



PROJECT EXECUTIVE SUMMARY

GEF COUNCIL SUBMISSION

AGENCY'S PROJECT ID: P098838
GEFSEC PROJECT ID: 2884
COUNTRY: Costa Rica
PROJECT TITLE: Mainstreaming Market-Based Instruments for Environmental Management
GEF AGENCY: World Bank
OTHER EXECUTING AGENCY(IES): Ministry of Environment and Energy (MINAE), National Forestry Financing Fund (FONAFIFO)
DURATION: 5 years
GEF FOCAL AREA: Biodiversity
GEF OPERATIONAL PROGRAM: Forest Ecosystem – OP3; and Mountain Ecosystem – OP4
GEF STRATEGIC PRIORITY: Mainstreaming Biodiversity in Production Landscapes and Sectors (SP-2), Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues (SP-4)
Pipeline Entry Date: November 3, 2005
ESTIMATED STARTING DATE: June 2006

FINANCING PLAN (US\$)	
GEF PROJECT/COMPONENT	
Project	10,000,000
PDF A	
PDF B	
PDF C	
Sub-Total GEF	10,000,000
Co-FINANCING*	
World Bank	30,000,000
Government	47,555,000
Others	2,748,500
Sub-Total Co-financing:	80,303,500
Total Project Financing:	90,303,500
FINANCING FOR ASSOCIATED ACTIVITIES IF ANY:	
LEVERAGED RESOURCES IF ANY:	

*Details provided under the Financial Modality and Cost Effectiveness section

CONTRIBUTION TO KEY INDICATORS OF THE BUSINESS PLAN: The project will contribute to the GEF Business Plan and is consistent with two GEF Biodiversity Strategic Priorities: Catalyzing Sustainability of Protected Areas (SP-1); Mainstreaming Biodiversity in Production Landscapes and Sectors (SP-2); and Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues (SP-4). It will do so by supporting development of the systemic and institutional capacities of government agencies and other stakeholders including NGOs, communities and the private sector. Furthermore, it will help create innovative market-based mechanisms to promote biodiversity conservation and generate lessons that can be replicated to other countries. Through the project interventions (i) at least 190,000 hectares of land with environmental service contracts in buffer zones of protected areas and biological corridors connecting them; (ii) effective biodiversity conservation in globally significant areas measured by vegetation cover and indicator species of biological interest; and (iii) sustainable financing mechanisms will be put in place for biodiversity conservation.

RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT(S):

Ricardo Ulate Chacón, GEF Focal Point
Advisor to the Minister, Ministry of Energy and Environment

Date: July 26, 2005

Approved on behalf of the World Bank. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion

Steve Gorman
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Date: December 2, 2005

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PROJECT SUMMARY

a. Project rationale, objectives, outputs/outcomes, and activities

1. Costa Rica is at the forefront of biodiversity conservation and natural resources management. Despite being small – 51,100 square kilometers – the Central American country is one of the most biodiversity-rich countries in the world. Because of its location between the Atlantic and Pacific oceans and its various geographic and climatic systems, it has more than 500,000 plant and animal species, a number of which are endemic (i.e., found only in Costa Rica) or near-endemic (i.e., found only in Costa Rica and a neighboring country, particularly Panama). In addition, Costa Rica is one of the world's leaders in the development and application of market-based instruments for environmental management. Once known as having one of the world's highest deforestation rates¹, Costa Rica achieved negative net deforestation in the early 2000s. This is due in large part to Costa Rica's innovative payments for environmental services (*Pago por Servicios Ambientales*, PSA) program, which over the past decade has supported forest conservation on privately-owned lands in priority watersheds and key areas within Costa Rica's portion of the Mesoamerican Biological Corridor.

2. The proposed project seeks to further this effort by putting into practice the lessons of this decade of experimentation. First, this involves consolidating and mainstreaming the PSA program: ensuring its long-term sustainability in particular by developing new financing sources from the users of environmental services; improving its efficiency; and expanding its coverage. Second, it continues the push to experiment with new market-based approaches to sustainable financing of environmental management.

3. **Market-based Instruments for Environmental Management.** Natural ecosystems provide a wide range of environmental services (e.g., hydrological services, soil stabilization, carbon sequestration). However, these valuable services are too often lost as a result of mismanagement and lack of incentives to preserve them. Landholders typically receive no compensation for the positive environmental externalities generated by their lands, and therefore have no economic reason to take these services into account in land use decisions. Costa Rica has led the way in using market-based instruments to address these market failures, thereby aligning incentives facing landholders with broader societal interests. The centerpiece of this effort has been the country's program of payment for environmental services (PES)². The central principles of the PES approach are that those who provide environmental services should be compensated for doing so, and that those who receive the services should pay for their provision. The PES approach works by establishing a mechanism to connect service users (e.g., water users) to service providers (e.g., landholders), thus internalizing what had been externalities. By charging service users, PES generates additional financing for natural resources management. Properly implemented, PES mechanisms can be highly sustainable, as they do not depend on the whim of donors or government decisionmakers but rather on the self-interest of those who wish to secure or improve their access to services and of landholders who are contracted to provide those services.

4. **Achievements of Costa Rica's PSA.** Costa Rica's PSA Program is widely considered the most successful application of the environmental services approach worldwide. For more than a decade, it has been administered by the National Forestry Financing Fund (*Fondo Nacional de Financiamiento Forestal*, FONAFIFO). The PSA Program currently compensates landholders for three conservation activities ('modalities'): natural forest conservation, reforestation (mainly through sustainable plantations), and agroforestry. By October 2005, the PSA Program had approximately 250,000 ha under contract, of which 95 percent are natural forests under conservation, 4 percent are forest plantations, and 1

¹ Costa Rica experienced 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 had declined to twenty-five percent of the national territory.

² 'PES' is used here-in to refer to the concept of payments for environmental services, while Costa Rica's application of this concept is referred to by its Spanish acronym, 'PSA'.

percent is sustainable forest management (a modality discontinued in 2003). The agroforestry modality was introduced in 2003 and does not yet represent a significant area (346,100 trees or about 865 ha). The bulk of this conservation effort is being financed through revenue from a fuel tax. The PSA Program has also attracted substantial international funding, including a US\$8 million grant from the Global Environment Facility (GEF) in 2000 through the World Bank-financed Ecomarkets Project, a US\$11.2 million grant from the German development bank KfW in 2002 for the protection of forests and recovery of deforested lands in the northern region of the country, and US\$2 million from Norway in 1997 for carbon sequestration. FONAFIFO has also signed numerous agreements with private and public water users within Costa Rica to finance the conservation of the watersheds from which they draw their water, which generate about US\$0.5 million annually.

5. A strong institutional basis has been built to implement the nationwide program, with a strong legal framework and wide political support through three successive presidential administrations, combined with broad support from civil society, particularly small- and medium-scale landholders who participate in the program. Likewise, the program has attracted widespread attention around the world, and has spurred replication efforts in Latin America and outside the region.

6. **The Ecomarkets Project (2000–2006).** Since 2000, the program has been supported by the World Bank / GEF-financed Costa Rica Ecomarkets Project (Report No. 20434-CR). The project has reached or exceeded all key project performance indicators. For instance, 130,900 ha in priority areas of Costa Rican portion of the Mesoamerican Biological Corridor (MBC)³ have been incorporated into the program, exceeding the original target of 100,000 ha by the end of the project. In addition, 70,000 ha have been contracted on privately owned lands within other Conservation Areas identified as priority areas by the GRUAS Report,⁴ thus further contributing to the achievement of conservation and sustainable management goals agreed at the regional level within the framework of the Central American Commission on Environment and Development (CCAD). In 2000, only 22 female landholders participated in the program. Currently, there are 474, significantly higher than the original target of a 30 percent increase in participation. In 2000, there were 2,850 ha of indigenous-community-owned lands in the program. Currently, there are 25,125 ha, representing an 822 percent increase, sharply exceeding the original target of a 100 percent increase.

7. **The Independent “Blue Ribbon Panel” Review.** An independent evaluation panel assessed the Ecomarkets Project in the summer of 2005.⁵ The Review confirmed that the project reached its key targets and objectives; likewise, the panel systematically evaluated the project with respect to GEF project review criteria and found it to be satisfactory or highly satisfactory in all of them. The panel wrote that “[t]he GEF Ecomarkets Project has enabled Costa Rica to more effectively conserve its globally significant biodiversity by creating linkages between geographically isolated protected areas and other high concentrations of biodiversity, that is, linkages consisting of privately owned lands where biodiversity is legally protected through PSA contracts.” Annex 19 summarizes the main conclusions and recommendations of the independent panel.

8. **Priority Issues for the Future of PSA.** Despite the program’s considerable achievements, significant weaknesses and limitations remain, on both the demand and the supply side of the environmental service markets it has established.

- **Demand side.** There is a need to develop additional funding mechanisms to complement current funding sources and allow an expansion of the area under conservation, as the current

³ Costa Rica’s national territory is divided into 11 Conservation Areas (*Áreas de Conservación*, AC).

⁴ The GRUAS Report (GEF/UNDP/MINAE, 1996), establishes priority conservation areas according to their biodiversity importance. It has since been updated in light of new information.

⁵ “Evaluation of the World Bank/GEF Ecomarkets Project in Costa Rica,” October 2005. Members of the Panel: Gary Hartshorn (World Forest Center); Paul Ferraro (Georgia State University); Barry Spergel, (Independent Consultant); and Erin Sills (North Carolina State University).

250,000 ha represent only a small part of conservation needs. There is also a need to draw a greater proportion of funding directly from service users, as the current program highly depends on funding from the fuel tax and short-term donor financing, thus making its sustainability uncertain. Developing sustainable financing sources for biodiversity conservation is particularly challenging.

- **Supply side.** The use of available funds to contract landholders also needs revision. Increased targeting, the definition of simple resource allocation rules, and differentiation of payments could result in substantial efficiency gains for the program. The review panel noted that current criteria for PSA allocation cover as much as 70 percent of the country. Moreover, the use of undifferentiated payments means that the program is likely over-paying in some areas (e.g., paying for conservation in cases where conservation may well have happened anyway), while offering insufficient payments to induce conservation in other priority areas. There is a need to sharpen and better prioritize the selection of conservation areas with unique biodiversity features, and to adapt payment levels to local circumstances.
- **Links to poverty.** Small and medium-sized landholders, many of whom are poor, have found it difficult to enter the program. There is a need for targeted efforts to ensure that poor landholders are able to participate in the program.
- **Monitoring.** To ensure that these aims are achieved, there is a need to improve program monitoring. With support from the Ecomarkets Project, FONAFIFO instituted a state-of-the-art system to monitor land-user compliance with environmental service contracts. The program remains weak, however, in monitoring the impact of its activities on service generation and socioeconomic impacts.

9. The proposed project aims to address these gaps. The **Project Development Objective** of the proposed project is to enhance the provision of environmental services of national and global significance and to assist in securing their long-term sustainability. The **Project Global Environmental Objective** is to enhance the conservation of globally significant biodiversity and ensure its long-term sustainability by mainstreaming market-based instruments in productive landscapes in the buffer zones of protected areas and the corridors connecting them. This will be accomplished by consolidating the PSA Program, improving its efficiency, and expanding its coverage. The project will also support the development of new, market-based approaches to sustainable finance environmental management. The bulk of the project's work will be devoted to demand-side efforts to develop and implement new mechanisms to generate sustainable financing and to address the particular needs faced in generating long-term financing for biodiversity conservation. This will be complemented by supply-side efforts to improve the program's efficiency together with efforts to increase its contribution to poverty reduction and sustainable rural development.

10. GEF support has been instrumental in the development of market-based instruments for environmental management in Costa Rica, resulting in substantial on-the-ground improvements in biodiversity conservation in Costa Rica, as well as valuable lessons learned that have been applied in many other countries. GEF support for the proposed project would boost to these efforts: helping to consolidate Costa Rica's program and focusing particularly on the improvements needed to ensure sustainable long-term conservation of biodiversity in the buffer zones of protected areas and biological corridors that connect them, thus enhancing the sustainability of the national protected areas system and of the Costa Rican portion of the Mesoamerican Biological Corridor.

11. The proposed project has three components which are consistent with the project objectives:

Summary of Project Costs by Component and Subcomponent and Source of Financing									
COMPONENTS	Source of Financing (US\$ '000)					Source of Financing (%)			
	GoCR	World Bank	GEF	BioCF and other carbon finance	Total	GoCR	World Bank	GEF	BioCF and other carbon finance
Component 1: Developing and implementing sustainable financing mechanisms									
1A. Promoting watershed conservation via application of the new water tariff	390.7	0.0	25.2	0.0	415.9	93.9	0.0	6.1	0.0
1B. Implementing and capitalizing the Biodiversity Conservation Trust Fund	7,549.0	0.0	7,763.5	0.0	15,312.5	49.3	0.0	50.7	0.0
1C. Accessing global carbon markets	135.5	0.0	45.25	431.8	612.5	22.1	0.0	7.4	70.5
1D. Developing voluntary markets for biodiversity conservation	0.0	0.0	164.5	0.0	164.5	0.0	0.0	100.0	0.0
Subtotal Component 1	8,075.2	0.0	7,998.4	431.8	16,505.4	48.9	0.0	48.5	2.6
Component 2: Scaling-up the Environmental Services Program									
2A. Strengthening capacity to implement the expanded PSA Program	5,949.0	0.0	1,022.4	0.0	6,971.4	85.3	0.0	14.7	0.0
2B. Increasing the efficiency of environmental service contracting	2.0	0.0	158.0	0.0	160.0	1.3	0.0	98.8	0.0
2C. Strengthening technical monitoring capacity	186.8	0.0	183.3	191.0	561.1	33.3	0.0	32.7	34.0
2D. Contracting landholders to provide environmental services	33,000.0	30,000.0	0.0	2,125.7	65,125.7	50.7	46.1	0.0	3.3
Subtotal Component 2	39,137.8	30,000.0	1,363.6	2,316.7	72,818.2	53.7	41.2	1.9	3.2
Component 3: Removing Barrier for Small landholders' Participation in the PSA Program									
3A. Strengthening the incorporation of low-income landholders in the PSA Program	290.0	0.0	260.0	0	550.0	52.7	0.0	47.3	0.0
3B. Piloting improved watershed management in low-income areas	0.0	0.0	351.0	0	351.0	0.0	0.0	100.0	0.0
3C. Strengthening the monitoring of social and economic monitoring	52.0	0.0	27.0	0	79.0	65.8	0.0	34.2	0.0
Subtotal Component 3	342.0	0.0	638.0	0	980.0	34.9	0.0	65.1	0.0
TOTAL PROJECT	47,555.0	30,000.0	10,000.0	2,748.5	90,303.6	52.7	33.2	11.1	2.7

Component 1. Developing and implementing sustainable financing mechanisms (Budget: US\$16.5 million, of which US\$8.1 million from GoCR, US\$8.0 million from GEF, and US\$0.4 million from sales of verified emission reductions).

12. This component focuses on developing and implementing sustainable financing mechanisms according to the characteristics of each group of environmental service users. Likewise, rules will be developed for the use of these funds to generate environmental services that users desire. Key outputs of this component are: (a) a conservation program to promote provision of hydrological services that use financing provided by the recently-approved water tariff, (b) capitalization of the Biodiversity Conservation Trust Fund with at least US\$15 million, (c) a robust strategy to increase the capital of the Biodiversity Conservation Trust Fund, (d) development of capacity to access the emerging carbon market, and preparation of several carbon sequestration projects, and (e) development of voluntary markets for biodiversity conservation. Key inputs to achieve the component objectives are: (a) providing the necessary resources to FONAFIFO to implement project activities; and (b) providing adequate resources to design and implement the operational rules of water tariff.

13. This component would include the following subcomponents:

- **1A: Promoting watershed conservation via application of the new water tariff.** After a long process of consultations, Costa Rica has begun to mainstream sustainable natural resource management by instituting water tariffs to finance *inter alia* upstream watershed conservation, with 25 percent of the income generated channeled to the PSA Program to protect priority watersheds. This approach greatly expands coverage of the program while avoiding the free-rider problems that plagued the previous voluntary approach. The proposed project will support FONAFIFO's efforts to develop appropriate conservation modalities and identify priority areas for land use practices needed to generate hydrological services, to ensure that funds generated by the water tariff are used to effectively generate hydrological services.
- **1B: Implementing and capitalizing the Biodiversity Conservation Trust Fund.** This subcomponent will help strengthen and capitalize the Biodiversity Conservation Trust Fund, established under the Ecomarkets Project, to enable it to provide sustainable, long-term financing for areas of globally significant biodiversity where other financing is either unavailable or insufficient. This Fund will act as a "financier of last resort" for those areas of biodiversity of global significance in buffer zones of protected areas and biological corridors that connect them (thus contributing to the ecological and financial sustainability of the national protected areas system and the Mesoamerican Biological Corridor). One of the key eligibility criteria for private landowners to receive payments from the proceeds of GEF co-financing is that their lands be recognized as private protected area under the Costa Rican law. This subcomponent will also work to develop additional financing sources to capitalize the Fund.
- **1C: Accessing global carbon markets.** The proposed project will support FONAFIFO's efforts to develop carbon sequestration projects to finance forest regeneration in degraded areas—areas that the PSA Program has been unable to address to date given their high up-front cost. Incremental GEF co-financing will be provided for forest regeneration activities in areas of globally significant biodiversity, in particular, buffer zones of protected areas and biological corridors that connect them.
- **1D: Developing voluntary markets for biodiversity conservation.** The proposed project will support a more systematic approach to seeking funding from 'voluntary' or 'retail' markets. The funds generated would help capitalize the Biodiversity Conservation Trust Fund.

Incremental resources from GEF will be used primarily to capitalize the Biodiversity Conservation Trust Fund (US\$7.5 million, which will be matched by contributions from the Government of Costa Rica and other donors). Incremental resources from GEF will also be used to support the development of other funding mechanisms in areas that generate global biodiversity benefits.

Component 2. *Scaling-up the Environmental Services Program (Budget: US\$72.8 million, of which US\$39.1 from GoCR, US\$30.0 million from the World Bank, US\$2.3 million from the sale of verified emission reductions, and US\$1.4 million from GEF).*

14. Financial resources provided by the above-mentioned water tariff, in particular, and other new financing sources will allow for an expansion of the Costa Rican program beyond the roughly 250,000 hectares it covers at the current time. This component will support FONAFIFO and other institutions (e.g., MINAE's Water Department) to implement this expanded PSA Program. Key outputs include: (a) strengthened capacity of the key institutions, including FONAFIFO and other governmental institutions, together with NGOs working to implement the PSA Program; and (b) a more efficient program.

15. This component would include the following subcomponents:

- **2A: Strengthening capacity to implement the expanded PSA Program.** This subcomponent will support the strengthening of FONAFIFO's technical capacity to implement the expanded program, while ensuring that FONAFIFO's recurring administrative costs remain at less than 10 percent of funds handled.
- **2B: Increasing the efficiency of environmental service contracting.** Expanding program coverage and responding to the requirements of service users financing the program will require FONAFIFO to change its current approach of making undifferentiated payments for a small number of land use modalities. The proposed project will support the development and introduction of a more targeted, differentiated approach to improve the allocation of program funds as well as program efficiency.
- **2C: Strengthening technical monitoring capacity.** The proposed project will support the strengthening and/or establishment of appropriate systems to monitor the PSA Program's effectiveness in generating the desired environmental services, in cooperation with other institutions (e.g., MINAE's Water Department, National Biodiversity Institute - INBio). The Project will build on the existing Monitoring and Evaluation system of FONAFIFO (geared toward the monitoring of PSA contract compliance) to expand it into PSA impact evaluation. Baseline data for such monitoring will be ready in year 1 of Project implementation. Data and lessons learned from these activities will be shared with other institutions and other countries to promote the replication and scaling up of PSA globally.
- **2D. Contracting landholders to provide environmental services.** This subcomponent will finance environmental service contracts with participating landholders.

Incremental resources from GEF will be used to strengthen FONAFIFO's capacity to issue and monitor environmental service contracts that generate global benefits, with particular emphasis on enhancing monitoring of activities that specifically support biodiversity conservation in priority areas.

Component 3. *Removing Barrier for Small landholders' Participation in the PSA Program (Budget: US\$1.0 million, of which US\$0.4 from GoCR and US\$0.6 million from GEF).*

16. This component aims to reduce the obstacles to participation of the poor in the PSA Program. Although the program is not primarily designed to be a poverty reduction program, the high spatial correlation between areas that supply environmental services and low-income rural areas create opportunities to contribute to this objective. Frequently, however, the poor find it difficult to participate

either because of relatively high transaction costs involved in the application process (such as proof of land ownership) or because of intrinsic incentives within the program that makes it more responsive to large landholders. This component is aimed at reducing these obstacles. A key output of the component is the increased participation of poor rural communities and members of marginalized groups (e.g., women, indigenous landholders, landholders without land title). Key inputs include resources for FONAFIFO to carry out these activities, a robust promotional campaign, and capacity-building activities.

17. This component would include the following subcomponents:

- **3A: Strengthening the incorporation of low-income landholders in the PSA Program.** This subcomponent will support efforts to remove obstacles that can impede the participation by poor land-holders, including the high transaction costs of dealing with many individual small landholders and the lack of cadastral plans.
- **3B: Piloting improved watershed management in low-income areas.** This subcomponent will develop and implement watershed management plans in three pilot areas with high poverty rates.
- **3C: Monitoring social and economic impacts.** This subcomponent will strengthen monitoring systems related to measuring socioeconomic impacts of the program, with a particular emphasis on the poor as well as small- and medium-sized landholders.

18. Incremental resources from GEF will be used to enhance participation of the marginalized groups that specifically generate global biodiversity benefits.

b. Key indicators, assumptions, and risks (from Results Framework)

19. Key indicators related to the project development and global environment objectives are:

- By the end of the project, at least 288,000 hectares of land with environmental service contracts generating environmental services of local, national and/or global importance.
- By the end of the project, at least half of the newly-contracted area is financed by funding from service users.
- Improved efficiency of the environmental services program, as measured by indices of services generated per dollar spent.
- By the end of the project, 50% increase in contracted area of small and medium-sized landholders participating in the PSA Program.
- By the end of the project, at least 190,000 hectares of land with environmental service contracts in buffer zones of protected areas and biological corridors connecting them.
- Effective biodiversity conservation in globally significant areas measured by vegetation cover and indicator species of biological interest.

20. Key risks and mitigations measures are:

<i>Risk to PDO/GEO</i>	<i>Rating</i>	<i>Risk mitigation measures</i>
Reduced government funding of PSA	L	This risk is highest in the case of funding from the fuel tax, as rising fuel prices are creating pressure to reduce the tax. The risk is lower in the case of the water tariff, as the decree establishing it clearly specifies the revenue must be spent to benefit water users. Reducing or eliminating the fuel tax revenue would require changing current laws, however. The water tariff is currently embodied in a decree and thus could be more easily changed, but a new water law is under preparation which incorporates the tariff. It bears noting that funding flows from the fuel tax have endured through three changes of government from different political parties.
<i>Risk to component results</i>	<i>Rating</i>	<i>Risk mitigation measures</i>
Resistance by water users to paying the new water fees.	M/L	The new water tariff is the result of a long, consultative process. All water users were represented in this process and have agreed to the tariff, but some sectors—notably agriculture—remain recalcitrant. The tariff itself dedicates some of the income it generates to improving fee collection mechanisms.
Difficulty in identifying the land uses that generate the desired environmental services (particularly for hydrological services)	M	This risk is low in the case of biodiversity and carbon services, but higher in the case of hydrological services. The project will support targeted diagnostics of the most important watersheds to be incorporated into the program. Efforts to improve knowledge in this area will be coordinated with those of other environmental service programs (e.g., Mexico, El Salvador).
Insufficient commitments from donors to capitalize the Biodiversity Conservation Trust Fund	L	Discussions are on-going with several potential donors. The GoCR has committed to using its own resources in the event contributions from other donors are insufficient.
Mismanagement of the Biodiversity Conservation Trust Fund undermines long-term financing for biodiversity conservation	L	The Biodiversity Conservation Trust Fund has been established using best-practice guidelines, with an independent governing board and strict and transparent procedures.
Inability to secure additional carbon financing beyond the BioCarbon Fund project	L	The project will support efforts to seek additional carbon financing, but activities on the ground would only be undertaken once deals are in place. The project budget only includes funding from the initial BioCarbon Fund deal.
Political opposition to differentiated payments in areas that would receive lower relative payments	M	Differentiated payments will be introduced gradually. A targeted dissemination campaign will explain the need for and benefits of a differentiated payment program.
Overall risk rating	L/M	

C. COUNTRY OWNERSHIP

a) COUNTRY ELIGIBILITY

21. Costa Rica ratified the Convention on Biological Diversity on July 28, 1994 (Biodiversity Law # 7416), the Climate Change Convention on July 4, 1994 (Law # 7414) and the Convention to Combat Desertification and Land Degradation on November 11, 1997 (Law # 7699).

22. GEF support is warranted because the project would help (a) conserve globally significant biodiversity, including threatened endemic species; (b) protect and enhance the conservation of Costa Rican portions of the Mesoamerican Biological Corridor (MBC); (c) create a long-term financing

instrument for biodiversity conservation that could be replicated and could serve as a model for other countries; (d) research links between land use change and environmental services, and (e) increase carbon sequestration and knowledge about biocarbon sinks. Even without the GEF increment, the Costa Rican program would generate global benefits. However, the GEF increment would substantially increase the global benefits generated by the program by (a) assisting and accelerating the development of other funding sources; (b) helping direct program activities to priority areas for biodiversity conservation and increase the efficiency of the program; and (c) ensuring the long-term sustainability of environmental services contracts in buffer zones of protected areas and biological corridors that connect them in cases where other funding sources are not available or insufficient.

b) COUNTRY DRIVENNESS

23. Costa Rica's highly innovative environmental services program was established under Forestry Law No. 7575 of 1996. The framework law recognizes a variety of environmental services provided by forest ecosystems and provides the regulatory basis for the government to contract landowners for the services provided by their lands. In addition, Law No. 7575 establishes financing mechanisms to promote sustainable forest management, under the responsibility of the National Forestry Financing Fund (*Fondo Nacional de Financiamiento Forestal*, or FONAFIFO). The majority of financing for the program is generated by a dedicated tax on fossil fuel sales, with 3½ percent of the revenues allocated to FONAFIFO for funding national-level forestry programs. Other sources of financing deriving from regular national budgets complement the total allocations for the program. From its origin, the Costa Rican program has been entirely country-driven. That said, three years after its inception, the GOCR requested World Bank and GEF assistance in financing the program as well as to support increased targeting for the national program to priority areas via the Ecomarkets Project.

24. Three main policies have been developed to achieve national objectives of biodiversity conservation and sustainable natural resource management in privately-owned lands in Costa Rica. These include: (1) the National Environmental Strategy (ENA); (2) the National Forestry Development Plan (PNDF) and (3) the National Biodiversity Conservation Strategy (see Annex 3). The FONAFIFO-managed environmental services program is one of the Government of Costa Rica's principal instruments to promote these goals, and the World Bank is committed to working with the Government to attain financial sustainability for the program. Under the current legal and policy framework, FONAFIFO has the mandate to find improve the efficiency of the environmental services program and identify new financing sources for the program. In recent years, both public sector institutions and private sector interests in Costa Rica have begun to recognize the value of the PSA Program and have provided their own resources to finance the program (see Annex 5). Furthermore, FONAFIFO has developed and launched the Environmental Services Certificate (*Certificado de Servicios Ambientales*, or CSA) and has also signed agreements with private sector water users (e.g., municipalities, water bottlers, beer manufacturers, hotels) to complement national-level funding for PSA Program. A new water law currently under discussion in Congress, which would establish a general water tariff, would provide substantial additional funding to strengthen the program.

D. PROGRAM AND POLICY CONFORMITY

a) FIT TO GEF OPERATIONAL PROGRAM AND STRATEGIC PRIORITY

25. The proposed project supports the GEF Biodiversity Focal Area by protecting natural habitats and biological diversity through forest conservation, reversion of marginal agricultural areas to natural forest, and promotion of sustainable agricultural practices. The proposed project is consistent with GEF Operational Programs 3 (Forest Ecosystems) and 4 (Mountain Ecosystems) by addressing conservation of globally important biodiversity and sustainable use of forests. The project also fits the objectives of the GEF Strategic Priorities SP-1 (Catalyzing Sustainability of Protected Areas), SP-2 (Mainstreaming

Biodiversity in Production Landscapes and Sectors), and SP-4 (Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues) of the Biodiversity Focal Area.

- Under SP-1, the proposed project will provide for sustainable long-term financing of biodiversity conservation in the buffer zones of protected areas and biological corridors that connect them, including the Costa Rican portion of the Mesoamerican Biological Corridor (MBC), thus helping to ensure the sustainability of the national protected areas system. Activities under Component 1 ensure that long-term financing for globally significant biodiversity conservation is secured, as well as provide long-term financing for forest conservation.
- Under SP-2, it will contribute to enhancing innovative market incentive structures where both the users and providers of environmental services participate in market transactions to conserve biodiversity of global importance. The proposed project will contribute to the long-term financial sustainability of conservation of some of the most globally important biologically diverse ecosystems. Component 1 ensures that long-term financing mechanisms for generating local and global environmental benefits are in place. Component 2 ensures that institutional capacity is strengthened to carry out an expanded and more efficient national program. Activities include strengthening the technical monitoring capacity to ensure that biodiversity conservation goals are met.
- Under SP-4, the experiences and lessons deriving from the activities to be supported by the project will build on the emerging lessons learned relating to economic instruments and market-based mechanisms to promote the conservation and sustainable use of biodiversity. A replication plan will be developed as part of Component 2 and will be widely circulated to share knowledge and lessons from the project. Components 1 and 2 envisage activities that will derive lessons that will be widely disseminated within the country, region, and around the world. Costa Rica has already shared lessons learned with many other countries in the region, promoting “best practice” in terms of South–South cooperation relating to biodiversity conservation.

b) SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)

26. Ensuring the long-term sustainability of the PSA Program is a major objective of the proposed project. For environmental service programs to achieve their objective, service providers need to receive payments on a long-term basis (i.e., for as long as those services are needed). This implies the need to secure long-term funding sources. To date, the major source of funding for the Costa Rica program has been an earmarked portion of a tax on fossil fuel consumption. This source is reasonably secure, being established by law, and FONAFIFO has received the full amount under the law since 2001. Other important funding sources, however, such as the GEF grant under the Ecomarkets Project and a KfW grant under the *Huetar Norte* Project, are time limited. As FONAFIFO seeks to increase its conservation impact, it is important to develop additional funding sources that are sustainable in the long term.

27. The proposed project draws on lessons learned from the Ecomarkets Project and environmental service experiences in other countries to improve the sustainability of the PSA Program. The project will develop new financing mechanisms with targeted approaches based on the characteristics of demand for specific services (e.g., hydrological, biodiversity, carbon).

28. *Water Payments:* FONAFIFO has entered into contracts with 17 different water users who are paying for the PSA Program to conserve watersheds from which these users draw their water. These contracts are potentially highly sustainable as long as the desired water protection services are delivered. It bears noting that both of the earliest contracts, signed with private hydropower companies, have been renewed, demonstrating the potential sustainability of such contracts. Current contracts, however, provide funding a total of about 18,000 hectares, which is less than ten percent of the total area covered in the

PSA Program. The recently-approved water tariff will provide additional resources that will allow for a substantial increase in the area covered by watershed protection contracts without the need for negotiating individual agreements with each water user. Political support for the tariff could evaporate, however, if it is perceived as a tax rather than a financial mechanism to guarantee provision of hydrological services. Indeed, the decree establishing the tariff specifies that revenues must be spent to benefit water users in the specific watershed where the revenues are generated. To achieve this, the proposed project will develop operational guidelines for use of tariff revenues that seek to maximize their impact on hydrological services, including identification of priority watersheds and critical areas within these watersheds, together with specific interventions required to generate the needed services. The strengthened monitoring system will allow FONAFIFO to demonstrate to water users the hydrological benefits they are receiving, or adjust responses in the watershed, in the event results fall short.

29. *Biodiversity Payments:* Demonstrating effectiveness is as important for biodiversity as for other services. Monitoring of the impact of the silvopastoral practices which FONAFIFO is implementing in the Esparza area (on behalf of the GEF-financed Regional Integrated Silvopastoral Ecosystem Management Program⁶) has indicated significant positive impacts on biodiversity protection and sustainable use. The proposed project will strengthen biodiversity monitoring throughout the country. That said, given the absence of global financing mechanisms to provide sustained, long-term funding flows for biodiversity conservation, the proposed project will capitalize an endowment fund—the Biodiversity Conservation Trust Fund, established under the Ecomarkets Project—to ensure funding for environmental service contracts in areas with limited hydrological services and/or eligibility for carbon finance. The Trust Fund will provide sustainable funding for the conservation of globally significant biodiversity in the buffer zones of protected areas and biological corridors that connect them, where other sources of funding are unavailable or insufficient.

30. *Carbon Payments:* Sales of verified emission reductions (VERs) to buyers such as the BioCarbon Fund are a potential source of long-term financing. The implementation of robust and credible monitoring systems is a sine qua non condition of participation in carbon markets. The proposed project will support the development and implementation of such systems. It will also help FONAFIFO develop streamlined procedures for contracting and generating VERs, strengthening Costa Rica's competitiveness in the global carbon market.

31. *Voluntary Markets:* There is a small, but growing, market for voluntary contributions to environmental conservation. Costa Rica's recognized "brand name" related to conservation, combined with FONAFIFO's track record of developing environmental service markets, place FONAFIFO in a strong position for developing new innovative market-based instruments for financing forest conservation. Financing obtained from these sources, however, is inherently unsustainable. Therefore, revenues from sales to voluntary markets would be used to capitalize the Biodiversity Conservation Trust Fund, thus turning short-term financial flows into sustainable long-term flows.

32. The proposed project will also work to improve the efficiency of the PSA Program. These efforts will also contribute to the long-term sustainability of the program by reducing financing requirements for any given area under conservation and making contributions to the program more attractive to service buyers and donors.

c) REPLICABILITY

⁶ The *Regional Integrated Silvopastoral Ecosystem Management Program* is a multi-country project (including Colombia, Costa Rica and Nicaragua) that aims at demonstrating and measuring the effects of the introduction of payment incentives for environmental services to farmers on their adoption of integrated silvopastoral farming systems in degraded pasture lands. The project is on-going and expected benefits include improvements in ecosystems functioning, global environmental benefits and local socio-economic gains.

33. Costa Rica has been a pioneer in the development of environmental service programs, and its international leadership and example have led other Latin American countries, as well as countries outside the region, to establish similar programs. The lessons learned in Costa Rica were used in the recently-approved, World Bank/GEF-financed El Salvador Environmental Services Project, and have been applied in the preparation of the Mexico Environmental Services Project and the Kenya Agricultural Productivity and Sustainable Land Management Project. FONAFIFO has hosted official delegations from countries throughout the world, which have come to study the innovative program. As the most mature program worldwide, Costa Rica's initiative is facing the challenge of ensuring long-term sustainability, an issue which less-advanced programs will face in the near future. In brief, the continued development of lessons learned will prove invaluable to efforts in other countries. Knowledge development, systematization, and dissemination, and raising political awareness at the higher levels, is critical to enhance more appropriate approaches to solving the needs for financing mechanisms. Lessons from the proposed project will continue to be disseminated within Costa Rica, Latin America, and worldwide through workshops, seminars, study tours, publications, and the Internet. A replication strategy is supported under Component 2. The strategy will include activities for the sharing of success stories from around the world, such as France, the United States and Australia, where PSA programs have been successfully implemented for many years.

d) STAKEHOLDER INVOLVEMENT

34. The major stakeholders are small- and medium-sized landholders of forestland and degraded pastures deforested before December 1990, as well as other farmers willing to become involved in forest conservation and agro-forestry activities. Building upon the lessons learned via the World Bank / GEF-financed Ecomarkets Project, the proposed project aims to promote public awareness and participation with marginalized poor rural families. To support this process, local NGOs would be contracted to participate in the project to provide technical assistance to individual small- and medium-sized landholders. They would be prequalified by FONAFIFO based on legal registration, extent of local activity, and evaluation of technical capacity – that is, promotion through sponsoring farmer-to-farmer exchanges and assisting with the application process; monitoring of PSA contract compliance; and technical assistance in land titling, identification of livelihood alternatives, and implementation of forestry activities. Contracts will include technical services such as biodiversity monitoring to be carried out in coordination with National Biodiversity Institute (*Instituto Nacional de Biodiversidad*, INBio), the dissemination of information relating to environmental service contracts, and the definition and implementation of policies to increase the participation of small- and medium-sized landholders in the program, to be carried out in coordination with the National Forestry Office (*Oficina Nacional Forestal*, ONF).

35. At the institutional level, the key stakeholders involved with the project are the Ministry of Environment and Energy (*Ministerio de Ambiente y Energía*, MINAE) through FONAFIFO and MINAE's Water Department. The project has also interactions with other relevant Ministries and public entities (notably the Ministry of Agriculture, the National System for Conservation Areas (*Sistema Nacional de Áreas de Conservación* - SINAC and public water user entities), municipal governments and local NGOs. Transfer of water tariff revenues oriented for watershed conservation contracting will require close coordination between FONAFIFO and MINAE's Water Department.

c) MONITORING AND EVALUATION

36. The PSA Program has established, with the support of the Ecomarkets Project, a state-of-the-art system to monitor land-user compliance with payment contracts. Under the proposed project, this would continue to operate, and be further strengthened as needed.

37. The Blue Ribbon Panel evaluation (see Annex 19) stressed the need to strengthen Monitoring and Evaluation. The proposed project will support the strengthening and/or establishment of monitoring

systems to measure the social, economic, and environmental impacts of the program. The proposed project will support the establishment of a monitoring unit within FONAFIFO that would be responsible for overseeing impact monitoring work. Likewise, it would support the design and implementation of appropriate systems to monitor the impact of the PSA Program on hydrological services (in cooperation with MINAE's Water Department), biodiversity (in cooperation with INBio), and carbon sequestration (following protocols acceptable under the Clean Development Mechanism).

38. Furthermore, the proposed project will support the establishment of appropriate systems for systematic monitoring of the program's socioeconomic impacts (currently undertaken through ad hoc studies). The aim is to ensure that the monitoring is both more participatory and more effective in detecting the level of inclusiveness of the program and the impact of program activities on various sets of actors, and especially on the poor as well as small- and medium-sized landholders. This will allow FONAFIFO to respond to problems identified and improve the impact of such programs in terms of contributing to rural poverty alleviation. This subcomponent will also identify parameters to better measure the contribution of the program to meet Millennium Development Goals, defined as a priority by GoCR authorities. The PSA Program has established, with the support of the Ecomarkets Project, a state-of-the-art system to monitor land-user compliance with payment contracts. This would continue to operate, and be further strengthened as needed, starting with the establishment of a baseline for monitoring of PSA impact that will be produced by Year 1 of the project. Lessons learned from these activities will be shared with national, regional and international PSA initiatives.

E. FINANCIAL MODALITY AND COST EFFECTIVENESS

39. The proposed project is a fully-blended operation, with a total cost estimated at US\$90.3 million, including: the Government of Costa Rica (US\$47.6 million); the World Bank (US\$30 million); the GEF (US\$10 million); together with financing from the sale of verified emission reductions under the Clean Development Mechanism and other sources (US\$2.7 million).

Co-financing Sources				
Name of Co-financier (source)	Classification	Type	Amount (US\$)	Status*
COCR	Government	Budgetary	47,555,000	Financial commitment in Project Aide Memoires
IBRD	IA	Loan	30,000,000	Part of CAS
Beneficiary/Others	Beneficiary/Others	PES	2,748,500	
Sub-Total Co-financing			80,303,500	

*Reflect the status of discussion with co-financiers. If there are any letters with expressions of interest or commitment, please attach them.

F. INSTITUTIONAL COORDINATION AND SUPPORT

a) CORE COMMITMENTS AND LINKAGES

40. Costa Rica is at the forefront of biodiversity conservation and environmental management. Recognizing that its biological resources are an important national asset, Costa Rica has actively promoted a variety of conservation mechanisms and encouraged innovation in financing and administration. The Government has articulated a strategy with three main objectives: (a) the establishment of large areas for conservation, (b) the assessment of biodiversity that lies within conservation areas, and (c) the integration of the sustainable use of biodiversity into the intellectual and economic fabric of society.

41. The proposed project is central to the World Bank's Country Partnership Strategy (CPS) , which identified four major areas for support: (a) selective priority investment projects in education, water and sanitation, environment, infrastructure, agriculture, and information and communications technologies; (b) knowledge and advisory services to support reforms in critical areas of public sector debt management, domestic debt market development, financial sector reform, Central Bank management of

international reserves, and the support for greater private participation in infrastructure; and (c) economic and sector work, including core diagnostic studies, an investment climate assessment, and regional studies on key issues for Central America.

42. The proposed project has been identified by the CPS as one of the projects contributing to natural resources management and strengthening the country's leadership in environmental management. It would further develop and contribute to the sustainability of an innovative national program to foster biodiversity conservation on private lands, and build on a partnership between the Bank and the Ministry of Environment and Energy (MINAE) dating back two decades, when a World Bank Forestry Sector Review helped initiate many of the unique forward-looking policies that are now under implementation by the Government of Costa Rica.

b) CONSULTATION, COORDINATION AND COLLABORATION BETWEEN IAS, AND IAS AND EXAS, IF APPROPRIATE.

43. The proposed project would strengthen partnerships established under the Ecomarkets Project. Partnership arrangements will be developed and/or strengthened at four levels:

- Partnership between local NGOs (e.g., COOPESILENCIO, FUNDECOR, CODEFORSA and COOPEAGRI) and landholders: The proposed project will provide support to local NGOs to assist landholders, in particular marginalized groups, to participate in the PSA Program. Lessons learned from the Ecomarkets Project indicate that both NGOs and landholders experienced barriers to engaging in partnerships due to lack of information and resources.
- Partnership between different entities within the Government of Costa Rica: The proposed project will bring together different departments and ministries of the GoCR, in particular for monitoring impacts of land use changes financed under the project. For example, FONAFIFO, INBio and MINAE Water Department partnership ensures the biodiversity and hydrological impacts of activities supported under the PSA Program are tracked and are consistent with criteria agreed with different donors.
- Partnership between donors and the Government of Costa Rica: the establishment of the Biodiversity Conservation Trust Fund provides an excellent mechanism for donors at local, national, and global levels to participate in the Costa Rican program to jointly address efforts to conserve biodiversity of national and global significance. With the seed funding from FONAFIFO, the Trust Fund will be capitalized initially with the funding from GEF and GoCR, and other donors will be invited to participate.
- Partnership between different GEF Agencies: The project task team will ensure that the project activities will generate synergies with activities funded by other GEF co-financed projects in the country. The project team has had consultations with UNDP/GEF project teams to coordinate activities and build synergies between the proposed project and projects being implemented and under preparation by UNDP.

c) PROJECT IMPLEMENTATION ARRANGEMENT

44. FONAFIFO will have overall leadership for the execution of the proposed project. As under the Ecomarkets Project, FONAFIFO would not create a distinct Project Coordinating Unit under the proposed project. Instead, the Executive Director of FONAFIFO would function as Project Coordinator with assistance from staff with appropriate specialties. FONAFIFO would maintain separate project accounts and retain strict financial controls and contractual authority over all components. Routine supervisory authority over contractual staff, material inventories, and daily work programs would be undertaken through existing systems within FONAFIFO.

45. FONAFIFO Responsibilities. FONAFIFO's direct responsibilities under the proposed project would include the implementation of Subcomponents 1A, 1B, 1C, 1D, 2A, 2D, and 3C (see Annex 4: Project Description Summary). FONAFIFO, in coordination with identified local NGOs, will also be responsible for the implementation of Subcomponents 2B (modifications to contracts and contracting arrangements), 2C, (environmental services monitoring), 3A (support to small- and medium-sized landholders participating in the program), and 3B (pilots for increased community participation in watershed management).

46. SINAC, as MINAE's agency in charge of the protected areas system, would be responsible for: (i) Defining and approving priority areas for PSA contracts within biological corridors identified in the GRUAS2 report, and the type of PSA contracts to implement in them (e.g., forest protection, agroforestry, reforestation, and others that may be instituted), taking into account international biodiversity conservation guidelines; and (ii) Organizing, publishing, and distributing, through the programs or processes in the individual Conservation Areas (CA) or through SINAC's central office, information and results generated by the project according to the characteristics and needs of CA users.

47. Prior to project implementation, the Government of Costa Rica will have established the Biodiversity Conservation Trust Fund (BCTF) as a trust operating under a private sector legal regime, with a public-private Technical Committee composition. The objective of the BCTF is to contribute to the long-term sustainability of the environmental service program. The Fund is being created to maintain environmental service contracts in areas of globally significant biodiversity, including buffer zones of protected areas and biological corridors which connect them. The BCTF will be an independent, long-term financial mechanism specialized in providing payments to private landholders in areas with globally significant biodiversity. It will be capable of leveraging resources from a broad spectrum of donors and institutions. Payments to landholders funded by the BCTF must contribute to expanding biodiversity conservation. The BCTF would be responsible under the proposed project for: (i) Managing and increasing the value of the endowed fund under its control; (ii) Identifying priority areas in which to invest in biodiversity conservation through the environmental services program; (iii) Defining the amount of payments for environmental services for each priority area in order to maximize biodiversity conservation efforts; (iv) Requesting and approving annual reports of FONAFIFO regarding the investments in PSA made by the Fund.

48. Local NGOs would be contracted to participate in the project to provide technical assistance to individual small- and medium-sized landholders. They would be prequalified by FONAFIFO based on legal registration, extent of local activity, and evaluation of technical capacity – that is, promotion through sponsoring farmer-to-farmer exchanges and assisting with the application process; monitoring of PSA contract compliance; and technical assistance in land titling, identification of livelihood alternatives, and implementation of forestry activities. Contracts will include technical services such as biodiversity monitoring to be carried out in coordination with INBio, the dissemination of information relating to environmental service contracts, and the definition and implementation of policies to increase the participation of small- and medium-sized landholders in the program, to be carried out in coordination with the National Forestry Office (ONF).

49. Transfer of water tariff revenues oriented for watershed conservation contracting will require close coordination between FONAFIFO and MINAE's Water Department. Furthermore, management of funds generated through the sales of verified emission reductions will entail the finalization of administrative procedures, to be agreed prior to project negotiations.

50. An Operational Manual and overall Project Implementation Plan (PIP) will be prepared by FONAFIFO and finalized at project negotiations. Annual reviews of the PIP will lead to the agreement between the GoCR and the Bank on annual implementation plans for the use of project financing.

51. Financial Management Arrangements. Project administration will be undertaken by FONAFIFO under its established institutional structure. Accordingly, FONAFIFO's Administrative Area Coordination

unit will be in charge of financial management (FM) tasks. These will include: (i) budget formulation and monitoring; (ii) cash flow management (including processing loan withdrawal applications); (iii) maintenance of accounting records; (iv) preparation of interim and year-end financial reports; (v) administration of underlying information systems; and (vi) arranging for execution of external audits.

52. The fact that FONAFIFO has ongoing experience managing two projects financed by the World Bank, for which it maintains appropriate administrative structures and systems, puts it in an advantageous position to administer the cited FM functions. Still, certain project-specific actions to be executed by loan effectiveness have been identified in a Financial Management Action Plan. Annex 7 describes in detail the Financial Management arrangements and the Financial Management action plan.

ANNEX A: INCREMENTAL COST ANALYSIS

Introduction

53. Costa Rica is one of the 20 countries with greatest biodiversity in the world. Because of its location between two oceans and its various geographic and climatic systems, it has more than 500,000 species of plants and animals, with significant levels of endemic species.

54. Costa Rica is at the forefront of biodiversity conservation and management. To promote the conservation and sustainable use of its biological diversity and natural resources, Costa Rica has pioneered several tools, one of which is payment for environmental services. At the “cutting edge,” Costa Rica’s program of Payments for Environmental Services (*Pago por Servicios Ambientales*, PSA) has been one of the most successful efforts worldwide to develop market-based instruments—and new fiscal policy approaches—for the management, conservation, and sustainable use of biodiversity and forest resources in recent years. Several international meetings and processes, such as the Commission on Sustainable Development of the United Nations Economic and Social Council (ECOSOC), the United Nations Forum on Forests (UNFF), and the Food and Agriculture Organization (FAO), have included dialogues on the basis of the Costa Rican experience in order to promote a better understanding of financing for sustainable development issues—one of the main challenges of the current international agenda.

55. By October 2005, the PSA Program had approximately 250,000 hectares under contract, of which 95 percent are natural forests under conservation, 4 percent are forest plantations, and 1 percent is sustainable forest management (a latter modality was discontinued in 2003). The agroforestry modality was introduced in 2003 and does not yet represent a significant area (346,100 trees or about 865 hectares). The bulk of this conservation effort is being financed through revenue from a fuel tax. The PSA Program has also attracted substantial international funding, including a US\$8 million grant from the Global Environmental Facility (GEF) in 2000 through the World Bank-financed Ecomarkets Project, a US\$11.2 million grant from the German development bank KfW in 2002 for the protection of forests and recovery of deforested lands in the northern region of the country, and a US\$2 million payment from Norway in 1997 for carbon sequestration. In addition, FONAFIFO has also signed numerous agreements with private and public water users within Costa Rica to finance the conservation of the watersheds from which they draw their water, which generate about US\$0.5 million annually. A strong institutional basis has been established to operate the national program, including a legal framework and wide political support through three successive presidential administrations. Furthermore, the program enjoys civil society support, in particular small-and medium-size landholders that have developed a broad participation network to benefit from the program. The PSA Program has attracted worldwide attention and spurred replication efforts supported by the World Bank and GEF in Latin American countries, as well as outside the region.

56. Since 2000, the program has been supported by the World Bank / GEF-financed Ecomarkets Project (Report No. 20434-CR). The project has reached or exceeded all key project performance indicators. For instance, 130,900 ha in priority areas of the Costa Rican portion of the Mesoamerican Biological Corridor (MBC) have been incorporated into the program, exceeding the original target of 100,000 ha by the end of the project. In addition 70,000 ha have been contracted on privately owned lands within other Conservation Areas identified as priority areas by the GRUAS Report, further contributing to the achievement of conservation and sustainable management goals agreed at the regional level within the framework of the Central American Commission on Environment and Development (CCAD). In 2000, only 22 female landholders participated in the program. Currently, there are 474, significantly higher than the original target of a 30 percent increase target in participation. In 2000, there were 2,850 ha of indigenous-community-owned lands in the program. Currently there are 25,125 ha, representing an 822 percent increase, sharply exceeding the original target of a 100 percent increase in participation. These achievements have been confirmed by recent review efforts, including the midterm review report for the Ecomarkets Project.

57. Preliminary findings show that, thanks in part to GEF funding received under the Ecomarkets Projects and the Regional Integrated Silvopastoral Ecosystem Management Program, the PSA Program is already making a substantial contribution to the generation of global benefits, including the conservation of globally significant biodiversity. As noted, some 130,900 ha in priority biodiversity conservation areas have been enrolled in the program, thus helping to consolidate the national protected area system and the Mesoamerican Biological Corridor (MBC) by improving conservation in the buffer zones of protected areas and biological corridors that connect them, Monitoring of the impact of the silvopastoral practices which FONAFIFO is implementing in the Esparza area, with funding from the GEF-financed Regional Integrated Silvopastoral Ecosystem Management Program, is showing significant impacts on biodiversity protection and sustainable use.

58. The lessons learned from implementation of the PSA Program, the Ecomarkets Project, the Regional Integrated Silvopastoral Ecosystem Management Program, and other PSA efforts, however, also reveal some issues and weaknesses. In particular, although the PSA Program is conserving many areas of globally significant biodiversity, many gaps remain in its coverage. Improving the sustainability of the national protected areas system and of the MBC will require expanding the coverage of the PSA Program to additional areas, which will require additional financing. Second, although sustainable funding sources such as payments by water users and carbon buyers can provide long-term funding flows for conservation payments, use of these funds is often restricted geographically (water payments are restricted to watersheds with significant numbers of water users; carbon payments are restricted to areas deforested before 1990), leaving gaps in the availability of long-term funding for at least some areas that are important for the conservation of globally significant biodiversity. One of the key lessons and shortcomings of the Program is that biodiversity of global significance is unlikely to be conserved in areas where the demand for other environmental services is minimal or nonexistent. Finally, the lessons of the past years show that, although the Ecomarkets Project has helped considerably increase the efficiency of the PSA Program by improving targeting, there is scope for substantial additional improvements in efficiency, in particular by offering differentiating payments in different areas.

59. The GEF alternative in this project is to secure the long-term sustainability of the PSA Program for sustainable natural resources management and biodiversity conservation while improving the program's efficiency and increasing its contribution to poverty reduction and sustainable rural development. It will do so by addressing the specific weaknesses and remaining issues that work on the Ecomarkets Project and the Regional Integrated Silvopastoral Ecosystem Management Program has identified. By supporting the development of new financing mechanisms based on payments from water users (through the new water tariff), carbon buyers (through the sale of verified emission reductions), and other service users, the GEF alternative will assist in expanding the area of globally significant biodiversity being conserved by the PSA Program. By capitalizing the Biodiversity Conservation Trust Fund, the GEF alternative will provide a sustainable long-term funding source for conservation payments in the buffer zones of protected areas and biological corridors that connect them in cases where other funding sources are either unavailable or insufficient, thus improving the sustainability of the national protected areas system and of the MBC.⁷ And by supporting efforts to increase the efficiency of the PSA Program, it will make achievement of global conservation objectives easier and make it easier to attract additional financing.

Baseline Scenario

60. Under the baseline scenario, the GoCR would implement a project with two major expected outcomes—hydrological benefits and carbon sequestration. In particular, the activities envisioned under the baseline scenario of the proposed project are limited to distinct activities aimed at maximizing the

⁷ It bears noting that legal requirements for entry into the environmental services program place private lands under the purview of the Ministry of Environment and Energy (MINAE), conveying upon those lands the same degree of protection as granted by the national park system, at a significantly lower societal cost.

returns in terms of hydrological services and expanding the existing program for verified emission reduction to generate carbon sequestration benefits. These activities would certainly generate important biodiversity conservation benefits, but they will be specifically targeted to generate water and carbon sequestration benefits. The biodiversity conservation benefits under the baseline scenario, therefore, would be uneven and would not necessarily reflect biodiversity conservation priorities. Once current GEF funding under the Ecomarkets Project ends, at least some of the areas it had helped support in priority biological corridors would be left without a secure long-term funding source. Likewise, many other areas in the buffer zones of protected areas and biological corridors that connect them would lack secure long-term funding sources.

61. Total expenditures⁸ under the baseline scenario during the lifetime of the project are estimated at about US\$139.5 million.

62. The following sections give further detail on the baseline scenario for each component and what global environmental benefits they will provide.

Component 1: Developing and implementing sustainable financing mechanisms

63. The main objective of this component is to develop and implement sustainable financing mechanisms according to the characteristics of each group of environmental service users. Likewise, rules will be developed for the use of these funds to generate environmental services that the users desire. In particular, under the baseline scenario, the component supports promoting watershed management via application of the new water tariff through the development of operational rules. In addition to resources generated from the water tariff, the government will continue the existing financing through the fossil-fuel tax. The current level of funding from the fossil-fuel tax is about US\$11 million per year, or about US\$55 million in five years.

64. The new water tariff that the proposed project would support focuses on three guiding concepts: (a) support for socioeconomic development and harmony with the environment; (b) institutional and financial sustainability; and (c) modernization of the institutional framework. Twenty five percent of the income generated by the new water tariff will be invested in the protection of water resources in the watershed to generate hydrological benefits through the PSA Program. This will represent a substantial mainstreaming of conservation⁹ in Costa Rican society, and will provide substantial additional resources. Once fully implemented, it will generate an estimated US\$5 million annually for the environmental service program, or about US\$10 million during the project implementation. The project will support the implementation of this tariff, through the development of control systems for the efficient collection of the water cannon, and the establishment of operational rules for resource use. Furthermore, the efficient application of water policy and legislation will generate additional income for the PSA.

65. Fifty percent of the water tariff will support the Water Department. One of the major activities that are financed by these new funds is to implement and enhance hydrological and meteorological monitoring. Once the water tariff is fully implemented, the Water Department will receive about US\$10 million a year. During the period of project implementation, the Department will receive about US\$20 million, but it is not yet known what proportion of these funds will be dedicated to these monitoring

⁸ Total expenditures do not include budgetary or donor-supported activities that are specifically targeted for protected areas management. For example, 25 percent of the revenue generated by the new water tariff is budgeted to support the management of protected areas. Although it will generate global biodiversity benefits, it is not within the context of the PSA Program. If these funds are included, the baseline costs will be artificially inflated. Therefore, it is neither a part of the baseline nor the GEF Alternative.

⁹ Although some of these watersheds are in the globally significant biodiversity areas, global biodiversity benefits cannot be quantified and, therefore, a disaggregated figure cannot be computed.

activities;¹⁰ a conservative estimate of US\$2 million is used for spending on activities that will benefit watershed conservation.

66. A number of donor-supported activities that are consistent with the PSA Program also generate hydrological benefits. The total cost of these activities is estimated to be US\$0.04 million per year, or US\$0.2 million over five years.

67. The project will also support the participation of Costa Rica in the international carbon market. The goal is to prepare project documentation to submit to the UNFCCC-CDM Board 2.7 millions tons of CO₂ equivalent, with an estimated market value of US\$10 Million. FONAFIFO has prepared eight Project Idea Notes to reforest nearly 8,400 hectares of pasturelands using a combination of natural regeneration, agroforestry systems, and commercial tree plantations. The projected government spending for getting CO₂ benefits is approximately US\$0.02 million a year for project development (that is, US\$0.1 million over five years). FONAFIFO expects to generate US\$0.5 million per year from carbon sales in the international carbon market, or US\$2.5 million over the next five years.

68. Therefore **the total baseline amount for this component is approximately US\$67.3 million.**

Component 2: Scaling-up the Environmental Services Program

69. The additional resources provided by the water tariff, in particular, and other new financing sources (carbon sales and voluntary markets) will allow for an expansion of the PSA Program's activities beyond the roughly 250,000 ha it now covers. This component will support FONAFIFO and other institutions (for example, MINAE's Water Department) in implementing this expanded PSA Program. The project will support the strengthening of FONAFIFO's capacity to undertake this expansion, while ensuring that FONAFIFO's recurring administrative costs remain at less than 10 percent of funds handled. The baseline scenario also supports an increase in the efficiency of environmental service contracting, strengthening monitoring capacity, and contracting landholders to provide environmental services.

70. The annual budget that GoCR provides to operate the PSA Program is US\$1.2 million, or US\$6.0 millions over the next five years. It includes FONAFIFO's operating costs, including the monitoring system, fundraising for CO₂ sequestration, biodiversity conservation, and improving the PSA system's contracts.

71. Under the baseline scenario, this component provides contracts to landholders for environmental services and monitors contract compliance¹¹. The total cost of these contracts for the life of the project is \$65.12 million.

72. **The total baseline amount for this component is US\$71.1 million over the next five years.**

Component 3: Removing Barrier for Small landholders' Participation in the PSA Program

73. The main objective of this component is to reduce the obstacles to participation of the poor in the PSA Program. Although the program is not primarily designed to be a poverty reduction program, the high spatial correlation between areas that supply environmental services and low-income rural areas creates opportunities for PSA to contribute to this objective. Frequently, however, the poor find it difficult to participate either because of relatively high transaction costs involved in the application process (such as proof of land ownership) or because of intrinsic incentives within the program that makes in more responsive to large landholders. This component is aimed at reducing these obstacles. This objective will

¹⁰ The allocation of funding to the Water Department is also intended to cover investments in hydraulic infrastructure and other needs.

¹¹ In addition to the hydrological and carbon benefits, these environmental services will also generate global biodiversity benefits. However, the cost of these services is included under the baseline scenario.

be reached by (a) strengthening the incorporation of low-income landholders in the PSA Program, (b) piloting improved watershed management in low-income areas, and (c) monitoring social and economic impacts.

74. The baseline cost supported through the GoCR contribution for this component is US\$0.07 million a year, or US\$0.35 million over the next five years. It covers the activities that promote the PSA Program and are developed by local NGOs, identify potential farmers to be included in the PSA Program, support them to meet the program's technical and legal requirements, and provide technical assistance to develop the contractual activities.

75. A number of donor-supported activities are also contributing to the objectives of this component. It includes support from *Hidroeléctrica El Platanar* and Florida Ice and Farm to local NGOs to reach out to farmers participating in the PSA in the watershed of its interest, and The Nature Conservancy's Amisconde Project. The Amisconde project was developed in Brunca Region and provides technical assistance to farmers to develop agroforestry activities on their farms. The total cost of these activities is US\$0.15 per year, or US\$0.75 million over the next five years.

76. **The total baseline amount for this component is approximately US\$1.1 million.**

GEF Alternative

77. The alternative scenario proposed here would leverage the current baseline activities and build on them to ensure that they contribute as much as possible to conserving Costa Rica's globally significant biodiversity, increasing carbon sequestration, and providing long-term, sustained financing for the PSA program. The project would do this by (a) strengthening and capitalizing the Biodiversity Conservation Trust Fund to provide long-term financing for conserving biodiversity of global significance, (b) providing technical capacity to strengthen monitoring and revising environmental services contracts that specifically generate global biodiversity benefits, and (c) providing support to remove barriers for marginalized communities in biodiversity conservation priority areas to participate in the PSA Program.

78. Sustainability would particularly be ensured through capitalization of an endowment fund to finance payments for activities that promote conservation of globally significant biodiversity. The project would also catalyze further replication throughout the region and the world. In addition, the project would contribute to carbon sequestration activities that will contribute to the GEF's Climate Change focal area goals.

79. **Total incremental costs of this proposed project—the difference between the baseline scenario and the GEF alternative—are calculated to be US\$18.5 million, of which \$10.00 million is being requested from the GEF.**

80. Details on the activities and global benefits that would be achieved by each component of the project and the costs associated with them are presented below.

Component 1: Developing and implementing sustainable financing mechanisms

81. In addition to the baseline activities, the GEF Alternative includes activities that will strengthen and capitalize the Biodiversity Conservation Trust Fund to enable it to provide sustainable, long-term financing for areas of globally significant biodiversity in the buffer zones of protected areas and biological corridors that connect them, where other financing is either unavailable or insufficient. Most of the GEF financing (US\$7.5 million) will be applied to the capitalization of this Fund. The GEF contribution will be matched by contributions from the GoCR. In addition, small amounts of GEF financing will be used to support implementation of water and carbon financing mechanisms in areas of global biodiversity significance, helping to remove obstacles to their implementation and ensuring that activities financed by these alternative mechanisms are compatible with biodiversity conservation. Small amounts will also be used to help develop funding from voluntary markets. Already, some transactions

have been negotiated on an *ad hoc* basis (e.g., an Italian NGO is paying to regenerate degraded forests in Costa Rica's Talamanca region). The GEF Alternative will support a more systematic approach to this market, including the development of a range of products (e.g., certificates to finance conservation in areas of globally significant biodiversity). Funds generated through these sales would help capitalize the Biodiversity Conservation Trust Fund. **The cost of the GEF alternative for this component is expected to be US\$83.5 million.**

Component 2: Scaling-up the Environmental Services Program

82. In addition to the baseline activities, the GEF Alternative provides resources for strengthening the technical capacity of government institutions to monitor biodiversity impacts of PSA contracts. Furthermore, the GEF alternative provides funding for revising environmental services contracts to include activities that generate biodiversity conservation benefits. **The total cost of the GEF alternative for this component is expected to be US\$72.8 million.**

Component 3: Removing Barrier for Small landholders' Participation in the PSA Program

83. In addition to the baseline activities, the GEF alternative provides resources for removing barriers for marginalized communities to participate in the PSA Program. The GEF alternative focuses specifically on the areas of biodiversity of global significance in the buffer zones of protected areas and biological corridors that connect them (thus contributing to the ecological and financial sustainability of the national protected areas system and the Mesoamerican Biological Corridor). In some high biodiversity areas, local community organizations and NGOs are attempting to develop watershed management plans in many areas. These plans would combine rural development, poverty reduction, and environmental conservation objectives. This component will assist these efforts, exploring the ways in which PSA payments could contribute to the development and implementation of watershed management plans. The approach will be tested in three watersheds with low participation of farmers in the PSA Program. **The total cost of the GEF alternative for this component is expected to be US\$1.7 million.**

84. **Total expenditures under the GEF Alternative scenario during the lifetime of the project are US\$158 million. Total incremental costs, therefore, are estimated to be US\$18.5 million.**

85. The matrix below summarizes the baseline and incremental expenditures during the project period.

Incremental Cost Analysis Matrix			
Cost Category	US\$ Million	Domestic Benefit	Global Benefit
Component 1: Developing and implementing sustainable financing mechanisms			
Baseline	67.3	Provision of hydrological benefits as a result of sustainable financing mechanisms.	Some services of carbon sequestration. Limited conservation of globally significant biodiversity benefit as a byproduct of improved watershed management.
With GEF Alternative	83.5	Provision of hydrological benefits.	The global environmental benefits of this would be to enhance and protect biological diversity and preserve globally significant forest and mountain ecosystems within Costa Rica's ecosystems of high biodiversity value. Furthermore, it will provide long-term financing for biodiversity conservation initiatives to protect Costa Rica's rich biodiversity. In addition to this, the project would assist global carbon sequestration
Incremental	16.2		
Component 2: Scaling-up the Environmental Services Program			
Baseline	71.1	Enhanced institutional and technical capacity for hydrological benefits. Provision of hydrological benefits as a result of contracts for environmental services.	Some services of carbon sequestration. Limited conservation of globally significant biodiversity benefits as a byproduct of improved watershed management.
With GEF Alternative	72.8	Enhanced institutional and technical capacity for hydrological benefits.	The global biodiversity benefits of this would be to enhance technical capacity of government institutions to monitor biodiversity impacts of PSA contracts. It would, therefore, verify the biodiversity conservation impacts of PSA Program activities. In addition, the project would assist global carbon sequestration
Incremental	1.7		
Component 3: Removing Barrier for Small landholders' Participation in the PSA Program			
Baseline	1.1	Provision of hydrological benefits.	Some services of carbon sequestration. Limited conservation of globally significant biodiversity benefit as a byproduct of improved watershed management.
With GEF Alternative	1.7	Enhanced provision of hydrological services.	The global biodiversity benefits of this would be to increased participation of marginalized groups in areas of high biodiversity value. In addition, the project would assist global carbon sequestration.
Incremental	0.6		
Total Baseline: US\$139.5 million			
Total GEF Alternative: US\$158.0 million			
Total Incremental Costs: US\$18.5 million			

ANNEX B: PROJECT LOGICAL FRAMEWORK

Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
<p>Enhance the provision of environmental services of a national and global significance and secure their long-term sustainability through a scaled-up PSA system in Costa Rica.</p> <p>GLOBAL OBJECTIVE: Enhance the conservation of globally significant biodiversity and ensure its long-term sustainability through a scaled-up PSA Program in productive landscapes in the buffer zones of protected areas and biological corridors connecting them.</p>	<ul style="list-style-type: none"> • By EOP, at least 288,000 hectares of land are maintained annually under PSA contracts providing environmental services of both local and global importance. • By EOP, at least half the newly contracted area is financed by funding from service users. • Improved efficiency of the PSA program, as measured by indices of services generated per dollar spent. • By EOP, a doubling of the number of small- and medium-sized landholders participating in the PSA Program. • By EOP, at least 190,000 ha (2,000 contracts) of land located in productive landscapes in the buffer zones of protected areas and biological corridors connecting them in the MBC are maintained annually under PSA contracts for at least 20 years. • Effective biodiversity conservation in globally significant areas measured by vegetation cover and indicator species of conservation interest. 	<p>FY01– 02: Gauge overall compliance of FONAFIFO with project implementation.</p> <p>FY03: Determine if strategy for compliance needs to be changed.</p> <p>FY05: Feed into strategy for mainstreaming program and evaluation.</p> <p>FY01– 02: Measure overall compliance of FONAFIFO with project implementation.</p> <p>FY03: Determine if strategy for compliance needs to be changed.</p> <p>FY05: Feed into strategy for mainstreaming program and evaluation.</p>
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
<p>Outcome 1: Ensuring the long-term sustainability of the PSA Program by developing sustainable funding sources.</p>	<ul style="list-style-type: none"> • 3.5% from fuel-tax revenues to finance PSA. • 25% water-resource-usage tariffs to finance PSA for water-resource protection. • Biodiversity Conservation Trust Fund with capital participation of at least US\$15 million, of which US\$7.5 million contributed by GEF. • By EOP, at least 15,000 hectares located in productive landscapes in the buffer zones of protected areas and biological corridors connecting them with environmental service contracts financed from the Biodiversity Conservation Trust Fund. • 2.7 million tons of CO₂ from afforestation/reforestation activities are sold via verified emission reductions, generating at least US\$10 Million. • US\$600,000 contributed by voluntary national and international markets. 	<p>YR1–YR3: Low levels may flag either poor performance or failure in the assumption.</p> <p>YR4–YR5: Feed into strategy for mainstreaming PSA.</p>
<p>Outcome 2:</p>	<ul style="list-style-type: none"> • By EOP, at least 90% of PSA Program 	<p>FY1–FY2: Flags possible payoffs or</p>

PSA Program implementation increases its efficiency and effectiveness.	<p>resources are placed in PSA contracts.</p> <ul style="list-style-type: none"> • Management system in place for water-tax collection and distribution developed. • Contract system for payments of environmental services with differentiated payments applied. • Replication plan developed and increased dissemination—within and outside Costa Rica—of Costa Rica’s PSA experience and achievements in conservation. 	<p>other problems in compliance, and need to adjust project implementation.</p> <p>FY 3–4: Evaluation of changes introduced before.</p> <p>FY05: Feed into strategy for mainstreaming PSA.</p>
Outcome 3: PSA Program increases its contribution to biodiversity conservation and poverty reduction and sustainable development in rural areas.	<ul style="list-style-type: none"> • By EOP, at least 50% increase in contracted area of small- and medium-sized landholder (less than 100-hectare farms). • Interinstitutional mechanism created to facilitate land registration for small- and medium-sized landholders. • PSA activities are integrated through participatory planning on land use in at least 3 (micro-watershed) communities. • PSA participants’ socioeconomic data incorporated into PSA management information system. 	<p>FY01–FY03: Determine strategy effectiveness and the need of additional activities.</p> <p>FY0 4: Evaluation of changes introduced before.</p> <p>FY05: Feeds into broader programs and replication in similar projects.</p>

Arrangements for Results Monitoring

1. Monitoring and evaluation has been mainstreamed into all project components and will be conducted at three levels: (i) contract compliance; (ii) impact monitoring; and (iii) project implementation.
2. **Institutional issues:** FONAFIFO will input information through the Monitoring and Evaluation system and direct it to the project-implementation units.
3. **Data collection:** The project itself will strengthen the Monitoring and Evaluation system to collect data that will measure impact and indicator verification (see Outcome 2).
4. **Capacity:** Different studies have been, or are being, outsourced to collect baseline information. Further studies and research will be outsourced with assigned funds.
5. **GEF Biodiversity Tracking Tool:** The project will develop the GEF SP1/SP2 tracking tool to complement the monitoring and evaluation of the project progress. A baseline will be created at the time of project approval and updated at least during MTR and final evaluation.
6. **Semiannual and Midterm evaluation.** The Bank will conduct semiannual supervision missions to assess progress made in the implementation of the project activities. Supervision missions will draw lessons learned to date to provide guidance to the project team. In addition, the Bank, together with external reviewers and key stakeholders, will conduct a midterm evaluation of project execution. The midterm review will be conducted no later than three years after the first project disbursement. The midterm review will focus on (i) progress in achieving project outcomes, (ii) institutional arrangements for project implementation, (iii) operational manual for payments for environmental services mechanisms, (iv) effectiveness and suitability of the monitoring system, and (v) review of both the project implementation plan and general project operation manual.

7. **Final Evaluation.** A final evaluation will be conducted in the last semester of project execution. The key objectives of the final evaluation will be to (i) assess attainment of the expected project results, and (ii) draw lessons learned to be included in the replication plan.

Arrangements for Results Monitoring

Outcome Indicators	Baseline	Target Values					Data Collection and Reporting		
		YR1	YR2	YR3	YR4	YR5	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
At EOP, at least 288,000 hectares of land are maintained annually under PSA contracts providing environmental services of both local and global importance.	250,000	257,500	265,000	272,500	280,000	288,000	Annual	M&E system	FONAFIFO
By EOP, at least half the contracted area is financed by sustainable funding sources	None			20%	30%	50%	Annual	M&E system	FONAFIFO
PSA system contributes to the welfare of small- and medium-landholder participants in PSA Program.	Baseline			MTR		EOP	Twice during PYs	Specialized survey	FONAFIFO
By EOP, at least 190,000 hectares of land located in productive landscapes in the buffer zones of protected areas and biological corridors connecting them in the MBC are maintained annually under contracts for at least 20 years.	100,000	100,000	150,000	175,000	190,000	190,000	Annual	M&E system	FONAFIFO
Effective biodiversity conservation in globally significant areas measured by vegetation cover and indicator species of conservation interest.	Baseline			MTR		EOP	Site specific evaluation	Specialized survey	FONAFIFO

Results Indicators for Each Component	Baseline	YR1	YR2	YR3	YR4	YR5	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component 1: 3.5% of fuel tax allocated to PSA funding.	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	Annual	National Budget Law and RECOPE reports	FONAFIFO
25% of adjusted tax revenues for water resources allocated to PSA financing for water-resource protection.	0	0%	25.0 %	25.0%	25.0%	25.0%	Annual	National Budget and MINAE Water Department	FONAFIFO
Biodiversity Conservation Trust Fund with capital participation of at least US\$15 million (US\$7.5 contributed by GEF).	0	\$2.0 M (cumulative) FONAFIFO 1.0 GEF 1.0	\$6.0 M (cumulative) FONAFIFO 3.0 M GEF 3.0 M	\$10.0 M (cumulative) FONAFIFO 5.0 M GEF 5.0 M	\$14.0M (cumulative) FONAFIFO 7.0 M GEF 7.0M	\$15.0 M (cumulative) FONAFIFO 7.5 M GEF 7.5 M	Annual	Reports from Trustee	FONAFIFO
At least 15,000 hectares located in productive landscapes in the buffer zones of protected areas and biological corridors connecting them, without other funding sources, conserved by the Biodiversity Conservation Trust Fund.	0	3,000	6,000	9,000	12,0000	15,0000	Annual	Reports from Trustee	FONAFIFO
2.7 million tons of CO ₂ from afforestation/ reforestation activities are certified and placed in the carbon markets generating at least US\$10 million.	0	US\$1.7 M	US\$3.7 M	US\$6.0 M	US\$8.5 M	US\$10 M	Annual	Carbon Purchase Agreements	FONAFIFO
US\$600,000 contributed by national and international voluntary markets.	0	0.05 M	0.1 M	0.2 M	0.4 M	0.6 M	Annual	Carbon, biodiversity, water, and scenic beauty protection agreements	FONAFIFO

Component 2: At least 90% of PSA Program resources placed in PSA contracts.	To be determined at project year 0	Baseline	Baseline plus 1	Baseline plus 2	Baseline plus 3	Baseline plus 3	Annual	FONAFIFO Audit reports	FONAFIFO
Management system in place for water-tax collection and distribution developed (illegal-collection capacity).	Not available	System designed	System operating	System operating	System operating	System operating	Twice a year during first 3 years; annually, subsequently	Reports and annual audits	MINAE Water Department, FONAFIFO
PSA Program monitoring, evaluation, and information dissemination, determines administrative costs, and economic, social, and environmental impacts.	Existing system focused on process and products	Design of an M&E system focused on impacts including baseline definition	M&E system in operation	M&E system in operation	M&E system in operation	M&E system in operation	Twice a year during first 3 years; annually, thereafter	M&E reports	FONAFIFO
Contract system for payments of environmental services with differentiated payments applied.	NA	New contract format designed	New contract design applied to new PSA contracts	New contract design applied to new PSA contracts	New contract design applied to new PSA contracts	New contract design applied to new PSA contracts	Twice a year during first 3 years; annually thereafter	New contract system Evaluation Reports, Official PSA Operational Manual	FONAFIFO
PSA integration in participatory planning on land use in at least 3 micro-watersheds).	0	0	1	2	3	4	Annual Reports	Progress reports of participating NGOs and organizations	FONAFIFO
Increased dissemination—within and outside Costa Rica—of Costa Rica’s PSA experience and achievements in conservation.									
Component 3: At least 50% increase in contracted area of small- and medium-sized landholders (less than 100-hectare farms).	0%	0%	0%	20%	40%	50%	Annual	M&E annual reports	FONAFIFO

Interinstitutional mechanism created to facilitate land registration for small- and medium-sized landholders.	Does not exist	Inter-institutional agreement signed	Institutional agreement in operation	Institutional agreement in operation	Institutional agreement in operation	Institutional agreement in operation	Annual	M&E reports	FONAFIFO
PSA participants' socioeconomic data incorporated into PSA management-information system.	Does not exist	Design and identification of system needs	Socio-economic variables incorporated to management information system	Socio-economic variables incorporated to management information system	Socio-economic variables incorporated to management information system	Socio-economic variables incorporated to management information system	Annual	Management information system reports	FONAFIFO

ANNEX C: RESPONSE TO PROJECT REVIEWS

a) Convention Secretariat comments and IA/ExA response

Comments were not received at the time of Pipeline Entry that needed response at the time of GEF Council Work Program submission.

b) STAP expert review and IA/ExA response

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1. Assessment of the scientific and technical soundness of the project.

The project is well structured and the contents of its three components are consistent with its objective: To enhance the provision of environmental services of national and global significance and to assist in securing their long-term conservation by strengthening and improving the Payments for Environmental Services (Pago por Servicios Ambientales, PSA) program, which was applied in Costa Rica during the last decade.

From a conceptual point of view the project follows current trends in the development and application of market-based instruments for environmental management. The proposed approach of developing and implementing sustainable financing mechanisms as well as scaling-up the Environmental Services Program seems adequate to achieve the stated objective. This is to be achieved by implementing and capitalizing the Biodiversity Conservation Trust Fund and through other financial sources such as the application of a water tariff, the sale of verified emission reductions, and developing voluntary markets for biodiversity conservation.

Environmentally, the project aims at achieving the conservation of areas of unique biodiversity features and important watersheds. On the social side, the project widely considers the participation of land owners and the importance of expanding the benefits of the program to poor rural communities and members of marginalized groups, including women, indigenous landholders and landholders without land title that have been unable to participate in the program until now.

2. Identification of the global benefits of the project.

The conservation of the rich biological diversity content in Costa Rica is a task of great priority, recognized by many interested organizations and groups.

The project addresses the need to develop additional funding mechanisms to complement current funding sources and allow an expansion of the area under conservation, which currently reaches 250,000 ha and covers only a small part of conservation needs.

The proposed project aims at conserving biodiversity of high global significance. It considers environmental service contracts in the buffer zones of protected areas and biological corridors that connect them to help ensure the sustainability of the national protected areas system and the Costa Rican portion of the Mesoamerican Biological Corridor. Program activities will also sequester carbon and promote the production of verified emission reductions through reforestation and induced regeneration activities.

In this context, the global benefits of the project are clear and well presented.

World Bank response:

We agree with the STAP reviewer's assessment.

3. Evaluation of the project compliance with GEF objectives, operational strategy and guidance in biodiversity focal areas.

The proposed project coincides with the GEF Operational Strategy objectives relating to the conservation and sustainable use of biological diversity, resources under threat and endemic species for the following important reasons:

- It strengthens the participation of local communities in the conservation of biological diversity and its components.
- It offers a means to ensure the long-term conservation of biological diversity and can serve as example for other cases worldwide.
- It is aimed at achieving the conservation of biological diversity with the integration of social and cultural groups, many of them affected by poverty.

In addition to this, the project is consistent with the operational programs N° 3 (Forest Ecosystems) and N° 4 (Mountain Ecosystems).

The project supports the objective of Strategic Priority (SP) 1 Catalyzing Sustainability of Protected Areas because:

- It will implement and capitalize a long-term financing mechanism for biodiversity conservation in the buffer zones of protected areas and biological corridors that connect them, including the Costa Rican portion of the Mesoamerican Biological Corridor (MBC).
- It will test and develop new conservation management and financing strategies for areas of biodiversity of global significance.

The project also supports the objective of Strategic Priority (SP) 2 Mainstreaming Biodiversity in Production Landscapes and Sectors because:

- It will contribute to enhance innovative market incentive structures where both the users and providers of environmental services participate in market transactions to conserve biodiversity of global importance.
- It will strengthen the institutional capacity to carry out an expanded and more efficient national program and to perform technical monitoring activities.

The project also supports the objective of Strategic Priority (SP) 4 Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues because:

- Each component considers dissemination activities to inform both related organizations and the general public about the development of the project and its results.

World Bank response:

We agree with the STAP reviewer's assessment concerning overall consistency with SP1, SP2 and SP4 objectives. In particular, concerning SP1, the project activities will strengthen the conservation of Costa Rica's Protected Area System by providing incentives to landholders to dedicate their private lands for conservation goals. The lands that will receive support from the GEF co-financing will be primarily in the

buffer zones of protected areas and biological corridors that connect them, including the Costa Rican portion of the Mesoamerican Biological Corridor (MBC). It bears noting that legal requirements for entry into the environmental services program place private lands under the purview of the Ministry of Environment and Energy (MINAE), conveying upon those lands the same degree of protection as granted by the national park system, at a significantly lower societal cost.

4. Assessment of the project's significance and potential benefits.

The project proposes to expand the conservation of biological diversity by reaching at least 288,000 hectares of land with environmental service contracts generating environmental services of local, national and/or global importance. Also, it is expected that by the end of the project there will be at least 190,000 hectares of land with environmental service contracts in buffer zones of protected areas and biological corridors connecting them. This is significant, since this approach could be an effective way to expand the conservation of biological diversity in Costa Rica.

The project also addresses the need to protect priority watersheds and considers in-depth studies to, among other things, identify critical areas that would need to be conserved to generate improved hydrological services for water users and to assess the costs that landholders would face to undertake the desired land uses.

The potential benefits of the project, therefore, are based on the addition of territories to the area currently covered by protected areas, thus enlarging the biological diversity conservation area in Costa Rica, and on the development of new market-based approaches to sustainable financing of environmental management.

Although the project is not specifically oriented to be poverty reduction program, it does have a clear focus on contributing to reducing poverty and achieving greater local support for conservation, through the inclusion of targeted efforts to ensure the participation of small and medium-sized landholders, many of whom are poor and have found it difficult to enter the program.

World Bank response:

We agree with the STAP reviewer's assessment concerning the expansion of the areas under conservation. However, it is important to emphasize that the proposed project will not only expand the areas under the PSA program, but also make the existing program more efficient including through the introduction of differentiated payment scheme.

5. Potential replicability of the project to other sites.

The original Innovative Payments for Environmental Services Program developed in Costa Rica over the last decade has already proven quite efficient at supporting forest conservation on privately owned lands in priority watersheds and key areas within Costa Rica's portion of the Mesoamerican Biological Corridor.

Its large success encouraged other countries that suffered similar problems to replicate and adapt this Program to their reality, achieving great goals in environmental conservation. Some examples of this are the recently approved El Salvador Environmental Services Project, the Kenya Agricultural Productivity and Sustainable Land Management Project among others. These projects have only just begun and are based on the lessons learned so far in the Costa Rica PSA Program.

Today the PSA program is facing the need of ensuring its long-term sustainability, something that will also occur in time to those replicas of this program that have just started to run. This project seeks to achieve the goal of the PSA's long life through the consolidation and mainstreaming of the program and

experimentation with new market-based approaches to sustainable financing of environmental management.

It is highly important that this project be developed because it will serve as guideline for the existing replicas of the Program worldwide to ensure the life of their own projects in the long run once they have reached the level of efficiency that the PSA holds today.

Under Component 2 this project outlines key objectives that will serve as basis for the achievement of this goal:

- Strengthening capacity to implement the expanded PSA Program.
- Increasing the efficiency of environmental service contracting.
- Strengthening technical monitoring capacity.
- Contracting landholders to provide environmental services.

The replicability of this Program has already been proven plausible and nothing indicates that those programs are inefficient. Therefore, just as in Costa Rica's PSA, it is possible to assume that the time will come when they will face the same need to ensure their long-term sustainability and they will be able to use the lessons learned in this project to consolidate their own programs.

World Bank response:

We agree with the STAP reviewer's assessment. Lessons from the proposed project will continue to be disseminated within Costa Rica, Latin America, and worldwide through workshops, seminars, study tours, publications, and the Internet. A replication strategy is supported under Component 2. The strategy will include activities for the sharing of success stories from around the world, such as France, the United States and Australia, where PSA programs have been successfully implemented for many years.

6. Estimation of the project's sustainability in institutional, financial and technical terms.

The description of the project allows to assume that it will be financially and technically sustainable for the following reasons:

- The project plans to extend over a reasonable period, allowing for meaningful monitoring and evaluation and adaptive management.
- The project draws on lessons learned from the World Bank/GEF-financed Ecomarkets Project, carried out since 2000, and the PSA Program, which has been administered by FONAFIFO for more than a decade.
- Institutionally, FONAFIFO will have overall leadership for the execution and administration of the project, which will strengthen partnerships already established under the Ecomarkets Project at four levels: between local NGOs; between different entities within the Government of Costa Rica; between donors and the Government of Costa Rica; and between different GEF agencies.
- The active involvement of the Government of Costa Rica through the Ministry of Environment and Energy (MINAE) and National System of Conservation Areas (SINAC), the Ministry's agency in charge of the protected areas system, provides a strong institutional basis that will strengthen FONAFIFO's important experience in this type of initiatives.
- Financially, the project emphasizes the need to ensure a long-term financing of conservation. To that end, it will depend on the already operating PSA Program at the same time that it considers the

implementation of four well-articulated sources of income: water payments, biodiversity payments (through the Biodiversity Conservation Trust Fund), carbon payments, and voluntary markets (by developing the growing market for voluntary contributions to environmental conservation).

- Technically, the project is also sustainable due to the vast experience already gained by the implementing institutions during the Ecomarkets Project. The proposed project, nevertheless, considers actions to strengthen the institutional capacity to carry out specific activities included in this initiative, such as monitoring and evaluation.

World Bank response:

We agree with the STAP reviewer's assessment.

7. Extent to which the project will contribute to the improved definition and implementation of the GEF strategies and policies.

The project is an interesting experience in the search of non-traditional alternatives to achieve the conservation of biological diversity in Central America. The conservation of biological diversity beyond formal protected areas is an innovative strategy in the implementation of the GEF policies.

The lessons learned from this project will certainly have important implications for other GEF-supported projects. The analysis, synthesis and sharing of the lessons learned will be an important outcome from this project.

World Bank response:

We agree with the STAP reviewer's assessment. Sharing lessons learned from this project is one of the important outcomes. The project includes replication and dissemination activities to widely share lessons within Costa Rica, Latin America, and worldwide through workshops, seminars, study tours, publications, and the Internet.

8. Linkages to other focal areas.

The proposed project is also linked with the operational program N° 2 Coastal, Marine, and Freshwater Ecosystems, which seeks the conservation and sustainable use of the biological resources in coastal, marine and freshwater ecosystems (including lakes, rivers and wetlands, and island ecosystems).

It is also in accordance with the operational program N° 12 Integrated Management Ecosystems, aimed at catalyzing widespread adoption of comprehensive ecosystem management interventions that integrate ecological, economic, and social goals to achieve multiple and cross-cutting local, national, and global benefits.

It also coincides with the policies, strategies and programmatic priorities established by the Convention on Biological Diversity (Art. 8.)

World Bank response:

We agree with the STAP reviewer's assessment.

9. Degree of involvement of relevant stakeholders in the project.

The proposed project considers the active participation of local landholders through the environmental service contracting system developed as part of the PSA Program.

Component 3 (Deepening the PSA Program's contribution to poverty reduction in rural areas) specifically seeks to reduce the obstacles to participation of the poor in the program.

The proposal recognizes that the risk of negative socioeconomic impacts on environmental service providers as well as user groups strongly depends on voluntary participation based on the perceived self-interest and well-being of program participants. Therefore, the integration of local communities to the program is one of the project's main objectives.

Arrangements and mechanisms are proposed for collaborative work in conservation as well as for coordination among different types of management regime and responsible agencies, based on the program's previous experience.

World Bank response:

We agree with the STAP reviewer's assessment. Although it is not a poverty focused project, by removing barriers for marginalized groups to participate in the PSA program and by providing technical assistance to stakeholder groups, the project will increase the representation of these small and marginalized landholders in the pool of beneficiaries for the PSA program.

10. Role, potential and importance of capacity building elements and innovativeness of the project.

The project presents an innovative strategy to avoid the prohibitive financial cost of establishing new protected areas by compensating landholders for the difference between the value of their land under an alternative use compared to its value under a conservation use. This is an interesting element of the project, since in most of Latin America conservation has taken place only in the formal national systems of protected areas.

The innovativeness of the project can be summarized as follows:

- It incorporates local communities not as co-managers but as actual managers of resources.
- It expands the society of people and groups taking responsibility and accepting to exercise authority over biodiversity conservation at the entire landscape scale, establishing then a management capacity consistent with the concept of the ecosystem approach.
- It employs the concepts and tools from conservation biology and landscape ecology.
- It shifts the balance of funding away from exclusively depending on budgetary allocations and grants to a mix of sources that will ensure sustainable financing mechanisms.
- It considers the establishment of a participatory monitoring and evaluation system, including technical assistance and capacity building to FOFAFIFO and local communities for its implementation.

World Bank response:

We agree with the STAP reviewer's assessment.

11. Final comments:

This is an excellent project, and I strongly recommend its support.

c) GEF Secretariat's comments at Work Program Submission and World Bank responses

Program Designation and Conformity:

For the GEF to provide finance for the capitalization of trust fund, the project should mainly fit to SP1. The conformity of the current proposal to SP1 is unclear. Please also refer below comments under project design (1). Please clarify and revise.

World Bank response:

The project is consistent with the GEF BD SP1: see Project Brief (para. 15 bullet 1; section 4 describing specific sub-components aiming at long-term sustainability) and comment below.

Project Design:

1) Regarding capitalization of trust fund, the project document does not specify the use of the GEF fund. It was agreed at the time of pipeline entry that the GEF finance could only be used in a designated protected areas within the larger bufferzone and corridors (refer to the project review sheet at pipeline entry). Please clarify this in the document.

World Bank response:

See Project Brief (See para. 20.1B revised to better reflect the contents of annex 4 para. 10); In agreement with pipeline entry comments, this Fund will act as a “financier of last resort” for those areas of biodiversity of global significance in buffer zones of protected areas and biological corridors that connect them (thus contributing to the ecological and financial sustainability of the national protected areas system and the Mesoamerican Biological Corridor). Private landholders who receive payments from the Fund will sign long-term conservation contracts giving their land a status akin to that of private reserve / protected areas for the duration of the environmental contract. The project documents have been updated accordingly.

2) About the activity to support developing a carbon sequestration projects to finance forest regeneration in degraded lands, GEF can only finance such initiative if it is justified to conserve globally significant biodiversity. Please clarify.

World Bank response:

See Project Brief (para. 20. 1.C. and Annex 4 para. 16) Minimal amounts of GEF funds (about 0.0045% of total GEF co-financing) will contribute to forest regeneration in degraded forest areas within globally significant biodiversity, in particular, buffer zones of protected areas and biological corridors that connect them. GEF biodiversity funds are therefore justified to ensure that C sequestration activities also lead to biodiversity conservation benefits. This was further clarified in the project documents.

3) Component 3 to increase PSA contribution to poverty reduction in rural areas: Though we fully respect the project approach to reduce poverty, GEF would only be able to support such activities if the targeted poor people are the key threats or reason for the biodiversity loss. Please clarify and revise budget if necessary.

World Bank response:

See Project Brief (end of para. 17) limited GEF resources will be used to increase the participation of medium and small land holders in conservation of globally significant biodiversity. Past experience shows that the poor find it difficult to participate either because of relatively high transaction costs involved in the application process (such as proof of land ownership) or because of intrinsic incentives

within the program that makes it more responsive to large landholders. This component is aimed at reducing these obstacles. A key output of the component is the increased participation of poor rural communities and members of marginalized groups in areas of globally significant biodiversity.

Sustainability (including financial sustainability)

How many environmental services contracts and potential coverage can we expect from a \$15 million endowment fund to conserve biodiversity in designated protected areas with limited hydrological services and/or eligible for carbon finance? The question is rather critical to understand the sustainability of the initiative particularly with the trust fund component. Please clarify.

World Bank response:

See Project Brief (Annex 18 para. 17)

Assuming the conservative estimates of Project design, the US\$15 million endowment will generate about US\$685,000 for PSA direct contribution on year 5 of project implementation and more subsequently. Using an average figure for payments per hectare (US\$45/ha) this would result in approximately 15,000 ha of conservation “in perpetuity”. This estimate is conservative (and therefore the expected area under contract from the Fund should be higher) because of the following: (i) GOCR has engaged in an aggressive fundraising campaign that will result in a capitalization beyond the above US\$15million; (ii) the interest rate could be higher, with the funds available for PSA at around US\$1.5 on year5; (iii) The level of payment to participants will be established based on opportunity cost of land in eligible areas (the buffer zones of PAs and the corridors that connect them) where other funding sources are insufficient. It is not unreasonable to expect that in areas to be targeted by the BCTF, opportunity costs (and hence, required payment levels) will be substantially lower than US\$45/ha. At \$20/ha/yr (+7% administrative costs), a \$15 million Fund could thus cover between 35,000ha (5% return) and 70,000ha (10% return) annually. At \$30/ha (+7%), the area covered would be between 23,400ha and 46,700ha, assuming the BCTF paid the entire cost of conservation; (iv) In some areas, other funding sources could share the costs of PSA. In conclusion, the likely impact of the Fund will be between 23,400ha, and 100,000ha. Compared to the current area conserved by the PSA program, this would represent an increase of between 10% and 40%. Any increase in the Fund size (through initial capitalization of interest and, more significantly, from additional funds generated through voluntary markets in component 2D or by attracting additional donations) would further increase the area conserved. These estimates are being adjusted regularly as the GOCR implements its strategy of establishment and capitalization of the Fund.

Replicability:

A specific information on the replication strategy and activities were not found under component 2 although it was noted so in other parts of the project document. Please clarify and revise as necessary.

World Bank response:

See Project Brief (revised para 22 2C, para 49; Annex 4 para 24-25) ; also see below
Under the monitoring and evaluation sub-component funding will be provided to cover the analysis and interpretation of data to be shared with other actors locally, nationally and internationally and thus favor the dissemination, replication and scaling up of PSA. In particular, coordination will be sought with the replication and dissemination activities of other Bank-supported PSA projects in the region (El Salvador, Mexico, etc.) and outside the region (Africa).

Monitoring and Evaluation:

The proposal provides an overview of the need to strengthen monitoring of the project impact. Please ensure that detail monitoring plan are developed during the early stage of the project implementation.

Does the government or ongoing project have the baseline data to enable such monitoring activities? If not, such baseline information needs to be collected during the first year of project implementation.

World Bank response:

See Project Brief (revised para 22 2.C, and Annex4 para 24)

The PSA Program has established, with the support of the Ecomarkets Project, a state-of-the-art system to monitor land-user compliance with payment contracts. Under the proposed project, this would continue to operate, and be further strengthened in particular for impact monitoring. Furthermore, the proposed project will support the establishment of appropriate systems for systematic monitoring of the program's socioeconomic impacts (currently undertaken through ad hoc studies). The aim is to ensure that the monitoring is both more participatory and more effective in detecting the level of inclusiveness of the program and the impact of program activities on various sets of actors, and especially on the poor as well as small- and medium-sized landholders.

Baseline data exist as part of the on-going Ecomarket projects and will serve the basis for monitoring the progress of PSA program. However, the baseline for impact monitoring does not exist and as part of the monitoring plan, a baseline will be created in the first year of project implementation. The M&E system is being planned during project preparation.

Consultation, Coordination, Collaboration between IAs, and IAs and EAs, if appropriate:

As noted and agreed at pipeline entry please note collaboration and lesson sharing initiatives among the similar projects in the region and beyond.

World Bank response:

See Project Brief (para. 49)

Costa Rica has been a pioneer in the development of environmental service programs, and its international leadership and example have led other Latin American countries, as well as countries outside the region, to establish similar programs. The lessons learned in Costa Rica were used in the recently-approved, World Bank/GEF-financed El Salvador Environmental Services Project, and have been applied in the preparation of the Mexico Environmental Services Project and the Kenya Agricultural Productivity and Sustainable Land Management Project. FONAFIFO has hosted official delegations from countries throughout the world, which have come to study the innovative program. The proposed project will continue to collaborate with similar initiatives and share and benefit from lessons regionally and globally.