

PROJECT BRIEF

1. IDENTIFIERS:

PROJECT NUMBER:	CR-GE-61314
PROJECT NAME:	Ecomarkets
DURATION:	5 years
IMPLEMENTING AGENCY:	World Bank
EXECUTING AGENCY:	The National Forestry Financing Fund (FONAFIFO)
REQUESTING COUNTRY OR COUNTRIES:	Costa Rica
ELIGIBILITY:	Costa Rica ratified the Convention on Biological Diversity on August 26, 1994
GEF FOCAL AREA:	Biological Diversity
GEF PROGRAMMING FRAMEWORK:	Forest Ecosystems and Mountain Ecosystems (Operational Programs: Nos. 3 & 4).

2. SUMMARY:

The development objective of the proposed project is to increase the production of environmental services in Costa Rica by supporting the development of markets and private sector providers for services supplied by privately owned forests, including protection of biological diversity, greenhouse gas mitigation, and provision of hydrological services. The global environmental objective of the proposed project is to foster biodiversity conservation and preserve important forest ecosystems through conservation easements on privately-owned lands outside of protected areas in the Mesoamerican Biological Corridor in Costa Rica. The project will strengthen offices within the Ministry of Environment and Energy (MINAE), as well as local and regional non-governmental organizations, responsible for the execution, promotion, supervision, and monitoring of the forest conservation program. Results of project activities generating global benefits would include: (a) an additional 50,000 hectares of privately owned lands in Tortuguero, La Amistad Caribe, and Osa Conservation Areas incorporated into Costa Rica's conservation easement program; (b) establishment of a financial instrument to support conservation easements in Costa Rica over the long term; and (c) increased landowner participation in, and benefits from, forest conservation-related activities within the Mesoamerican Biological Corridor in Costa Rica.

3. COSTS AND FINANCING (MILLION US):

GEF:	-Project	US\$8.0 million
	- PDF:	US\$0.33 million
	Subtotal GEF:	US\$8.33 million
CO-FINANCING:	-GOCR:	US\$31.9 million
	-World Bank:	US\$20.0 million
	Subtotal Co-Financing:	US\$ 51.9 million
TOTAL PROJECT COST:		US\$60.23

4. OPERATIONAL FOCAL POINT ENDORSEMENT:

A: Project Development Objective

1a. Project development objective: (see Annex 1)

The development objective of the proposed project is to increase the production of environmental services in Costa Rica by supporting the development of markets and private sector providers for services supplied by privately owned forests. As such, the project directly supports the implementation of Forestry Law No. 7575: providing market-based incentives to forest owners in buffer zones and interconnecting biological corridors contiguous to national parks and biological reserves for the provision of environmental services relating to carbon sequestration, biodiversity conservation, scenic beauty, and hydrological services.

The project aims to contribute to environmentally sustainable development in Costa Rica through: (i) supporting the supply of and demand for environmental services provided by forest ecosystems; (ii) strengthening management capacity and assuring financing of public sector forestry programs administered by the Ministry of Environment and Energy (MINA E), including the National Forestry Financing Fund (FONAFIFO) and the National System of Conservation Areas (SINAC); and (iii) increasing inflows of private capital into the forestry sector, sustaining natural forests which are critical for biodiversity conservation and which form the basis for existing (e.g., ecotourism) and emerging industries.

1b. Global Environment objective: (see Annex 1)

The global environmental objective of the proposed project is to foster biodiversity conservation and preserve important forest ecosystems through conservation easements on privately-owned lands outside of protected areas in the Mesoamerican Biological Corridor in Costa Rica.

2. Key performance indicators: (see Annex 1)

Key performance indicators related to the project development objective include:

- *30 % increase in number of providers of environmental services by end-of-project;*
- *25% increase in land area covered by Environmental Service Payments (ESP) program contracts;*
- *30 % increase in the participation of women land owners in the ESP;*
- *30 % increase in the participation of women organizations in the ESP;*

Key performance indicators related to the Global Environment objective include:

- *50,000 hectares of privately owned lands within the Mesoamerican Biological Corridor incorporated into Costa Rica's ESP program through conservation easements;*
- *Establishment of a financial instrument to support conservation easements in Costa Rica;*
- *Increased landowner participation in, and benefits from, forest conservation-related activities within the Mesoamerican Biological Corridor in Costa Rica.*

B: Strategic Context

1a. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)

Document number:

Date of latest CAS discussion:

The most recent Country Assistance Strategy was prepared in 1993. A draft Country Economic Memorandum was prepared in 1995. The CEM points out that higher and sustained economic growth in Costa Rica depends on the Government's success in strengthening the outward-orientation of the economy and increasing the role of the private sector. The proposed project directly supports the CEM objective of placing Costa Rica on a higher growth path by improving incentives for private sector-led growth and by supporting improved natural resource management through the conservation of forest ecosystems. Finally, the project supports poverty alleviation through targeting small farmers and the rural poor for contracts for conservation easements, sustainable forest management, and reforestation.

1.b. GEF Operational Strategy/Program addressed by the project:

Costa Rica ratified the Convention on Biological Diversity on August 26, 1994. The proposed project is eligible for GEF financing under two of the four Operational Programs supporting the conservation and sustainable use of biodiversity: Forest Ecosystems and Mountain Ecosystems (O.P. Nos. 3 & 4). Furthermore, the project is in accordance with Article 8 of the Convention on Biological Diversity and is consistent with guidance from the Conference of the Parties as it addresses *in situ* conservation; includes capacity building at the local level for biodiversity conservation; strengthens conservation management and suitable use of ecosystems outside of state-owned protected areas; strengthens the involvement of local peoples and supports conservation-oriented poverty alleviation in rural areas.

The project complements a number of ongoing and recently-completed GEF-financed activities in Costa Rica, including: the National Biodiversity Strategy and Action Plan; the GEF/World Bank/INBio Biodiversity Resources Project; the GEF/UNDP Medium-sized project in the Talamanca-Caribe Biological Corridor project; and the GEF/World Bank/IICA Sustainable Cacao Medium-Sized Project. The project preparation team has carried out discussions with UNDP program officers in Costa Rica and the Talamanca-Caribe Biological Corridor project to ensure complementarity and avoid overlaps between the two projects. Finally, consultants working on the GEF/UNEP/OAS San Juan River Basin Project are likewise involved in the formulation of the proposed project, ensuring an avoidance of overlaps between the two projects.

In addition, the project is complementary to the larger GEF/UNDP/UNEP/CCAD/GTZ/DANIDA regional program to consolidate the Mesoamerican Biological Corridor (MBC). The Costa Rica national technical coordinators for the regional project – who are responsible of the inter-agency coordination of activities related with the consolidation of the MBC – have been consulted with respect to jointly defining priority corridor areas according with the strategy defined at national and regional levels. This strategy for the conservation and sustainable use of biodiversity within the Mesoamerican Biological Corridor, was formulated building upon efforts carried out within Costa Rica, such as the GRUAS Project (UNDP/GEF/MINAE), as well as in

2. Main sector issues and Government strategy:

Forestry Sector

Costa Rica is one of the world's leading proponents of environmentally sustainable development, pursuing social and economic growth in conjunction with a strong and healthy environment. The environmental policy of the government has been progressive, including use of economic instruments such as electricity surcharges and reforestation credits which are targeted at protecting forest ecosystems throughout the country. Nonetheless, Costa Rica was beset with one of the highest rates of deforestation worldwide during the 1970s and 1980s. In 1950, forests covered more than one-half of Costa Rica; by 1995, forest cover declined to twenty-five percent of the national territory. Approximately sixty percent of forest cover, totaling 1.2 million hectares, exists on privately owned lands outside of protected areas. World Bank estimates indicate that eighty percent of deforested areas, nearly all on privately owned lands, were converted to pastures and agriculture. Deforestation was principally driven by inappropriate Government policies including cheap credit for cattle, land titling laws that rewarded deforestation, and rapid expansion of the road system. These policy incentives have since been removed.

Costa Rica's efforts to internalize environmental values provided by forest ecosystems dates back to 1979, with the passage of the first Forestry Law and the establishment of economic incentives for reforestation. Subsequent laws strengthened incentives for reforestation, broadening opportunities for landowners to participate in reforestation programs and making the program accessible to small landowners within rural areas. In 1996, Costa Rica adopted Forestry Law No. 7575, which explicitly recognizes four environmental services provided by forest ecosystems:

- mitigation of GHG emissions, such as CO₂;
- hydrological services, including provision of water for human consumption, irrigation, and energy production;
- biodiversity conservation; and
- provision of scenic beauty for recreation and ecotourism.

The law: (a) delegates responsibilities and duties *inter alia* to licensed forestry regents and municipalities, the National Forestry Financing Fund (FONAFIFO), the National System of Conservation Areas (SINAC), and the Costa Rican Office for Joint Implementation (OCIC); (b) provides the legal and regulatory basis to contract with landowners for environmental services provided by their lands and establishes a financing mechanism for this purpose; and (c) empowers FONAFIFO to issue such contracts, subject to provisions such as the availability of a forest management plan certified by a licensed forest regent, for the environmental services provided by privately-owned forest ecosystems. With the passage of Forestry Law No. 7575, the forestry sector has an established modern legal framework, which (i) recognizes environmental services provided by forest ecosystems; (ii) defines the role of the State in protecting forests as well as in promoting and facilitating private sector activities; (iii) decentralizes duties and responsibilities to local actors, including licensed forestry regents, municipalities, and regional councils; and (iv) establishes that forests may only be harvested if there exists a forestry management plan that complies with the criteria for sustainable forestry as approved by the State.

harvesting; and monitoring schedules. Commitments associated with the environmental service contracts are registered with the deed to the property, such that contractual obligations transfer as a legal easement to subsequent owners for the life of the contract. Furthermore, landowners cede their rights to sequestered carbon to FONAFIFO to sell on the international market.

Environmental service contracts are based upon the value of various services provided by primary and secondary forests, based in part upon studies conducted by the Costa Rica-based Tropical Science Center (see Table 1) and the World Bank (see Table 2). Regulations within Forestry Law No. 7575 establish the conditions for contracting environmental services. Contracts include:

- Forest conservation easements: US\$220 per hectare disbursed over a five-year period. Eighty-six percent of environmental service contracts in the FONAFIFO program to date support forest conservation easements, which in large part are targeted at minimizing disturbance of vegetative cover in primary and mature secondary growth forest areas.
- Sustainable forest management: US\$342 per hectare disbursed over a five-year period. Nine percent of contracts in the FONAFIFO program support sustainable forest management.
- Reforestation: US\$560 per hectare disbursed over a five-year period. Landowners must make a commitment to maintain reforested areas for a period of fifteen to twenty years, depending upon tree species. Five percent of contracts in the FONAFIFO program support reforestation of degraded and abandoned agricultural lands.

For practical purposes, the ESP program supports the implementation of Forestry Law No. 7575 by allowing the government to act as a market intermediary: FONAFIFO purchases environmental services from private landowners (e.g., carbon sequestration, biodiversity conservation, hydrological services) and, in turn, sells these services to specific sectors which benefit from these resources.

Table 1
 Minimum, Medium, and Maximum Annual Value
 for Environmental Services from Primary and Secondary Forests
 (1996 US\$/ha)
 (Tropical Science Center, 1996)

Environmental Service	Primary Forest			Secondary Forest		
	Min.	Med.	Max.	Min.	Med.	Max.
Carbon Sequestration	19	38	57	14.6	29.3	43.9
Hydrologic Services	2.5	5	7.5	1.3	2.5	3.8
Biodiversity Protection	5	10	15	3.8	7.5	11.2
Ecosystem Protection	2.5	5	7.5	1.3	2.5	3.8
Totals	29	58	87	21	41.8	62.7

Estimated Annual Environmental Values of Primary Forests
(1989 US\$/ha)
(Constantino and Kishor, 1993)

Environmental Service	Primary Forest	
	Min.	Max.
Carbon Sequestration (@ US\$20 per ton of carbon)	60	120
Hydrologic Benefits	17	36
Ecotourism	13	25
Future Pharmaceuticals	0.15	0.15
Funds transfers for existence and option values	13	32
Totals	102	214

Table 3
Total area and number of participants in
Environmental Service Payments program by year

Year	Forest Conservation		Sustainable Forest Management		Reforestation	
	Has.	N° of landowners	Has.	N° of landowners	Has.	N° of landowners
1995	23,683	423	--	--	--	
1997 ¹	94,484	1,058	8,449	88	4,782	462
1998	46,391	762	8,663	88	4,470	333
TOTAL	164,558	2,243	17,112	151	9,252	795

From a conservation perspective, FONAFIFO provides market-based incentives to conserve natural forest ecosystems. These economic incentives help maintain habitats that are critical to a rich, globally important biodiversity, and have the potential for helping to maintain biological corridors linking protected areas. Approaching biodiversity conservation through the FONAFIFO mechanism is akin to the system of conservation easements that are widely used in the United States and European countries. In 1997 and 1998, US\$15 million were disbursed by FONAFIFO through the ESP program for the conservation and sustainable use of privately-owned forests; since 1995, over 190,000 hectares of forests have been incorporated into the program at a cost of approximately US\$47 million.

In conclusion, with the introduction of a variety of forest incentives in recent years, Costa Rica has slowed the rapid pace of deforestation witnessed in the 1970s and 1980s. In terms of overall land cover, the gross area of deforestation has been counterbalanced by regrowth in 75% of the previously deforested area, including *inter*

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

Forestry Sector

The principal criteria for the prioritization and assignment of resources by FONAFIFO include: forest ecosystems in buffer zones of protected areas; forest ecosystems within the Mesoamerican Biological Corridor; forest ecosystems which are important for watershed protection; forests in a state of degradation or at high risk of fire; wildlife refuges; and priority areas for recuperating forest ecosystems.

Principal sources of funding for the program include a dedicated tax on fuel sales, payments to FONAFIFO from private sector renewable energy producers for the conservation of critical watersheds, and through international financing for carbon sequestration derived from forest ecosystems.² The project will support the continued targeting of priority areas, with an additional refinement that as a result of GEF involvement, priority will be given within the conservation easement program to the maintenance of strategic biological corridors within the Mesoamerican Biological Corridor in Costa Rica. GEF co-financing will leverage additional financing for forest conservation at a rate of 1:3 (for every GEF \$, \$3 additional will be generated); GEF financing will be targeted towards specific high priority areas identified in consultation with governmental and non-governmental representatives. (For a description of these high priority areas, see Section 3.1.1 below.)

Article 22 of Forestry Law No. 7575 includes the creation of a Forest Conservation Certificate or CCB (*Certificado de Conservación del Bosque*), an instrument to contract forest owners for conservation easements in priority areas for a period of no less than 20 years. In contrast, Article 69 authorizes conservation easements for a period of five years, for which financial resources were devoted via the above-mentioned dedicated tax on fuel sales; to date, FONAFIFO has only contracted conservation easements under Article 69 given the lack of financial resources assigned to implement Article 22. ***Under the proposed project, conservation easements in selected areas within the Tortuguero, La Amistad Caribe and Osa Conservation Areas will be contracted for a period of twenty years.*** In return for this commitment on the part of small- and medium-sized landowners in these three Conservation Areas³, the Government of Costa Rica is committed to seek continued financing for these easements throughout the life of the contracts. In turn, the project will support the design of a trust fund to finance contracts for conservation easements in the Mesoamerican Biological Corridor beyond the five-year life of the project for the remaining fifteen years of the twenty-year contracts. It is expected that capitalization of this trust fund will come *inter alia* through fees for hydrological services provided by forest ecosystems, and support for biodiversity conservation and carbon sequestration.

Given the critical nature of the rationale for financing environmental services, financial sustainability and replicability of the project, a socio-economic evaluation of the rates paid for environmental service contracts is underway, given that demand for environmental service contracts vastly exceeds the supply of resources available for such contracts. Similarly, technical assistance to strengthen FONAFIFO's administrative capacity is incorporated into project preparation. Project activities will support the financial sustainability of the forestry program, establishing a trust fund for biodiversity conservation, supporting efforts to mobilize international financing for carbon sequestration, and assisting in the marketization of hydrological services.

operating or planned. In several instances, private developers are directly contracting FONAFIFO to include upstream watersheds within the ESP program. Such developers are paying FONAFIFO up to \$15/ha/yr for such contracts, equivalent to \$0.00022/kWh (that is, 0.022¢/kWh). This trend is expected to increase during the project period, thereby expanding coverage of the ESP program beyond GOCR and GEF financing.

C: Project Description Summary

1. Project components: (see Annex 1)

The proposed project aims to increase the production of environmental services in Costa Rica by supporting the development of markets and private sector providers for services supplied by privately-owned forests, including protection of biological diversity, greenhouse gas mitigation, and provision of hydrological services; as such, the project will support the implementation of environmental policies in the forest sector and contribute to sustainable human development. Additionally, the project will strengthen offices within the Ministry of Environment and Energy (MINAEE) as well as local and regional non-governmental organizations (especially women's organizations) responsible for the execution, promotion, supervision, and monitoring of the forest conservation program.

Costa Rica's pioneering efforts to achieve environmental goals through the sustainable use of forest ecosystems entails developing commercially viable activities, which are based upon the environmental services provided from the nation's forests. The project will assist in developing markets, attracting financing and investment, and consolidating the institutional framework for:

- a. marketing global environmental services relating to the conservation of biodiversity in privately-owned buffer zones surrounding protected areas, thereby protecting the Costa Rican portion of the Mesoamerican Biological Corridor;
- b. marketing global environmental services relating to the mitigation of greenhouse gases, through the development of forestry projects promoting carbon sequestration;
- c. marketing local environmental services provided by forest ecosystems relating to protection of water quality and dry season stream flows in watersheds where hydroelectric projects are presently operating or planned.

The project will have the following components:

1. Strengthening Market Development for Environmental Services

Costa Rica has developed novel financial mechanisms to promote financial sustainability in the medium-term for the ESP program executed through FONAFIFO with close coordination with SINAC (see Section B.2 above). This component will support expenditures of the Government of Costa Rica's ESP program while long-term financing mechanisms for the program are developed and institutionalized (e.g., fees for hydrological services provided by forest ecosystems, international support for biodiversity conservation and carbon sequestration). This financing will permit the Government of Costa Rica to meet its long-term commitments to private

Biological Corridor; forest ecosystems which provide critical hydrological services; degraded forests or those at high risk of fire; wildlife refuges; and priority areas for recuperating forest ecosystems.

Specifically, GEF resources that are incremental to Government of Costa Rica and World Bank financing will:

1. Finance conservation easements through the ESP program, thereby internalizing the benefits of services provided by small- and medium-scale landowners in forest ecosystems relating to biodiversity conservation. US\$ 5.0 million of GEF resources would be used to co-finance forest conservation easements in the Tortuguero, La Amistad-Caribe, and Osa Conservation Areas, which comprise the principal portions of the Mesoamerican Biological Corridor (MBC) in Costa Rica. The goal of such financing is to ensure the proper conservation of high priority biological corridors and explicit biodiversity habitat quality characteristics. PDF resources are currently being utilized to finalize priority biological corridors within Tortuguero, La Amistad Caribe and Osa Conservation Areas for conservation easements in private lands, such that these may be contracted upon initiation of the project (See Map 1). Each corridor is a long continuous block of forest covered areas, with very small patches of grasslands; likewise, each corridor has significant biological and geographic value given connectivity with existing National Parks and/or priority areas. The areas were identified jointly with the designated National Technical Coordinator of the UNDP/GEF/GTZ/DANIDA Mesoamerican Biological Corridor regional project.
 - a) The Tortuguero Biological Corridor that connects the Reserva del Maíz protected area in Nicaragua with the Tortuguero National Park and the Barra del Colorado protected area in northeastern Costa Rica. The Costa Rican portion of this local corridor covers 87,200 hectares of land, two-thirds of which are public lands belonging to Tortuguero National Park. The remaining lands are privately owned and suitable for participation in the ESP program. As such, GEF resources will be used to mobilize ESP payments to consolidate a large area of forested area connecting the southern forest reserves of Nicaragua with the remaining forests in northeastern Costa Rica.
 - b) The Barbilla Biological Corridor which connects the recently created Barbilla National Park with the La Amistad International Park and the Cordillera Volcánica Central Biosphere Reserve and likewise is adjacent to the Chirripo Reserve, the largest indigenous reserve in Costa Rica. This local corridor covers 106,647 hectares of land, eighty-five percent of which includes private lands covered by dense primary and secondary forests. With the incorporation of this area with the ESP program, not only an important biological corridor will be consolidated but likewise a buffer zone for the Chirripo Reserve will be protected.
 - c) The Corcovado-Piedras Blancas Biological Corridor located in the Osa Conservation Area that connects the Corcovado National Park and the Piedras Blancas National Park. This local corridor covers 29,984 ha of privately owned land within the Golfo Dulce Forest Reserve. Eighty-nine percent of this area is eligible to be included in the ESP program for conservation easements, while the remaining land is suitable for natural forest restoration.

US\$10/hectares/year during the life of the project, for each hectare of priority forest area incorporated into the ESP program. In turn, FONAFIFO will contract small- and medium-sized landowners in these Conservation Areas – at a cost of approximately \$42/hectares/year over five years – for twenty-year conservation easements. As such, each \$1 of GEF co-financing will leverage an additional \$3 of non-GEF financing for forest conservation in priority areas. In return for this commitment on the part of small- and medium-sized landowners in these priority areas, the Government of Costa Rica is committed to seek continued financing throughout the twenty-year life of the contracts. As such, the incremental cost of biodiversity conservation is approximately twenty-five percent of the total cost of conservation easements in the MBC in Costa Rica; the remaining seventy-five percent of the cost of these easements are covered through payments for carbon sequestration, hydrological services, and ecotourism.

Table 4 indicates the existing contracts for conservation easements in the MBC as well as areas awaiting contracts and potential areas for inclusion should financial resources be available to the ESP. GEF resources will be used to leverage sufficient non-GEF resources to contract an additional 50,000 hectares of conservation easements in priority areas.

Table 4
Potential Supply of Conservation Easements
within the Mesoamerican Biological Corridor
(in hectares)

Conservation Areas within Mesoamerican Biological Corridor	Existing Contracts (as of May 1999)	Awaiting Contracts (as of May 1999)	Eligible Areas not yet awaiting contracts	Potential Area for Additional Easements
	(a)	(b)	(c)	(b) + (c)
	Has.	Has.	Has.	Has.
Tortuguero	6,414	26,326	55,120	81,446
La Amistad-Caribe	2,772	11,379	226,371	237,750
Osa	5,123	21,026	46,363	67,389
TOTAL	14,309	58,731	327,854	386,585

At the present time, contracts in these three Conservation Areas cover 27.9% of the total land area covered by conservation easements within the ESP program, including Tortuguero (12.5% of conservation easements within ESP program nationwide), Amistad Caribe (5.4%), and Osa (10.0%).⁴ GEF resources will explicitly target (i) the Tortuguero Biological Corridor that connects the Reserva del Maíz protected area in Nicaragua with the Tortuguero National Park and the Barra del Colorado protected area in northeastern Costa Rica; (ii) the Barbilla Biological Corridor in La Amistad Caribe which connects the recently created Barbilla

three Conservation Areas, as well as across Costa Rica, to support biodiversity conservation. As additional financial resources are made available to the ESP program, additional priority areas will be selected for conservation easements.

2. Support the analysis, design and implementation of revenue capture mechanisms established in the new Environmental Services Law. This law creates the National Fund for Environmental Services, establishes that thermal energy producers must pay compensatory payments for air contamination, and that hydroelectric and water utility companies must pay for hydrological services provided by forest ecosystems; all of these will contribute to the long-term sustainability of the ESP program. This sub-component also includes the design of a trust fund to be established by 2005 to capture and provide funds to pay for environmental services provided by forest owners in critical areas of the Mesoamerican Biological Corridor beyond the life of the project, thereby supporting long-term sustainability of the ESP program. GEF resources of approximately \$750,000 would be incremental to Government of Costa Rica resources directed towards these activities.
3. Strengthen local and regional NGOs (especially women's organizations) and private sector associations, in priority areas of the MBC, which are promoting activities compatible with the conservation and sustainable use of biodiversity and which are providing solutions to problems resulting from deforestation and environmental degradation. In particular, institutional strengthening will be directed to organizations that provide technical assistance to small landowners for contracting under the ESP program, and, likewise which promote contract compliance under the framework of the ESP program.

Throughout Costa Rica, local and regional organizations provide bundling services to small farmers to access the ESP program resources, reducing transaction costs related to contracting of environmental services for small landowners as well as for FONAFIFO. Such bundling allows small forest owners to access the ESP program, through legal assistance and technical advice relating to conservation and sustainable use of forest ecosystems. Bundling numerous small landowners together serves to reduce the unit cost of such services while supporting landowners who might otherwise have difficulty complying with ESP program regulations. Furthermore, local and regional NGOs provide evaluation and contract compliance services to FONAFIFO, thereby reducing program administrative costs. GEF resources will be used to improve the technical and administrative capacity of local NGOs providing these services, including field supervision, contract compliance, and preparation of technical and administrative manuals for forest conservation. Furthermore, this component will support organizational and technical strengthening of local women organizations to develop capacity to promote natural resources management and increased participation in the ESP program. This includes activities such as the recompilation and systematization of the experiences of organizations of woman farmers as well as training of rural woman regarding the political and legal framework of the natural resources sector. The incremental cost of these activities is approximately US\$0.75 million. PDF resources are being used to carry out a social assessment of the ESP program, consult with communities and local non-governmental organizations supporting the program, and to develop a strategy to increase the participation of women landowners in the ESP.

the demands for close supervision would be high, and funds will be made available in order to carry out these functions

GEF resources, which are incremental to Government of Costa Rica financing for FONAFIFO and SINAC, support incremental costs of program management and field supervision:

1. Monitoring, supervision and evaluation carried out by FONAFIFO and SINAC. GEF-supported activities include refining the system of financial controls and disbursements within FONAFIFO as well as technical training for personnel within FONAFIFO and SINAC. It is expected that the monitoring system would allow for the generation of technical data relating to land ownership, forest ecosystems, forest type, forest quality and growth variables, coverage area, identification of priority zones for the conservation of biodiversity outside of protected areas, and the monitoring of the consolidation of the MBC utilizing satellite imagery and geographic information systems with field verification to monitor changes in land use. The incremental cost of these activities is approximately US\$1.0 million. PDF resources are being utilized to carry out an evaluation of the impact of the FONAFIFO program, determine areas for technical strengthening within FONAFIFO, finalize priority areas for conservation easements, as well as assess the level of cost-effectiveness of incentive payments for conservation and sustainable use.

2. Strengthening forest protection programs and field supervision activities carried out by SINAC. GEF-supported activities will support training of regionally based SINAC field staff, implementation of effective field supervision of the ESP program, and field-based monitoring of compliance with existing environmental legislation relating to conservation of forest ecosystems. Furthermore, resources will be utilized to train regional judges on environmental conservation, in the identification and valorization of environmental damages, and the application of pertinent regulations relating to conservation of forest ecosystems. The incremental cost of these activities is approximately US\$0.5 million. PDF resources are being utilized to assess field supervision capacity and technical assistance requirements within SINAC.

Component	Sector	Indicative Costs (US\$M)	GOCR (US\$M)	IBRD (US\$M)	GEF (US\$M)	% of GEF Total
A. Strengthening Market Development for Environmental Services	VM	51.5	25.0	20.0	6.5	81
B. Project Management and Field Supervision	VI	8.4	6.9	0.0	1.5	19
Total		59.9	31.9	20.0	8.0	100

2. Key policy and institutional reforms to be sought:

3. Benefits and target population:

Important project benefits include the conservation and sustainable use of forest ecosystems in privately owned land outside of protected areas. Replication of program activities in other countries, including development of markets and private sector providers for environmental services, could further expand project benefits.

The project would: (i) empower small- and medium-scale private land owners in the conservation and management of forest ecosystems and in making choices that contribute to sustainable development; (ii) support the long-term viability of the ESP program and promote increased institutional efficiency of FONAFIFO, SINAC, local non-governmental organizations promoting biodiversity conservation, and private sector associations; and (iv) benefit regional users of hydrological services by supporting the provision of high water quality and hydrologic stability from forest ecosystems.

4. Institutional and implementation arrangements:

Project Coordination and Management

The Project would be executed by FONAFIFO. The Strengthening Market Development for Environmental Services component would be administered by FONAFIFO and supported by a small Project Executing Unit within FONAFIFO. FONAFIFO has been implementing the ESP program since 1996, with field supervision provided by SINAC. FONAFIFO will be responsible for procurement of civil works, goods, equipment and consulting services. Given the expected increase in work volume during project implementation, FONAFIFO would be assisted by technical specialists financed under the project who would provide technical assistance, procurement support, and financial advisory systems. IBRD and GEF funds would be directly administered by FONAFIFO. An analysis of the FONAFIFO's present administrative organization is under way, which will indicate areas in need of technical strengthening as well as any changes necessary for successfully meeting the demands of the ESP program in future.

Financial Management

FONAFIFO would maintain adequate financial management systems for the respective project components—including separate accounting, financial reporting, and auditing systems—to ensure the provision of accurate and timely information to the World Bank regarding project resources and expenditures, in accordance with: (i) the Financial Accounting, Reporting, and Auditing Handbook (World Bank, 1995); (ii) the Bank's Operational Policy (OP) and Bank Procedure (BP) 10.02 dated July 1996; and (iii) the revised Bank financial management standards to comply with OP and BP 10.02, dated August 1997. This would be the case for the IBRD loan, GEF grant, as well as government counterpart financing.

Project Monitoring and Evaluation

The project would be guided by bi-annual reviews of results, on which basis FONAFIFO and the World Bank supervision mission would identify specific measures to: (i) address any areas of implementation weaknesses;

D: Project Rationale

1. Project alternatives considered and reasons for rejection:

1. The project originally proposed to promote the ESP program at the national level, to gain support for sustainable forest management and reforestation activities, as well as to promote the need for water surcharges to compensate owners for the services that their forests provide. It was decided that the demand for the ESP program exceeded the supply of resources for the ESP program and that a project sub-component focusing upon promotion of the ESP program was not needed. Furthermore, it was decided that the project should focus on effective implementation by strengthening regional NGOs and private sector associations that are providing technical assistance to small landowners in priority areas of the MBC whose forests qualify for financing under the ESP program, and that could likewise assist these landowners with contract compliance relating to ESP program requirements during the life of the easement.

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

Sector issue	Project	Latest Supervision (Form 590) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Environment (GEF)	Biodiversity Resources Development	S	S
Transport	Transportation Sector Investment	S	S
Education	Basic Education	S	S
Water Supply	Water Supply	S	S
Health	Health Sector Reform	U	U
Other development agencies			

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

3. Lessons learned and reflected in proposed project design:

One of the most important lessons learned from activities associated with the projects within the Mesoamerican Biological Corridor includes the importance of involving local populations and institutions (e.g., local government, community and sectoral organizations, NGOs) in the design, implementation and benefits of the project in order to assure the long-term conservation of the biodiversity outside of protected areas. As such, the project supports the inclusion of small landowners in the ESP program and technical support for NGOs to

agriculture or both. Environmental concerns tend not to be taken into account by the owners when they are not related to on-site productivity. Hence, the introduction of economic incentives is required where the maintenance of forest ecosystems is considered of importance for the country.

The experience of projects throughout the MBC with buffer zone communities indicates the importance of: (i) clearly defining the roles of the project and the communities in project administration, fund management, decisionmaking, and implementation in order to avoid creating false expectations or leaving ambiguities which cause implementation delays; (ii) providing for a strong administrative and coordination capacity supported by adequate technical assistance and, initially, close implementation supervision; and (iii) establishing clear linkages between conservation and development activities.

4. Indications of borrower commitment and ownership:

The idea for the proposed project originated in various requests presented to the World Bank to support the design, implementation, and financing of a program to market national and global environmental services provided by forest ecosystems. These requests have been presented by then-President José María Figueres during the visit of President James D. Wolfensohn to Costa Rica in March 1998; by Vice President-elect Elizabeth Odio and members of the Rodríguez Administration during an April 1998 visit with President Wolfensohn; by the GEF focal national focal point for Costa Rica in October 1998; and through official letters from President Rodríguez to President Wolfensohn soliciting World Bank support for the proposed project.

Costa Rica is a signatory of most international conventions, including *inter alia* the Convention on Biological Diversity, United Nations Framework Convention on Climate Change, the Central American Agreement for the Conservation of Biodiversity, and the Central American Alliance for Sustainable Development. Costa Rica has participated actively in the UNDP/GEF/CCAD regional Mesoamerican Biological Corridor planning exercise, and the proposed project would implement its major recommendations related to the Costa Rican portion of the MBC, as presented in the 1996 GRUAS report. The President of Costa Rica, with the other Central American Presidents, officially approved the MBC initiative, of which this project is an integral part, at the XIX Summit of the Presidents of the Republic of Central American countries in 1998.

5. Value added of Bank support in this project:

The World Bank brings to the proposed project the ability to serve as a catalyst for protecting forest ecosystems throughout Central America as well as knowledge of forest programs both regionally and worldwide. The Mesoamerican Biological Corridor initiative, spearheaded in part by the World Bank, is supporting actions on the part of national ministries, non-governmental organizations, the private sector, local groups, and indigenous communities in support for the conservation and sustainable use of biological diversity. Project design, particularly of GEF financed activities, draws from this experience. The value-added of Bank support includes the availability of in-house natural resources management expertise, ability to mobilize global experts with long experience in the field, technical support for preparation, supervision capacity, coordination with regional technical assistance efforts, and development of linkages with other sources of expertise and funding.

Mesoamerican Biological Corridor, was formulated building upon efforts carried out within Costa Rica, such as the GRUAS Project (UNDP/GEF/MINAE), as well as in neighboring countries, including the Panama Atlantic Mesoamerican Biological Corridor Project (World Bank/GEF/ANAM), Nicaragua Atlantic Biological Corridor Project (World Bank/GEF/ MARENA), Honduras Biodiversity in Priority Areas Project (World Bank/UNDP/GEF/COHDEFOR), and regional Mesoamerican Biological Corridor Project (UNDP/CCAD).

E: Issues Requiring Special Attention

1. Economic

One issue being addressed during project preparation concerns adequate mobilization of resources for full funding of baseline activities. Initial consultations with counterparts in the Ministry of Environment and Energy indicate a strong commitment of the Government to continue financing of the ESP program executed by FONAFIFO.

Economic evaluation methodology:

Cost benefit Cost effectiveness Other: Incremental Cost

2. Financial

Financial management specialists will support, beginning in project preparation, increased capacity to manage financial resources and procure goods and services on the part of FONAFIFO.

Contracts for conservation easements in the Tortuguero, La Amistad Caribe, and Osa Peninsula Conservation Areas will have a contractual life of twenty years. Financing for these contracts is assured for the first five years. The Government of Costa Rica has expressed its commitment to seek continued financing for these twenty-year conservation easements, and will support the design of a trust fund to capture and provide funds to pay for environmental services. It is expected that capitalization of this trust fund will come *inter alia* through fees for hydrological services provided by forest ecosystems, and international support for biodiversity conservation and carbon sequestration.

3. Technical

Project preparation is supporting a diagnostic study to examine the scope for improving effectiveness in targeting ESP program resources as well as analyzing FONAFIFO's management capacity. The former study is examining landowners that receive environmental contracts from the ESP program to determine the impact of economic incentives on their behavior. To further strengthen conclusions and recommendations of this study, a review of GOCCR's historical forestry payment programs during the period 1988 to 1994 will also be carried out. Likewise, the study will provide guidelines to focus monitoring and enforcement efforts on program participants at higher risk of noncompliance; assess the fiscal cost-effectiveness of alternative priority-setting systems for forest conservation, in terms of potential reduction in deforestation rates; measure the actual effectiveness of the ESP program to date in meeting programmatic objectives; and examine the level of payments for conservation

5. Social

Consultations with respect to socio-economic benefits of the ESP program carried out by FONAFIFO have served to identify key stakeholders in the Mesoamerican Biological Corridor as well as monitor satisfaction on the part of participants and compliance with contractual obligations. Findings from 57 interviews carried out within the three Conservation Areas targeted to receive GEF resources – including 38 beneficiaries, 5 non-governmental organizations, 5 forest regents whose work covers a total of 112 projects and 8,014 hectares of forest area, as well as 7 sub-regional SINAC offices and 3 regional SINAC offices – indicate that the small- and medium-scale landowners participating in the program are largely supportive of the FONAFIFO program and are in compliance with the ESP contracts which they have signed with FONAFIFO. These landowners are generally satisfied with the work of the forest regents who they contract to prepare forest management plans as well as to provide technical assistance. These consultations likewise indicate that local NGOs who are likely to benefit from the project offer useful, low-cost services to small- and medium-scale landowners; nonetheless, these organizations typically lack administrative and financial capacity. GEF support to local NGOs will include technical assistance to strengthen these organizations as well as incentives for improved service to small-scale landowners. Other findings from Social Assessment activities may be found in Annex 4.

The team will apply lessons learned from other projects within the Mesoamerican Biological Corridor to ensure proper involvement of all social actors in project design and implementation, particularly relating to conservation of forest ecosystems. Likewise, project preparation includes an examination of the socio-economic impacts of the ESP program on existing and potential program participants as well as on surrounding communities; a particular emphasis is being made to include women’s organizations into technical assistance provided during project preparation and project implementation. Participatory workshops will be held to learn how the program can be made more effective and responsive to stakeholder needs, including input from local groups and non-governmental organizations.

6. Environmental

a. Environmental issues:

The project will have highly beneficial impacts upon the environment, supporting improved natural resources management and biodiversity conservation particularly in the buffer zones of protected areas and local biological corridors as identified in the 1996 GRUAS report. Biodiversity conservation on national protected areas, while not covered by this project, is relatively secure because of the legal status of said lands. Although the conservation of biological diversity depends on a multiplicity of factors, the outlook for its successful implementation is positive because there is a strong policy framework at the national level supporting the protection of forest ecosystems. Furthermore, the project intends to comply fully with the objectives of OP 4.36 Forestry, namely, “to reduce deforestation, enhance the environmental contribution of forested areas, promote afforestation, reduce poverty, and encourage economic development.”

b. Environmental category: [] A [X] B [] C

7. Participatory Approach:

Consultations are underway with public sector ministries, non-governmental organizations, and private institutions to ensure buy-in by key stakeholder groups. Project preparation includes a Social Assessment that will estimate the value of ESP program to local stakeholders in terms of livelihoods and other perceived benefits and assess the impact of the program on land use decisions.

Target populations for the ESP program include small- and medium-scale landowners whose livelihoods depend on the provision of a variety of goods and services, only a percentage of which may pertain directly to conservation and sustainable use of forest ecosystems. As of May 1999, there were approximately 1,570 landowners participating in the ESP program. Other beneficiaries of the project include national ministries, non-governmental organizations and private sector associations, the tourism industry, and the general public concerned with preserving forest ecosystems.

8. Checklist of Bank Policies

a. Safeguard Policies (check applicable items):

Policy		Risk of Non-Compliance (H, M, L)
	Environmental Assessment (OD 4.01)	L
	Natural Habitats (OP/BP/GP 4.04)	
X	Forestry (OP 4.36)	
	Pest Management (OP 4.09)	
	Cultural Property (OPN 11.03)	
	Indigenous Peoples (OD 4.20)	
	Involuntary Resettlement (OP 4.30)	
	Safety of Dams (OP 4.37)	
	Projects in Disputed Areas (OP 7.60)	

b. Business Policies (check applicable items):

	Financing of recurrent costs (OMS 10.02)
	Cost sharing above country 3-yr average (OP/BP/GP 6.30)
	Retroactive financing above normal limit (OP/GP/BP 12.10)
	Financial management (OP/BP 10.02)
	Involvement of NGOs (GP 14.70)

F: Sustainability and Risks

1. Sustainability:

With respect to financing provided through the Global Environment Facility, the project will finance conservation easements in priority areas of the Mesoamerican Biological Corridor in Costa Rica. The project will support capacity building within FONAFIFO and SINAC to ensure contract compliance during the twenty-year life of individual contracts. Furthermore, the project will support the design and establishment of a trust fund in coordination with the new National Fund for Environmental Services, by year 5 of the project, to ensure financial sustainability of the program, particularly in areas of the Mesoamerican Biological Corridor. It is expected that capitalization of this trust fund will come *inter alia* through the international sale of CTOs, fees for hydrological services provided by forest ecosystems, and international support for biodiversity conservation.

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

Risk
<p>From Outputs to Objective</p> <ul style="list-style-type: none"> • Government commitment to Environmental Service Payments program and contracts for conservation easements maintained. • Legal framework for private sector renewable energy maintained. • Expansion of local electricity markets for increased private sector energy generation promulgated. <p>From Components to Outputs</p> <ul style="list-style-type: none"> • Political commitment to Environmental Service Payments program maintained. <p>Overall Risk Rating: Substantial to High</p>

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

G: Project Preparation and Processing

1. Has a project preparation plan been agreed with the borrower:

Yes, date submitted: 05/10/99 No, date expected: MM/DD/YY

2. Advice/consultation outside country department:

Within the Bank: ENV, SASRD, AFTR2, LEGEN, LEGLA, DEC

Other development agencies: GEF, UNDP, GTZ, DANIDA

External Review: STAP Reviewer (Kenton Miller, WRI)

Annex 1:
Costa Rica: Ecomarkets
Project Design Summary

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
<p>Sector-related CAS Goal:</p> <p>Strengthening the outward-orientation of the economy, increasing the role of the private sector, and supporting sustainable natural resource management</p>	<p>Sector Objectives</p> <p>Healthy and sustainably managed forest ecosystems.</p>	<p>Sector / Country Reports</p> <ul style="list-style-type: none"> • ESW in the forestry sector 	<p>(from Goal to Bank Mission)</p>
<p>Project Development Objective:</p> <p>A. To increase the production of environmental services in Costa Rica by supporting the development of markets and private sector providers for services supplied by privately owned forests.</p> <p>B. To contribute to the long-term conservation and sustainable use of biodiversity outside of protected areas in the Mesoamerican Biological Corridor in Costa Rica.</p>	<p>Outcome / Impact Indicators</p> <ol style="list-style-type: none"> 1. 30% increase in number of providers of environmental services by end-of-project; 2. 25% increase in land area covered by ESP program contracts; 3. 50,000 hectares of conservation easements in priority areas supported through ESP program. 4. Establishment of a financial instrument to support conservation easements; 5. Increased participation of women in, and benefits from, forest conservation-related activities within the Mesoamerican Biological Corridor in Costa Rica. 	<p>Project Reports:</p> <ul style="list-style-type: none"> • FONAFIFO Annual Reports • State of the Nation Annual Reports 	<p>(from Objective to Goal)</p> <ul style="list-style-type: none"> • Macroeconomic stability • Sufficient political will exists for marketization of environmental services and Environmental Service Payments program.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
<p>Outputs:</p> <p>1.a Environmental Service Payments Program supported.</p> <p>1.b Mesoamerican Biological Corridor consolidated.</p>	<p>Output Indicators</p> <p>1.1 50,000 hectare increase in coverage of Environmental Service Payments program.</p> <p>1.2 Fifty SINAC and FONAFIFO staff members trained for managing technical system for monitoring, supervision, and evaluation of ESP program and field supervision by end-of-project.</p> <p>1.3 Increased local capacity to value and market environmental services, as measured through technical studies and introduction of market mechanisms by end-of-project.</p> <p>1.4 Six local non-governmental organizations (including 3 women's organizations) providing services to ESP program to address problems resulting from deforestation and environmental degradation by end-of-project.</p>	<p>Project Reports</p> <ul style="list-style-type: none"> • FONAFIFO Annual Reports. • MINAE Annual Reports • Project Supervision Reports. 	<p>(from Outputs To Objective)</p> <ul style="list-style-type: none"> • Government commitment and legal framework for internalizing the cost of environmental services maintained. • FONAFIFO and SINAC capable of enforcing conservation easements over the life on contracts. • Management and staff of MINAE, SINAC, and FONAFIFO internalize training. • ESP program incentives are sufficient to motivate private landowners to conserve and sustainably manage forest ecosystems.

Project Components/Sub-components	Inputs: (budget for each component)	Project Reports	Components to Outputs
<p>1. Environmental Service Payments program</p> <p>1.1 Budgeted payments for ESP program</p> <p>1.2 Incremental financing for conservation easements in priority areas of the MBC</p> <p>1.3 Valuation and marketing of environmental services, including establishment of a trust fund to finance contracts for environmental services beyond the life of the project</p> <p>1.4 Strengthening of NGOs supporting ESP program.</p>	<p>1.1 US\$45 million</p> <p>1.2 US\$5.0 million</p> <p>1.3 US\$0.75 million</p> <p>1.4 US\$0.75 million</p>	<ul style="list-style-type: none"> • Annual and quarterly reports • Procurement records • Evaluation reports • Copies of contracts • Bank supervision reports • Field management reports 	<ul style="list-style-type: none"> • Political commitment to ESP program maintained.
<p>2. Program Management and Field Supervision</p> <p>2.1 Monitoring, supervision and evaluation of ESP program (FONAFIFO/SINAC).</p> <p>2.2 Technical assistance for forest protection and supervision (SINAC)</p>	<p>3.1 US\$3.5 million</p> <p>3.2 US\$4.9 million</p>	<ul style="list-style-type: none"> • Annual and quarterly reports • Procurement records • Evaluation reports • Copies of contracts • Bank supervision reports • Field management reports 	<ul style="list-style-type: none"> • Political commitment to ESP program maintained.

ANNEX 2

Costa Rica: Ecomarkets

INCREMENTAL COSTS AND GLOBAL ENVIRONMENTAL BENEFITS

Overview

1. The global environment objective of the proposed project is to foster improved management and conservation of biodiversity and important forest ecosystems on privately-owned lands outside of protected areas in the Mesoamerican Biological Corridor in Costa Rica. The project development objective is to increase the production of environmental services in Costa Rica by supporting the development of markets and private sector providers for services supplied by privately owned forests. As such, the project directly supports the implementation of Forestry Law No. 7575: providing market-based incentives to forest owners in buffer zones and interconnecting biological corridors contiguous to national parks and biological reserves for the provision of environmental services relating to biodiversity conservation, carbon sequestration, and provision of hydrological services. The project aims to accomplish the global environmental objective through activities which include:

- financing conservation easements utilizing established mechanisms within the National Fund for Forestry Finance (FONAFIFO) to contract small- and medium-sized landowners for conservation easements in the Mesoamerican Biological Corridor;
- increasing local capacity within governmental and non-governmental institutions involved in the valuation and marketing of environmental services designated within Forestry Law No. 7575;
- strengthening technical capacity for monitoring, supervising and evaluating Costa Rica's innovative Environmental Service Payments (ESP) program carried out by FONAFIFO and the National System of Conservation Areas (SINAC);
- strengthening forest protection programs and field supervision activities carried out by SINAC; and
- strengthening regional NGOs which are promoting activities compatible with the conservation and sustainable use of biodiversity in forest ecosystems and providing solutions to problems resulting from deforestation and environmental degradation.

2. The GEF Alternative intends to achieve these outputs at a total incremental cost of approximately US\$8 million.

Context and Broad Development Goals

3. Costa Rica is one of the world's leading proponents of sustainable development, pursuing social and economic development in conjunction with a strong and healthy environment. Environmental policies in Costa Rica include

4. More than half of Costa Rica was covered by forest ecosystems in 1950, which contributed to the various habitats in which many of these species thrived. However, the Central American country was beset with one of the highest rates of deforestation worldwide during the 1970s and 1980s. Agricultural expansion, especially for pasture, was the leading cause of forest conversion. Conversion was driven by rapid expansion of the road system, cheap credit for cattle, and land titling laws, which rewarded deforestation. As a result, Costa Rica lost one-half of its forested areas between 1970 and 1995. Deforestation and inappropriate land uses (e.g., overgrazing) outside of protected areas continue to cause serious losses in terms of loss of biodiversity, ecological integrity of forests, and environmental services supplied by forest ecosystems.

5. The expansion and strengthening of Costa Rica's protected area system was vital in arresting conversion of forests on public lands. Currently, 13% of the national territory consists of national parks, biological reserves, and wildlife refuges, while an additional 12% is under legal decree related to conservation. These areas are critical for conserving the country's vast biological wealth; although it is not a large country, Costa Rica has an estimated six-percent of the world's tropical plant species. Outside of state-owned lands, however, deforestation and forest degradation continues to result in fragmented forest landscapes in which the long-term maintenance of biodiversity is in doubt and critical environmental services are threatened. Since sixty percent of the nation's forest cover—which serves as habitat for the majority of biodiversity in Costa Rica—exists in private lands outside protected areas, the maintenance of naturally functioning ecosystems and corridors on these lands is essential. In these lands is required to achieve sustainable biodiversity conservation over the long term.

6. Costa Rica's efforts to promote forest conservation date back to 1979, with the passage of the first Forestry Law and the establishment of economic incentives for reforestation. Subsequent laws strengthened such incentives, broadening opportunities for landowners to participate in reforestation programs and making the program accessible to small landowners. In 1996, Costa Rica adopted Forestry Law No. 7575, which explicitly recognizes four environmental services provided by forest ecosystems: biodiversity conservation; mitigation of GHG emissions such as CO₂; hydrological services, including provision of water for human consumption, irrigation, and energy production; and provision of scenic beauty for recreation and ecotourism.

7. From a conservation perspective, the FONAFIFO program provides market-based incentives to conserve natural forest ecosystems. As such, these incentives help maintain habitats that are critical to a rich, globally-important biodiversity, as well as help maintain biological corridors linking protected areas. Approaching biodiversity conservation through the FONAFIFO mechanism is akin to the sophisticated system of easement payments that are widely used in the United States and several European countries. By rewarding private landowners that maintain forest cover, the program acts as a marketplace where incentives are provided to investors who "produce" and "sell" ecological services and values that are important at local, national, and global levels.

8. The broad development goals of the Government of Costa Rica include strengthening the outward-orientation of the economy and increasing the role of the private sector. The proposed project, which would be financed by (i) Government of Costa Rica funds; (ii) a loan from the World Bank for conservation and sustainable management of the nation's forests, and (iii) a grant from the Global Environment Facility for conservation easements in the Mesoamerican Biological Corridor in Costa Rica, directly supports these development goals through improved natural resource

deficit. Stringent measures in the latter half of the 1990s served to reign in these imbalances, thereby reducing fiscal deficits and, increasing foreign investment, commerce and construction. Arrival of firms such as INTEL and IBM regional sales and service confirm the country's attraction as a destination for foreign investment.

10. Regarding natural resources, a 1996 Environmental Law was an important step towards the restructuring and redefinition of environmental in Costa Rica. A process of dividing the country into conservation regions has been successfully implemented. While there is scope for a clearer legal definition of competencies between the central government and local agencies, regionalization has resulted in a more focused and efficient management of resources, greater budgeting autonomy for local agencies, better cooperation between the central government and private enterprises, and more careful attention to demands from civil society. Likewise, the 1996 Forestry Law solidified the institutional framework for improving environmental management in the forestry sector and further strengthened mechanisms for forest conservation.

11. Under the Baseline Scenario, the Government of Costa Rica—including MINAE, FONAFIFO, SINAC, and the Costa Rican Office for Joint Implementation (OCIC)— is mobilizing resources directed to the conservation and sustainable management of forest ecosystems. Over the next five years, it is expected that the sum of disbursements for environmental service contracts through the FONAFIFO program will total approximately US\$45 million. A World Bank loan will cover approximately 44% of these contracts.

12. In addition, Government of Costa Rica resources directly related to forest conservation include: (i) program administration expenditures by FONAFIFO - US\$1.5 million; (ii) field supervision and administration by SINAC – US\$11 million; (iii) activities related to financial sustainability of the ESP program (e.g., OCIC, ODE) – US\$1.0 million; (iv) other activities related to forest conservation and sustainable use at the national level (e.g., ONF, CCF) – US\$0.3 million; and (v) activities carried out by municipalities (e.g., water commissions, environment and forestry commissions) – US\$2.0 million. The total cost of these activities is approximately US\$15.8 million.

13. Activities underway by other donor agencies/NGO partners in Costa Rica are targeted towards forest conservation and sustainable forest management in priority areas. Activities expected to be on-going during the life of the proposed project (2000-2005), which total approximately US\$7.3 million, include:

- ◆ GTZ activities support national activities related to the Mesoamerican Biological Corridor; improved forest management and timber harvesting practices; development of a Sustainable Forestry Management training program with CATIE; and implementation of the Sustainable Agricultural and Natural Resources Management Program with IICA. The estimated cost of these activities between 2000 and 2005 is US\$4.0 million.
- ◆ Conservation International has concentrated its activities relating to sustainable resource management (including soil conservation, sustainable forest management, and ecotourism) on buffer zones in La Amistad-Caribe, Tapanti and Osa Conservation Areas. Anticipated programmatic expenditures are expected to total \$875,000.
- ◆ Wildlife Conservation Society activities in Costa Rica focus upon environmental education and public awareness regarding biodiversity conservation. Expenditures are expected to total US\$300,000 from 2000

14. **Costs.** Total expenditures under the Baseline Scenario are estimated at US\$68.1 million, including (i) programmed expenditures of the FONAFIFO program totaling US\$45 million; (ii) activities related to financial sustainability of the ESP program – US\$1.0 million; (iii) technical assistance related to sustainable forest management, biodiversity conservation, and environmental awareness at the local level – US\$7.3 million; and (iv) program administration, field supervision, and other activities carried out by the Government of Costa Rica and municipalities totaling US\$14.8 million.

15. **Benefits.** Implementation of the Baseline Scenario will result in (i) financing for conservation and sustainable management of forest ecosystems throughout Costa Rica; (ii) limited financing of strategies for financial sustainability of the ESP program; and (iii) program administration and field supervision of forest conservation and sustainable management programs working with small- and medium-sized farmers. As a consequence of the Baseline Scenario, Costa Rica will continue to finance forest conservation, sustainable forest management, and reforestation under Forestry Law No. 7575. However, in the absence of financing from the Global Environment Facility, it is unlikely that there would be explicit targeting of corridors within the national segments of the Mesoamerican Biological Corridor, nor that 20-year easements would be introduced. As such, financial resources devoted to protect the large quantity of critical biodiversity dependent on habitats outside of protected areas in the Tortuguero, La Amistad Caribe, and Osa Peninsula Conservation Areas would be less and the loss of biodiversity dependent upon intact forest ecosystems may continue.

Global Environmental Objective

16. The GEF Alternative will support the conservation and sustainable management of forest ecosystems throughout Costa Rica through explicitly targeting resources for conservation easements in buffer zones of protected areas within the Mesoamerican Biological Corridor, including forests with high biodiversity values, forests which are important for watershed protection, and other priority areas. As a result of conservation easements on privately owned lands in these areas, it is expected that habitat quality and species richness will be maintained. Furthermore, investments in institutional strengthening of public sector institutions and non-governmental organizations, as well as mobilization of investments that support sustainable development and biodiversity conservation, will support the long-term sustainability of the ESP program.

17. **Scope.** The GEF Alternative would build on the Baseline Scenario by supporting conservation easements within priority areas of the Mesoamerican Biological Corridor in Costa Rica; promoting the long-term financial sustainability of the ESP program; providing technical support for forest monitoring and forest management supervision; technical strengthening of field staff for forest protection; training of regional judges on environmental conservation; increased local capacity within public sector institutions, non-governmental organizations and private sector associations involved in the valuation and marketing of environmental services; and strengthening of regional non-governmental organizations and private sector associations in priority areas of the Mesoamerican Biological Corridor which are promoting activities compatible with the conservation and sustainable use of biodiversity and which are providing solutions to problems stemming from deforestation and forest degradation.

18. **Costs.** The total cost of the GEF Alternative is estimated at US\$76.1 million, detailed as follows: (i)

environmental resources and reduced activities which lead to deforestation and forest degradation; increased hydrological services to local and sub-national consumers; improved institutional capacity within public sector institutions as well as within civil society to support biodiversity conservation; and economic benefits from sustainable forest management. Global benefits include the conservation of forest ecosystems which support a large number of endemic plant and animal species; outreach to and involvement of local communities and local institutions in biodiversity conservation; and improved monitoring of forest ecosystems, forest types, forest quality and conservation of priority ecological hotspots outside of protected areas. GEF cofinancing will support targeted selection of conservation easements in priority areas of the Mesoamerican Biological Corridor; likewise, forest conservation contracts co-financed by the GEF will be written for a period of twenty years, under Article 22 of Forestry Law No. 7575, rather than the traditional five-year contracts written under Article 69 of the Forestry Law.

Incremental Costs

20. The difference between the cost of the Baseline Scenario (US\$68.1 million) and the cost of the GEF Alternative (US\$76.1 million) is estimated at US\$8.0 million. This represents the incremental cost for achieving global environmental benefits related to biodiversity conservation through conservation easements on privately owned lands in buffer zones and interconnecting biological corridors outside of protected areas, in particular through contracting conservation easements in priority areas of the Mesoamerican Biological Corridor in Costa Rica.

Incremental Cost Matrix

Component Sector	Cost Category	US\$ Million	Domestic Benefit	Global Benefit
Environmental Service Contracts through ESP program	Baseline	45.0	Increased protection and sustainable management of forest ecosystems and improved provision of environmental services.	
	With GEF Alternative	50.0	Same as above.	Conservation easements targeted to priority areas of the Mesoamerican Biological Corridor, including clustering to achieve biological corridors. Meaningful participation of local stakeholders in biodiversity conservation in explicitly targeted areas.
	Incremental	5.0		
Design and Implementation of Strategies related to Financial Sustainability of ESP program	Baseline	1.0	Development of mechanisms to market environmental services in local, national and international markets.	
	With GEF Alternative	1.75		Improved knowledge of value of environmental services provided by forest ecosystems; increased sustainability of ESP program through establishment of trust fund; increased institutional capacity for marketing environmental at the national and international level.
	Incremental	0.75		
Sustainable Resource Management at the local level	Baseline	7.3	Increased support at the local level for biodiversity conservation and sustainable forest management.	
	With GEF Alternative	8.05		Increased support from civil society for biodiversity conservation and natural resource management. Meaningful participation of local organizations in biodiversity conservation in priority areas.
	Incremental	0.75		
Program Administration and Field Supervision	Baseline	14.8	Strengthened environmental institutions; increased public sector capacity to manage natural resources and administer natural resource management programs.	
	With GEF Alternative	15.3		Increased management capacity of natural resource management agencies (including FONAFIFO and SINAC) as well as non-governmental organizations. Improved knowledge of forest ecosystems, forest types, forest quality and identification of priority ecological hotspots outside of protected areas. Increased application of environmental protection at the judicial level in support of forest conservation. Effective management of investments

ANNEX 3a

Costa Rica: Ecomarkets

Technical Review by STAP Roster Expert

STAP Reviewer: Kenton R. Miller, World Resources Institute

Date: May 17, 1999

1. **Overall Impression.** This project fits well into the current context in Costa Rica. The political, economic and social environments are poised for this type of support and assistance. This proposal is sound and well considered.
2. **Relevance and Priority.** The project is clearly very important and timely. While Costa Rica has made great strides in conservation, the development of economic tools and new institutional instruments to support natural resource management and sustainable development, there is a dearth of funding to place good ideas into actual implementation.
3. **Background and Justification.** Costa Rica has established a far-reaching legal and policy environment to foster sustainability dating back to the late 1960's. It has come from a country with among the world's fastest deforestation rates to turn the corner and begin to demonstrate a net gain in forest cover. It has had the courage to pull subsidies (cattle) and take risks in the carbon market. It deserves international support of the type proposed in this document. This is further justified at a time when bilateral aid is being rapidly phased out forcing the country to develop its own internal economy based upon sustainably using its natural resources.
4. **Scientific and Technical Soundness.** The approach of the proposal is scientifically and technically sound, in biological, social and economic terms.
5. **Objectives.** The objectives are well focused and appropriate. However, achieving them will require a more careful assessment of the actual situation in the field. For example, the proposal assumes that the Mesoamerican Biological Corridor (MBC) is actually in place and being implemented. The recent survey visit by three WRI researchers during a two-week period in Costa Rica and Guatemala found little evidence of implementation. On the contrary, we found important obstacles to progress. Of the 42 interviews we held, most individuals and organizations responded that there was no agreement as to what the MBC was, where it was to go, and who was coordinating the effort. Most investment by government programs, bilateral aid investments, NGOs including the most advanced work in the Arenal Conservation Area was being made with little or no regard for the actual location of the "corridors." While the GRUAS study continues to be the point of reference, even in the case of the OSA region local experts reported no progress. Exceptions to this scenario are found where CI, TNC and WWF are working with local institutions. Furthermore, the national government expenditure rate for protected

corridor. Thus, I would suggest that the proposal include an early activity designed to assess the actual situation. This does not mean that I propose slowing down the process.

6. **Activities.** Given the above observations, and the suggestion of a quick assessment of the current situation in terms of government expenditures, actual progress on MBC implementation, status of personnel actually employed on government posts, etc., I find the activities well designed and scheduled.
7. **Participatory Aspects.** In spite of all the assurances in central government and in the GRUAS document that everyone has been consulted, most of the individuals we surveyed felt themselves uninformed and uninvolved. There was virtually no buy-in to the MBC. This was particularly true among the campesino groups and indigenous peoples, but also most NGOs. Thus, I would suggest strengthening this aspect of the project. While steps are proposed they appear to be subsidiary and as an after thought. According to our findings, everyone appears to have their own vision of what the MBC concept is, and no one knows where it hits the ground. This is further exacerbated by the evolution of the MBC concept from the purely biological from a decade ago, to the current view of the Presidents in terms of promoting sustainable development and integration.
8. **Global Benefits.** Yes. They are significant and worthwhile. I would add that with these financial mechanisms in place in five years hence, Costa Rica becomes a prime demonstration area on how to move a country into the economy of the 21st century. Perhaps something on demonstration should be added. The fallacy here, however, is that most people surveyed noted that no one is taking notes, deducing lessons learned, there is no record of the process.
9. **GEF Strategies and Plans.** The project fits well within the context of the goals of the GEF and the GEF Operational guidelines, and the guidance of the COP.
10. **Replicability.** What is learned in Costa Rica can be transferred to other countries with some important restrictions. As we know, Costa Rica has a unique history, its own sense of destiny, and a political process not repeated elsewhere (abolition of the army, etc). Its high literacy rate, health standards, awareness of its public, etc., make it a very productive and creative country in which to develop such advanced financial instruments. If the project can build into its activities appropriate steps to capture lessons learned, deduction of methods and practices, and the preparation of manuals, etc., then the results in that form can well support replicability.
11. **Capacity Building.** The project provides a well-prepared menu of opportunities for helping build local capacity. The issue is who will be strengthened? There are very few civil servants actually employed on the government payroll. Many top people are actually funded by NGOs. As we know, Costa Rica has some of the region's finest, best-trained, and most creative people in these fields. Few can remain in any one position for long given employment instability. On the other hand there is a "musical chairs" phenomena with the same good people circulating among government, NGOs and the

anything I've learned." So, the rather general reference to workshops should be very carefully thought through. Is it the right mechanism?

12. **Project Funding.** Given the objectives of the project, this level seems appropriate. It is particularly important to capitalize funds to ensure coverage of key activities over several decades. Otherwise, as can be seen in Costa Rica, when the donors leave, the programs collapse.
13. **Time Frame.** If the key counterparts can be mobilized, then the project can meet its commitments in the allotted time.
14. **Secondary Issues.** I saw no reference to the great experience being gained in the Arenal Conservation Area. I would recommend that some early field time be spent there looking into the financial mechanisms being employed.
15. **Additional Comments.** This is a very strong proposal, and should be implemented as soon as possible. However, there is a certain surreal sense in its assumptions about the current state of progress in Costa Rica and with the MBC. Following further field time by the team, I trust that this aspect will be placed into proper balance. Good luck, this is important.

ANNEX 3b

Costa Rica: Ecomarkets

Response to STAP Reviewer's Comments

1. As recommended by the STAP Reviewer in Paragraphs 5, 7, and 15 (see Annex 3a), the project is working with regional NGOs and private sector associations, in priority areas of the MBC, which are promoting activities compatible with the conservation and sustainable use of biodiversity and which are providing solutions to problems resulting from deforestation and environmental degradation. In particular, institutional strengthening during project implementation will be directed to organizations that provide technical assistance to small landowners for contracting under the ESP program, and, likewise which promote contract compliance under the framework of the ESP program. For more information, see page 11 of the Project Proposal.
2. As recommended by the STAP Reviewer in Paragraph 10 (see Annex 3a), project preparation is supporting an assessment of the ESP program to date (e.g., targeting, impact of program on forest ecosystems; socio-economic impact of program) so as to derive lessons learned and to strengthen the national program during implementation. In particular, the assessment will examine the application of economic incentives to promote forest conservation in the Arenal Conservation Area and the Cordillera Volcanica Conservation Area.
3. As recommended by the STAP Reviewer in Paragraph 11, capacity building under the project will focus on field-based staff working in the Mesoamerican Biological Corridor rather than SINAC personnel based in San Jose. Capacity building within non-governmental organizations will focus upon locally based (i.e., Tortuguero, La Amistad Caribe and Osa Peninsula) organizations rather than NGOs headquartered in San Jose. During project preparation, discussions and workshops have been carried out with regional SINAC staff as well as locally based NGOs to discuss the forest conservation program, priority areas for targeting, and priority activities to be financed during project implementation.

ANNEX 4

Costa Rica: Ecomarkets

Findings from the Social Assessment

1. **Summary.** The objectives of the Social Assessment include: (1) identifying and analyzing the social environment of the project; (2) design a participation strategy for NGOs and civil society; (3) design a participation strategy for indigenous communities; and (4) lead consultation and promotion activities related to the project. Preliminary findings indicate that the rural populations within Tortuguero, La Amistad Caribe, and Osa are amongst the poorest of the country and with the worst access to services.
2. Three indigenous reserves are either located within or contiguous to the Tortuguero, Barbilla, and Corcovado-Piedras Blancas biological corridors. While the boundaries of these indigenous reserves are clearly defined by law, there is still some degree of uncertainty with respect to land tenure. Other preliminary findings indicate that even as women have achieved important political and institutional progress in Costa Rica, many opportunities are still out of reach of rural women, and a third of the poorest households are headed by women.
3. On the other hand, one of the most striking developments during the last decade is the growth of NGOs, groups of women, and institutional instruments that empower civil society, actively incorporating citizens in the decision making process of the country.
4. **Poverty Level and Basic Social Indicators.** The three corridors identified as priorities areas for targeting of GEF funds by the proposed project are amongst the poorest areas in Costa Rica. These three rural areas have significantly lower social indicators than in urban areas of Costa Rica (Box 1). For instance, the area surrounding the Barbilla biological corridor was identified by the Ministry of Planning as the region with the lowest social development index in the entire country. According to the national census carried out in 1997, 20% of Costa Rican households did not have an income that would have allowed them to satisfy their basic needs. On the other hand, 26% of households in the Huetar Atlantica region, where the Tortuguero and the Barbilla Corridors are located, fell below this standard, while in the Brunca region, where the Osa corridor is located, 32% of homes fell below this standard.
5. As in other Central American countries, education levels are significantly lower in the rural areas than in urban areas. Whereas the national illiteracy rate in 1996 measured 6.9%, in the Tortuguero region the illiteracy rate was 11.9%. In Osa, the most recent surveys indicate an illiteracy rate of 18.5%. Similarly rural communities nearest to the

Box 1			
<u>% of homes in extreme poverty</u>			
	<u>Nationwide</u>		
	1995	1997	Avg. 90-97
Urban	3.7	3.2	4.7
Rural	8.3	7.6	10.1

7. FONAFIFO has contracted environmental services for indigenous communities inside and out of indigenous reserves. In 1999, 10 indigenous groups requested access to the Environmental Services Payments (ESP) program. FONAFIFO simplified its procedures to facilitate access to the ESP program on the part of these communities. FONAFIFO's policy on indigenous communities permits contracting of up to 600 hectares per community per year. This limit does not appear to be a constraint thus far, given the modest implementation capacity of the communities and intermediary organizations.
8. There are three indigenous reservations within or contiguous to the priority corridors of the proposed project. The Nairi-Awari (Cabecar communities) and the Chirripo (Bri-bri communities) are located in the Barbilla Corridor. The Osa Reserve (Guaymi community) is located in the Osa Corridor. There are no indigenous reserves within the Tortuguero Corridor.
 - Bri-bris: Approximately 8,000 Bri-bris live in the Chirripo reservation (53,930 Has), which is one of the four Bri-bri reservations in the country. About 4,000 of these Bri-bris and half of their land area is located within the Barbilla Corridor. Bri-bris have created a number of organizations to represent their interests; one of the most active one is CODEBRIBAC. Bri-bris are also quite active in the *Mesa Indigena*.
 - Guaymies: Of the approx. 5,474 Guaymies in the four indigenous reserves along the southern border of Costa Rica, only approximately 30 families live in the Osa Guaymi reservation (2,757 has.). The Guaymies are trans-border communities, often ignoring the distinction between Costa Rica and Panama. (In Panama, there are approximately 52,000 Guaymies). Until 1991, a permanent residence was required for Costa Rican citizenship, therefore the Guaymies were not considered Costa Rican citizens, although they have had their own reserves since the mid-1970s.
 - Cabecares: The *Narai-Awari* reservation was established in 1991, with 2,953 has. This reserve, with an estimated 1,000 inhabitants, is one of the 7 Cabecar reserves in Costa Rica. The development associations of Narai-Awari have been active in achieving funds from international donors.
9. Indigenous rights are protected under *Ley Indigena* (1977) and its regulations (1978), which declared their lands to be under the exclusive use and management of indigenous leaders. Although the law recognized the standing of traditional authorities within the boundaries of the reservations, it also required the creation of Development Associations in each reservation as their legal representatives. More recent legislation, including the "*Ley de Desarrollo Autonoma de los Pueblos Indigenas*", awaits discussion in the Congress. The bill would strengthen indigenous rights in areas such as land management, bilingual education, customary rights, and indigenous councils. Finally, since 1992, when ILO Convention # 169 on Indigenous and Tribal Communities was ratified by the Costa Rican National Assembly, approximately twelve judicial decisions have based their conclusions on the need for increased respect for the customs of indigenous communities.

11. Land tenure outside indigenous reserves and protected areas is not clearly defined in parts of the three priority biological corridors. Increased work is needed to evaluate the extent of this lack of definition, and how this prevents communities from accessing ESP benefits. With respect to the ESP program, FONAFIFO uses the term “land-holders”, instead of “land-owners”. Beneficiaries do not need to own the title of the land upon which contracts will be issued; rather, land can be rented or under possession.
12. Each of the three priority corridors also have a number of active NGOs. In the area of Talamanca, a 1995 study identified 70 NGOs focusing on activities ranging from education to environmental issues. In Osa, the regional council of local organizations – CLACOSA, created under the framework of the Biodiversity Law – has 150 members grouping within four development associations and a number of NGOs, including a tourist micro-enterprises association. NGOs in Tortuguero have been less numerous and less active; one of the most active NGOs in Tortuguero is the Caribbean Conservation Corporation, an offshoot of the Wildlife Conservation Society.
13. With respect to supportive legislation, the *Ley Organica del Ambiente*, issued in 1996, created Regional Environmental Councils (REC) to provide opportunity for participation, studying and monitoring environmental projects. The responsibilities of the RECs include encouraging participation of the general public in environmental projects, giving an opinion on environmental initiatives in their region, carrying out environmental initiatives, answering environmental complaints and assisting individual citizens in processing their complaints with the proper authorities. The members of RECs include representatives of relevant chambers in the region, environmental NGOs, municipalities and high school students. The project preparation team will be participating in the regular meetings of the relevant RECs to strengthen the dialogue on the project.
14. **Participation of Women.** FONAFIFO does not have a specific policy targeting female land-holders, although some of the Conservation Areas, who decide the priorities areas for ESP, carry out such targeting. Between 1995 and 1997, 25% of FONAFIFO’s global beneficiaries (e.g. small landowners) were female. From the individual beneficiaries, 12% were female, 40% were male, and 48% were companies and/or associations.
15. In the areas of the priority biological corridors, there are a number of women’s organizations. There is a federation of women groups in the Atlantic region of Costa Rica, and three local women’s groups in the area of Tortuguero/Barra del Colorado. In La Amistad Caribe, there is a Commission of Women that represents indigenous women of the region.
16. Under the Equal Rights Law of 1990, land holdings – if acquired by a live-in, un-married couple – must be inscribed by the women; land acquired by a married couple must be inscribed under the name of both spouses. According to the Public Registry, by June 1998, 44% percent of all landowners in the country were female. In the province of Limon, where both the Tortuguero and the

<u>Box 2</u>		
<u>% of extreme poor households that are female-headed</u>		
		Avg.
1995	1997	90-97
28.2	31.4	30.9