	10%	2.6	1.1	1,485	1,358	-	2.4	0.6
Organic Fertilizers	10%	2.6	2.9	4,150	3,391	5,395	4.0	2.1
Maize and Medicinal Plants	10%	2.6	3.4	16,425	4,083	16,425	2.8	1.0
Organic Vegetables	10%	2.6	0.3	900	4,855	270	2.8	1.1
<b>B. Conservation Projects</b>	30%	7.9	na	90,325	10,605	35,660	21.3	17.1
Agroforestry	25%	6.6	na	89,150	10,605	35,660	18.8	15.6
Family Water Tanks	5%	1.3	na	1,175	-	-	2.5	1.6
<b>TOTAL</b>	<b>100%</b>	<b>26.5</b>	<b>9.9</b>	<b>116,595</b>	<b>29,698</b>	<b>89,396</b>	<b>47.6</b>	<b>31.6</b>

Allocating subproject investments in this manner produces the outputs and economic results portrayed in subsequent columns of Table 4.7. Due to the nature of the agroforestry and family water tank projects, no co-financing contribution is calculated for these subprojects. With respect to outputs, the subprojects, as a whole, would then be able to reach over 116,000 families and generate almost 30,000 job years, bringing 90,000 hectares under more sustainable management. The overall net private returns to the beneficiary families would reach close to US\$50 million, split roughly half between the productive and conservation subprojects. The net returns to the economy are also substantial, at over US\$30 million for the five-year period. During implementation, assessment of the absorptive capacity of relevant markets will be necessary to validate the potential for such high returns. However, substantial reductions in the expected benefits would need to occur before the subprojects would fall below the break-even point. In particular, the large proportion of funds invested in agroforestry, the low level of investment required and the general utility of the output – firewood – bodes well for the prospects of providing significant benefits to the economy while halting environmental degradation in the Western Altiplano.

It is also important to note that the economic results presented above do not include the economic benefits from improved ecosystem services in the project areas that would result from the productive and conservation subprojects. Improved on-site fertility, downstream watershed services, carbon storage and conservation of biodiversity are all likely to result to varying degrees with the implementation of the subprojects. These benefits are underestimated in economic terms, given that many of these services, particularly fertility and watershed services will actually prevent the need to invest in fertilizer and alternative sources of supply of clean water and electric power (from hydropower facilities).

### **C. Other Project Components and Sub-Components**

**Institutional Strengthening (subcomponent 1a).** Under this subcomponent, the project would fund a number of activities aimed at strengthening local institutions and organizations in their capacity to plan and undertake natural resource management activities. A total of \$4 million (of which about \$3 million from IBRD) would be made available for this sub-component. Given the demand-driven nature of the fund allocation, it is not possible to know in advance how many and which municipalities would be benefited. However, assuming distribution of resources proportional to the population of the 54 municipalities included in the project area, this sub-component would provide an average of \$0.6 per capita per annum. In 1998, the weighted average of fiscal transfers to municipalities in the three departments of El Quiché, Huehuetenango and San Marcos was \$20 per capita, so that the project would add a modest 3% on average to the municipalities' current transfer absorption levels. Again the exact benefits of these capacity strengthening are hard to measure, however as stated earlier social capital for development remains a scarce input in achieving sustainable development in the Altiplano and, thus, the relative returns to this investment are likely to be quite high.

**Biodiversity Conservation (Component 2):** The component includes a host of activities of diverse nature (community level planning, institutional strengthening, studies, communication and outreach, biodiversity monitoring and evaluation). The benefits of the component's outputs are characterized by widespread local, national and global externalities and hence do not lend themselves readily to monetary quantification.

However, a cost-effective analysis can be used to assess if the investment being envisioned is reasonable with regard to the intended outcomes. Total costs of the component is approximately \$5.8 million; the expected outcome is improved protected area management and biodiversity conservation over an area of 1,750 Km<sup>2</sup>. This gives a cost per square kilometer of some \$3,300, or \$660 per annum. This cost compares reasonably well with typical costs of biodiversity conservation in the LAC region: according to a recent review (Castro and Locker, 2000), biodiversity funding per square Km in the region (in the period 1990-1997) can be clustered in five broad ranges, comprised between a "low" \$0 - \$30 (or \$0 - \$4.2 per annum) range prevailing in countries such as Chile and Argentina, and a "high" range of \$210 to \$12,000 (or \$30 to \$1,700 per annum) observed in Colombia, Ecuador, and much of Central America. The proposed project would then be in the middle of the "high" range, which is not surprising for a country like Guatemala, where a combination of high biodiversity priorities, and of complex social, economic and institutional threats to biodiversity are likely to make costs of protection high in regional comparative terms.

**Environmental Services (Component 3).** The direct output of this component will be market and feasibility studies, followed by implementation of a range of initiatives to develop market and payment schemes for environmental services. Schemes aimed at improving watershed management will likely involve transfers between users and producers of hydrological services for the purpose of improved land management. The net economic impact of such initiatives will be to lower the investment required to replace publicly or privately produced water supply, irrigation or hydropower services that are typically degraded over time. A series of other schemes aimed at biodiversity and carbon values are likely to result in the selling of environmental services provided in the Western Altiplano to international users and markets. In other words the net economic impact of these efforts will be to generate net inflows of financial resources to the country. Thus the Environmental Services Component will improve economic allocation of internal natural resources as well as generate additional external financial resources.

### **D. Overall Economic Analysis of the Project**

Clearly, many of the benefits of the project are not amenable to quantification, either in biophysical or economic terms. Nonetheless, from an economic perspective given that the uncounted benefits are certainly in excess of any uncounted costs, the costs and benefits as quantified above can be assessed to see if the investment makes sense from the perspective of the national economy. This is undertaken in Table 4.8 below and explained as follows. The total direct cost of the project scenario analyzed is \$54.13 million, with an additional \$8 million as a GEF donation. This is effectively a payment by the international community to Guatemala for the effort reflected in the project to conserve biodiversity of international importance. Of this about \$41 million was allocated in the analysis to be spent on Component 1, the Rural Investment Component. As part of this investment, \$34 million will go to the subprojects, which were quantified in terms of their productive costs and benefits in Part 4A. above. The net economic benefits in present value of this sub-component are expected to be on the order of \$32 million. Taking into account then the \$21 million of project costs that would go to other sub-components and to Components 2, 3 and 4 this leaves a profit to the economy of 11 million dollars – on a base of a Bank and GEF financing of \$40.8 million.

**Table 4.8**

	<b>Project Components (US\$ million)</b>				
	<b>TOTAL (US\$ million)</b>	<b>Rural Liv.</b>	<b>Biodiversity</b>	<b>Env. Services</b>	<b>Proj. Adm.</b>
Total Direct Cost	55.13				
GEF Grant	8.00				
Cofinancing/GOG	8.46				
Direct Cost by Component	55.13	40.82	6.34	1.64	6.33
Cost of Subprojects	33.95	33.95			
Remaining Costs	21.18	6.87	6.34	1.64	6.33
Net Benefit/Subproj.	32.00	32.00			
Profit to the Economy	10.82				
Other Economic Benefits not calculated in Monetary Terms	Strengthening of community capacity to be self-sufficient in achieving sustainable rural development				
	Protection of 210,300 hectares of ecosystems of local, national and international importance				
	Development of markets for environmental services				

While it is certainly true that the analysis of the subprojects may over-estimate the productive benefits that will be realized in an operational setting, it is likewise true that no accounting was undertaken of the environmental benefits that will be realized through improving land management and conserving biodiversity through the project as a whole. Even further, the potential benefits of providing widespread employment gains, technological transfer and capacity-strengthening in the Altiplano and the support this offers to rural, impoverished indigenous communities is an important consideration in the overall evaluation of the worthiness of the proposed project.

## Annex 4b

### Incremental Costs and Global Environmental Benefits

#### Baseline Scenario

The reduced biodiversity of the globally important Altiplano of Guatemala has fragmented remaining habitats and threatens their future survival. Current agricultural practices, on which the bulk of the Altiplano residents depend, are often unsustainable and are slowly contributing to the erosion of the remaining biodiversity. At the same time, the rural population density is higher in the Altiplano than any other part of Guatemala, and the greatest areas of poverty are focused here. The economic development of this region, specifically the development of the area's agricultural potential, remains of vital importance to Guatemala. The vast majority of the Altiplano residents are poor Mayan indigenous peoples, and in the near future there are no reasonable alternatives to subsistence and near-subsistence agriculture as their means of survival.

A detailed assessment of probable public investment (defined here as government agency spending and expected investments under the proposed project) over the five-year project period was conducted, detailing expected investments in Natural Resource Management (NRM) in the productive landscape, expected investments in conservation, and expected development of environmental services markets. These analyses of the Baseline Scenario are summarized here.

*Integrated NRM in Productive Landscapes.* The Ministry of Agriculture, Livestock, and Food (MAGA) is responsible for productive investments in the agricultural sector. Its budget for the period 1995-2000 has averaged US\$62.4 million. Using 1999 pro-rated data for the departments included in the Altiplano, it is estimated that the average MAGA annual expenditure in the Altiplano will be approximately US\$20 million (some US\$100 million over the five-year project period). The National Forests Institute (INAB) is charged with developing and implementing Guatemala's forestry policy. Its budget for 1995-2000 has averaged US\$6.3 million annually, of which it is estimated that only some 4% is spent in the project area. The baseline for INAB's projected expenditure in the Altiplano is therefore about US\$1 million. The planned World Bank/GEF investment under this project is \$US40.8 million. In the absence of the GEF funding, these resources for Component 1 would be dedicated more toward traditional productive activities, with little or no funding for the now-proposed Conservation Subprojects.

The total baseline for integrated NRM activities is therefore estimated at about US\$ 139 million which would have generated very few global benefits. Knowledge about farming and NRM practices that are beneficial to conservation and sustainable use of biodiversity and agrobiodiversity outside protected areas would not have been developed or financed.

*Biodiversity Conservation in the SIGAP.* Management of the National Protected Area system (SIGAP) is the responsibility of the National Council for Protected Areas (CONAP). The average annual budget of CONAP during the period 1995-2000 has been US\$ 3.2 million. CONAP has currently limited presence in the Altiplano; based on 1999 information on distribution of staff costs, it is estimated that only some US\$ 0.17 million per year may have been spent in the region. As a result, the non-project budget for SIGAP protection is estimated at about US\$ 0.8 million over the 5 years of the project. Baseline biodiversity conservation efforts would focus essentially on the maintenance of the status quo, i.e., only very basic levels of funding to maintain a nominal presence of the State in protected areas. In this scenario there will be virtually no funds for consolidation and expansion of the protected area system.

About \$2.3 million of World Bank and GOG funds are included in the proposed project for Component

2. We do not include these in the baseline amount as these funds have been leveraged by the GEF funds themselves.

The amount for the baseline scenario for this component is therefore only \$0.8 million. At best this would allow the tiny area currently in protected areas to be maintained as such but would not allow for the expansion of the protected area system, development of effective biological corridors, nor for the effective collaboration with local communities on issues of sustainable use and conservation of biodiversity. There would be no readily available monitoring tools for managing the various natural ecosystems in the Western Altiplano.

*Environmental Service Markets.* Despite considerable interest in Guatemala and more generally in Central America, experiences to date are scarce regarding development of the institutional and regulatory framework required to promote markets for environmental services. The government is currently pursuing a subsidy approach (as opposed to a market-based approach) to remunerate land users for providing environmental services. The Program for Forest Incentives (PINFOR) delivers direct payments to forest producers using earmarked fiscal resources. Using the program's budget for CY 2001 as a basis (Q3.5 million, about US\$460,000) it is estimated that the government's non-project expenditure in this sector at the national level will be in the range of US\$ 1.8 million during the project's duration, supplemented by US\$1.3 million in World Bank funding under MIRNA.

The total Baseline Scenario amount for this component would therefore be in the order of \$3.1 million. Under this scenario, current managers and beneficiaries of development programs would have no incentives to integrate biodiversity concerns because of the absence of policies or a framework that incorporates biodiversity into developing environmental services markets. The development of environmental services markets would focus most likely entirely on water and perhaps also on carbon markets (which would generate indirectly global benefits for biodiversity but would not necessarily ensure that globally important biodiversity would be specifically targeted).

### **Global Environmental Objective**

The Global Environment objective of the project is to promote conservation and sustainable use of globally significant biodiversity through the implementation of a broad range of strategies in the Western Altiplano. These strategies focus on the incorporation of the concepts of sustainable use and conservation of biodiversity within productive landscapes, direct investments in conservation, and incorporation of biodiversity issues into emerging environmental services markets.

### **GEF ALTERNATIVE**

With GEF assistance, the Government of Guatemala would be able to undertake an expanded program that would generate both baseline national benefits and a more ambitious set of global benefits. The GEF Alternative would reorient the baseline scenario described earlier (essentially a traditional approach to rural development with minimal investments in conservation and sustainable use of biodiversity) and augment it to become an expanded program for addressing the global biodiversity objectives outlined above. The GEF Alternative would be financed through the present proposed project which has been designed to take into account the capacity of the GOG and its partners to implement such an ambitious agenda.

### **Incremental Costs**

The difference between the costs of the Baseline Scenario (US\$ 144.5 million) and the GEF Alternative (US\$ 151.2 million) is US\$ 10.3 million (see table below). This represents the incremental cost for achieving global environmental benefits through sustainable livelihood projects with biodiversity conservation objectives, protecting sites with globally significant biodiversity, and development of environmental service markets that integrate biodiversity conservation objectives. World Bank/GOG

financing for amount of US\$2.3 million will partially finance this increment as these funds will be used in Component 2, which would not have existed under the Baseline Scenario. Thus, US\$8.0 million in GEF financing to finance the remaining portion of the incremental costs is proposed.

Table 1: Incremental Cost Analysis, Western Altiplano NRM (US\$)

	<b>Baseline</b>	<b>Alternative*</b>	<b>Incremental*</b>
<b>Integrated NRM in Productive Landscapes</b>	\$138	\$142	\$4.00
Non-Project Baseline	\$101.40		
Sub-project Grants (including Conservation)	\$31.20	\$35.20	\$4.00
Local Institutional Strengthening	\$5.40	\$5.40	\$0
<b>Biodiversity Conservation in the SIGAP</b>	\$0.80	\$6.10	\$5.80
Non-Project Baseline	\$0.80		
Sites of Global Importance		\$5.0	\$5.00
Inter-Cultural Communications		\$0.30	\$0.30
Biodiversity M & E		\$0.50	\$0.50
<b>Environmental Services Markets</b>	\$3.00	\$3.10	\$0.10
Non-Project Baseline	\$1.80		
National Strategy	\$0.10	\$0.20	\$0.10
Institutional Capacity	\$0.30	\$0.30	\$0
Pilot Projects	\$0.80	\$0.80	\$0
<b>Project Management</b>	\$2.70	\$3.10	\$0.40
<b>TOTAL</b>	<b>\$144.50</b>	<b>\$151.20</b>	<b>\$10.30</b>
<b>GEF Financing</b>			\$8.00

\*Includes \*\$2.3 million of IBRD/GoG funds considered to have been leveraged by the GEF funds to finance global benefits.

### **Main Assumptions:**

### **Sensitivity analysis / Switching values of critical items:**

## Annex 5: Financial Summary

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

Years Ending  
December 31

	IMPLEMENTATION PERIOD						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
<b>Total Financing Required</b>							
<b>Project Costs</b>							
<b>Investment Costs</b>	4.3	8.9	13.3	14.8	9.8		
<b>Recurrent Costs</b>	0.7	0.7	0.8	1.0	1.0		
<b>Total Project Costs</b>	5.0	9.6	14.1	15.8	10.8	0.0	0.0
<b>Front-end fee</b>	0.3	0.0	0.0	0.0	0.0		
<b>Total Financing</b>	5.3	9.6	14.1	15.8	10.8	0.0	0.0
<b>Financing</b>							
<b>IBRD/IDA</b>	3.1	5.7	8.3	9.3	6.4		
<b>Government</b>	0.8	1.5	2.2	2.4	1.7		
<b>Central</b>	0.0						
<b>Provincial</b>	0.0	0.0	0.0	0.0	0.0		
<b>Co-financiers(GEF)</b>	0.8	1.4	2.0	2.3	1.5		
<b>Beneficiaries</b>	0.6	1.0	1.6	1.8	1.2		
<b>Total Project Financing</b>	5.3	9.6	14.1	15.8	10.8	0.0	0.0

**Main assumptions:**

## **Annex 6: Procurement and Disbursement Arrangements**

### **GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

#### **Procurement**

Procurement of goods and works financed by the Bank under the Project would be carried out in accordance with the Bank's Guidelines: Procurement under IBRD Loans and IDA Credits, published in January 1995 (revised January/August 1996, September 1997 and January 1999). Consultant services would be procured in accordance with the Guidelines: Selection and Employment of Consultants by World Bank Borrowers published in January 1997 (revised in September 1997, and January 1999), and the provisions stipulated in the Loan Agreement.

#### **Procurement methods (Table A)**

The methods to be used for procurement are described below and the estimated amounts for each method, are summarized in Table A. Threshold contract values for the use of each method are established in Table B.

#### **Procurement of Works**

Only minor civil works for management and protection of protected areas (guard posts, offices, sleeping quarters, etc.) totaling \$1.1 million equivalent are expected under this project, with the exception of the community subprojects. All Contracts are estimated to cost less than US\$150,000 equivalent and will be procured on the basis of at least three quotations received in response to a written invitation, which will include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable.

#### **Procurement of Goods**

Goods to be procured under the proposed project, not including minor goods procured under the grants subprojects, would include vehicles, motorcycles, boats, computers and associated equipment, office furniture and miscellaneous equipment totaling US\$1.1 million equivalent. To the extent possible, contracts for these goods will be grouped into bidding packages of more than US\$150,000 equivalent and procured following International Competitive Bidding (ICB) procedures, using Bank-issued Standard Bidding Documents (SBDs). Contracts with estimated values below this threshold per contract and up to an aggregate amount of US\$0.43 million may be procured using National Competitive Bidding (NCB) procedures and standard bidding documents agreed with the Bank. Contracts for goods which cannot be grouped into larger bidding packages and estimated to cost less than US\$25,000 equivalent per contract, up to an aggregate amount of US\$177,000, may be procured using local shopping procedures based on a model request for quotations satisfactory to the Bank, with comparison of written quotations from at least three eligible suppliers. For contracts costing less than US\$5,000, when less than three quotations are received, it will suffice to have evidence in files that at least three quotations were sought.

#### **Selection of Consultants**

Consulting services will be contracted under this project and would include: Technical assistance to assist the Borrower and stakeholders in: i) strengthening local capacity in sustainable livelihood development, ii) developing long-term biodiversity management plans, iii) developing a national

environmental services policy; iv) technical management of the community subproject grants; and (v) fund administration. Training would consist of seminars, workshops and in-service training designed to strengthen institutional capacity and community capacity to self-manage natural resources. Studies would include environmental impact assessments, research studies, planning and feasibility studies for environmental services pilot projects, and a management information study for project monitoring and evaluation. Other training expenditures would include small contracts throughout the five years of the project life and spread throughout the fifty four communities for services such as communication expenses related to project implementation, logistics for training activities, transportation for the personnel of PCU and of respective Ministries and also for the people in the communities to attend training. Total consultant services are estimated to cost US\$14.2 million equivalent and would be procured using Bank Guidelines for the Selection and Employment of Consultants.

## **Firms**

Most consulting firms would be selected using Quality and Cost-Based Selection (QCBS) procedures. Other methods of selection would include QBS up to an aggregate amount of \$2.5 million equivalent; Least-Cost Selection which would include the selection of a firm to carry out the auditing of the project (which will be financed with project funds) up to an aggregate amount of \$.30 million equivalent; Selection Based on Consultant's Qualification up to an aggregate amount of \$.30 million equivalent, and selection under a Fixed Budget up to an aggregate amount of \$.20 million equivalent. Terms of reference for technical assistance proposed for the first year's operation would be prepared by the Project Preparation Unit (PPU) and presented for review at negotiations.

## **Individuals**

Specialized advisory services would be provided by individual consultants selected by comparison of qualifications of three candidates and hired in accordance with the provisions of paragraphs 5.1 through 5.3 of the Consultant Guidelines, up to an aggregate amount of US\$5.94 million.

## **Community Subprojects**

Community subprojects are grants to be provided to pre-existing, rural beneficiary associations in the 54 targeted municipalities to finance small-scale investments for sustainable production and natural resource conservation and are estimated to cost US\$32.7 million equivalent, including beneficiary contributions. There will be three types of subprojects eligible for grant financing: 1) Sustainable Production Subprojects that increase production and income without harming natural resources (e.g., greenhouses, low-impact product processing facilities, and commercial reforestation); 2) Sustainable Resource Management Subprojects for improving management of natural resources (e.g., soil conservation in hillside cropping systems, livestock stables for organic fertilizer production, and waste management); and 3) Conservation subprojects that encourage environmental conservation in and around protected areas and communally-managed lands. Individual subprojects cannot be defined ex ante, though model subprojects have been developed and analyzed based on existing small projects and estimates of demand.

Subproject grants would consist of technical assistance, training, services, studies, limited goods and equipment, small works and infrastructure, and limited fixed and working capital investments. It is expected that each subproject would consist of a combination of goods, works and services. The contracts for these goods, works and services are expected to be small, as the average of individual grants will be approximately US\$38,000 equivalent, including beneficiary contributions. Subproject funds would be disbursed directly to beneficiary associations with legal status and verified capacity to manage

funds.

Grants-financed procurement of goods, works and related services, which are expected to be small contracts in remote areas, would thus follow community-based procurement procedures where direct contracting would be used when the cost to the community of another procedure would be disproportionately high relative to the value of the procurement itself, and where only one qualified supplier/contractor is available locally. The Project Operational Manual, to be finalized as a condition of Loan effectiveness, would describe in details eligibility and selection criteria for subprojects, the process for identifying, developing and approving subprojects, and applicable procurement and disbursement procedures. It would contain specific directives to guide the communities in the procurement of goods, contracting of works and selection of consultants and include sample procurement documents.

To facilitate selection of firms or consultants, the PCU would maintain a roster of local service providers which would include local NGOs, more advanced communities, private firms and individual consultants from which beneficiary organizations could draw a shortlist of consultants or a list of suppliers to provide price quotations. The roster would be updated and published bi-annually by the PCU. A firm would be contracted to provide training to community organizations that have been identified as eligible to receive funds on how to carry out Shopping procedures, selection of consultants, financial reporting and filing.

No prior review of contracts under subprojects with value under US\$25,000 equivalent would be required. Rather, a firm would be hired to carry out ex-post review of one in five contracts and to provide procurement assistance as needed. No procurement activities will be started with communities until the consultant has been selected and his assignment started. Larger contracts for more comprehensive technical assistance, i.e. land use or potential production marketing and distribution, etc., estimated to cost more than US\$25,000 equivalent, would be eligible for grant financing but would be procured by the PCU in accordance with procedures established in Tables A and B of this Annex. In addition, the PCU would also carry out post-review of contracts under community organizations at random.

### **Project Funds Administration**

A firm would be contracted to administer project funds, acting as an “Administrator Agent” (AA). During appraisal, UNDP, IICA, and CIPREDA were identified as qualified potential Administrator Agents. See “Project Funds Administration” in “Financial Management” section, below

### **Operational Costs**

Project incremental recurrent expenses are estimated at US\$3.9 million equivalent and would be financed by the Bank on a gradually declining basis over the life of the project. Recurrent costs to be financed include rental of facilities, vehicle operational costs, communication expenses related to project implementation, maintenance of procured goods, office supplies and utilities.

### **Assessment of agency’s capacity to implement procurement**

The procurement assessment concluded that the overall project risk for procurement is high, as the PCU did not have procurement capacity to implement the project. A procurement action plan summarized below, was agreed with MAGA to implement the recommendations identified during appraisal and included in the Procurement Capacity Assessment Report.

### **Procurement Action Plan**

During negotiations the following Action Plan was agreed:

**PLANNING:**

- a) Draft detailed procurement plan for the first year was discussed by project negotiations;
- b) Detailed procurement plan for first year finalized: by effectiveness;
- c) Finalized Operational Manual: by project effectiveness;
- d) TORs for procurement auditing of subprojects: by project negotiations;
- e) Negotiate with the government an exception rule so that appointment of evaluation committees and procurement decisions be delegated to the PCU. In case full delegation to the PCU is not granted, negotiate an increase of the US\$27,000 threshold to a more reasonable amount such as US\$100,000.

**STAFFING:**

- a) The PPU will hire a qualified Procurement Officer with at least five years of experience in Bank-financed procurement: by effectiveness; the TOR, CVs, and contract for the Procurement Officer will be subject to Bank's prior review;
- b) The PCU will hire two procurement assistants to assist the Procurement Officer after project effectiveness, prior to disbursement of subproject grants to communities.

**Procurement Plan**

The Borrower has presented a final version of the procurement packages document at negotiations. The procurement plan will be updated each year and will need Bank approval before further procurement might be carried out. Table A provides the aggregate amounts for each procurement method.

The PCU will be required to form ad-hoc evaluation committees; the TOR for the Procurement Specialist will specify that he/she will participate in the evaluation committees to ensure appropriate procedures during opening of proposals and evaluation.

Bank Procurement Standard Bidding documents will be used following Bank guidelines and bidding documents for NCB and Shopping will be agreed with the Bank. Contract administration will be done by the PCU with support from the regional coordinators. The PCU will establish a records system to maintain records on all procurement in the project for purposes of auditing reports. Initial Bank's supervision missions will validate the establishment of an adequate filing system of documents, and an electronic data base on procurement and financial records of contracts financed under the loan.

**Table A: Project Costs by Procurement Arrangements**  
(in US\$ million)

<b>Expenditure Category</b>	<b>ICB</b>	<b>NCB</b>	<b>Local Shopping</b>	<b>Direct Contracting</b>	<b>Consulting Services</b>	<b>N.B.F<sup>1</sup></b>	<b>Total Cost</b>
1. Works	-	-	1.100 (0.190) [0.770]	-	-	-	1.100 (0.190) [0.770]
2. Goods	0.530 (0.310) [0.160]	0.430 (0.260) [0.120]	0.180 (0.100) [0.060]	-	-	-	1.140 (0.670) [0.340]
3. Cons. Services							
Consulting Firms	-	-	0.140 (0.030) [0.100]	-	8.120 (5.230) [1.840]		8.260 (5.260) [1.940]
Individual Consultants					5.940 (4.470) [0.740]		5.940 (4.470) [0.740]
4. Training				2.240 (1.710) [0.260]			2.240 (1.710) [0.260]
5. Subprojects				32.720 (18.862) [2.860]			32.720 (18.862) [2.860]
6. Operating Costs				3.480 (1.310) [1.090]		0.430 (0.000) [0.000]	3.910 (1.310) [1.090]
<b>SUBTOTAL</b>	0.530 (0.310) [0.160]	0.430 (0.260) [0.120]	1.420 (0.320) [0.930]	38.440 (21.882) [4.210]	14.060 (9.700) [2.580]	0.430 (0.00) [0.00]	55.310 (32.472) [8.000]
<b>Front-end Fee</b>							0.328 (0.328) [0.000]
<b>TOTAL</b>	0.530 (0.310) [0.160]	0.430 (0.260) [0.120]	1.420 (0.320) [0.930]	38.440 (21.980) [4.320]	14.060 (9.700) [2.580]	0.430 (0.000) [0.000]	55.638 (32.800) [8.000]

<sup>1</sup> N.B.F. = Not Bank-financed.

---

<sup>1</sup> N.B.F. = Not Bank-financed.



Consultant Services Expenditure Category	Selection Method <sup>1</sup>							Total Cost <sup>1</sup>
	QCBS	QBS	SFB	LCS	CQ	Other <sup>2</sup>	N.B.F. <sup>3</sup>	
A. Firms	4.96 (3.16) [1.15]	2.50 (1.60) [0.60]	0.20 (0.10) [0.05]	0.30 (0.20) [0.07]	0.30 (0.2) [0.07]			8.26 (5.26) [1.94]
B. Individuals						5.94 (4.47) [0.74]		5.94 (4.47) [0.74]
<b>Total</b>	4.96 (3.16) [1.19]	2.50 (1.60) [0.60]	0.20 (0.10) [0.05]	0.30 (0.20) [0.07]	0.30 (0.20) [0.07]	5.94 (4.47) [0.74]		14.20 (9.73) [2.68]

<sup>1</sup> Figures in parenthesis: to be financed by the Bank loan; brackets: to be financed by GEF. All costs include contingencies.

<sup>2</sup> Individual consultants as per Chapter V of Guidelines for Selection of Consultants.



**Prior review thresholds (Table B)**

Prior review thresholds are summarized in Table B. Bank’s prior review would be required for a) all ICB; b) the first two NCB contracts goods; c) the first contract for goods under shopping procedures; d) the first contract for works under three quotations; and e) contracts with individuals consultants above US\$50,000 equivalent, and for consultant firms above US\$100,000 equivalent. The proposed thresholds for prior review are the standard thresholds used in Guatemala. In addition to the prior review of individual procurement actions, an Annual Operating Plan and budget would be reviewed and approved by the Bank.

**Table B: Thresholds for Procurement Methods and Prior Review <sup>1</sup>**

<b>Expenditure Category</b>	<b>Contract Value Threshold US\$</b>	<b>Procurement Method</b>	<b>Contracts Subject to Prior Review</b>
<b>1. Works</b>	<150,000	Three quotations	First one
<b>2. Goods</b>	> 150,000 25,000-150,00 < 25,000	ICB NCB Shopping	All First two First one
<b>3. Services-- Training, Studies and Technical Assistance</b>	> 200,000  > 100,000 for firms < 100,000 for firms > 50,000 for individuals < 50,000 for individuals	QCBS International Short List/ Expressions of Interest QCBS CQ IC IC	All  All None All None
<b>4. Subprojects</b>	>150,000 < 150,000	NCB Shopping Chapter V- Consultants	None

**Total value of contracts subject to prior review:**

**Overall Procurement Risk Assessment**

**High**

**Frequency of procurement supervision missions proposed:** One every 6 months (includes special procurement supervision for post-review/audits)

The overall risk assessment is based on possible implementation of the Action Plan recommended for the establishment of a PCU. A consultant will be hired to develop a system for filing, monitoring and reporting procurement actions and it this will be in place by project effectiveness. Consequently the PCU is ineligible for FMR-based disbursements on procurement reporting grounds. However, such situation should be re-assessed when the consultant’s work is completed.

The World Bank will provide close procurement supervision especially during the first year of project implementation. It is expected that by second half of this year the Bank will have a procurement specialist permanently in Guatemala which will facilitate closer assistance. The risk is expected to reduce with time as experience is gained by the PCU. Risk factor will be reassessed after the first year of

project implementation and the risk assessment will then be upgraded if appropriate.

**Frequency of procurement supervision missions proposed:** Project supervision will include post reviews, and since this is a high risk case scenario, supervision missions and post reviews will be carried out every six months during at least the first two years of project implementation and will include an independent review every year. The frequency of post reviews and independent reviews may be reduced based on progress of project performance.

All direct contracting (single source contracts) notwithstanding contract value would be subject to prior review (other than under community subproject grants). Modifications to all contracts would be made as set forth in Appendix 1, Paragraph 3 of the Guidelines, notwithstanding the contract value. A systematic ex-post review by the Bank would be carried out once a year and would result in review of about 40 percent of all contracts. Confirmation would be sought on prior review arrangements during negotiations.

**Procurement Audits.** It has been agreed that periodic procurement audits would be carried out for subprojects. TORs will be reviewed prior to negotiation and incorporated in the Operational Manual; the Operational Manual is a condition of effectiveness.

## **Financial Management**

### **1. Summary of the Financial Management Assessment**

#### **Implementing Entity**

MAGA is the official project counterpart and responsible for overall project execution. The execution of the project will be carried out , through cooperative agreements (*Convenios de Cooperación*) with MARN, CONAP and INAB. An Executive Steering Committee formed by MAGA and MARN, will be established, assisted by a Technical Advisory Group (TAG) composed of the four participant implementing institutions, and be responsible for project oversight, policy setting and inter-institutional coordination within the production, natural resources and biodiversity conservation activities.

A Project Coordinating Unit (PCU) would be established within MAGA, under Ministerial Decree, and it will be physically located in the project area in the Western Altiplano to provide overall coordination of component activities and carry out project management functions. Specifically, the PCU will be responsible for implementation, the day-to-day coordinating among implementing agencies, project promotion, preparation and coordination among the implementing entities of annual work programs, budgets, procurement and financial management, general supervision, and project monitoring and evaluation. The PCU will be supported by the participating agencies, mainly through its regional offices and local staff.

#### **Staffing**

As the PCU has not yet been established, it has been agreed with MAGA the hiring of the key qualified administrative and financial staff. Actions to this respect have been included in the financial management action plan. The terms of reference for the finance-administrative officer and the procurement specialist will be submitted by negotiations, and their hiring should take place prior to effectiveness. Hiring of the project coordinator should take place within two months following negotiations and the hiring of the additional PCU would be a condition of effectiveness. Any hiring of

staffing under retroactive financing would be subject to World Bank Guidelines.

### **Flow of Funds**

Two SAs will be opened, one for the World Bank loan and one for the Grant, will be opened in BANGUAT and subject to the same arrangements:

- The Loan SA will be maintained in US Dollars. Although the account will be named after the project, the signatories will belong to the National Treasury Directorate of the Ministry of Public Finance. The National Treasury will withdraw funds from the loan SA only upon instructions from the PCU for: (i) payments in US Dollars for foreign expenditures; and (ii) transfers to the project accounts in Quetzales. The latter will be: (i) maintained in BANGUAT (or a commercial bank acceptable to the World Bank), managed by the AA, and used only for all payments in Quetzales; and (ii) maintain a zero balance since it is used for payments already committed.
- Grant Funds will be disbursed to a project SA in Dollars, from which the PCU will transfer funds to the project AA account to cover the project needs of eligible expenses.

**Payments in US Dollars.** The payments in US Dollars to providers of goods and services should be made directly out of the SAs as approved by the PCU.

**Payments in local currency.** On a regular basis, preferably once per week, the PCU will send an order for transfer of funds from the SAs to the AA project's account in Quetzales (Q), estimated according to the expenditures pending of payment to vendors of services and goods for all project activities, except for subprojects, see below. In no case transfer of funds in Quetzales should exceed the project needs of a period of 30 days, as the maximum outstanding balance in local currency allowed by the Bank, if necessary, is for a limit of 30 days. In any case, any loss, due to exchange rate cannot be covered with loan and grant funds - this will be carefully monitored by the Project's Financial Administrative Coordinator, supervised by the Bank through the review of withdrawal applications and FMRs, and certified by the external auditors in their annual report.

**Subprojects.** Funds will be transferred from the SA to the AA, with the PCU's approval. The AA, as approved by the PCU, will transfer the funds to the subproject specific bank accounts opened by the community organizations or NGOs managing the funds.

**Technical Assistance for the subprojects.** Qualified firms, NGOs or individuals will be contracted with the primary responsibility to perform supervision of the activities carried out by the community organizations, included but not limited to periodic (three of four months) assistance to: (a) review subproject grant proposals and confirm that they comply with the Operational Manual, and the Legal Agreement regarding beneficiary group eligibility, environmental standards, and procurement and accounting procedures, (b) verify that the financial and progress reports submitted by the community organizations or NGOs implementing subprojects are adequate and opportune, and (c) provide the community organization or NGOs technical assistance as required. Separate contracts and consultants will be employed for subproject assessment and supervision activities, and strengthening activities. Firms, NGOs or individuals will also be contracted to strengthen the eligible community organizations in financial, management, procurement, reporting and preparation of proposal, prior to disbursement for the subprojects. The PCU will exercise supervision and monitoring of the activities carried out under the contracts. Terms of reference, and depending on the amount of the contract, procurement selection, will be subject to the Bank's review and no-objection.

**Counterpart contribution.** MAGA will ensure, until the completion of the Project, that the required counterpart funds are incorporated in the GOG budget, and follow-up the opportune transfer of funds to the Project, and will coordinate with the participating implementing institutions that the agreed counterpart contribution is included in their annual budgets and that the funds will be transferred to the project account opened by AA, which according to the current MHCP's procedures, would be monthly, or at least on quarterly basis.

The required counterpart contribution of the project first year, 2003, estimated in approximately US\$740,000, will be included in the revised MAGA's budget to be submitted to the Congress by June 15, 2003.

For the disbursement of counterpart funds, MAGA and the participating implementing agencies should provide the MHCP the estimated flow of funds, based on what MHCP assigns monthly quotas. Counterpart funds will be transferred by the MHCP on monthly allocations, as requested and approved by MAGA and the participating implementing institution to the project accounts opened by the project AA. The requests are made by MAGA and the participant implementing agencies through the country's integrated financial management system (SIAF). The counterpart funds transferred by the other participant implementing agencies are recorded as executed in their records, nevertheless, the PCU will keep appropriate controls on the receipt and use of these funds.

### **Project Funds Administration**

A firm would be contracted to administer project funds, acting as an Administrator Agent (AA), to ensure adequate flow and efficient, and opportune disbursement of funds. MAGA and the other implementing institutions have agreed to hire the services of the AA. Among the advantages of contracting this service are included: (i) it responds to GOG's policy to avoid the proliferation of institutionalized Funds, (ii) transparency; and (iii) as the project is multi-institutional and multi-sectoral, contracting out this service avoids replicating administrative procedures in four institutions. The AA will be in charge of the custody of funds transferred from the SAs provided through the loan and grant, as well as the counterpart funds; making the disbursements approved by the PCU; and ensuring that these disbursement follow procurement and disbursement procedures agreed with the Bank. MAGA in coordination with the implementing agencies will be responsible for the selection and contracting of the AA.

During appraisal, UNDP, IICA, and CIPREDA were identified as qualified potential Administrator Agents. MAGA has informed the World Bank that it wishes to have the flexibility to select and direct contract CIPREDA as the AA. In order to be able to do so, MAGA has advised the World Bank that 100% of the costs for both the administration of the loan and the grant will be covered by national counterpart funds. CIPREDA (*Centro de Cooperación Internacional para la Preinversión, Agrícola*), is an international organization created pursuant to a Memorandum of Understanding dated April 10, 1997, signed between MAGA and the Mexican Secretariat for Agriculture, Livestock and Food. According to the *Acuerdo Gubernativo* No. 242-2000, MAGA may enter into direct agreements with CIPREDA for purposes of fund administration of its' programs. A Financial Management Assessment of CIPREDA was completed prior to negotiations.. The results of the financial management assessment of CIPREDA indicated that it has demonstrated experience and capacity in the management of funds for projects funded by international donors and the GOG. Prior to its contracting, several specific requirements identified in the assessment will be met. As a Condition of Effectiveness, an AA satisfactory to the World Bank must be contracted.

**Project financial reporting arrangements.** Financial statements and reports will be prepared in formats

satisfactory to GOG and World Bank monitoring and fiduciary purposes.

The quarterly Financial Monitoring Reports (FMRs) will include the Statement of Sources and Uses of Funds, (with income/ source classified by financing source and expenditures by the agreements investment category), Use of funds by project activities (by component, subcomponent and budget comparison). These project financial statements, along with the physical progress and procurement sections of the FMRs, will be submitted to the Bank no later than 45 days after the end of each reporting quarter.

For Bank purposes, the annual financial statements will include, additionally, the schedule of Statements of Expenditure (SOEs) presented during year in support of Withdrawal Applications, and the Statements of the Special Accounts.

**Segregation of duties.** The PCU will be responsible for the financial management of the project, and will implement procedures that ensure an adequate segregation of duties, procedures documented in the operational manual. The management of the project funds and review of compliance with the loan and grant agreements, by an AA, will be an additional factor contributing to the segregation and ensuring compliance of the established procedures.

**Budgeting.** The loan and grants agreements, the cost tables, and the project implementation plan (PIP) will be the main input for the project budgets. The PCU will:

- coordinate with the participating implementing agencies the preparation of the annual work program submitted to the Bank for approval, with goals/objectives, activities broken down by component, sub-component, financing source, and a chronogram,
- prepare the annual budget proposal, for incorporation in the GOG annual budget to be submitted to the Congress, specifying the sources of funds, by June of each year,
- after approval of the budget by Congress, MAGA and the participating implementing agencies provide the MHCP the estimated flow of funds, based on what MHCP assigns monthly quotas; counterpart funds will be transferred by the MHCP on monthly allocations, as requested and approved by MAGA and the participating implementing institution to the project accounts opened by the project AA, and
- report through the MAGA integrated financial management system (SIAF) the expenditures as incurred for the loan, grant and counterpart funding; the participant implementing agencies report the transfer of counterpart funds as expended.

**Accounting, Policies, and Procedures.** Accounting and budgetary records will be maintained in accordance with the GOG's procedures and International Accounting Standards. The project accounting manual to be developed as part of the financial management system will describe the policies and procedures. The project accounting system will have the capacity to record assets, liabilities and financial transactions of the project, and produce financial statements useful to project management and meeting the Bank's fiduciary requirements.

**Safeguard over assets.** The PCU will be responsible for the custody and keeping records of the fixed assets acquired with project funds. The amounts in the fixed assets register will be reconciled monthly against the respective accounting balances. The PCU staff will undertake at least one annual physical inspection.

**Internal Audit.** It was identified that the internal audit department of MAGA does not have the

resources to perform internal audits for the project. Due to the complexity of the project, the involvement of several implementing agencies, and the significant workload that will represent the subprojects with community organizations and NGOs, it has been agreed with MAGA the hiring of a qualified internal auditor, who will report to the Executive Steering Committee.

**Audit compliance.** As of the date of the FM assessment, there were no projects with overdue audit reports in the country portfolio.

**Audit arrangements.** Annual project financial statements will be audited in accordance with International Standards on Auditing, by an independent firm and in accordance with terms of reference (TORs) both acceptable to the Bank. In addition to the auditors' opinion on project financial statements, the report will also include the auditors' opinion on the SAs and SOEs.

The memoranda on internal controls (management letter) will be issued, at least, on bi-annual basis.

MAGA will appoint the auditors within three months after effectiveness, preferable for a minimum period of two years. Subsequently, the auditors should be appointed not later than within the first quarter of each year.

The PCU will prepare, when applicable, an action plan to address any issues and recommendations contained in the audit reports. The action plan and follow-up activities would be communicated to the Bank.

The table below summarizes audit requirements:

Audit Report	Due Date
Project financial statements	6 months after the end of the reporting period (coincides with CY)
SOE	Same as above
Special Accounts	Same as above

### Supervision Plan

A financial management supervision mission prior to effectiveness will be performed, to ensure implementation of the actions agreed in the action plan. After effectiveness, a FM Specialist must review the annual audit reports and should perform at least one supervision mission per year.

### Strengths and Weaknesses

A preliminary assessment of MAGA's financial management systems and capacity was carried out during preparation, and actions defined to be carried out agreed at appraisal. As the PCU is to be created under the project, the Bank's financial management assessment concluded that MAGA did not have in place an adequate financial management system for the project. MAGA has expressed its support to implement a PCU and the necessary recommendations, as it was agreed in the action plan below, to ensure that an adequate financial management system, acceptable to the Bank, will be in place by effectiveness.

The overall project risk for financial management is HIGH.

### Financial Management Action Plan

**Action**

**Estimated completion date**

1	Prepare the budget and allocation of funds for project preparation up to effectiveness	Negotiations
2.	Submit FMRs formats	Negotiations
3.	Submit draft operational manual, including administrative, financial and subproject manual, chart of accounts, and flow of funds	Negotiations
4.	TORs for the contracting of the Administrator Agent and initiation of procurement process	Negotiations
5.	Submit to the Bank the TORs for the project coordinator, financial officer, and procurement specialist	Negotiations
6.	Prepare draft of cooperation agreement between MAGA, MARN, INAB and CONAP	Negotiations
7.	TORs and short list for the contracting of the external auditors	Before Effectiveness
8.	Prepare budget and cash flow for first year, using as source the annual operating plan	Before Effectiveness
9	Hire key PCU staff, Project Coordinator, Finance and Administrative Director, procurement specialist, and component coordinators	Before Effectiveness
10	Short list, terms of reference, and contract model for firms to assess and provide TA to strengthen eligible community organizations for the management of subprojects.	Before Effectiveness
11.	Contract of the Administrator Agent (CIPREDA) and execution of the respective action plan identified in the March 2003 assessment of CIPREDA.	Before Effectiveness
12.	Submit terms of reference, short list and invitations for the contracting of the firm providing TA and monitoring for the subprojects during implementation.	Before Effectiveness
13.	Finalize operational manual, including administrative, financial and subproject manual, chart of accounts, and flow of funds	Before Effectiveness
14.	Cooperation agreement between MAGA, MARN, INAB and CONAP signed	Before Effectiveness
15.	Action plan to train the community organizations or NGOs organizations needing financial management and/or procurement strengthening.	Before Effectiveness
16.	Implement the project automated financial management system (software)	Before Effectiveness

17.	Implement monitoring system for the project indicators (outputs).	Before Effectiveness
18.	Set up PCU's offices infrastructure, space and equipment.	Before Effectiveness
19.	Contract internal auditor	Before Effectiveness
20.	Provide evidence on availability of counterpart funds for 2003	Before Effectiveness
21.	Contract external auditors	Within three months after effectiveness
<b>Disbursement Conditions</b>		
1.	Contracting of firm providing TA to strengthen eligible community organizations for the management of subprojects	Disbursements under subprojects
2.	Establish the Special Accounts for IBRD and GEF agreement, and project accounts at the AA.	Disbursement
<b>Other actions</b>		
1.	Contract the consulting services (separate contracts and consultants from those providing community organization strengthening) for the evaluation of eligible community organizations and NGOs under the subproject grants, second tranche.	Second year of the project

<sup>1</sup>Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

## Disbursement

### **Allocation of loan/grant proceeds (Table C)**

**Special Account.** The Special Account for the loan and grant will be held in US Dollars in the Banco de Guatemala (BANGUAT) from which the PCU will transfer funds to the project Administrator Agent account to cover the project needs of eligible expenses.

The SAs are only for eligible expenditures under the loan and grant (under no circumstances may funds in the SA be used to cover the share of counterpart expenditures). Transfers from the SA to other bank accounts will only be permitted to meet eligible expenditures for a limited period of less than 30 days. Total advances to the SA at any given time would not exceed the “authorized allocation” specified in the Loan and Grants Agreements. For replenishment of the advance, the PCU will prepare monthly (in any case, no more than quarterly) requests for reimbursement of expenditures made.

### **Use of statements of expenditures (SOEs):**

Loan and grant withdrawal applications can be supported by SOEs for expenditures relating to contracts that are not subject to the Bank’s prior review (see Table B in Annex 6). Reimbursement of other expenditures would require submittal to the Bank of full supporting documentation.

Documents in support of SOEs must be maintained by the PCU at least until one year after the Bank has received the audit report for the fiscal year in which the last loan and grant withdrawal was made. Such documents must be available to review by the external auditors and Bank staff.

### **Special account:**

**Special Account.** The Special Account for the loan will be held in US Dollars in the Banco de Guatemala (BANGUAT).

**Grant.** Funds will be disbursed to a project SA in US Dollars to be held in BANGUAT, from which the PCU will transfer funds to the project Administrator Agent account to cover the project needs of eligible expenses.

The SAs are only for eligible expenditures under the loan and grant (under no circumstances may funds in the SA be used to cover the share of counterpart expenditures). Transfers from the SA to other bank accounts will only be permitted to meet eligible expenditures for a limited period of less than 30 days. Total advances to the SA at any given time would not exceed the “authorized allocation” specified in the Loan and Grants Agreements. For replenishment of the advance, the PCU will prepare monthly (in any case, no more than quarterly) requests for reimbursement of expenditures made.

**Other procedures.** Upon request from the Borrower and subject to the Bank’s approval, payments may be made: (i) directly to a third party (supplier or consultant) for goods, works, and services; or (ii) to a commercial bank for expenditures against a World Bank Special Commitment covering a commercial bank’s letter of credit.

**Retroactive financing.** An amount equal to US\$4.08 million equivalent of eligible expenditures made after January 1, 2003 (but not more than 12 months prior to loan signing) may be financed retroactively from the project’s SA. These funds would be used to accelerate project implementation by allowing a project manager and key project staff to be employed prior to project effectiveness and for limited

first-year technical assistance and studies to be initiated.

**Method and allocation of loan and grant agreements proceeds** (see Table C). The proposed loan and GEF grant would be disbursed over an implementation period of about five years; the loan closing date would be June 30, 2008. Disbursements would be in accordance with guidelines set out in the Bank's Disbursement Handbook (i.e., "traditional" disbursement procedures).

**Table C: Allocation of Proceeds**

<b>Expenditure Category</b>	<b>Allocation of Loan Proceeds in US\$ million</b>	<b>Financing Percentage</b>
<b>IBRD Loan:</b>		
1. Works	0.184	88%
2. Goods		100% of Foreign Expenditures;
	0.650	88% of Local Expenditures
3. Cons. Services	9.331	88%
4. Training	1.754	100%
5. Subprojects	17.963	88% of eligible expenditures
6. Operating Costs		70% up to 0.600 million;
		40% up to 0.900 million;
	1.270	25% thereafter
7. Front-end Fee	0.328	
8. Unallocated	1.320	
<b>Total</b>	<b>32.800</b>	
<b>GEF Grant:</b>		
1. Works	0.700	88% of eligible expenditure
2. Goods		100% of Foreign Expenditures;
	0.300	88% of Local Expenditures
3. Cons. Services	3.035	88%
4. Training	0.250	100%
5. Subprojects	2.395	88%
6. Operating Costs		70% up to 0.750 million;
		40% up to 0.900 million;
	1.050	25% thereafter
7. Unallocated	0.270	
<b>Total GEF</b>	<b>8.000</b>	

## Annex 7: Project Processing Schedule

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

Project Schedule	Planned	Actual
Time taken to prepare the project (months)	18	46
First Bank mission (identification)	06/01/1999	06/01/1999
Appraisal mission departure	01/29/2003	01/29/2003
Negotiations	03/01/2003	04/22/2003
Planned Date of Effectiveness	08/31/2003	

**Prepared by:**

Prepared by: Ministry of Agriculture, Animal Husbandry and Food (MAGA), Ministry of Environment and Natural Resources, National Council for Protected Areas (CONAP); National Forestry Institute (INAB); Project Preparation Unit (UPP/MAGA)

**Preparation assistance:**

I

**Bank staff who worked on the project included:**

Name	Speciality
James Smyle	Task Manager, LCSES
Phil Hazelton	Former Task Manager, LCSES
Douglas J. Graham	Task Manager, GEF Project
Eduardo Sommensatto	Country Manager Guatemala Office
Mark Cackler	Sector Manager, LCSER
Martin Raine	Sector Leader, LCSES Central America
Raffaello Cervigni	Economist
Teresa Roncal	Operations Analyst
Irani Escolano	Procurement Specialist
Maria Nikolov	Language Program Assistant
Manuel Vargas	Financial Management Specialist
Monica Rojas de Arnez	Financial Analyst
Edward Bresnyan	Economist, Consultant
Rees Warne	Social Specialist, Consultant
Luz Zeron	Financial Management Consultant
Juan Martinez	Indigenous Peoples Specialist
Bruce Aylward	Economist, Consultant
Juan Carlos Alvarez	Counsel
Gary Alex	Rural Development Specialist, Consultant
Gonzalo Castro	Principal Environmental Specialist

Other Consultants included:

Carmen María López, National Coordinator Project Preparation  
Beatriz Villeda, Director Ruta Guatemala  
Patricia Orantes, Former National Coordinator Project Preparation  
Eddy Díaz, Former National Coordinator Project Preparation

## **Annex 8: Documents in the Project File\***

### **GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

#### **A. Project Implementation Plan**

The Project Implementation Plan (PIP) was the basis for Project appraisal. Copies of the PIP and the PAD will be made available to the Bank's InfoShop for public access following project negotiations.

#### **B. Bank Staff Assessments**

The Project has been assessed by other Bank staff in a manner of forms, including peer reviews prior to the PCD and PAD meetings (June and December 2000, respectively). The peer reviewer comments and minutes of the PCD and PAD meetings will be placed in the Project electronic files.

An extensive electronic library has been created for this project with well over 150 documents prepared during the development of the project or of interest for the project's preparation. This can be consulted within the Bank. All the key documents are posted for public access (through the Central America Environment Projects site of the World Bank at [www.worldbank.org/ca-env](http://www.worldbank.org/ca-env)). Below we list some of the key documents used during preparation.

#### **C. Other**

- Aylward, B. 2002. "Definición de Experiencias Piloto Prioritarias de Pago de Servicios Ambientales; Comentarios y Sugerencias para el Componente 3.3 del Proyecto Manejo Integrado de Recursos Naturales y el Ambiente"
- Aylward, B. 2002. "Markets Mechanisms and Environmental Services: A Conceptual Approach and Review of International Experience"
- Boerma, P., 2000. "Watershed Management: A Review of the World Bank Portfolio (1990 - 1999)". Rural Development Department.
- Cabezas, J.R. 2000. Análisis del Marco de Políticas en el Area de Recursos Naturales Renovables.
- Cabrera, J. 1999. Estudio de Caso: Elementos Económicos, Culturales, y Agropecuarios en el Manejo de Recursos Naturales: Chajul, El Quiché.
- CODERSA. 2000a. Análisis de Potencialidades Institucionales para Participar en el MIRNA. MIRNA/PPU.
- CODERSA. 2000b. Ejemplos de Perfiles de Proyectos Locales Con Potencial para ser Financiados por el Proyecto MIRNA.
- CODERSA. 2000c. Identificación y Valoración de Tecnologías Agropecuarias Potencialmente Replicables en el Area de Influencia del Proyecto MIRNA.
- CODERSA. 2000d. Análisis de Experiencias Exitosas en Sistemas Agropecuarios con Enfoque Sostenible Potencialmente Replicables por el MIRNA.
- CODERSA. 2000e. Análisis de las Cadenas de Comercialización de Productos Agropecuarios y Forestales.
- CODERSA. 2000f. Estudio Cualitativo Sobre las Características Agroecológicas y Socioeconómicas de los Principales Sistemas de Producción del Altiplano Occidental.
- CODERSA. 2000g. Estrategia General para el Desarrollo Forestal del Altiplano Occidental, Guatemala.
- CODERSA. 2000h. Estudio de Bosques Comunes y Tierras Municipales del Altiplano Occidental de Guatemala.

- CODERSA. 2000i. Identificación y Análisis de Leyes, Normas, y Reglamentos Relevantes para el Proyecto MIRNA.
- CODERSA. 2000j. Análisis Ambiental General del Altiplano Occidental de Guatemala del Proyecto MIRNA.
- CODERSA. 2000k. Equidad de Genero en el MIRNA.
- CODERSA. 2000l. Mecanismo de Innovación Rural "MIR" Para el Proyecto MIRNA.
- CODERSA. 2000m. Supplemental Information on Institutions and the Western Altiplano Region.
- Curtis, R. 2000. Payment for Environmental Services: The Case for Guatemala; Manejo Integrado de Recursos Naturales.
- Grimble, R. and M. Laidlaw. 1999. Biodiversity conservation in rural development: Mainstreaming biodiversity considerations in planning rural and agricultural development projects. DFID/World Bank.
- Godoy, JC. 1998. Matriz de Programas y Proyectos en Ejecución con apoyo de la Cooperación Externa en el tema de Conservación y Manejo de Recursos Naturales en Guatemala.
- GSD. 2000. Análisis del Marco Institucional para Manejo Integrado de Recursos Naturales en el Altiplano Occidental.
- INAB. 1998. Programa de Incentivos Forestales.
- MAGA. 1999. Marco de Funcionamiento de Políticas.
- Leiva, R. 2000. Estudio de Bosques Comunales y Tierras Municipales.
- Martinez, H. 2000. La Administración Municipal del Manejo de los Recursos Naturales Renovables en Guatemala.
- Martinez, H., M. de los Angeles, and R. de Camino. 1999. Guatemala: Revisión y Elaboración de Propuestas de Políticas, Estratégicas e Instrumentos para el Desarrollo del Sector Forestal. Recursos Naturales Tropicales S.A. Prepared for IDB.
- Mendez, J.C. 2000. Diagnóstico de Instrumentos Financieros.
- Mendez, J.C. 2000. Factibilidad Técnica y Financiera: Fondos en Guatemala.
- MIRNA/PPU. 1999. Cartografía Digital Mínima para la Identificación Preliminar de Areas Geográficas de Enfoque para el Proyecto "Manejo Integrado de Recursos Naturales en el Altiplano Occidental".
- Pagiola, S. and J. Kellenberg. 1997. Mainstreaming Biodiversity in Agricultural Development: Towards Good Practice. World Bank.
- Paredes. 2000, Análisis Política-Legal de Reasentamiento: Process Framework.
- Rondot, P. and M. Collion. 2000. Investing in producer organizations for sustainable rural development: A framework for World Bank Action. (mimeo).
- RUTA. 2000. Evaluación del Potencial de los Servicios Ambientales en Pueblos Indígenas
- Schneider, P. 1999. Esquema Institucional para el Manejo de Cuencas Programa de Manejo Sostenible de Cuencas Prioritarias. (mimeo).
- Secaira, E. 2000. Conservación de la Naturaleza, el Pueblo y Movimiento Maya, y la Espiritualidad.
- SEGEPLAN, 1999. Planes Estratégicos Departamentales: Sololá, El Quiché, Huehuetenango, Quetzaltenango, San Marcos y Totonicapán.
- Schwartz, N., G. Grunberg and S. Elias. 2000a. MIRNA: Plan de Desarrollo Indígena.
- Schwartz, N., G. Grunberg and S. Elias. 2000b. Análisis Socio-etnográfica del Altiplano Occidental.
- Warne, R. 1999. Guatemala: Priorities in Natural Resources Management: Start-up Phase Literature Review/Diagnosis.
- World Bank. 2000. Supplemental PHRD Proposal.

World Bank. 1999. Competitiveness Project: Forestry Cluster Studies.

Zeron, Luz. 2003. Financial Management Assessment Report: Western Altiplano Natural Resources Management Project (MIRNA). Updated February 5, 2003

Zeron, Luz. 2003. Financial Management Assessment Report of Centro de Cooperación Internacional para la Preinversión Agrícola (CIPREDA). March 20, 2003

[\\*Including electronic files](#)

## Annex 9: Statement of Loans and Credits

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

16-Apr-2003

Project ID	FY	Purpose	Original Amount in US\$ Millions		Cancel.	Undisb.	Difference between expected and actual disbursements <sup>a</sup>	
			IBRD	IDA			Orig	Frm Rev'd
P076853	2002	GT Financial Sector TA Loan	5.00	0.00	0.00	4.95	-0.01	0.00
P074530	2002	GT Financial Sector Adjustment Loan	150.00	0.00	0.00	100.00	0.00	0.00
P066175	2002	GT INTEGRATED FINANCIAL MNGT III -TA	29.75	0.00	0.00	29.75	0.00	0.00
P055084	2001	GT COMPETITIVENESS PROJECT	20.30	0.00	0.00	19.80	5.50	0.00
P048652	2001	GT UNIVERSALIZATION OF BASIC EDUCATI	62.16	0.00	0.00	61.54	20.86	0.00
P040198	1999	GT FIS II	50.00	0.00	0.00	0.39	-1.61	0.00
P054462	1999	LAND FUND (APL)	23.00	0.00	0.00	12.24	10.74	0.00
P049616	1999	LAND ADMINISTRATION (APL)	31.00	0.00	0.00	17.95	15.96	0.00
P049386	1999	GT RECONSTRUCTION & LOCAL DEV.	30.00	0.00	0.00	18.47	17.22	0.00
P047039	1999	GT JUDICIAL REFORM	33.00	0.00	0.00	18.13	10.13	0.00
P035737	1998	GT RURAL & MAIN ROADS	66.70	0.00	0.00	23.00	19.00	0.00
P048654	1998	GT TAX ADMIN. TAL	28.20	0.00	0.00	17.15	17.15	0.00
<b>Total:</b>			<b>529.11</b>	<b>0.00</b>	<b>0.00</b>	<b>323.37</b>	<b>114.95</b>	<b>0.00</b>

**GUATEMALA**  
**STATEMENT OF IFC's**  
**Held and Disbursed Portfolio**  
**Jun 30 - 2002**  
 In Millions US Dollars

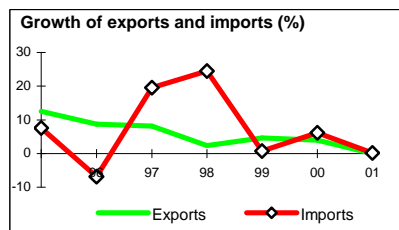
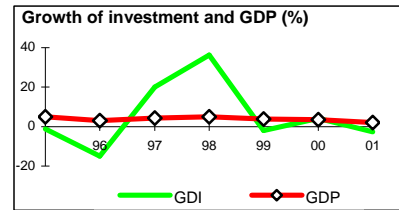
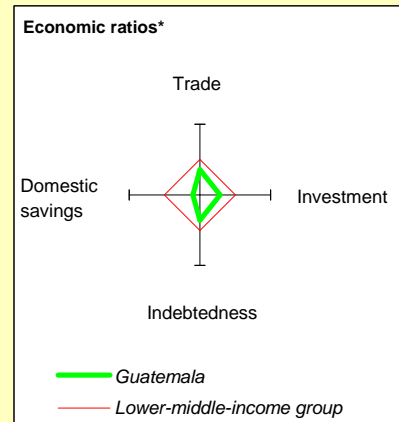
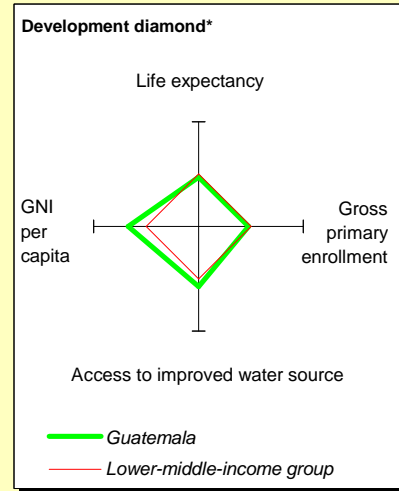
FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1994	Fabrigas	1.50	0.00	1.00	0.00	1.50	0.00	1.00	0.00
2000	Frutera	7.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00
1998	La Fragua	17.89	0.00	0.00	0.00	17.89	0.00	0.00	0.00
0/97	Orzunil	10.71	1.17	1.17	12.37	10.71	1.17	1.17	12.37
1996	Pantaleon	8.75	0.00	0.00	0.00	8.75	0.00	0.00	0.00
1993	Vigua	2.06	0.00	0.00	0.00	2.06	0.00	0.00	0.00
<b>Total Portfolio:</b>		<b>47.91</b>	<b>1.17</b>	<b>2.17</b>	<b>12.37</b>	<b>47.91</b>	<b>1.17</b>	<b>2.17</b>	<b>12.37</b>

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
2002	Occidente	0.00	10.00	0.00	0.00
2002	El Canada	15.00	0.00	0.00	22.00
2002	Interforest	6.00	0.00	0.00	2.00
<b>Total Pending Commitment:</b>		<b>21.00</b>	<b>10.00</b>	<b>0.00</b>	<b>24.00</b>

## Annex 10: Country at a Glance

### GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT

POVERTY and SOCIAL	Guatemala	Latin America & Carib.	Lower-middle-income		
<b>2001</b>					
Population, mid-year (millions)	11.7	524	2,164		
GNI per capita (Atlas method, US\$)	1,670	3,560	1,240		
GNI (Atlas method, US\$ billions)	19.6	1,862	2,677		
<b>Average annual growth, 1995-01</b>					
Population (%)	2.6	1.5	1.0		
Labor force (%)	3.4	2.2	1.2		
<b>Most recent estimate (latest year available, 1995-01)</b>					
Poverty (% of population below national poverty line)	56	..	..		
Urban population (% of total population)	40	76	46		
Life expectancy at birth (years)	65	70	69		
Infant mortality (per 1,000 live births)	39	29	33		
Child malnutrition (% of children under 5)	44	9	11		
Access to an improved water source (% of population)	92	85	80		
Illiteracy (% of population age 15+)	31	11	15		
Gross primary enrollment (% of school-age population)	102	130	107		
Male	108	131	107		
Female	96	128	107		
<b>KEY ECONOMIC RATIOS and LONG-TERM TRENDS</b>					
	<b>1981</b>	<b>1991</b>	<b>2000</b>	<b>2001</b>	
GDP (US\$ billions)	8.6	9.4	19.1	20.5	
Gross domestic investment/GDP	17.0	14.3	17.0	15.4	
Exports of goods and services/GDP	17.1	18.0	20.3	18.6	
Gross domestic savings/GDP	10.5	10.7	8.1	6.0	
Gross national savings/GDP	10.6	11.9	11.5	10.4	
Current account balance/GDP	-6.7	-2.7	-5.5	-6.0	
Interest payments/GDP	0.7	1.2	0.8	0.9	
Total debt/GDP	14.9	32.9	16.8	17.4	
Total debt service/exports	8.7	15.3	16.9	18.2	
Present value of debt/GDP	..	..	15.8	..	
Present value of debt/exports	..	..	64.9	..	
	<b>1981-91</b>	<b>1991-01</b>	<b>2000</b>	<b>2001</b>	<b>2001-05</b>
<i>(average annual growth)</i>					
GDP	1.4	4.1	3.6	2.1	3.4
GDP per capita	-1.1	1.3	0.9	-0.6	0.8
Exports of goods and services	0.1	6.3	3.9	0.0	5.9
<b>STRUCTURE of the ECONOMY</b>					
	<b>1981</b>	<b>1991</b>	<b>2000</b>	<b>2001</b>	
<i>(% of GDP)</i>					
Agriculture	25.0	25.7	22.8	22.6	
Industry	21.7	19.6	19.8	19.5	
Manufacturing	16.0	14.9	13.2	13.1	
Services	53.3	54.7	57.4	57.9	
Private consumption	81.6	83.9	84.9	86.2	
General government consumption	7.9	5.4	7.0	7.7	
Imports of goods and services	23.6	21.6	29.2	28.0	
	<b>1981-91</b>	<b>1991-01</b>	<b>2000</b>	<b>2001</b>	
<i>(average annual growth)</i>					
Agriculture	1.7	2.7	2.6	1.2	
Industry	0.7	4.1	1.5	0.4	
Manufacturing	0.7	2.7	1.9	1.4	
Services	1.6	4.6	4.6	3.1	
Private consumption	1.7	4.1	3.5	2.5	
General government consumption	2.6	5.5	7.6	8.1	
Gross domestic investment	0.1	5.1	4.2	-2.6	
Imports of goods and services	0.8	8.4	6.1	0.2	

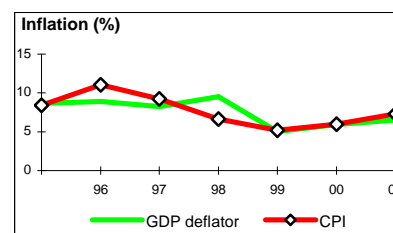


Note: 2001 data are preliminary estimates.

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

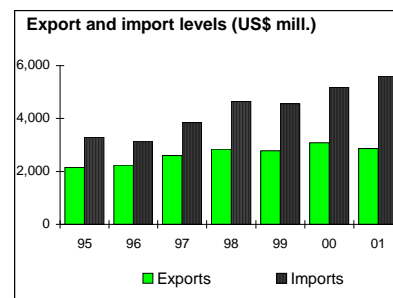
## PRICES and GOVERNMENT FINANCE

	1981	1991	2000	2001
<b>Domestic prices</b> (% change)				
Consumer prices	11.4	33.1	6.0	7.3
Implicit GDP deflator	8.5	33.0	5.9	6.5
<b>Central Government finance</b> (% of GDP, includes current grants)				
Current revenue	..	9.0	10.4	11.3
Current budget balance	..	1.5	1.8	1.9
Overall surplus/deficit	..	-0.5	-2.4	-2.4



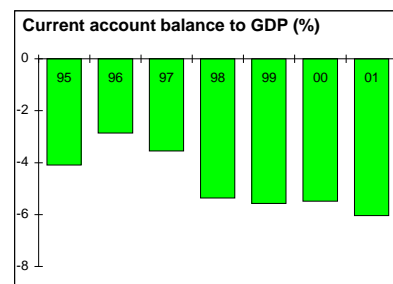
## TRADE

	1981	1991	2000	2001
<i>(US\$ millions)</i>				
Total exports (fob)	..	1,298	3,085	2,865
Coffee	..	287	573	307
Sugar	..	141	180	213
Manufactures	..	692	1,907	1,911
Total imports (cif)	..	1,851	5,171	5,607
Food	..	264	1,085	1,359
Fuel and energy	..	311	540	596
Capital goods	..	430	1,417	1,353
Export price index (1995=100)	11	70	141	140
Import price index (1995=100)	13	76	135	141
Terms of trade (1995=100)	85	93	104	100



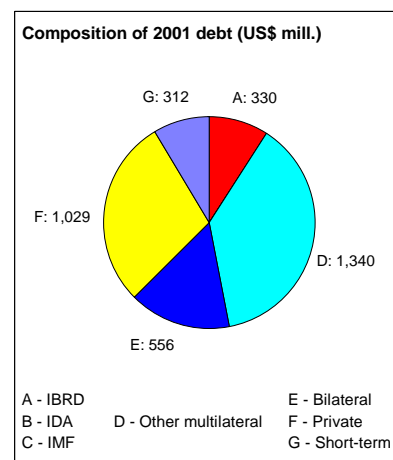
## BALANCE of PAYMENTS

	1981	1991	2000	2001
<i>(US\$ millions)</i>				
Exports of goods and services	1,446	1,727	3,896	3,778
Imports of goods and services	2,024	2,030	5,601	5,923
Resource balance	-578	-302	-1,705	-2,145
Net income	-86	-174	-209	-90
Net current transfers	90	220	865	997
Current account balance	-574	-256	-1,049	-1,238
Financing items (net)	273	812	1,777	1,738
Changes in net reserves	301	-556	-728	-500
<b>Memo:</b>				
Reserves including gold (US\$ millions)	172	419	1,811	2,260
Conversion rate (DEC, local/US\$)	1.0	5.0	7.8	7.9



## EXTERNAL DEBT and RESOURCE FLOWS

	1981	1991	2000	2001
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	1,278	3,092	3,218	3,567
IBRD	171	279	296	330
IDA	0	0	0	0
Total debt service	136	290	786	855
IBRD	16	31	34	34
IDA	0	0	0	0
Composition of net resource flows				
Official grants	12	72	85	93
Official creditors	169	46	94	84
Private creditors	110	-7	33	106
Foreign direct investment	127	91	230	456
Portfolio equity	0	0	0	0
World Bank program				
Commitments	0	0	54	62
Disbursements	35	4	51	46
Principal repayments	7	21	13	12
Net flows	28	-17	38	35
Interest payments	9	9	21	22
Net transfers	18	-26	17	12



**Additional GEF Annex 11**  
**GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

**Indigenous Peoples Development and Participation Plan Summary**

This document summarizes the Participation Plan and Indigenous Peoples Development Plan (IPDP). The two documents have been combined because some 95% of the rural residents within the 54 municipalities in the project area are indigenous Mayans. For this reason, the Western Altiplano Natural Resources Management Project constitutes an IPDP as per the Bank's OD 4.20. However, because indigenous issues are so central to the Project's planning and implementation, a separate IPDP was prepared, based on the results of the Social Assessment (an extensive socio-ethnic evaluation of the project area) and other consultations.

The importance of ensuring the informed participation of the beneficiaries, especially of the indigenous peoples in the project area, cannot be overstated. They need to be fully involved in both planning (as has been the case), preparation and implementation of the project. Informed participation means that there will be: direct and full consultation with beneficiaries, their direct participation in decision-making within the project, and transparent adequate knowledge of project activities. This IPDP/Participation Plan is in compliance with the World Bank's OD 4.20 on Indigenous Peoples. It is based on the fulfillment of the set of prerequisites outlined in the Bank's OD 4.20: 14 (Prerequisites). The set of issues outlined in OD 4.20: 15 (Content) are summarized below.

**Legal Framework**

The Political Constitution of Guatemala, decreed on 31 May 1985, in articles 66-70, contains a special section entitled "Indigenous Communities." These laws recognize the existence of diverse ethnic groups and demand respect for their lands, customs, languages, dress and cultural rights. Article 67 states, "Indigenous communities and others that possess lands that historically have belonged to them and that traditionally have been managed and administered [by them] in a special way, will maintain this system." Article 68 continues, "By means of special programs and adequate legislation, the State will provide state lands to those communities that need them for their development." Article 70 contains arrangements such that articles 66 – 69 may be made into law by means of a special decree. Although this Constitution was promulgated in 1985, up to the present date no regulations and rules have been promulgated regarding these articles. Hence, the legislation has not become operational, and no concrete orders to emit judicial decisions and sanctions, in cases where the rights contained in these articles are violated, have been given.

The Peace Accords of 1996 stress the rights of indigenous peoples and importance of taking into account their views regarding actions that affect them directly. The Accord on Socioeconomic Issues and the Agrarian Situation (ASESA) and the Accord on the Identity and Rights of Indigenous Peoples (ASIDPI), signed in December 1996 as part of the Peace Agreement, recognize that the "Subject of Land" and the management of natural resources play a central role in development. The ASESA states that for the structural evolution of the agrarian sector, land tenure and use of land must be advanced in a way that makes its goal the incorporation of the rural population, and above all the indigenous population, in economic, social and political development.

Moreover, security of land tenure is to be the basis for improving their social welfare and is to be the guarantee of their liberty and dignity. Similarly, in 1997 the Government of Guatemala ratified Treaty 169 of the International Labor Organization (ILO) relative to the rights of indigenous peoples. Treaty 169, in articles 15 to 19, deals with the theme of land. It establishes that the rights of property and possession of

land that traditionally belong to indigenous peoples should be recognized. Treaty 169, in article 61, also establishes that "whenever legislative or administrative measures that have the potential to affect them directly are foreseen," governments should "consult with affected peoples, by appropriate means and especially through their representative institutions." In addition, article 6.1.c states, "means for the full development of the institutions and initiatives of these peoples must be established, and in appropriate cases, they must be given the resources necessary for this end."

Guatemala also has ratified other international treaties that include clauses pertaining to indigenous communities, such as the International Convention on Biological Diversity (preamble and articles 8 and 10). The Convention recognizes the close interdependence between forms of traditional indigenous life and prudent use of biological resources. It also acknowledges that signatories promise to respect, preserve and maintain the knowledge, innovations, and practices of indigenous and local communities that involve traditional lifestyles pertinent to the conservation and sustainable use of biological diversity, and to promote their wise use, with the approval and participation of those who possess this knowledge, innovations, and practices. In this way, the equitable distribution of the benefits derived from their use will be promoted.

### **Baseline Data**

Based on the Social Assessment, local and national Institutional Analyses, Policy Analysis, Biodiversity Evaluation, and Technical Analyses carried out during Project preparation to provide baseline data, the following were identified as fundamental issues for indigenous development (see project files for details).

*Lands and territories.* In the Western Altiplano there is widespread traditional stability of indigenous lands and territories, but this has not been sufficiently recognized by the political administrative structure of the country. Many of the indigenous communities possess communal lands or a combination of private and communal titles. Conflicts have arisen where private parties have attempted to (and often succeeded in) registering communal lands as private holdings. A lack of definition of territorial limits between municipalities, communities and forests also persists. The project could assist with the participatory definition of boundaries of communal lands where requested, but should refer such concerns to and might facilitate the linkages to CONTIERRA (GOG land conflict management agency) where appropriate.

While not to be undertaken by the project, it is important to note the following recommendations resulting from the Social Assessment and the preparation of the IPDP: (i) a geo-referenced inventory should be carried out of communal lands in each municipality, an inventory of sacred places, legalization and regularization of use rights to communal lands, and, thereafter, participatory physical demarcation of the above; (ii) a proposal for a law to protect communal lands by explicitly titling them in the name of the indigenous communities should be prepared and presented to Congress; (iii) a National Council of Communal Lands (a representative body for communities which own communal property resources) should be created as an instrument for the sound management of natural resources, and (iv) in order to facilitate cooperation between indigenous communities that are divided by national frontiers, and in accord with article 32 of ILO Treaty 169, a Plan for Cross-Frontier Cooperation with Mexico should be elaborated. In fact, while recognizing that assistance in assuring comprehensive legal titling of communal lands is of central importance to conservation of natural resources in the Altiplano, the proposed project will not become involved in this, beyond referring communities to other entities that can provide this service.

*Local institutional.* An initial systematization of the management of communal lands belonging to indigenous peoples reveals the existence of traditional or "customary" law, along with existing legal bodies that implement these laws. There is a rich tradition of managing the communal lands in accordance with such law which has a ritual and ceremonial character. The tradition includes surveying practices, definitions of territories and individual usufruct rights, designation of authorities, and rules to apply in cases of conflict between communities or between members of the same community. These mechanisms of conflict management for land and for assigning usufruct rights are applied, with variations, in many communities.

The major difficulty in making them effective results from the intrusion of external mechanisms and reasoning, such as a parallel structure of state sanctioned power in any given community. The recognition of the traditional systems the communities use to resolve conflicts related to land tenure should be accompanied by a process that strengthens and recovers indigenous norms, as stipulated in the Peace Accords.

*Traditional management of natural resources.* Traditional management is firmly maintained through a system of internal regulations that explicitly or implicitly dictate community activities in relation to forests, water, and other community resources. These regulations contain a set of norms and sanctions that are respected by the population and form part of what is termed the local institutionality for the management of natural resources. Local institutionality in the management of natural resources is exercised through the traditional social structure (e.g., communal assemblies). Systems of local government such as auxiliary mayors, councils of elders, and *parcialidades* (patrilineal groups) are important in this context. It merits emphasizing that these entities constitute the link with the municipal and state authorities.

*Natural resources and protected areas.* In the Western Altiplano of Guatemala there are significant remnants of communal lands and forest which have ecological, economic and sociocultural importance not only for local populations but also regionally and globally. Considering that in most of the municipal and communal forests traditional management practiced by local populations is prevalent, it is important that the fundamental role the indigenous communities have in the use, management and conservation of natural resources also be considered. In this sense, the communal forests have been an unrecognized model of protected areas, established by the communities. These forests are closely linked to environmental services for carbon sequestration, production and conservation of water, prevention of erosion, and conservation of biodiversity, among other things. Among the environmental services, conservation of water sources is, at the present time, the most valued in all the places visited, and the one about which the communities express their central concerns.

*Indigenous productivity and economy.* The agrarian systems of production found in the Altiplano are primarily of the infra-subsistence and subsistence type. Their basic characteristic is that the harvest is destined to cover part of the family's required food needs, though in many cases it is insufficient. Agriculture of the surplus and commercial type is insignificant, and is currently concentrated in the production of coffee. Notwithstanding their reduced area and limited agricultural productive capacity, the small farms of the Altiplano have a strategic importance in national food production. Nearly 60% of the national production of maize and potatoes, and 30% of the production of small animals comes from this zone. The major limits to agricultural production are inadequate land, scarcity of irrigation, lack of road access, lack of connection with markets, and lack of economic resources. The growth of regional population accelerates the reduction of agricultural lands into micro units and reduces possibilities for investment in perennial crops or ground cover.

The majority of farm producers in the Altiplano combine agriculture with other subsistence strategies, among which may be mentioned: craft production and commerce (Sololá, Totonicapán); migratory labor (Cuchumatanes, El Quiché and San Marcos); local wage labor; and, at a low level, animal husbandry. It is also noteworthy that many Altiplano farmers cultivate lands rented along the south coast of the country. Craft production, regional commerce, and forestry activities have been and can be adequate incentives to avoid sole dependence on farming. As the entire Social (and Ethnographic) Assessment demonstrated, this diversification has permitted the reduction of social pressure on natural resources. This could be of special importance for and directed especially to infra-subsistence and subsistence producers.

*Organizational Management:* Organizational management of production in order to strengthen and improve the productive chains, including improved commercialization, may present options for thousands of Altiplano producers, especially for producers of surplus.

*Identity and participation.* The participation of indigenous communities in the project should be managed as

a process that leads to local "empowerment" with respect to diverse initiatives for conservation and development. Spaces for self-management on the part of the participating communities should be facilitated, so that they take ownership of and follow-up on the activities of the project. This will be possible if the project bases itself on the local systems of organization that already exists in the region, and if the project promotes the initiatives that these local organizations have already begun to implement. Protection of water sources, for example, has been an issue around which numerous rural Altiplano communities have been integrated.

### **Strategy for Indigenous Participation**

*General participation strategy.* In order to effect indigenous development within the framework of the project, a process of integrating indigenous community organizations (whether formal and/or traditional) at the local, municipal and regional levels will be required (see Annex 13). It is necessary that the project reach out to include (i) at all levels, whether municipal or regional, associates of the project who are able to communicate with indigenous peoples in their own respective languages, respecting in all cases the spiritual aspects and specific modes of consultation with indigenous peoples; (ii) at the local level, strengthening of grassroots organizations (auxiliary mayors and community directors) in such a manner that each community is enabled to represent the interests of the members of the community in a positive way. In this sense, efforts should be made to obtain legal status (*personaría jurídica*) for these organizations, and in all cases, even when legal status cannot be obtained, the community assemblies should be recognized and legalized as representative bodies of their respective communities; (iii) at the municipal level, and in each project municipality, strengthening (or established by linking existing entities) a local forum (*Instancia Local*) with participation from the municipal corporation, UTM (municipal technical unit – if it exists), local bodies of the civil society linked to "wise use of resources" (*parcialidades*, traditional religious fraternities, councils of elders, *principales*, shamans, and auxiliary mayors who represent indigenous villages and communities), producers groups, and NGOs with a local presence; and (iv) at the regional level, the project should promote intermunicipal forum and dialogues (e.g., through an Association of Mayors from within the project's sphere of influence). This body should provide a representative to the project's Regional Steering Committee. The central purpose of these two levels of permanent participation is to guarantee transparency and partnership in project implementation by consensus at the municipal as well as at the regional level. In all forums, bilingual communication should be provided.

*Intercultural social communication.* Indigenous populations will be kept fully informed of project activities and be assured of opportunities to fully participate in the project in their own languages. This requires identifying the relevant actors, elaborating culturally appropriate didactic materials, and implementing a information campaign covering all aspects of the project. Because this must be initiated at project start-up, the project preparation team has acquired additional preparation funds to design culturally appropriate communications methods and media and to translate technical and institutional strengthening materials and extension methodologies into culturally appropriate forms in the regions main Mayan languages. This will include materials targeted specifically towards women.

*Institutional strengthening for sustainable production and the conservation of natural resources.* This addresses local interests and demands and is based on local institutionality in such a manner that it strengthens the involvement of communities in the tasks of conservation. This requires an effort to promote local participation in all the activities of the project. It is necessary to take into account the typology of producers and the typology of organizations, which are presented in the Social Assessment, because different activities must be designed for each of the different types. Rural participatory diagnostics and the development of local capacities, especially in the field of project administration and management, will be undertaken. Major importance will be given to strengthening local institutionality and revitalizing traditional organizations, because the processes of development and the conservation of natural resources depends on them.

At the municipal level, the governance structure of the project (e.g., *Instancias Locales*) will be structured to provide for strong representation by indigenous people and women. Meetings of the *Instancias Locales* will, to the extent possible, be bilingual in Spanish and the local Mayan dialect or language. Assistance will be provided to the *Instancias Locales*, to the UTMs, and to the formation of an Association of Mayors should demand exist for the latter. To facilitate all of the above, the project will assist communities and other beneficiary groups to acquire legal status. If possible, creation of a legal framework, based on existing legal standards to facilitate obtaining complete and explicit recognition of indigenous communities as entities with their own legal status, should be supported. Project training programs for municipal promoters and local leaders (as in the *Instancias Locales*) would include gender- sensitivity and gender- equity training. Such training would be incorporated into other project-financed training, as appropriate.

At the national and regional levels, the project will improve the capacity of the staff of GOG agencies participating in project implementation to support locally-defined and managed development and conservation initiatives and to work with indigenous people and particularly with indigenous women. The NGOs, private firms, universities and other entities enrolled in the Registry of Qualified Service Providers (see Annex 2) will also be provided with the same types of capacity-building. The project will encourage contracting of women and individuals with local language capability for positions as Promoters, PCU staff, and Grant Technical Unit (GTU) and Biodiversity Component Technical Unit (BCTU) staff.

*Women's participation:* The PCU Gender Coordinator and GTU will develop information and simple manuals and technical materials on business and investment opportunities, in response to demands and needs voiced by women. Institutional strengthening programs and projects will give special emphasis to developing and strengthening women's groups and assisting them in preparing subprojects for grant financing as well as to women's participation in other local organizations. The project preparation team has acquired additional funds to enhance the project's ability to benefit women. Special studies will assess constraints to participation by women, Mayan groups and other disadvantaged people and identify corrective actions to facilitate their inclusion and participation.

*Conservation of community biodiversity.* As part of Component 2 of the project, priority will be given to those communities in the seven sites selected for biodiversity conservation. Activities related to the conservation of biodiversity in indigenous communities include rural participatory evaluation, co-design of management plans, and regularization of boundaries. As part of the community conservation strategy, priority also will be given to activities related to the payment of environmental services. The project would work through traditional organizations and institutions, to the extent possible. It would seek to strengthen (at least to respect) existing and traditional tenure and resources management systems, and would disseminate appropriate indigenous knowledge and resource management practices.

*Implementation Schedule:* Because long-term sustainability is a central goal, the project should take into account the seasonal schedules (including migratory work and peak labor times in agriculture cycles) in the planning of activities. A typology of local institutions has been constructed (CODERSA 2000), and project activities (including institutional strengthening as well as subproject technical innovations) are designed to take into account the levels of capacity and the decision-making frameworks and timeframes used in indigenous organizations.

*Monitoring and Evaluation:* As described in Annex 2, project monitoring and evaluation systems would provide routine, detailed information on a series of indicators of indigenous peoples' and women's participation and benefit from project activities. If participation or benefit falls significantly below targets, the Project Annual Reviews would recommend corrective actions. Indigenous peoples will participate in the design of indicators and in impact monitoring.

*Cost Estimates and Financing Plan:* Because the Project is itself an Indigenous Peoples Development Plan, the costs and financing plan of the activities directed towards indigenous peoples are equivalent to the costs

and financing of the project.

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
<b>Component 1: Sustainable Livelihoods (US\$ 40.82m)</b>				
Identify relevant stakeholders and organizational typology in project municipalities	Implement communications strategy and promote Project	Implement communications strategy and promote Project	Implement communications strategy and promote Project	Implement communications strategy
Provide support to traditional organizations	Strengthen organizational and human capacity	Strengthen organizational and human capacity	Strengthen organizational and human capacity	Strengthen organizational and human capacity
Strengthening/ Formation of local forum / <i>Instancia Local</i> )	Legalize local organizations	Legalize local organizations	Legalize local organizations	Exchange experiences
Local participatory diagnostics	Elaborate subproject proposals	Exchange experiences	Exchange experiences	Elaborate subproject proposals
Design and implement communications strategy and promote project	Execute subprojects	Elaborate subproject proposals	Elaborate subproject proposals	Execute subprojects Monitoring and evaluation
Strengthen organizational capacity	Exchange experiences	Execute subprojects	Execute subprojects	Strengthen local conflict resolution institutions
Elaborate municipal sustainable development agendas	Strengthen local conflict resolution institutions	Strengthen local conflict resolution institutions	Strengthen local conflict resolution institutions	Execute municipal development agendas
Elaborate subproject proposals	Elaborate and execute municipal development agendas	Elaborate and execute municipal development agendas	Execute municipal development agendas	
Execute subprojects	Monitoring	Monitoring	Monitoring	
Elaborate local-level standards & indicators for M & E of community/organized group projects				
Promote formation of Mayors Associations	Promote formation of Mayors Associations	Promote formation of Mayors Associations		
<b>Component 2: Biodiversity Conservation (US\$ 6.34m )</b>				
Participatory diagnosis of selected sites	Strengthen local participation in biodiversity conservation of selected sites	Strengthen local participation in biodiversity conservation of selected sites	Strengthen local participation in biodiversity conservation of selected sites	Strengthen local participation in biodiversity conservation of selected sites
Elaborate plans for management conservation of lands and resources	Elaborate and implement plans for management conservation of lands and resources	Elaborate and implement plans for management conservation of lands and resources	Implement plans for management conservation of lands and resources	Implement plans for management conservation of lands and resources
Specific social-environmental studies	Specific social-environmental studies	Specific social-environmental studies	Specific social-environmental studies	Specific social-environmental studies
<b>Component 3: Environmental Services Market (US\$ 1.64m)</b>				
Workshops on environmental service strategy design with broad range of stakeholders.	Carry out valuation studies and identify and prepare pilots	Implement Pilots and finalize proposal for National Environmental Services strategy	Implement pilot projects for payment to communities for environmental services	Evaluate pilot projects and update National Environmental Services strategy
<b>Component 4: Project Management (US\$6.33 m)</b>				
Project Steering Committee formally constituted. Systemization of accumulated experience by the project	Systemization of accumulated experience by the project	Systemization of accumulated experience by the project	Systemization of accumulated experience by the project	Systemization of accumulated experience by the project

**Additional GEF Annex 12**  
**GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

**Environmental Analysis and Environmental Management Plan Summary**

The Guatemala Western Altiplano Natural Resources Management Project seeks to achieve a number of complementary objectives, including: (i) addressing rural poverty in its region of highest incidence, the western highlands (Altiplano); and (ii) addressing and redressing the processes which have led and continue to lead to the degradation and decline in viability of the natural resource base. This is the resource base upon which rural livelihoods depend (e.g., agricultural land/soils, water, pastures, forests, biodiversity, fuelwood) and which also provides essential raw materials (e.g., lumber, non-timber forest products) and local environmental services (e.g., watershed protection, slope stabilization, flood control, and spiritual and recreational values) along with global environmental services and values (e.g., sequestration of carbon, retention of clear water sources, globally important biodiversity, etc.).

Guatemala's Western Altiplano retains the country's highest density of rural population within a mountainous region containing some of the highest levels of biological endemism and relict biodiversity and agro-biodiversity in Central America. The region was once densely forested with pine and broadleaf forests, most of which have been cleared for small-farm agriculture and grazing, exposing steep slopes to the dangers of erosion and slumping. Agricultural practices are largely traditional and of low productivity and diversity, with access to adequate land, markets for products, financing for inputs, and improvements in technology and knowledge being some of the main constraints. Rapidly expanding population in the region and growing rural impoverishment do not promise much relief for the natural resource base, and ways to preempt the total collapse of the natural systems need urgently to be experimented with and promoted.

The project proposes to achieve a measurable improvement in the management of these natural resources providing incentives for local natural resources users to change from unsustainable to more sustainable natural resources uses and management practices. It will do so by linking the provision of financing for improved local environmental planning, agricultural productivity, diversification and market development to improved land and resource conservation. The project will also finance the identification and protection of high-value biodiversity within existing and new protected areas in the region, and the strengthening and improving the capacity of local, regional and national institutions in the protection and stewardship of these protected areas and their biological contents and values. In addition, the project will provide the financial resources and expertise to help Guatemala establish a system of valuing and marketing (locally, regionally, nationally and internationally) the environmental services provided by well-managed ecosystems in the region. (see Annex 2 for details).

**Environmental Issues within the Project Area:** During project preparation, the GOG prepared an Environmental Issues report for the region (*Analisis Ambiental General del Altiplano Occidental de Guatemala y del Proyecto MIRNA*), a copy of which is included in the project files. The report lists the main interrelated environmental issues and challenges in the region, *inter alia*, land tenure and rights, soil erosion, forest cover losses, water availability and contamination, solid wastes, and pollution), and recommends measures to address these within the project. The main challenges are summarized below:

*High population* density with the region, concentrating some 35% of the national population on some 18% of the land which is poorly/inequitably distributed and much of which is held in small (and often agriculturally non-viable) parcels called *minifundios*. This causes constant pressure upon the land and other natural resources. It is the region within which violent conflict has raged over some 40 years and to which many formerly displaced persons are returning, exacerbating the pressure on land

as well as urban facilities and public resources. Some 70% of the people returning since the war ended are settling in Huehuetenango and Quiche.

*Land tenure* is a chronic source of conflict, as are use rights and access to natural resources. Most commonly, land is held in small farms and in communal and municipal forests. The lack of secure land titles for smallholders and stable tenure rights to communal land rights hamper efforts to improve natural resources stewardship and conservation.

*Small-scale agriculture on steep slopes* in light and friable soils causes chronic erosion and slumping and calls for soils conservation and watershed protection measures.

*Expansion of agriculture and pasture into ever more marginal lands* threatens remaining forests and exposes new land to degradation and erosion.

*Generalized misuse and overuse of agricultural chemical inputs* such as fertilizers, herbicides and pesticides. These run off into the streams and river courses and cause local and downstream pollution, resulting in human health problems. The issue is becoming more and more acute as market-oriented vegetable gardening and farming becomes more widespread in the region.

*Lack of adequate disposal of solid and liquid wastes* is seriously contaminating water sources with effects upon human health.

**Positive Environmental Impacts of the Project:** Overall, the proposed project is an environmental project, with GEF investments oriented entirely to conservation of global biodiversity but also with IBRD and GOG resources targeted to realization of environmental goals. The entire project description can thus be referred to for a review of the expected positive environmental and social impacts of the project. We would highlight among these:

- Support for environmental and natural resources planning;
- Improvements in agricultural and livestock management practices;
- Support for protected areas and biodiversity conservation;
- Promotion of environmental services;
- Promotion of natural resource management targeted to indigenous people; and
- Gender focus of project.

**Potential Adverse Environmental Impacts:** As mentioned above, the project is designed to improve rural livelihoods through fostering sustainable environmentally friendly activities and through improved management and conservation of the natural resource base. As such, criteria and screening mechanisms will be set in place to select against activities and investments which may go counter to these aims.

**National Environmental Legislation:** Under national legislation, all private and public works and projects must undergo an environmental assessment (EA) and clearance in accordance with Article 8 of the corresponding Legislative Decrees (DL 68-86 and amended by DL1-93 - *Proteccion y Mejoramiento del Medio Ambiente*). Article 8 also holds that the official who omits or overlooks the EA requirement will be personally held co-liable for noncompliance and will be fined. In addition to these rules, Article 20 of the Protected Areas Law (*Ley de Areas Protegidas*, DL 4-89 and its subsequent amendments) regulates activities within protected areas (concessions; infrastructure; productive activities; tourism facilities), all of which are subject to an environmental impact assessment (EIA) and must be compatible with the respective area's Management Plan. The EIA is submitted to CONAP by the proponent who, in turn, submits it (with an opinion) to the national environmental commission (CONAMA) for review and

approval.

In regard to management of natural forests within protected areas (depending on the management category of the area), CONAP calls for an EIA, in addition to the management plan, for eventual review and approval by CONAMA. CONAP has its own forest management manual with clearly established rules, standards and procedures. By contrast, INAB, which is responsible for regulating and licensing the use and management of forests outside of protected areas, does not require EIAs to accompany forest management plans.

All of the above notwithstanding, most EIAs in Guatemala are largely pro-forma exercises, since the national environmental agencies (CONAMA; CONAP) lack the technical human resources and capacity to verify compliance. This project has the potential to produce clear environmental standards and regulations for activities such as road construction, tourism facilities housing within protected areas.

**Environmental Review of Project Activities by Component:** While all project activities are aimed at enhancing environmental quality, the productive and resource management subprojects to be financed within Component 1 are most subject to potential environmental damage. Component 2 will create new and strengthen existing protected areas and biodiversity, within the national regulations cited above. Component 3 is entirely environmentally positive.

*Component 1 (Sustainable Livelihoods)* is designed to raise the environmental standards and quality, as well as productivity and efficiency, of natural resource-based activities in the project area, including improved agricultural production and practices, improved livestock management practices, and improved forest management practices, as well as soils and water conservation practices, community and municipal natural forest and natural areas protection. Local planning and expert technical assistance will be supported by the project, so that local project beneficiaries/proponents can and will prepare acceptable environment-enhancing subprojects. These subprojects will be prepared and submitted according to guidelines for financing and design criteria, including the environmental criteria, set out in the Project Operational Manual.

Subprojects will be screened according to these criteria and, should environmental issues arise, they will be addressed within the subprojects' design. Based upon the screening, subprojects will be required (and assisted) to include environmental mitigation measures, including plans to reduce or replace the use of toxic agricultural inputs; change or modify cultivation practices; change or modify grazing sites and practices; change or modify forest, soils and water uses; change or modify disposal practices for solid wastes; and/or change or modify the degree and nature of forest exploitation. These mitigation plans for the subprojects will be reviewed first by the local technical promoter, then by the local review committee (*Instancia Local*) before being submitted to the PCU for higher level technical feasibility and environmental review and approval.

No subproject financing will be approved for the purchase of highly toxic agricultural inputs, clearing of forested land, inappropriate (e.g., clear cut felling) and excessive (with degrading results) exploitation of forests or which would lead to contamination of water courses and/or inappropriate disposal of solid and liquid wastes (as from coffee processing plants). The client-prepared environmental analysis proffers lists of the kinds of problems which might be confronted and recommends appropriate mitigating measures to be applied in the project, and included in the Project Operational Manual.

*Component 2 (Biodiversity Conservation)* is designed to identify and put under some form of protection high value biodiversity in the project area. It will finance the improved management of existing protected areas within the National System of Protected Areas (SIGAP) and establish new ones. It will strengthen CONAP's capacity at the central, regional and local levels to fulfill its mandate. Installation of new

protected areas will be done in accord with current environmental legislation and regulations; this will not include resettlement of people (see section below on Involuntary Resettlement). Support for productive activities by people within and around the protected areas will be subject to the same rules established for Component 1 for subprojects, but will be more stringently supervised and monitored by CONAP and local community and municipal groups and entities. Environmental education and dissemination of environmental information will be supported by the project, and a special effort and investment is being made to make such information available in culturally appropriate forms and local indigenous languages. The environmental communications strategy will include mass media communications (in the national and local languages), community environmental programs to stimulate awareness and increase local knowledge about environmental issues, biodiversity and protected areas, as well as strengthen the environmental curriculum within the public school system.

**Compliance with World Bank Safeguard Policies:** The project has been designed to fully comply with the spirit and letter of relevant World Bank Safeguard Policies, as summarized below.

*Environmental Assessment (OP 4.01).* This project is classified as Category B, requiring an Environmental Analysis (EA) but not a full-scale Environmental Impact Assessment (EIA). In addition, a more detailed environmental analysis study, *Análisis Ambiental del Altiplano Occidental de Guatemala y del Proyecto MIRNA* (prepared by Consultores para el Desarrollo Rural Sostenible – CODERSA) was submitted to the Bank in October, 2000. In accordance with the Bank's Information Disclosure Policy (BP 17.50), copies of this report (in Spanish) are available for public viewing at the PCU office in Guatemala City (13 Calle 3-40, Edificio Atlantis, Nivel 14, Zona 10, Guatemala) and a copy is in the Bank's project files. The key findings and useful recommendations from this report are reflected in the project design and summarized in this Annex.

Consultation on the project has taken place at many levels and times throughout the preparation process. Reports on all consultations, including dates, summaries and attendance lists are available in the Project files. In addition, a full-fledged Social Assessment was carried out over the six departments of the western Atliplano and a subsequent stakeholder (mayors, auxiliary mayors, community representatives, and local-level NGOs representatives) consultation held in Quetzaltenango (September 2000) validated the results of the study and provided additional opportunities for consultation. A three-day national stakeholders workshop was held in the city of Antigua in September 2000. Additional stakeholder consultations were held in San Marcos, El Quiché, and Huehuetenango (November 2000). Special consultations were held in regard to Component 2 concerning the biodiversity and parks management activities of the project (Panajachel: November 2000).

Suggestions and information garnered from these workshops and consultations, and especially those emerging from the Social Assessment, have been included in the project design. Additional studies (see project files) have yielded important information. The Policy and Institutional Analysis study is of particular significance, as it reveals that Guatemala has in balance a very satisfactory set of policies in regard to natural resources management, while having almost no capacity to implement them. This provides a strong justification for the institutional strengthening activities proposed in the project.

The subproject environmental screening measures and processes which will be detailed in the Project Operational Manual and implemented under the project for both Components 1 and 2 fully comply with the requirements of OP 4.01 for the minor impacts that might be expected under this project.

*Natural Habitat Policy (OP 4.04).* The project (through its GEF-financed Component 2) is designed to maximize protection of existing remaining natural habitats and increase the amount and representativity of all such habitats within the national protected areas system (SIGAP). Component 1, where rural sustainable livelihoods will be enhanced, has criteria which strictly prohibit project financing from encouraging further incursions into and conversion of natural habitats, including forests, upland

meadows and dry forests and wetlands. Checklists and screening mechanisms governing the selection of demand-driven community subprojects will filter out any proposals that could be harmful to such natural habitats. Community-managed forests and private conservation efforts will be encouraged and supported, financially and with expert technical assistance and information. Information on all the relict natural habitats within the western Altiplano will be generated, stored within the monitoring data base (GIS) and divulged through the environmental information and public education programs (in local indigenous languages and dialects, wherever possible).

*Forestry (OP 4.36).* The project will adhere to the spirit and letter of the prescriptions contained within the Bank's new policy, insofar as it will: (i) seek above all to stimulate concern for and support forest management processes and practices which would retain as much natural forest as is possible in areas where such forests still exist and are viable; (ii) seek to improve the environmental aspects and reduce waste and unsustainable practices within current forest use and management practices; (iii) stimulate the revegetation of degraded lands and watersheds with natural and planted forests, wherever conditions allow for this to occur in a sustainable and efficient manner; (iv) monitor all existing forest cover within the project area (baseline) and any future changes in this cover, promptly addressing the incentives and causes which lead to forest conversion and degradation; v) work with municipal governments and communities in improving the management of existing and encouraging expansion of forests, wherever such expansion is viable and sustainable (e.g., for the generation of chargeable environmental services); and vi) protect samples of rare and threatened forest types within protected areas and parks and in general address all manner of threats to existing forests (fire, poor grazing practices, unsustainable extraction of forest materials) through improved management capacity building at the regional (INAB), municipal and community levels.

In regard to the extraction of forest-based products (including timber, stakes, firewood, forest trash used as farm fertilizer, medicinal plants, etc.), the project will promote sustainable practices through financing community forest management plans, provide communities with forestry specialized technical assistance, and support traditional management approaches which have shown to retain viable forest stands while allowing for low-intensity use of the forests.

*Pest Management (OP 4.09).* The project does trigger this Bank OP, in that almost all commercial farmers and gardeners in the project area use chemical inputs, such as chemical fertilizers and purchased pest and weed controls to produce vegetables, coffee, and other products for local and regional (and occasional export) markets. The incidence of malpractice in regard to the application of these inputs is very high. The project's aim is to raise agricultural productivity within the project area while also substituting for natural resources-degrading practices and reversing their effects (erosion, contamination, mining of fertility, and replacement of forest with agricultural and livestock production). This process will take time and investments in public environmental education. Community subprojects will be screened for environmental compliance and farmers trained in appropriate applications of chemicals as needed. Thus, the project is expected to contribute to an overall reduction in the volume and nature (toxicity) of the chemical inputs, and do so gradually by substituting toxic substances for less toxic ones, large and inappropriate applications for more appropriate quantities, and generally promote sustainable practices (e.g., integrated pest management) over environmentally unsustainable practices. In addition, no procurement of agrochemicals within the WHO Class 1 or 2 list would be allowed and, where agrochemical usage is an issue, all relevant subprojects will be required to include such elements as soils testing to reduce over-fertilization, training on appropriate use and storage and disposal of agrochemicals and containers, cleaning of equipment and personnel precautions to be taken. Strong gains will be made in these objectives through the environmental education and information programs, the local-level extension and advisory services.

*Indigenous Peoples (OD 4.20).* Some 90-95% of rural people in the project area belong to one or another Mayan indigenous ethnic subgroup. The Social Assessment highlighted this fact and made it quite clear

that the project itself could thus be regarded as an Indigenous Peoples Development Project. However, to further ensure compliance with the spirit of OD 4.20, the Project team has drafted a stand-alone IPDP with a number of measures to ensure that the project will work within traditional Mayan cultural and natural resources and land use practices to achieve improvements in income and in natural resource conservation.

*Cultural Property (OPN 11.03 and draft OP 4.11).* During preparation, the project contributed to financing a series of workshops in the project area on indigenous (Mayan) natural resources planning and management practices. The results of these workshops, the Social Assessment and the close participation of the indigenous *Plan de Accion Forestal Maya* (PAF-Maya) in the project preparation process, have been drawn into the project design and are reflected in the project delivery and management structure whereby decisions and proposals are generated and decided upon at the local level and with the full participation of local village and community authorities and representatives, including the women. (See Annex 11).

*Involuntary Resettlement (OD 4.30 and draft OP 4.12).* The project would not support any involuntary relocation of people as defined in the Bank's OD 4.30 and the Draft OP 4.12 paragraph 2A. Nevertheless, a Process Framework has been prepared which summarizes current GOG legal provisions and instruments regarding rights of populations in and around protected areas. The Process Framework also provides guidelines and outlines means (such as extra assistance in preparation of proposals and access to subproject funds) for addressing potential adverse economic impacts that might result from project-supported implementation of existing and new collaboratively designed management plans that include restriction of access national protected areas and natural resources protected under other local regimes. A copy of the Process Framework document (in Spanish) is in the Project files and is available through the Bank's InfoShop.

**Additional GEF Annex 13**  
**GUATEMALA: WESTERN ALTIPLANO NATURAL RESOURCES MANAGEMENT PROJECT**

**Social Assessment**

This document summarizes the main findings and recommendations of the Social Assessment carried out during project preparation. Because some 90-95% of the population of the project target area is indigenous, the project is designed as an Indigenous Peoples Development Plan as defined by the policies and operational directives of the World Bank. Nevertheless, a separate IPDP was prepared (see Annex 11) along with a Gender Participation Plan to support the involvement of women, Mayans and *ladino* people in the project area (see project files).

This Social Assessment had the following objectives: (a) evaluate the existing patterns of natural resources and land ownership, management, access, and use practiced by different ethnic groups and in different agro-ecological regions of the Western Altiplano; (b) identify stakeholders and beneficiaries using a gendered perspective and identify the most appropriate means by which they should be involved in project preparation, implementation and evaluation, and to obtain their inputs for project scope and design; (c) identify potentially negative impacts of proposed activities on vulnerable groups in the population including indigenous people, low-income producers, and women and to design measures to prevent or mitigate these impacts; and (d) identify opportunities to build the capacity of municipal governments, Mayan indigenous producers' organizations and NGOs.

**Methodology:** The Social Assessment consisted of: (a) an analysis of stakeholders and potential beneficiaries in the project area engaged in agriculture, natural resources management (mainly communal forests) and environmental protection; (b) regional consultations, workshops, and focus group meetings with stakeholders and potential beneficiaries in the project area carried out by a multidisciplinary team which included internationally eminent professionals, national experts, and local community social and environmental field workers; (c) extensive interviews of municipal government representatives, community leaders and local NGOs; (d) extensive analysis of secondary literature on the social impacts of the legal and regulatory framework including land tenure issues; (e) meetings held with national and local Mayan organizations and with representatives of non-indigenous communities and municipal leaders; and (f) specific legal analysis related to resettlement issues in regard to residents in and around protected areas.

The initial step was to construct a socio-ethnographic matrix as the basis for selecting an adequate sample of communities. The communities exemplify the full range of ecological, socio-cultural and legal factors and processes affecting natural resource management and productive activities in the Altiplano. The indicators used in the construction of the socio-ethnographic matrix were based on ethnicity and language (predominantly Mayan languages); watersheds; administrative units; life zones and productive strategies used in the different life zones; land tenure; level of conflict; and relationship with the protected areas proposed by the SIGAP (Guatemalan Protected Area System). The socio-ethnographic team reviewed government, World Bank and academic studies, including ethnographic and statistical works. In addition, special attention was given the World Bank's study "Guatemala: Priorities in Natural Resource Management: Start-Up Phase Literature Review/Diagnosis" (Warne, 2/99).

Based on the above, several survey instruments were designed together with World Bank staff: (a) Community Diagnostic Instrument: data were collected through group discussions and with focus groups whenever possible; (b) Natural Resources: group discussion methods were used to collect data on natural resources available to communities; (c) Local Authorities: a semi-structured interview guide was prepared for discussions with mayors or with municipal secretaries about natural resource use and conservation,

common property management, etc.; (d) Organizations: a semi-structured interview guide was prepared to collect data from government organizations and non-government organizations (NGOs) working in specific regions or municipalities; (e) Gender: open-ended and relevant questions were used within all other methods to focus on gender relations; and (f) Cross-cutting Studies: special studies were carried out on aspects of gender and institutional relations. (The experts in charge of these special studies also participated in the design and analysis of the studies mentioned above.)

**Results:** The following summarize features critical to understanding the socio-cultural, economic and environmental dynamics of the Western Altiplano.

*Historical Context:* The basic socio-economic structure of the region is the historical outcome of two critical periods: 1) deliberate state policies of the Liberal Period (1870 to 1944), for the development of labor supply for agro-export plantations, which have had continuing impacts on agrarian structure and labor relations; and 2) the armed internal conflict (1962 to 1996) during which the population of the region suffered harsh repression.

*Complexity and Diversity:* The Western Altiplano is a region of mountainous relief, characterized in ecological terms by extremely fragile ecosystems, in social terms by being primarily indigenous (90-95% in the project target area; however, the degree to which people maintain Mayan customs, culture and identity varies), densely populated with extremely small landholdings, and in economic terms by the predominance of subsistence production. In general, there is a correlation between Mayan identity and deep poverty (93% of the entire indigenous population of Guatemala is classified as living in poverty). The Western Altiplano is a complex region because of its inter-ethnic relations, networks of regional commerce, internal and external migratory processes, manifestations of local power and customary law, territorial conflicts, and the impact of globalization on acculturation and local economies. The linguistic and social-cultural diversity match the ecological and productive diversity: 13 Mayan languages (in addition to Spanish) are spoken by the people in the region. Despite the attempts of the state to homogenize and marginalize the Maya of the Altiplano, local regions retain their cultural heterogeneity.

*Socio-cultural identity:* Socio-cultural identity is based on membership in a given local community, and the community is identified with a given municipality. There is a profound connection among people, community and territory (settlement, fields, woods and water sources). The Mayan cosmovision explicitly and closely links people with natural resources and provides an important contextual point of departure for work in natural resources management. In general, production and natural resource management are not seen as separate activities. Decisions tend to be made by consensus (in general assemblies), led by local authorities (often deputy mayors in law but elders in custom). Thus, the community is seen as the locus of organizational strength.

*Expressed Development Needs:* Beyond needs for gainful employment, people are most concerned about growing water shortages. There is also concern about forests that supply firewood, timber, water supply, etc.

*Rupture of the Social Fabric:* Three decades of violence and tactics designed to weaken local leadership and social and productive institutional structures and create mistrust within communities have severely stressed the social fabric of the communities that are central to Western Altiplano rural life. The current generation can count on far fewer traditional resources than its predecessors. At the same time, communities and local formal and non-formal institutions remain the central axle of decision-making, development, and conservation for rural people. These factors combine to make active participation and community-driven development the key to local development.

*Importance of Community-driven Development:* Institutionalized discrimination against the indigenous population, the recent violence, and paternalistic development practices have left many indigenous people wary of top-down projects. To gain access to resources, local people tend to appease NGOs. This, along

with mistrust of outsiders, NGOs, and the government and a history of failed projects make active participation and community-driven development yet more important.

**Recommendations:** The ecological, agricultural, social, linguistic and cultural diversity of the Western Altiplano make generalizations difficult and dangerously unproductive. Thus, the central recommendation of the Social Assessment is that addressing this complexity and diversity (which must be accepted as a given, not denied) requires a strong emphasis on inclusiveness, participation, and flexible local processes in planning, community-driven development and project activity implementation and on strengthening local institutions in their ability to plan and manage conservation and development actions. (It should also be stated here that many of the recommendations of the Social Assessment have been taken into account in Project design; some, however, fall beyond the purview of this project and will need to be referred to other more appropriate agencies.)

*Target Group: Predominantly Mayan Rural Population:* The central participant/beneficiary groups would be poor rural men and women at the community, *parcialidad*, village, and municipality levels who are organized around production and/or conservation goals. Given the social organization and institutional topography of the region, target groups would include women-headed families (many of them war widows); existing community organizations, particularly traditional ones (rather than committees artificially established to serve donor agencies), organized around agricultural production or natural resource management themes; and municipalities. In addition, small-scale cottage and rural industrial production units (e.g., textiles, artisan and craft goods, and furniture) should be targeted.

Women: The decades of violence and outmigration of men to elsewhere in Guatemala and to the United States, have left behind a large number of women-headed households. Though women play important roles in agriculture, commerce, firewood collection, forest stewardship and on some committees (although in some cases their participation may be a façade to facilitate access to NGO benefits), there are few productive projects for women in the region. The proposed project must be proactive in facilitating women's participation in the implementation and benefits of project activities. At the same time, the project must assure that provisions are made to prevent overburdening women's work days, and alternatives and support (e.g., community childcare) must be made available to facilitate their participation.

Culturally-Appropriate Communication: Project information and activities should be in the local Mayan languages as well as Spanish, designed in culturally appropriate forms, and be easily accessible to non-literate people (as much as 50% of the targeted population, predominantly women, is illiterate).

*Institutional strengthening, participation and local power:* Given the immense socio-cultural variety in the project area, the lingering impacts of decades of violence, and the emphasis on community- and demand-driven development, the mechanisms through which the project will work must be specifically tailored to each municipal context and to the particularities of local counterparts, through participatory planning and implementation. In doing so, the Project will also be complying with OD 4.20 of the World Bank which calls for "the informed participation of indigenous peoples and communities in decision making throughout the planning, implementation and evaluation of a project" (paragraphs 8 and 14). To assure that activities within the project are appropriate for the local context, are locally chosen (demand-driven), and answer to locally-identified real needs, participatory diagnostics must be carried out. These should analyze formal and informal institutional structures and relations (including municipal government and community-level pro-development, resource management, spiritual, women's and elders' committees and associations) in each municipality supported by the project. They should result in selecting and constituting an appropriate *Instancia Local* (municipal-level forum for local natural resource and environmental planning and decision-making). This forum should be made up of representatives of the above groups, and should promote the identification and preparation and screen locally-generated subprojects for financing under the project.

Representatives selected by communities and municipalities should be actively involved in working on project design, implementation and evaluation (local evaluation indicators should be employed). Where possible, consensual decisions (the traditional decision-making method) should be encouraged. (This requires that the project be willing to invest more time and resources in up-front planning than is usually the case.)

Existing Local Institutions: Wherever possible, the project should work with already existing traditional organizations, rather than creating new ones. This is consistent with commitments made in the Peace Accord on Socio-economic Issues and the Agrarian Situation (ASESA No. 37). It is also important because creating new organizations may divide a community to the detriment of unified local development and conservation efforts. For the success of project activities and long-term sustainability (stability of natural resource management regimes and strengthening of local capacity to develop and implement new projects and acquire additional funding) and of positive social impacts, existing structures should be strengthened. These might include councils of elders, auxiliary mayors' corporations, and local entities that manage natural resources as well as development forums that exist within the municipal code. Particularly in cases where there exists a clear communal tradition of management of natural resources such as forests, water and land, the project should strengthen the local institutions responsible and create the necessary space to make possible increased community participation in municipal government. Associations of auxiliary mayors and other existing formal and informal authorities should be provided with assistance as well.

Legal Status of Local Organizations: Since under current legislation, the indigenous community (as such) is not recognized in law, the project should assist beneficiary groups to obtain legal status (*personaría jurídica*). Legal status for indigenous communities and rural organizations would facilitate the capture of funds, allow for signing of contracts, give access to a range of state and other resources, and, in general, increase capacity for self-management. Particular attention should be given to legalizing groups organized by women (in cooperation with Departmental Women's Forums; also see ASESA No. 33).

Coordination: The project should assist in coordination across geographic boundaries, landscapes and administrative (governmental) units to create synergies and enhance subproject impacts. It should help support the regional Association of Mayors to facilitate information exchanges and stimulate greater regional participation. Because the Project will operate within the boundaries of the Mesoamerican Biological Corridor (and in compliance with the International Labor Organization's Treaty 169, article 32), regional cooperation among the indigenous people should be fostered (with Mexico, for instance). The project should also ensure that it works with other development and conservation efforts in the region. Technical and support services should be provided by NGOs, private firms and others with compatible development philosophies and practices.

Sustainable Livelihood Strategies: Since some 95% of rural families in the region intensively farm plots of less than 7 ha and nearly half of those are less than 0.7 hectares (predominantly gardens of corn and beans), they have developed diverse survival strategies. These include permanent and seasonal migrant labor, commerce, production of craft goods, cottage industries and small-scale factories (textiles and furniture), tourism, and capture of remittances from the United States. The project should support improved productivity and profitability of diversified strategies.

Clean Technology Agriculture: Production and marketing of agricultural products should be supported through (i) rescuing and promoting those traditional agro-ecological systems of production which use organic inputs and which have the potential to be articulated with demands for certified products that are of increasing global importance; (ii) promoting improved clean production and transformation technologies; and (iii) local and regional marketing initiatives.

Non-agriculturally based income generation: In order to reduce the pressure on natural resources, the project should also support non-agriculturally based income generation activities. Recommendations for types of

products and businesses are detailed in the Social Assessment. Throughout, opportunities should be provided for organizing and training women's groups for specific work. These should take into account technical improvements, access to credit, small business management training and marketing of artesanry produced by women, and easing of women's current work loads. These should provide women with improved possibilities of competing in national and international markets with a variety of farm and off-farm products. Pilot projects for marketing organic coffee and other high-value crops should be fostered, while minimizing reliance on external intermediaries. Mechanisms to value and to compensate for the use of environmental services (in particular water consumed by agro-export companies and other plantations on Guatemala's south coast) should be created. In addition, collective indigenous intellectual property (particularly those related to crops and medicinal plants) as an important part of the nation's patrimony should be protected.

*Conservation and Use of Natural Resources:* In the Western Altiplano, successful conservation efforts will have to be based on secure, clear and explicit local control, especially when involving indigenous communal lands. Local institutions that manage resource access must be central to project conservation activities.

*Tenancy:* The Social Assessment recommends that, where feasible, the Project support regularization/legalization of communal lands (common property), including municipal lands, which have a clear community tenancy tradition (which is called for in OD 4.20 paragraph 15.c.: "... The [World] Bank will extend to the borrower the assessment and assistance needed to assure legal recognition of indigenous populations' traditional land tenancy systems" and in clause IV-F-5 of the Peace Accord on the Identity and Rights of Indigenous Peoples [ASIDPI]). Standardizing the titling and registering of communal lands should lessen incentives for privatizing natural resources, which removes land and its benefits from community control. Women-headed households will need special bilingual legal assistance to obtain legal title to the lands they farm. Deere and León (1999) affirm that land ownership (including in those cases in which peasant women are not primarily agriculturists) has great importance for status and welfare, and becomes a platform for "empowerment."

*Management of Resource Access Conflicts:* Participatory mapping should be employed to define agreed-upon boundaries of multiple-use and conservation areas and boundaries between neighboring communities and to define current use of natural resources. This should be done in cooperation with PROTIERRA (a GOG agency for cadastral work and registries). To resolve land use, tenancy, natural resource and socio-environmental conflicts, the good services of local institutions based on Mayan norms (making use of the existing wealth of indigenous common law) should be drawn upon, while maintaining contact with CONTIERRA (GOG agency for land conflict resolution). Because this approach would have legitimacy among the parties to a dispute, it would help assure compliance with agreements reached.

*Resettlement and Protected Areas:* The current configuration of remaining areas of forests as well as water sources in the Western Altiplano correlate with many of the historical protective actions and areas belonging to indigenous communities, rather than with state policy. Hence, not only should such traditional regimes be supported, but any involuntary resettlement or eviction of local populations will be strictly avoided. The norms established in the Bank's OD 4.30 (which are more restrictive than CONAP's resolution No. 030-99 on Policies for Human Settlements in Protected Areas or ASES 34.f-k and ASIDPI IV F6) should be strictly followed. Local conservation practices should be fostered and respected in delimiting conservation and protected areas. Community members should fully participate in the preparation of management plans, which in turn will be established to include local priorities and solutions (PAHAP II5. and III:11). The concept of "Community Management Entities" (UTM, PAHAP, Annex 4) should be adapted to serve traditional Maya localities. This corresponds to ASIDPI IV-F-6/2, which stipulates that the government should "recognize and guarantee the right of communities to participate in the use, administration and conservation of existing natural resources on their lands." The project should support the state's obligation to seek and "to obtain the favorable opinion of indigenous communities prior to carrying out any project

involving use of natural resources" (ASIDPI IV-F-6/3) and "... to adopt, in cooperation with communities, the necessary means to protect and conserve the natural environment" (ASIDPI IV-F-6/4).

**Further Recommended Actions:** In order to be best prepared for project implementation, the Social Assessment recommends that the following additional information be gathered and synthesized. The first two items have been completed, and the following three are well-advanced.

- Develop a typology and profile of municipal corporations and their committees and of common local formal and informal institutions. Provide a description of the range of levels of organization, capacity and legitimacy that each has within the community and the types of support that would enable it to better fulfill the roles expected of it by civil society.
- Develop a typology and profile of producer groups in each municipality to help define work plans and programs for each target group, as well as the level of intervention on the part of the project.
- Carry out a deeper study of the bases for household subsistence, as a great range of alternative options for "survival strategies" which may be observed in the Western Altiplano. This will help formulate plans for technical assistance and training, which can be an important aspect of supporting local development while reducing pressures on natural resources.
- Carry out a more detailed study of gender aspects of local organizations, production systems, and resource management practices to more fully target project activities to women, men, and families.
- Develop a detailed communications strategy and materials for culturally appropriate communication and education for all major language groups within the context of the project.

