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Financial Planning for National Systems of Protected Areas

Guidelines and Early Lessons

Marlon Flores, Guillermo Rivero,
Fernando León, Guillermo Chan, et al.

Financial Planning for National Systems of Protected Areas: Guidelines and Early Lessons

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Fernando León, Guillermo Chan, et al.



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Foreword

One of the greatest challenges facing governments and their partner organizations is the need to develop financially sustainable protected area systems and solid organizations able to efficiently manage these natural assets. Although some progress has been achieved over the past decades, to date most protected area systems around the world are still severely under funded. In most cases, protected areas are still dependent upon limited national budget allocations, support from international conservation organizations and short-term international funding through projects.

During the 7th Conference of the Parties of the Convention on Biological Diversity in February 2004, 188 national governments adopted the Global Program of Action on Protected Areas to support establishment of comprehensive, ecologically representative, and effectively financed and managed regional and national protected areas. This contributed to the three objectives on the Convention and the 2010 Goal to significantly reduce the rate of biodiversity loss.

Although the 2004 Global Program of Action on Protected Areas reinvigorated many government's commitments to finance protected areas, there has not been a significant increase in funding to protected areas.

The budgets of the national systems of protected areas are mostly composed of contributions from central governments, international cooperation, and protected area self-generated revenues. When comparing the existing budgets of the national systems of protected

areas with their financing needs, there is evidence of large deficits. For example, recent financial analysis of the national systems of protected areas of Ecuador, Peru, and Costa Rica, estimate annual deficits of US\$6, US\$9, and US\$17 million, respectively. It has been documented by known experts that the aggregated deficit is alarming at global and national levels, and particularly acute in developing nations.

In order to achieve the financial sustainability of national systems of protected areas it is critical to take into account the need to increase the capacity to self-generate additional revenue at national levels, including market value of payments for ecosystems services such as water service, carbon sequestration, and scenic beauty. On the other hand, it is equally important to improve the institutional capacity to adequately manage financial resources and carry out the necessary legal and regulatory reform to enable reliable long-term funding.

With support from The Nature Conservancy and other members of the CFA (Conservation Finance Alliance), I am pleased to present this new publication that includes practical, accessible, and easy to use methods for improving financial planning, and a road map for the implementation of business-oriented financial plans for the national systems of protected areas.

Antonio Brack
Minister of Environment of Peru
October, 2008

Acronyms

CATI	Computer Assisted Telephone Interviewing
CBD	Convention on Biological Diversity
CEREPS	Special Account for Productive and Social Reactivation (Ecuador)
CFA	Conservation Finance Alliance
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
CPM	Center for Park Management
DASI	International Affairs Directorate (Ecuador)
DGF	General Forestry Directorate (Costa Rica)
DGVS	Wildlife General Directorate (Costa Rica)
ESF-SNAP	Financial Sustainability Strategy of the National System of Protected Areas
FAN	National Environmental Fund (Ecuador)
GEF	Global Environmental Facility
GPAN	Participatory Management in Natural Protected Areas
IANP	Office of Protected Natural Areas (Peru)
INECI	Ecuadorian Institute for International Cooperation
INRENA	Natural Resources Intendance of Peru
IUCN	International Union for Conservation of Nature
KfW	German government-owned development bank (Kreditanstalt für Wiederaufbau)
MAE	Ministry of Environment (Ecuador)
MAG	Ministry of Agriculture and Livestock Farming (Costa Rica)
MARFUND	Mesoamerican Reef Fund
MIDEPLAN	Ministry of National Planning (Costa Rica)
MINAE	Ministry of Environment and Energy (Costa Rica)
MINAM	Ministry of Environment of Peru
MIRENEM	Ministry of Natural Resources, Energy, and Mines (Costa Rica)
MoU	Memorandum of Understanding
NEPA	National Environment and Planning Agency (Jamaica)
NORAD	Norwegian Agency for Development Cooperation
NPCA	National Parks Conservation Association
PANE	State Natural Areas (Ecuador)
SINAC	National System of Conservation Areas (Costa Rica)
SINANPE II	Project: “Development of SINANPE’s Institutional Capacity for the Management, Administration, and Sustainable Use of Biodiversity and Natural Resources in Natural Protected Areas”
SNAP	National System of Protected Areas
SPN	National Parks Service (Costa Rica)
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WWF	World Wildlife Fund

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Introduction

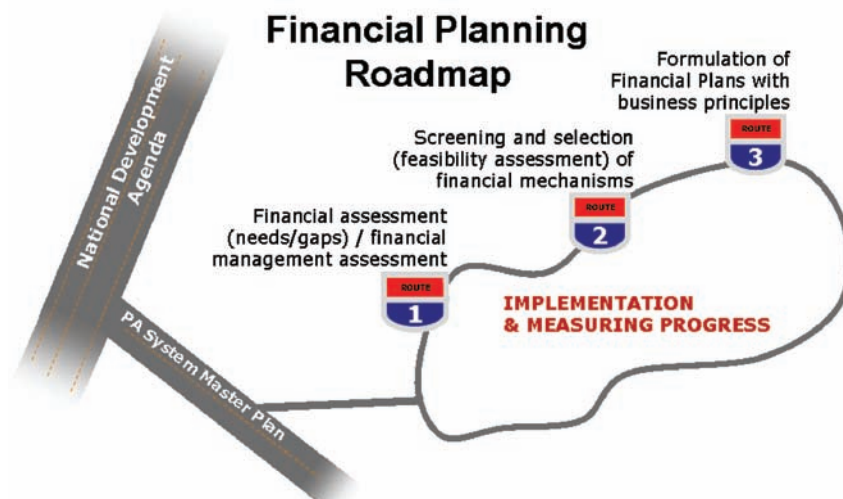
The financial sustainability of national systems of protected areas (PA) continues to be the most significant challenge in meeting conservation objectives worldwide. A large number of threats exist related to PA financing; these threats constantly undermine national and international efforts to preserve the planet's biodiversity. These threats include, for example, inadequate investments, excessive dependence on international funding sources, lack of participation of key stakeholders (Ministries of Finance, private sector), limited national capacity, and lack of tools for adequate financial planning. Consequently, it has been difficult to formulate system-level financial plans based on realistic needs, viable and diversified financial mechanisms, and operational business plans. As a result of this situation, there are now only a few protected areas that can be considered financially sustainable, while the vast majority of protected areas and PA systems continue to face dramatically high annual deficits.

Protected area funding (primarily international) has not been able to keep pace with the rapid growth and associated management costs of the number of protected areas. According to IUCN (2006), the number of protected areas listed by the United Nations has increased tenfold in recent decades. By 2004, there were already over 104,000 protected areas; and the area under conservation had expanded from 2.4 million km² in 1962 to more

than 20 million km². Approximately 12% of the land surface of the planet is now under some category of PA. Recent financial analyses of the national systems of protected areas of Ecuador, Peru, and Costa Rica, for example, indicate annual financial deficits of US\$6, US\$9, and US\$17 million, respectively. The collective financial gap is extreme on a global level and is very visible in developing countries. "Results from the only global estimate to date of PA management needs (James et al. 1999a & 2001, updated by Balmford 2003) suggest that for the world as a whole, the budget shortfall for effectively maintaining existing protected areas is approximately \$2.5 billion annually, \$1.5 billion of which is in developing nations. Although \$7 billion per year is currently spent globally on PAs, less than \$1 billion is spent in developing countries."¹

When we analyze the financial sustainability of PAs and the barriers to filling these large financial gaps, it is necessary to take into account the different elements of the financial equation: on the one hand, the "supply" involved in generating additional financial resources (income), and, on the other hand, the "demand" focused on adequate management of financial resources at the level of individual PAs and PA systems (UNDP, 2007). Likewise, we should take into account aspects related to legislation, regulatory frameworks, and the institutional and individual capacities for adequate financial management. The effective interaction of all these aspects is essential for a country to be able to

1. Bruner et al., "How much will effective protected areas cost?"



reduce or eliminate the financial gaps associated with management of its protected areas.

The purpose of this document is to provide guidelines and lessons to optimize both the financial planning processes of protected areas and the products resulting from these processes. In addition, it is expected that this document will improve the financial management capacities of individuals and institutions working in protected areas.

At the same time, this document is designed to support government commitments undertaken at the 7th Conference of the Parties to the Convention on Biological Diversity (CBD) in February, 2004. Here, 188 countries adopted the "Program of Work on Protected Areas," including the financial sustainability of protected areas. The governments committed themselves to "by 2008, establish and begin to implement country-level sustainable financing plans that support national systems of protected areas, including necessary regulatory, legislative, policy, institutional and other measures". To

date, although countries are working towards this goal, very few have made significant progress.

This document is organized around key aspects of the financial planning process: a) financial analysis: funding needs and gaps, b) preselection and analysis of financial mechanisms and understanding the legislative and regulatory framework, and c) formulation of financial and business plans. Additionally we review important aspects related to implementation, monitoring, and evaluation.

This document uses the "financial planning roadmap" as a frame of reference. This roadmap presents the above-mentioned elements linked to the protected area system's management plan, which should be an integrated part the national development agenda, as illustrated above. The use of this roadmap helps us to define courses of action, establish a supportive institutional framework, address gaps in institutional capacity during the process, increase cost-effectiveness, accelerate the fulfillment of actions and goals, and create

ownership of the process, as well as foster transparency and responsibility.

Chapter 1 examines the different aspects of financial analysis (the financial needs and gaps of protected areas). This chapter includes the review of different income sources, the level of current and potential resource use, and identification of cost-reduction opportunities. These aspects determine the existing financial needs and gaps to cover conservation priorities.

During the financial analysis, it is important to consider the functionality of the financial management system of the protected areas. This system supports important processes such as accounting (income and expenditure), salaries and benefits, classification of expenses (standardization), cash flow, transparency (availability of and access to information), and auditing (internal and external).

Chapter 2 begins defining financial mechanisms and then focuses on the preselection, feasibility analysis, and selection of financial mechanisms. Chapter 2 also examines conceptual and practical aspects of the diversification of financing sources. Such aspects are crucial to maintaining and increasing income from conventional financial sources (governments, donors, and trust funds), as well as developing innovative alternatives (for example, environmental compensation funds, market mechanisms, etc.). The diversification of financial mechanisms, considering market criteria, implementation complexity, and impact, are also covered in this chapter. Instead of providing a detailed description of income-generation alternatives, this chapter indicates the elements and steps involved in making the most appropriate selection and diversification of financial mechanisms.

Chapter 3 analyzes the conditions that enable the development of financial strategies. These conditions are based on the premise that financial gaps and the low returns of many financial mechanisms (such as national park entrance fees) are due largely to the low capacity to generate, administer, and distribute resources in an efficient manner, and to the

existence of excessively complicated and outdated legal and institutional frameworks. Laws and regulations usually focus on aspects related to budget implementation and neglect the strategic aspects that create conditions for resource mobilization, business management, autonomy, good governance, and the hiring of dedicated staff to support financial management.

This chapter not only examines different aspects related to the establishment of a supportive institutional structure, but also provides guidelines for evaluation of the legal and institutional structure, and presents an interesting tool for evaluation of protected area systems' legal and institutional frameworks (included in Annex 13).

Finally, Chapter 4 begins with concepts and definitions of financial plans, then, it examines business management principles that apply to financial plans, their components, and implementation. Chapter 4 also discusses different aspects related to the formulation of financial and business plans. Financial plans are usually drafted as a 'wish-list' for international donors, with limited diversification, lack of business vision, insufficient information, limited attention to cost effectiveness, and a disconnection with the private sector. Thus, this chapter presents different steps to break out of this traditional pattern and to achieve financial plans that respond to changing conditions and are based on an accurate determination of financial need, economically-viable financial mechanisms, diversified financial packages, and operational business plans to support implementation of the different financial strategies.

Chapter 4 also presents mechanisms to measure progress, including the new "Financial Sustainability Scorecard for National Systems of Protected Areas" developed by the UNDP.

Achieving financial sustainability of national systems of protected areas is not a destination per se, rather it is a continuous cycle of challenges and opportunities related to increasing funding on the one hand and building financial management capacity on the other, as

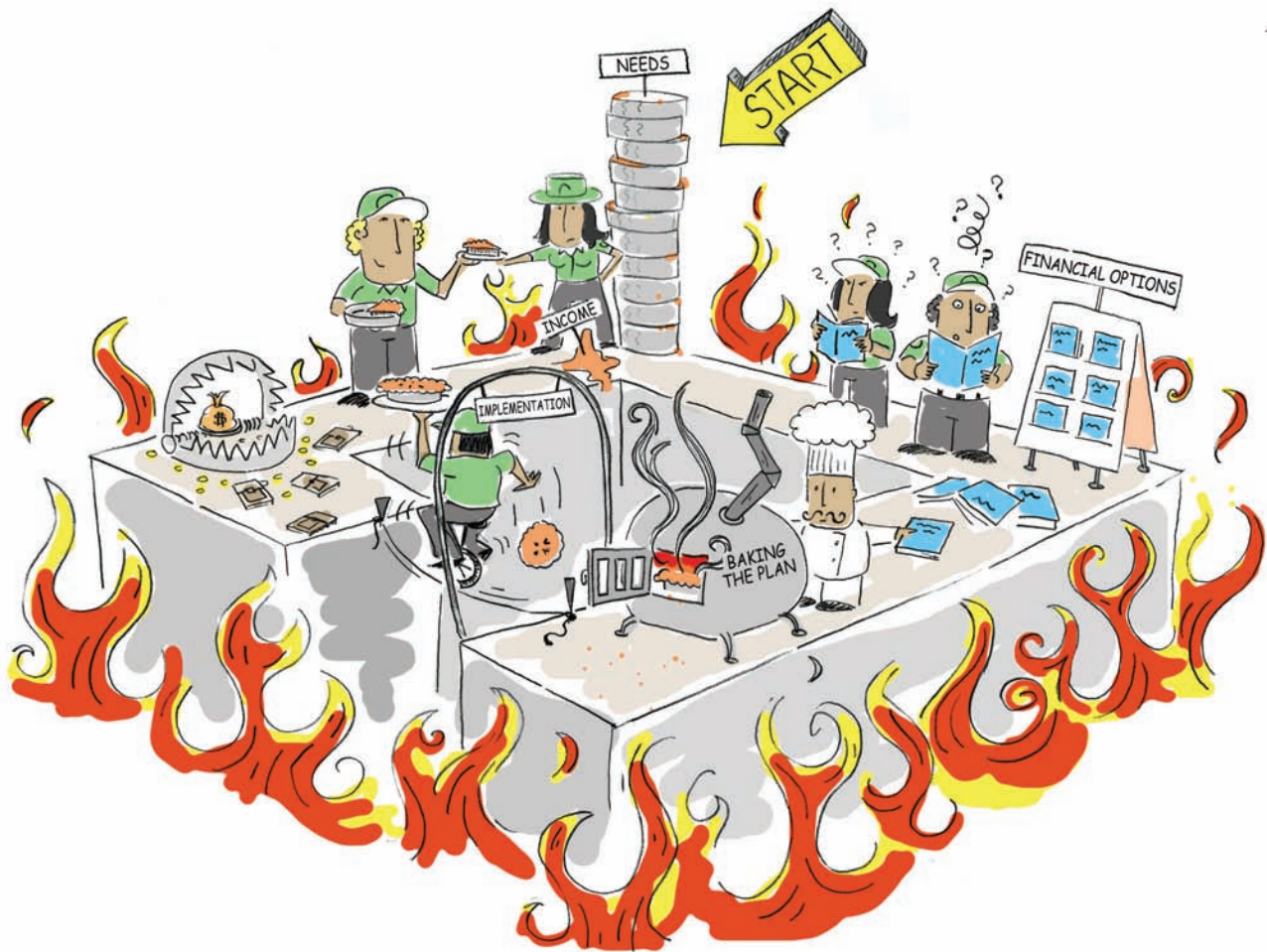
illustrated in the cartoon version of the financial planning cycle at the end of this section.

Single large multi-year donations from international donors can lead protected area managers to a false sense of financial well-being. However, once these donations are spent and resources are diminished, the reality and importance of long-term financial planning becomes painfully apparent, and this will

in turn threaten the stability of the entire protected area system.

Finally, this document has been developed with support from the Parks in Peril Program, financed by USAID, and the Conservation Finance Alliance.² The Parks in Peril Program supported a learning community on financial planning that developed this document between 2004 and 2007.

The Protected Areas' Financial Planning Cycle



2. The CFA was created in 2002 to help address the challenges related to the lack of financing for protected areas. To accomplish this, the CFA promotes collaboration among organizations active in areas of conservation finance and develops tools to optimize local capacity worldwide. The members of the CFA, as of June 2007, are: The Nature Conservancy (TNC), Wildlife Conservation Society (WCS), Conservation International (CI), World Wildlife Fund for Nature (WWF), USAID (Enterprise for the Americas Initiative/Tropical Forest Conservation Act), IUCN, UNDP, UNEP, National Park Conservation Association (NPCA-United States), RedLAC (Latin American and Caribbean Network of Environmental Funds), FUNBIO, The Royal Society for the Protection of Birds, PricewaterhouseCoopers, Kreditanstalt Für Wiederaufbau KfW-Germany and GTZ (Germany).

Financial Analysis: Defining Financial Needs and Gaps

The first step in the financial planning processes is the financial analysis. It covers a number of aspects, the most important of which are the analysis of protected area costs, the review of different income sources, the determination of current and potential resource use, and the identification of cost-reduction opportunities; and determining the financial gap. These financial elements make it possible to establish the size of the existing financial gap that must be covered to meet conservation priorities; further, these financial elements facilitate the identification, design, and implementation of appropriate strategies for sustainable financing of protected areas.

Based on experiences gained in Peru, Ecuador, Costa Rica, and Jamaica, the following pages present a series of guidelines on how to conduct a financial analysis at two levels — individual protected areas and protected area systems. These guidelines aim to answer the following questions:

- Why is a financial analysis necessary?
- What are the necessary prior conditions for a sound financial analysis?
- What steps should be followed to carry out a financial analysis?
- What support tools are needed to conduct a financial analysis?
- How can the results of the financial analysis be used?

1.1. Definitions and Elements

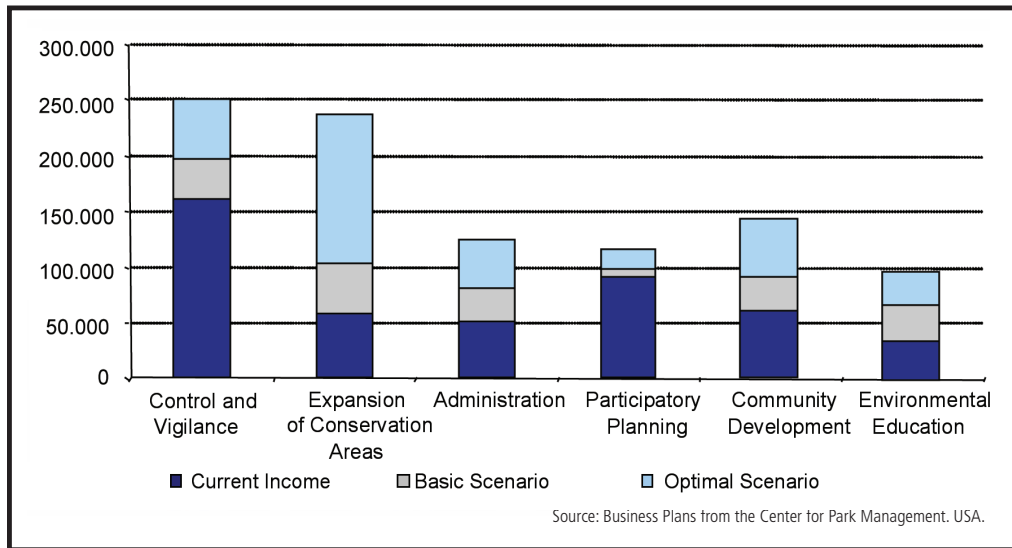
Many specialists in the business sector refer to ‘financial analysis’ as a set of techniques used to assess the viability, stability, effectiveness, efficiency, and profitability of operations. It uses techniques such as funds flow analysis and financial ratios to understand financial opportunities and challenges, and improve decision-making. Although this is a private sector perspective, there is much we can learn from this approach. Applying such techniques to protected area systems enables us to present financial data in a form that can be used to evaluate the protected



areas’ financial position and to plan growth. For the purpose of this document, financial analysis consists of quantifying the financial needs and gaps of an individual protected area or protected area system, including the creation of new protected areas. Accomplishing this financial analysis requires a comparison of the resources currently available³ with the resources needed for both a basic scenario (essential management programs to

3. In a financial analysis, the current situation is described in a baseline that captures the state of needs, costs, and income at the beginning of the project or intervention.

Figure 1. Financial Gap Analysis by Program Area (in US\$)



ensure protection of basic ecosystem functions) and an optimal scenario (a set of management programs for optimal ecosystem functioning).

Figure 1 shows an example of the level of income by program area and the needs to be covered in both the basic and optimal scenarios. Figure 2 shows the financial gaps, broken out by program area and type of expenditure, identified in Costa Rica, Peru, and Ecuador. A financial analysis provides the key following information:

1. Income by source: national or international;
2. Historical review of income by program, subprogram, or activity;
3. Level of actual expenditures by program, subprogram, or activity;⁴
4. Identification of cost-reduction opportunities;⁵
5. Level of needs by program, subprogram, or activity, defined at both the basic and optimal levels; and,
6. Existing financial gaps by program, subprogram, or activity through the comparison of income vs. expenditures, and of needs vs. income. The financial gap is the difference between available funds and funds needed for basic or optimal levels of conservation.

These defined elements are used to quantify the investments needed and to optimize the strategic allocation of funds to close the financial gaps. Thus, a financial analysis is essential so that stakeholders can select financing mechanisms and determine investment priorities.

There are various methods for conducting a financial analysis. The method selected should have clear objectives and be tailored to the context of each protected area system. It is critical that the method used helps to link conservation goals with actual costs.

Activity-based cost accounting (ABC) is a user-friendly method that can serve this purpose. It is based on the organization of activities carried out in protected areas through functional areas and programs. The functional areas consist of the different categories of operational activities required to manage protected areas (including the cost of the central protected area agency), which include programs and subprograms, with programs being the parts of the operation that require separate management. Using metrics, costs are allocated to each program and subprogram for basic and optimal levels of conservation; financial gaps are determined by comparing available resources with financial needs (basic and optimal).

4. This refers to the levels of budget execution and underspending.

5. Some cost-reduction strategies include: volume purchases, extending the useful life of goods and equipment (emphasis on preventive maintenance), a balance between full-time staff and consultants, analysis of savings in main expenditure items, strategic adjustments in programs and activities, increased efficiency of financial-administrative systems, co-management, and protected area partnerships, among others.

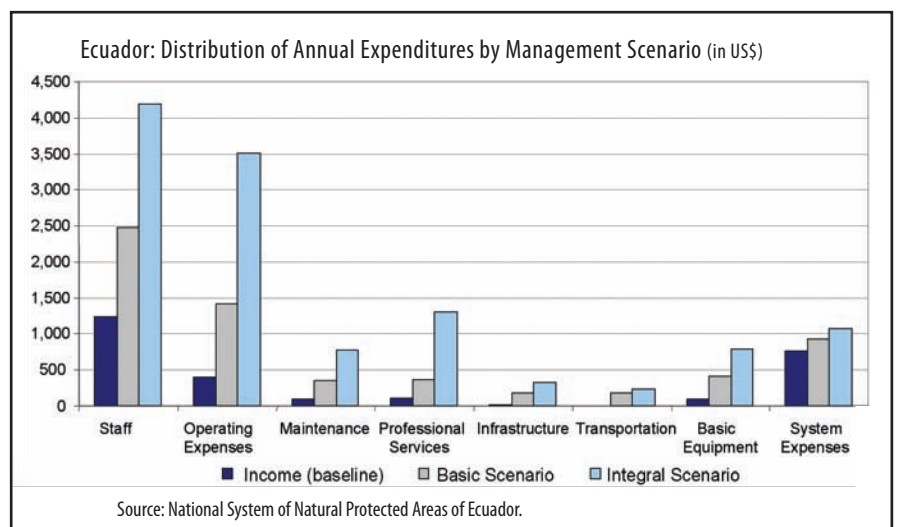
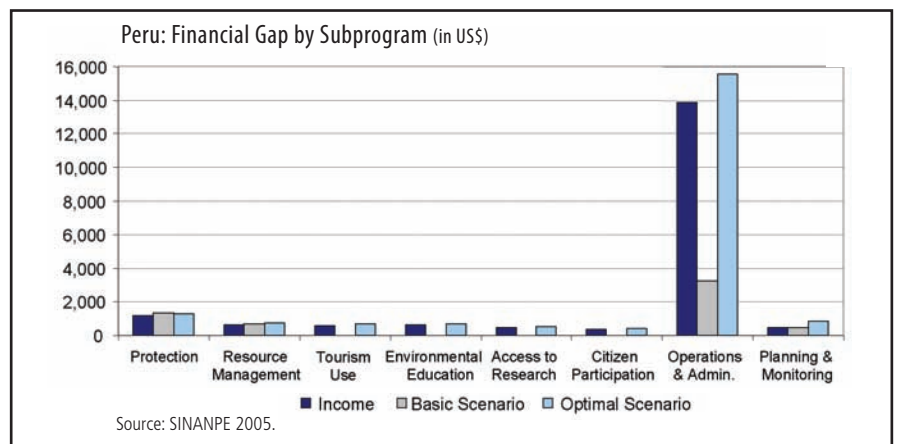
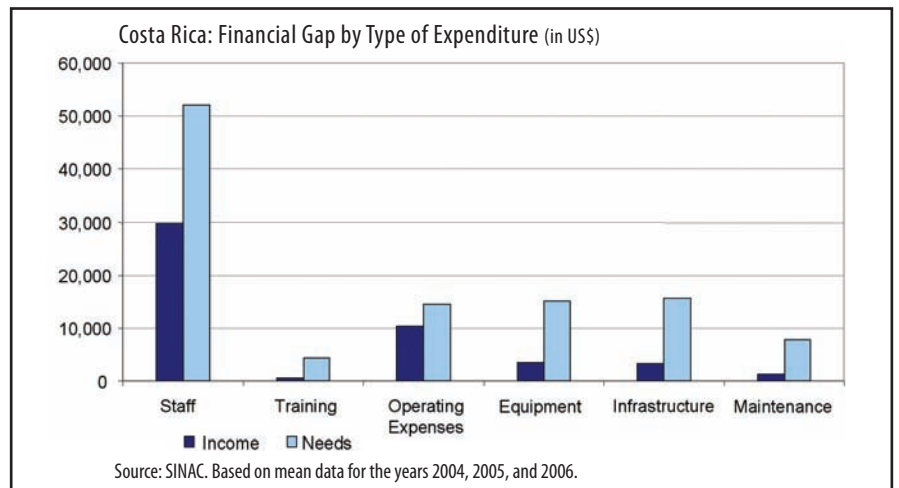
This transparent method makes it possible to arrive at actual and reliable costs since the allocated costs are directly linked to the goals (results) of each of the protected areas conservation programs. A similar process is being used in protected area tourism management, known as the “Threshold of Sustainability.” This process determines the minimum level of investment needed to prevent the decline of the protected area’s natural capital. For further information on financial analysis methods, see Annex 1.

Generally, carrying out a financial analysis involves four steps:⁶ Planning and preparation, information gathering,⁷ processing and analysis, and validation of results.

During the financial analysis, stakeholders should reach mutual agreement regarding the general conservation criteria for both basic and optimal scenario levels. Factors contributing to this agreement may include diagnostic studies of biodiversity threats, ecosystem functions, current government policy, and international conservation standards, among others.

Generally, protected area conservation priorities are reflected in a protected area’s management program, which can be evaluated — considering the financial needs and gaps analysis— by using scenario logic (for basic and optimal scenarios) to facilitate determination of resource needs. Table 1 presents a breakdown of existing financial gaps based on definite management programs and subprograms of Peru’s National System of Natural Protected Areas (SINANPE). This table clearly shows that the available resources do not cover the basic level. There is a gap of US\$3.7 million

Figure 2. Financial Gap Analysis: The Cases of Costa Rica, Peru, and Ecuador



for the basis scenario and US\$20.6 million for the optimal level.

6. Section 1.3 contains a detailed description of each stage.

7. It is important to consider that opening up a participatory process does not necessarily guarantee access to all available information since each organization has different policies for information management and distribution (concerning its income, costs, donors, etc.). In many cases, the way information management is handled is left to the discretion of the different stakeholders.

Table 1. Available Resources vs. Basic and Optimal Scenarios, SINANPE Peru* (in thousands of US\$)

PROGRAMS AND SUBPROGRAMS**	Available Resources***	Scenarios	
		Basic	Optimal
Resource Conservation			
Protection and surveillance	1,153	2,474	2,470
Resource management	614	1,276	1,316
Public Use			
Tourist and recreational use	568	-	1,219
Environmental education	595	-	1,278
Research	455	-	975
Management Support			
Operations and administration	13,847	17,108	29,661
Planning and monitoring	473	921	1,012
Citizen participation	350	-	749
Total	18,058	21,781	38,683

* Figures have been taken from the Analysis of SINANPE Financing Needs 2005-2014.

** The classification of programs has been taken from the Natural Protected Areas Intendance, Peru, 2006.

*** Amounts based on the SINANPE budget for 2005, INRENA, 2005.



The analysis identifies and quantifies current funding sources and their specific contribution to different management programs. The analysis also identifies both current expenses and investments.⁸

The features of a sound financial needs assessment are included in Box 1.

Box 1. Advantages of Conducting a Financial Gap Analysis

- Allows for results to be presented on a static level (for one year in particular) and on a dynamic level (for several years), according to specific information requirements.
- Makes it easy to generate comparative information on different areas, because this tool employs a management program and activity structure that has been validated by protected area authorities.
- Facilitates financing of activities and cost reduction.
- Provides valuable information to measure progress by determining the current situation (baseline).
- Identifies financing sources and determines short-, medium-, and long-term funding needs.
- Reveals essential information for the financial plan.
- Enables preparation of economic arguments to leverage financial resources from the central government, international organizations, and private donors.
- The results can be used to raise public awareness.
- Guides decision making in developing the budget.
- Encourages reflection and a self-critical stance within the system and allows for feedback from external stakeholders.
- Generates a “learning” dynamic for stakeholders through the process of carrying out the analysis of needs, income, and gaps.

8. *Análisis de las Necesidades de Financiamiento del Sistema Nacional de Áreas Naturales Protegidas del Ecuador*, (Ministry of Environment, 2005), identifies seven expenditure categories: 1. Staff, 2. Operating expenses, 3. Maintenance, 4. Equipment, 5. Professional services, 6. Infrastructure, and 7. Transportation. Of these, 1, 2, 3, 5, and 7 are current expenses; the others are investment expenses.

Table 2. Results of Financial Gap Analyses (in millions of US\$)

Region / Country	Estimated Annual Needs of the Protected Area System	Estimated Annual Income to the Protected Areas from National and International Sources	Composition of Existing Income (in %)		Current Financial Gap of the Protected Area	
			National	International	Basic	Optimal
Costa Rica	36	17	80%	20%	14	19
Grenada	2.2	1.4	80%	20%	0.8	N/A
St. Vincent	2.5	1.5	80%	20%	1	N/A
Ecuador	6.2	2.7	70%	30%	3.5	9.2
Peru	41.8	10	20%	80%	14	31.8
Indonesia	160.3	53.3	71%	29%	106.9	N/A

N/A: Not available

Source: Information consolidated by TNC.

■ **The analysis is based on conservation priorities:**

The analysis recognizes conservation objectives as key input for the development of financial estimates. Conservation priorities include criteria related to biodiversity, ecological balance, ecological gaps, and preservation. These priorities are translated into management programs (for example, administration, control and surveillance, expansion of conservation areas, participatory planning, community development, and environmental education), which are key elements of other important protected area management tools, such as the master plan or strategic plans.

■ **The analysis defines a basic management scenario (basic level):** Describes the minimum level of funding required to operate key conservation programs while meeting basic program’s requirements to sustain the functions of the ecosystems in the protected areas.

■ **The analysis defines an optimal management scenario (optimal level):** Describes the ideal level of funding required to operate all programs to reach and sustain optimal functions of the ecosystems in the protected areas. It describes the ideal state of the programs if all necessary funding, personnel, equipment, and other resources were available to achieve that state (CPM, 2002). This ensures the achievement of short-, medium-, and long-term goals for

the protected area, in accordance with the highest environmental, social and economic standards. Table 2 shows the initial results of financial needs and gaps analyses conducted in six countries.

■ **The analysis establishes a baseline (current situation or starting point):** The analysis determines the current situation by considering financial needs and the availability of financial resources. The baseline is established by examining the management programs selected for both the basic and optimal scenarios. Because income levels are reviewed, the baseline also provides an initial mapping of funding sources and it is a concrete reference point to measure progress in financial terms.

■ **The analysis helps to establish protected area management standards:** Based on the different categories of expenses and investments, the financial analysis helps to define standards⁹ for efficient management of conservation programs. For example, this tool can be used to determine the number of park rangers required for basic or optimal patrolling, considering both existing threats and the need for greater cost-effectiveness in terms of kilometers covered.

■ **The analysis helps to improve management of funds at the system¹⁰ and protected area levels:** Given the existence of laws and financial mechanisms affecting protected areas, the financial analysis clarifies how

9. The adoption of research-based standards, lessons learned, and best practices provides an excellent frame of reference to increase the cost-effectiveness of management programs.

10. System expenses can include activities related to coordination, policy formulation, and the maintenance and control of the group of protected areas from a national institutional environmental perspective. System expenses may include such line items as: staff (for example, central payroll employees and staff in decentralized offices), materials, and other operational resources at both national and regional levels.

expenses and income are broken down. In this way, expenses covered at the central or regional levels (salaries, for example) are also included to facilitate making comprehensive calculations of the investment needed for protected areas. In addition, the analysis also takes into account revenue management to clarify whether the resources generated by the protected areas are to be remitted to the central level, or maintained in the protected areas where they originate.

- **The analysis includes an ongoing monitoring component:** An ongoing monitoring process that compares projections of income, expenses, and financial gaps with amounts executed (on an annual or semiannual basis, etc.) is essential for ensuring adaptive financial planning over time. This process can be supported by using computer tools to facilitate the analysis. The financial sustainability scorecard developed by the UNDP is an interactive tool that can be used to monitor protected area finances over time. See section 4.2.

1.2. Prior Conditions

The key existing conditions for conducting a financial analysis include:

- **Commitment of government and relevant authorities** (for example, the ministries of Environment, Finance, and Tourism). To build favorable political will that will make the process viable, this commitment should be based on a solid understanding of the rationale and objectives of a financial analysis. Planners must
- remember that each part of the process may require the commitment of different stakeholders.
- **Information on management policies** (for example, in the master plan, strategic plan, or management plan) is a critical input to quantify financial needs by specific activity and program. Carrying out a financial analysis without these programmatic inputs is not ideal. Information on management effectiveness (strengths and weaknesses) and capacity building needs are also important to ensure that the financial analysis covers the improvements needed to achieve protected area objectives. However, in the absence of updated management plans, programmatic priorities can be clarified by conducting structured and semi-structured interviews complemented by quantitative information surveys.
- **Information on ecological gaps within the protected area network.** This information is a critical element when determining future financial scenarios, and should include the projected increase in protected area size and coverage, or information on new protected areas.
- **Establish a specialized multidisciplinary technical team** led by a professional with relevant experience. The technical team should be made up of individuals with broad knowledge of the national system of protected areas, expertise in financial planning, and experience working with Finance ministry officials involved in

Box 2. Participation by a Secondment in the Financial Strategy of SINAC, Costa Rica

Much of the success in developing financial plans for the national system of protected areas stems from support provided by a technical assistant or secondment to the work team during the financial planning process.

Unlike ordinary consultancies, the purpose of a secondment is to merge different organizational cultures, and to obtain their best effort to achieve the goals and objectives of the work they have been charged with. Some of the characteristics of an effective secondment are:

- Full-time dedication to the process.
- Total identification with the project's guidelines and needs.

- Substantial knowledge of, and interaction with, key officials involved in the process.
- Emphasis on analysis of the results obtained.
- Identification of related factors that affect financial planning.
- Constant monitoring and feedback on the process.
- A high degree of operational autonomy.

However, it must be stressed that the secondment should receive adequate support from a key official or officials in the process. In the case of SINAC, the institutional finance specialist was designated to supervise and support the work of the secondment.

Source: SINAC/TNC, 2007.

Table 3. Participation of Key Actors in the Financial Gap Analysis

Actor	Agency	Participation
Government	Ministry of Environment	Medium
	Ministry of Finance	High
	Municipalities	Low
	Auditors	Low
Private sector	Consultants	High
	Industry	Low
	BINGOS	Medium
	Local NGOs	Medium
Research and development	Universities	High
	Research Centers	High

Level of contribution to the financial gap analysis: Low, Medium, High.

formulation of the national budget. It may be necessary to have a dedicated professional (secondment) who is responsible for facilitating the financial planning process inside the ministry of Environment or the national park system (see Box 2). Having this professional inside the protected area system facilitates process flow and strengthens the capacity of the system.

- **Identification of key stakeholders**,¹¹ particularly those with access to financial information. These include both internal stakeholders from within the national system of protected areas (officials, technical staff, planners, etc.), and external organizations outside the environmental sector (international development organizations, ministries of Finance, Tourism, NGOs, etc., see Table 3).
- **Centralized and up-to-date information** on the financial situation is critical for the analysis of expenses, income, and gaps. If only partial data is available at the central level, the results obtained will not have sufficient accuracy to influence decision making. In this case, in order to fill the information gap, it is necessary to gather additional information from primary first-person sources through surveys, interviews, and focus groups. Table 4 presents examples of different categories of information to be gathered when conducting a financial analysis.

Often, information is not available or is out of date, and the institutional structure may lack definition or be undergoing changes. Given that these situations are very common in protected area systems, participants must collect basic information before proceeding with the financial analysis. For example, in the case of Jamaica, the analysis was based on an extensive review of studies, and interviews with key stakeholders from protected areas and focus groups. This preparatory work focused on three areas: an analysis of the management plan for the protected area system, on the regulatory and institutional framework, and on government priorities. Based on this “situational analysis”, a short-term action plan was developed to strengthen leadership and build capacities to address challenges related to both management and financing of the protected area system. Documentation of this situational analysis can be found on the Jamaica Protected Area Trust web site: www.jpat-jm.net/backgrnd/backgrnd.html. This work was essential to draft the terms of reference¹² for development of the financial strategy for Jamaica’s protected area system (see Annex 2).

- **Access to funds** to cover the costs of the various activities in the process. Planners must estimate the cost of the process and its duration to determine potential funding sources and identify possible partnerships to achieve the expected results.

11. Normally, a memorandum of understanding is established between key stakeholders to provide a mutually agreed upon platform for the performance of joint activities.

12. Prepared by the Center for Park Management in collaboration with the government of Jamaica and TNC, December 2006.

Table 4. Examples of Categories of Information Required for the Financial Gap Analysis of a Protected Area

Categories	2004	2005	2006
(Thousands of US\$; hypothetical)			
Income Sources			
Municipal	26	30	42
Central Government	233	273	376
Private Sources	25	29	40
Self-Generated Funds	14	16	22
Total National Sources	297	349	480
International Sources			
Bilateral and Multilateral Entities	222	299	343
Private Sources	1,005	1,351	1,547
Total International Sources	1,227	1,650	2,164
Total Sources of Income	1,524	1,999	2,644
Expenditures by Program			
Management and Research	588	738	1,027
Public Use and Education	555	722	951
Administration and Development	376	536	657
Total Expenditures	1,519	1,996	2,635
TOTAL	5	3	8
Breakdown of Expenditures			
Categories According to Accounting Items	2004	2005	2006
Salaries	137	170	264
Training	76	90	145
Equipment and Materials	106	120	190
Transportation and Vehicles	91	100	184
Construction	197	240	356
Field Operations	258	319	435
Special Studies	122	190	179
Land Acquisition and Conservation	304	419	501
Institutional Administrative Support	94	150	158
Professional Services	103	140	184
Audits	30	60	40
Total Expenditures	1,519	1,996	2,636

Source: Expenditure categories taken from *Long-term Financial Planning for Parks and Protected Areas*. The Nature Conservancy, USAID, and World Commission on Protected Areas, 2001, USA.

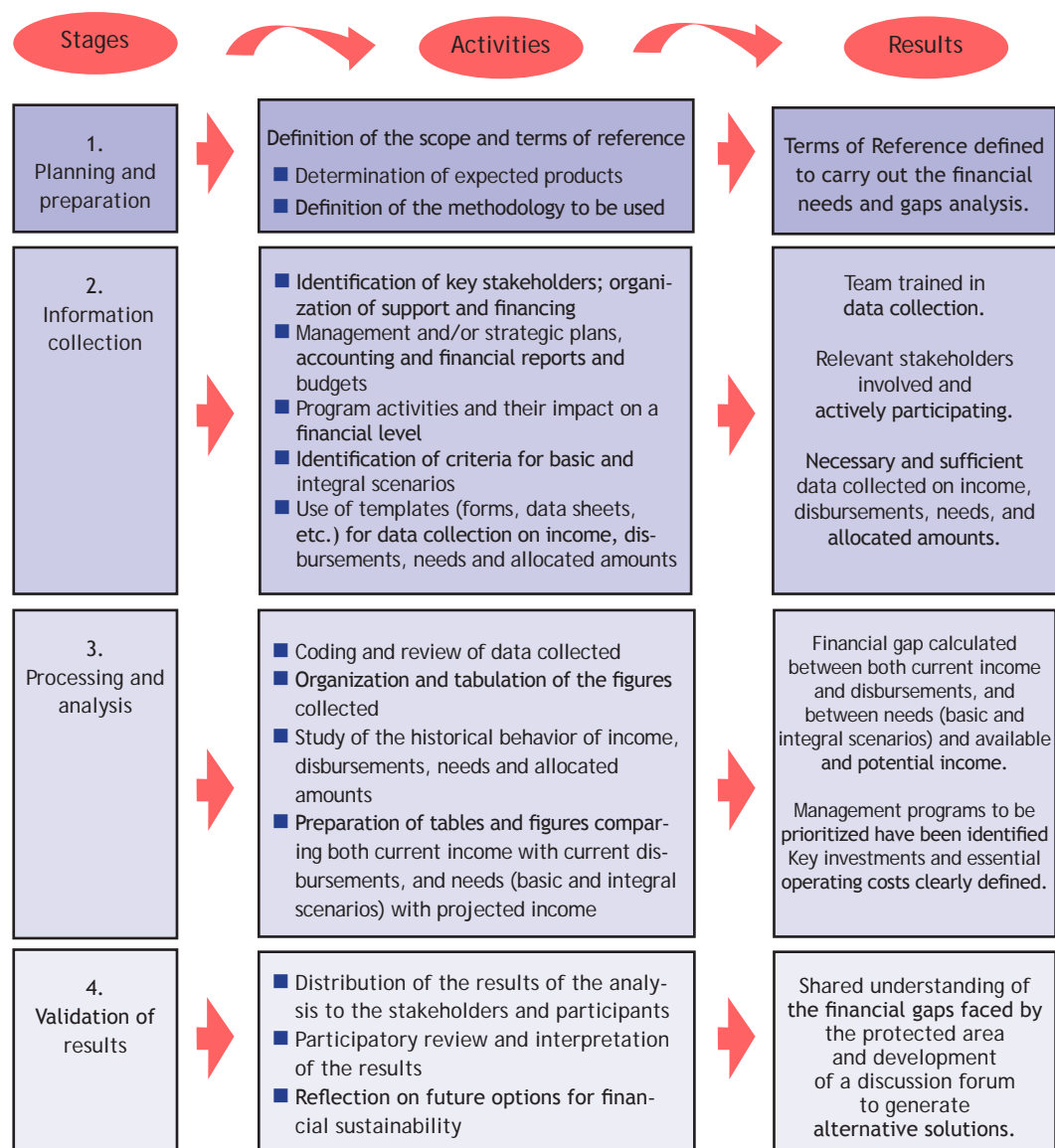
1.3. Stages in the Process

A financial analysis is comprised of four stages: planning and preparation, information gathering, processing and analysis, and validation of results. Details of these steps are discussed below. Figure 3 illustrates the activities and results of each state of the process in Peru.

1. Planning and preparation: This first stage consists of defining the objectives and scope of the work. To this end, it is critical for the success of the analysis to define

who the clients of the analysis are. Typically the financial analysis will have multiple clients, for example: governments agencies such as the Ministry of Environment, the National Protected Area Authority, the Ministry of Finance & Economy, the Ministry of Tourism, private sector enterprises, international cooperation organizations (bilateral and multilateral), and international and national NGOs. Thus the financial analysis may have multiple objectives in order to address the needs of multiple clients. This stage is complemented by the selection and validation

Figure 3. The Process of Preparing a Financial Analysis for the National System of Protected Areas of Peru



Source: F. León, IANP, 2006.

of the methodology (standards based on clients' needs, objectives, and scope of work) and supportive tools for information gathering and processing. Particular attention must be placed on defining the standards, for example:

- Links between conservation goals and costs by using functions, programs, indicators and metrics to measure achievement (Activity Based Cost accounting).
- Responsible staff (central and site-based) is assigned to each function and program.
- Financial information is available for at least one fiscal year.

- Defines investment priorities and cost reduction opportunities.
- Defines basic and optimal funding needs and gaps.
- Includes a financial position statement
- Financial information is fed from the sites to the central level.

The most important product of this stage is the 'terms of reference' for the financial analysis. In addition, the planning team should identify the location of necessary information, the stakeholders who will contribute (inputs and any technical assistance), and the universe

Box 3. Suggestions for Information Collection

- Contact the stakeholders in advance to be included in the process and to coordinate agendas.
- Coordinate closely with staff experienced in program management, the accountant, and the person responsible for the protected area's budgets.
- Use templates (forms, data sheets, etc.) to gather primary and secondary information in an orderly manner.
- Review management plans and/or strategic plans, accounting and financial reports, and budgets.
- Review the historical evolution of program activities and their impact on a financial level: income by type of source, operating costs, and investments.
- Collect accounting information that quantifies the amounts allocated to the different management programs or activities implemented in the protected area.
- Coordinate with other actors (governmental, private, NGOs, etc.) who possess relevant program and financial information.

Sources: *Business Plans for Parks and Protected Areas*, Center for Park Management, National Parks Conservation Association, 2005, United States; *Long-term Financial Planning for Parks and Protected Areas*, The Nature Conservancy, USAID and the World Commission on Protected Areas, 2001, United States.

of protected areas to be included in the analysis. Annex 3 presents an example of the terms of reference used to carry out a financial analysis in Ecuador.

2. Information collection: This next stage is a participatory process involving the main stakeholders from the government, private sector, cooperation agencies, and NGOs, among others. This process includes the collection of primary and secondary information¹³ corresponding to the expenses, income, and needs of the protected areas. Gathering good data requires training in appropriate techniques and forms for collecting information (for example, questionnaires, checklists, survey instruments, matrices), as well as logistical coordination among the many team members.¹⁴ Box 3 presents recommendations for information gathering and Box 4 summarizes the experience of Peru.

3. Processing and analysis: This third stage is often a less participatory stage. It is aimed at organizing and consolidating information for the purpose of drawing conclusions, and includes the coding, review, validation, and organization of data on operating expenses, investments, program implementation, financing mechanisms, and income sources.

All data must be processed adequately to facilitate comparisons with data from other protected areas.¹⁵ When conducting the financial analysis, planners examine the magnitude of the financial gap by comparing the income and expenses in the current situation with the needs defined in the basic and optimal scenarios. In order to facilitate the analysis of the current financial situation, the analysis should cross-check information (for example, primary vs. secondary sources), study patterns (for example, plans for income generation or decisions about expenditures), and find a balance between



13. Primary information is comprised of information obtained directly from surveys, interviews, focus groups, etc. Secondary information is based on existing information collected from studies, research, and reports, etc. produced by other organizations and/or individuals.

14. Annexes 4 and 5 present examples of steps and support techniques for information collection. In addition, Annex 6 shows how the information gathered in Peru, Ecuador, and Costa Rica was validated.

15. The level of sophistication of the data processing and analysis stage can vary from the use of a spreadsheet such as MS Excel to the use of specific statistical programs such as the SPSS (www.spss.com), or databases.

Table 5. Data Processing and Analysis Tools

Analysis variables	Tools	
	Spreadsheet (Example: MS Excel, Lotus)	Statistical Software (Example: SPSS, SAS)
■ Use	Easy-to-use and generally intuitive	Requires training
■ Data entry	Easy-to-use for data entry	Depends on the type of software
■ Investment	Included with MS Windows	Depends on the type of software
■ Processes	Limited functionality for statistical comparisons	Includes a variety of statistical functions
■ Data management	Useful with small and medium amounts of information	Handles large numbers of records with no problem
■ Visualization of results	Include a variety of graphics and results tables	Offer many interesting graphics options

detailed information and data aggregation. In the analysis stage, team members should consider issues ranging from program strategy to operating expenses, including proposed investments in the basic and optimal scenarios. Table 5 shows a range of tools for processing and analyzing data.

4. Validation of results: In this final stage, the planning team shares results with all participating stakeholders in order to validate and reach a common agreement on the results and refine conclusions. The team reviews the needs of the basic and optimal scenarios, and reaches an agreement on the financial gap and on current and future resource needs. Validating the results

Box 4. Collection of Financial Information on Protected Areas – Aspects Considered in Peru

Operating cost level

Planning documents: Management plans, period covered, and costs of preparation or updates.

Protected area staff: Number of workers by position, description of each position (manager, park rangers, legal counsel, etc.), net monthly and annual salaries received, and type of work.

Operating costs in the field: Unit of measure for each resource, quantity, unit cost, and monthly and annual cost of each expense item (fuel, rent, per diem, messenger services, etc.).

Administrative costs: Monthly and annual cost of all necessary resources (water, electricity, telephone, insurance, etc.).

Training: Monthly and annual costs by type of training (carried out by the National System of Protected Areas or by other organizations).

Vehicle, infrastructure, and equipment maintenance: Monthly and annual costs of preventive and corrective maintenance, etc., and unit costs of maintenance.

Investment level:

Infrastructure, vehicles, and equipment: Type, quantity, date of acquisition or construction, and estimated useful life and unit costs.

Income level:

Detailed information on all current and potential financing sources: State resources, own resources (self-financing), transfers and donations, international cooperation, debt-for-nature swaps, and resources from private organizations, NGOs, foundations, etc.

Current income from protected areas: Annualized amount by source and term of main financing agreements.

Average income over the last five years: Annualized amount of historical income received.

Potential income from protected areas: Annualized amounts by source, dates when this income will become available, and potential cooperating organizations.

Source: Proceso de Construcción del Plan Financiero a largo plazo para el SINANPE. Primera Fase: Análisis de las Necesidades de Financiamiento del SINANPE 2005-2014.

Box 5. Protected Area Financial Plans Based on the Financial Gap Analysis of the System of National Protected Areas of Peru

The *SINANPE Financial Needs Analysis (2005-2014)* provides the database for this protected area system and also constitutes a good frame of reference for determining the financing needs of specific areas.

Based on the above-mentioned study, two financial plans have so far been prepared, corresponding to the protected areas of:

- Pacaya Samiria National Reserve (prepared between January and June 2006)
- Yanachaga Chemillén National Park (prepared between July and December 2005)

Both plans were developed by consultancies. These processes verified that the financial gap figures obtained in the two studies were very close to those obtained in the financial needs analysis conducted for the whole system, thus validating the

methodology used in the SINANPE financial needs analysis. Figures from both studies appear below.

Protected Area / Projection	Needs analysis of the system* (in US\$)	Protected area financial plan* (in US\$)
Pacaya Samiria National Reserve	1,496,734	1,479,993
Yanachaga Chemillén National Park	637,081	580,000

*For the optimal level

The use of the results for the system saved time in building the database, leaving more time for validation of information, analysis of results, and development of feasible financial strategies.

Source: F. León, IANP, 2006.

can be accomplished through several iterative rounds of interaction. Annex 7 shows an example of the consolidated information that can be shared with different stakeholders during this stage.

1.4. Use of the Results

In the financial planning process, the results of a financial analysis are used primarily as inputs for developing a financial plan. The results of this analysis also constitute a baseline that serves as a point of reference for both monitoring and evaluation during implementation of a financial sustainability plan.

Moreover, the planning team can use the financial figures from the financial analysis to mobilize political will of public and private decision makers and the national cooperating agencies to increase protected area investments, and to secure their participation as short- and long-term partners. The results can also be used to increase public awareness through information campaigns.

Box 5 presents the results obtained in two specific protected areas based on a financial analysis carried out in Peru.

A concrete example of how a financial analysis can garner support is the funding that the Gordon and Betty Moore Foundation provided to SINANPE through the Andes-Amazon Initiative (see Box 6).

1.5. Lessons Learned

The following lessons were learned during the implementation of financial analyses in Costa Rica, Peru, and Ecuador.

- Assessing protected area management from a biological perspective only often results in limited attention to critical financial aspects. This, in turn, leads to uninformed decisions that undermine the achievement of critical conservation goals. Therefore, the training of planners involved in protected area management should include all aspects of financial planning. A financial analysis (needs and gaps) is a careful examination of needs and resources. This is not an academic exercise but, rather, a concrete process with practical findings and clear implementation guidelines. The findings of the financial analysis, if used strategically, can lead to improved protected areas' financial sustainability.

Box 6. Financial Needs Information and the Moore Foundation

Information on protected area financial needs, projected to 10 years (2005-2014), can be very useful to inform cooperating organizations of the extent of investment required to improve management of protected areas.

In the case of the Moore Foundation, the financial gap analysis conducted by SINANPE enabled the foundation to make decisions quickly and to continue consolidating its financial support in natural areas with great conservation potential in the Amazon jungle of Peru. In the framework of the Andes-Amazon Initiative, the Moore Foundation is implementing a pilot project aimed at promoting the financial sustainability of new natural areas in this region.

Furthermore, the foundation has donated US\$724,120 for the purchase of equipment, outfitting of offices for administrative staff, implementation of monitoring activities, and the definitive categorization of the Santiago Comaina Reserve Zone.

The foundation also contributed to the declaration of Sierra del Divisor as a Reserve Zone in April 2006. The Moore Foundation's financial support for implementation of this new protected area is part of a binational project supporting conservation of Sierra del Divisor. This project is implemented by TNC with partners in Peru (Pronaturaleza, IBC, SPDA, CDC, and DAR) and Brazil (SOS Amazonía and the Pro-Indian Commission of Acre – CPI/AC).

Source: Based on contributions from TNC, CI, and INRENA.

- The national authority for protected areas must own the process of identifying current and future financial needs for the protected areas, as well as cost reduction opportunities. Their understanding of the usability of the financial analysis is indispensable for them to provide leadership in the process.
- Broad and organized participation is important to compare and contrast approaches, and to improve the accuracy of the data used to determine funding needs and gaps. Having a mechanism for inter-institutional coordination (for example, a memorandum of understanding) greatly facilitates the process of conducting a participatory financial analysis.
- Information provided by protected area staff in the field is indispensable because non-quantitative aspects are vital to understand the true significance of the financial information and data for the study.
- A financial analysis helps to make members of the national system of protected areas aware of the current and future financial situation so that they can make informed decisions on how to improve protected area finance.
- Realistic financial information in the financial analysis becomes a fundamental tool, not only for the design of a financial plan and improved financial management, but also to persuade potential donors of the verifiable and accurate financial needs of the protected areas and, thereby, to secure their financial support.
- Clearly defined objectives and standards are indispensable for a successful financial analysis. Thus, it is critical to define who the primary clients of the analysis are and how the results will be used. Subsequently the stakeholders should agree on the standards that will be applied during the study. In the absence of standards it is difficult to compare results from country to country and aggregate regional data, which is useful for international cooperating agencies and donors. An absence of standards may also undermine the quality of the study and, consequently, its usability.

Financial Mechanisms: Pre-selection, Selection, and Diversification¹⁶

The next step in the financial planning process is identifying and selecting financial mechanisms that can maintain and increase income from existing sources and establish new alternative resources in order to reduce financial gaps. This step requires a systematic approach.

The identification and selection of financial mechanisms should focus not only on conventional options, such as annual government appropriations, international grants and trust funds, which are often subject to political pressures and difficult to capitalize (in the case of trust funds). The range of financial mechanisms should include innovative alternatives (i.e., environmental compensation funds, payment for environmental services, taxes, and other pricing instruments).

This chapter addresses the processes of pre-selection, selection, and diversification of financial mechanisms, considering market criteria, implementation complexity, and potential impact. Given the proliferation of existing literature on the range of financial mechanisms, this aspect has not been considered in this chapter.¹⁷

The framing questions for this chapter, below, are based on experiences in Costa Rica, Ecuador, and Peru.

- What is meant by ‘financial mechanism’?
- What steps are involved in the identification, selection, and diversification of financial mechanisms?
- Why is it necessary to analyze existing and new mechanisms?

- What criteria should be considered in the selection of financial alternatives?
- What are the expected results?

2.1 Financial mechanisms

For the purpose of this document, financial mechanisms are tools designed to raise, generate, or mobilize funds to cover the different costs related to the implementation of conservation programs. Financial mechanisms also contribute to build financial management capacity because different sets of skills are required to design, assess, and implement the great variety of existing financial mechanisms.

Financial mechanisms may be designed to mobilize social and environmental benefits in addition to fiscal benefits. A solid connection between the allocation of funding from a diversified portfolio of financial mechanisms and priority investment programs is critical to reducing financial gaps and ensuring the long-term financial sustainability of the protected area system.

Different criteria are used to classify financial mechanism in order to facilitate planning and selection of financial options (see Table 6). For example:

- **Geographic criteria – international, national, and local:** In this document, this classification is used to indicate the origin of the source of income.

16. This chapter focuses on identifying financial mechanisms to support the sustainability of protected areas or protected area systems. This chapter does not discuss specific financial mechanisms.

17. For a detailed description of the financial mechanisms available for protected areas, see the Conservation Finance Guide, Conservation Finance Alliance, www.conservationfinance.org.

Table 6: Examples of Classifications of Financial Mechanisms for Protected Areas

Financial mechanisms	Geographic criteria			Market and non-market criteria	
	Protected Area	Regional and national	International level	Yes	No
Payment of tourism fees	X			X	
Natural resource extraction fees	X			X	
Carbon capture projects	X			X	
Charging for the use of water resources	X			X	
Sale of souvenirs	X			X	
Government allocations/transfers		X			X
Fiscal instruments (taxes, etc.)		X			X
Investment funds		X			X
Donations from for-profit and not-for-profit entities		X			X
Global initiatives (Global Environment Facility)			X		X
Debt-for-nature swaps			X		X
Multilateral organizations (donations, cooperation)			X		X
Donations from foundations, NGOs, international corporations			X		X

Adapted from: Conservation Finance Alliance, 2002, and Barry Spengel, 2007.

The Global Environment Fund (GEF), established in 1991, is an international mechanism attached to the Convention on Biological Diversity (CBD). Its purpose is to finance environmental protection projects in developing countries.

A national protected areas trust (endowment) fund¹⁸ illustrates a mechanism with a national scope when it supports the entire national protected area system. It generates resources through rates of return on stock market investments to finance the cost of conservation programs over time. “Environmental funds have been set up in many countries as a way of managing funding for protected areas. Such funds are typically established in conjunction with large, one-off contributions from donor agencies or NGOs. These funds may be supplemented or replenished by private sector contributions, fiscal revenues, and earnings from market-based charges for PA goods and services. Three types of trust funds are common: **endowment funds** spend only income while attempting to maintain or enhance capital; **sinking funds** liquidate all of their assets

over a specified period of time (for example, international projects or grants); while **revolving funds** are designed to receive regular replenishments often from various sources (for example, the GEF, which is replenished by donor governments every four years). Of these, only the first is truly a long-term or revenue-generating financial mechanism” (IUCN, 2003).

Individual protected area entry fees and site-based tourism concessions that generate income which is retained by the protected area are examples of financial mechanisms with local scope.

- **Market and non-market criteria:** These mechanisms focus on environmental externalities¹⁹ generated by market failures. To this end, financial mechanisms aim to: a) cover the environmental costs of production or consumption activities that are not included in prices by imposing taxes or charges on products or processes, b) use property rights to establish environmental compensation or mitigation payments, and c) develop alternative markets for environmental

18. For further information about trust funds, see www.worldwildlife.org/conservationfinance/trustfunds.cfm.

19. Harm or benefit experienced by an individual or business as a result of actions taken by other persons or entities: Positive externalities are produced when an agent’s actions increase the well-being of other agents of the economy. Negative externalities are generated when an agent’s actions reduce the well-being of other agents of the economy. Examples of negative externalities are: pollutant emissions and tailings from mining extraction, which are not usually included in the costs and prices of the minerals, and, similarly, emissions and organic waste resulting from the production of fish meal, which are not generally included in fish meal costs and prices.

services (see examples in Table 7). Market-based mechanisms are expected to offer competitive alternatives and create special niches so that the different stakeholders can act in ways that most benefit them without deteriorating the environment.

Mechanism such as government appropriations, trust funds, and grants are considered non-market mechanisms since they are designed not to deal with externalities.²⁰

It should be noted that the above-mentioned classifications are inclusive and complementary; that is, in practice, mechanisms can be situated at the protected area level, but their financing comes from a combination of various sources. For example, a trust fund for a specific protected area can be financed by both national and international resources. For a more comprehensive list of financial mechanisms, see Annex 19.



2.2. Pre-selection of Financial Mechanisms

The identification or pre-selection of financial mechanisms requires conducting a basic analysis of the viability of different financial options using specific criteria such as level of complexity and potential impact. The pre-selection of financial mechanisms allows financial planners to: a) identify simple financial mechanisms not

requiring detailed studies or any legal reform for their direct implementation (for example, the establishment of collection boxes for the deposit of voluntary contributions at the visitor centers of national parks), b) identify more complex financial mechanisms (for example, the establishment of a trust fund or the creation of a tax) that require detailed economic, social, legal, and environmental viability analyses before making a definitive selection, even if the possibilities seem promising, and c) determine which financial mechanisms are not viable due to their high complexity and low impact.

Two examples of useful levels of analysis for the Pre-selection of mechanisms are presented below:²¹

- The first level of analysis is based on the comparison of the expected financial impact and the complexity of implementing the mechanism. Financial impact is defined as the capacity to generate financial resources, while respecting environmental and social standards. Complexity includes variables such as duration, multi-sectoral coordination required, and the need for legal, institutional and administrative reforms, among others. This first level of analysis makes it possible to identify which financial mechanisms would have a greater or lesser impact, and which would involve a greater or lesser complexity of implementation.²² The results of this analysis helps planners eliminate a number of financial options, thereby reducing the time and cost of conducting a true cost-benefits analysis to all mechanisms. This method of preselecting financial mechanisms is more effective if carried out through qualitative data gathering methods, including: interviews with key staff, workshops, focus groups, and the review of reports and previous research. The application of the method should be adapted to local or national conditions.

Figure 4 presents an example of the application of an impact-complexity analysis to a set of financial mechanisms being considered to support the sustainability of

20. In general, traditional financial mechanisms, such as government appropriations and trust funds, are not designed to deal with externalities. However, these mechanisms are also linked to market conditions in certain circumstances. For example, trust funds are linked to the market because they are subject to fluctuations in the current rates of return. In the case of central transfers (appropriations), links to the market emerge when the national budget relies on export prices of raw materials (for example, oil, minerals). In both cases, market fluctuations can cause an increase or decrease in funding for protected areas.

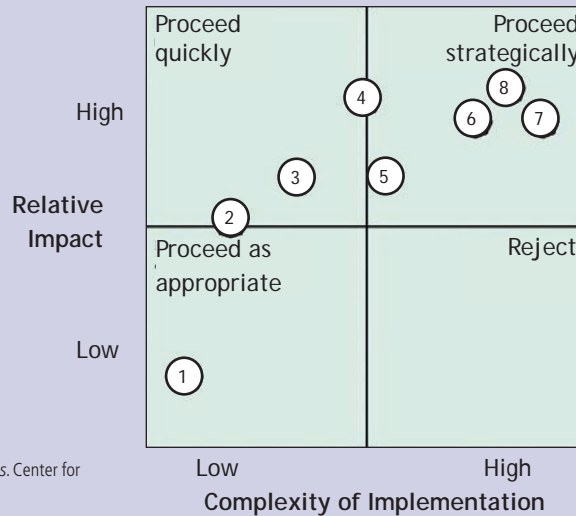
21. For more detailed information on the pre-selection of financial mechanisms, see *Business Plans for Parks and Protected Areas*, op. cit., or the publication *Conservation Finance Guide*, Conservation Finance Alliance, 2003.

22. The complexity associated with financial mechanisms can be determined by measuring a combination of variables. Thus, for example, if this complexity includes such variables as duration, multisectoral coordination, and necessary abilities, it can be assessed using a common scale to evaluate each variable (example: a scale from 1 to 10, with 10 being the most favorable value) in combination with a specific weighting for each variable (example: 15% for duration, 35% for multisectoral coordination, and 50% for necessary abilities).

Figure 4: Pre-selection of Financial Mechanisms

Mechanisms

1. Collection of spare change
2. Sale of souvenirs
3. Volunteer program
4. Voluntary donations in restaurant and hotel accounts
5. Adopt a Hectare
6. Increase in entrance fees
7. Payment for water use
8. Establishment of a trust fund



Source: Based on the approach in *Business Plans for Parks and Protected Areas*. Center for Park Management, National Parks Conservation Association.

a protected area. In the example, the eight mechanisms listed above were identified after exploring possible goods and services (such as hikes, scenic value, water resources) the area has to offer, as well as potential clients (such as tourists, film producers, the water company).

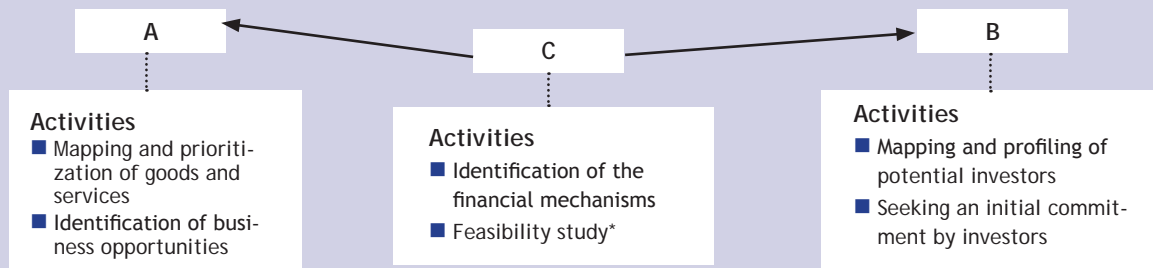
As can be seen, Mechanism 1 – collection of spare change – is located in the “Low Impact – Low Complexity” quadrant. Implementing this mechanism may only require coin collection boxes and a sign appealing to tourists to leave their spare change as a contribution to the preservation of biodiversity. In general, mechanisms that fall within this quadrant – known as “rapid results” – do not require deep analyses, involve low investment,

and can be implemented by the protected area staff in a relatively simple way. They are *short-term implementation* mechanisms. However, it should be noted that the time frame depends on the legal framework in force in each protected area.

Mechanisms 2, 3, and 4 – sale of souvenirs, volunteer program, and voluntary donations in restaurant and hotel accounts – are located in the “High Impact – Low Complexity” quadrant, suggesting that their implementation should be a high priority. Generally, mechanisms located in this quadrant require a good level of coordination and good relations with other stakeholders in order to facilitate implementation. As a result, these

Figure 5: Linking of Goods and Services, Investors, and Financial Mechanisms

- A. Identify available goods and services in the protected areas.
- B. Identify potential clients/investors for the identified goods and services.
- C. Identify a financial mechanism to connect goods and services with potential investors (taxes, concessions, etc.).



*Potential investors can provide funding for the feasibility study.

mechanisms can be implemented in the *short and medium term*. Normally, they do not require exhaustive studies, although there may be cases in which it is necessary to gather specific information to facilitate the analysis, but they do require concrete action plans to render them operational.

The “*High Impact – High Complexity*” quadrant contains Mechanisms 5, 6, 7, and 8: adopt a hectare, increase entrance fees, payment for water use, and establishment of a trust fund.

These mechanisms are both promising and uncertain sources of income. In general, they require detailed studies to clarify their financial viability and collateral aspects, such as the need for legal reform and the identification of necessary abilities, among others. Mechanisms that fall within this quadrant are usually implemented in the *medium and long term*.

Mechanisms located in the “*Low Impact – High Complexity*” quadrant are a low priority. Generally, they require the investment of resources and the success of their implementation is uncertain. It is not recommended that detailed viability studies be carried out for these mechanisms.

The result of the pre-selection is a clear mapping of the most promising financial mechanisms. This makes it possible to eliminate options that do not contribute significantly to the financial sustainability of the area, given their low impact and/or high complexity. It should be stressed that ranking financial mechanisms (in terms of complexity and impact) depends on each country’s context.

- The second level of analysis is based on the principle that it is possible to link a protected area’s goods and services to potential investors through one or more appropriate financial mechanisms. Figure 5 illustrates this principle and corresponding activities. This analysis has a greater level of depth and is mainly applied to the most complex mechanisms (involving *medium- and long-term implementation*), which are located in the “*High Impact – High Complexity*” quadrant.²³ It is important

Table 7: Types of Goods and Services Protected Areas Can Offer

Examples of goods

- Ecotourism
- Sport fishing
- Medicinal plants
- Water and wood
- Fruits and other foods
- Genetic material
- Natural scenic beauty

Examples of services

- Biodiversity conservation
- Habitat for endangered species
- Protection from storms
- Grazing lands
- Water/energy services
- Flood control
- Climate change mitigation/Carbon sequestration

to indicate that the analysis of the link between goods and services, and between investors and financial mechanisms, not only provides more information about financial mechanism possibilities, but also facilitates the identification of potential investors who are willing to cover the preinvestment²⁴ costs associated with the financial alternatives under study. The results of this analysis make it possible to prioritize the financial mechanisms that justify conducting a feasibility study. The three steps in this analysis are as follows:

(A) **Step one:** Seek to clarify what environmental goods and services with high income-generation potential exist at the level of the protected area system or of a particular protected area. The mapping of the options can be done at a series of work meetings with stakeholders (for example, protected area staff, specialized consultants, and representatives from communities adjacent to the protected area, financial entities, and academic institutions, among others). This process is expected to provide a clear idea of what goods and services exist and what their potential is. Ideally, the aim is for this analysis to generate clear, specific ideas that can be presented to possible investors or other stakeholders, as indicated in the next step. Table 7 presents examples of goods and services.

(B) **Step two:** Based on the characteristics of the goods and/or services that are defined, the next step is to identify possible clients/investors with sufficient financial resources and interest in investing and obtaining favorable returns from the production of environmental goods and/or services. According to

23. It should be noted that this analysis can also be applied to the “*Low Impact – Low Complexity*” and “*High Impact – Low Complexity*” quadrants in order to validate the results obtained from the analysis of impact vs. implementation complexity.

24. Preinvestment expenses include the costs of information, surveys, consultants, studies, etc.

Table 8: Linkage of Goods and Services, Investors, and Financial Mechanisms

Goods / Services	Investors	Financial Mechanisms
Ecuador		
Water	Quito Metropolitan Area Sewage and Water Company (EMAAP-Q)*	FONAG (Water Fund): Financing of community park rangers in protected areas of interest to EMAAP-Q; and 1:1 matching funds for the development of projects to protect Quito's water catchment sources.
Tourism	National and foreign tourists**	Payment of a variable fee depending on the protected area and tourist category.
	Tourism companies operating in protected areas**	Payment for tourism operation permits.
	Tourism-related companies in the Galapagos	Donations from tourists.
Energy	Electric companies that use protected areas**	Annual payment (US\$3,000) for the installation and operation of electric energy towers. Each additional tower costs US\$100.
Costa Rica		
Water	Evian Company	Donation of a percentage of the sale of bottled water.
	Florida Ice & Farm Co.	Donation of one colón for each bottle of water sold.
	Central government	Water tax (for example, 1.9 colones for the use of water by agroindustry).
Forests	Techos de Paz	Fixed donation (US\$10,000) for each condominium sold near a protected area.
Genetic material	Merck, Sharp & Dome	Royalties on profits made from the use of genetic material in pharmaceutical products.
Peru		
Water	California's Garden	Varied donations from the use of water for fish farming (trout).
	Municipal Service Providers (EPS) of Moyabamba	Specific payment of two soles over the drinking water fees to fund various conservation activities.
	Duke Energy	Voluntary donation to SINANPE, linked to water use for electricity generation.
Organic fertilizer*	SINANPE/Proabono	Rate or percentage of sales from fertilizer extracted from the Guano Islands and Peninsulas.
Scenic beauty	Several tourism companies operating in the Manu National Park	Fee of US\$10,000 for non-consumptive landscape-use rights.

*In addition, agreements have been signed with the CONELEC, AGIP, HCJB, and EMAAP-Q companies to pay for the use of areas where they have infrastructure and/or carry out projects.

**Indicates services from protected natural areas and wildlife biodiversity that are contained in the Unified Text of Secondary Environmental Legislation, Book IX, and which deliver income to the Protected Area System.

Source: Cases taken from Ecuador, Costa Rica, and Peru.

the type of product or environmental service, investors can be from the private or public sector, including national businesses, international corporations, municipalities and regional governments.

The identification of potential investors should be selective, based on the opportunities identified in the previous step. Therefore, it is necessary to carry out a local and international survey of businesses and organizations interested in sustainable use of natural resources to generate economic, environmental, and social benefits. Thus, it is advisable to make direct contact with chambers of commerce and exporters, investment

promoters, as well as other business networks, to discuss opportunities, mutual benefits, and the challenges associated with using goods and services from protected areas. The expectation is that this dialogue will result in one or more investors becoming interested in funding pre-feasibility studies. It may be necessary to conduct additional, basic studies in order to develop adequate arguments (including, for example, surveys on willingness to pay for services and spending capacity, perceptions of environmental services, and other exploratory studies) to persuade potential investors to invest funds in feasibility studies. It also may be helpful to collaborate

with international organizations in order to optimize the results of the dialogue with the business and government sectors.

(C) **Step three:** Identify the most appropriate financial mechanisms to link the selected good and/or service with potential investors. This step is more technical and may require strategic advice from experts and national or international organizations with experience in the subject, as well as the active participation of the potential investor. This part of the process helps to visualize the type or types of mechanisms that can best engage a potential investor.

From the final result of this three-step analysis, it is expected that the protected areas under consideration should have an investor interested in specific

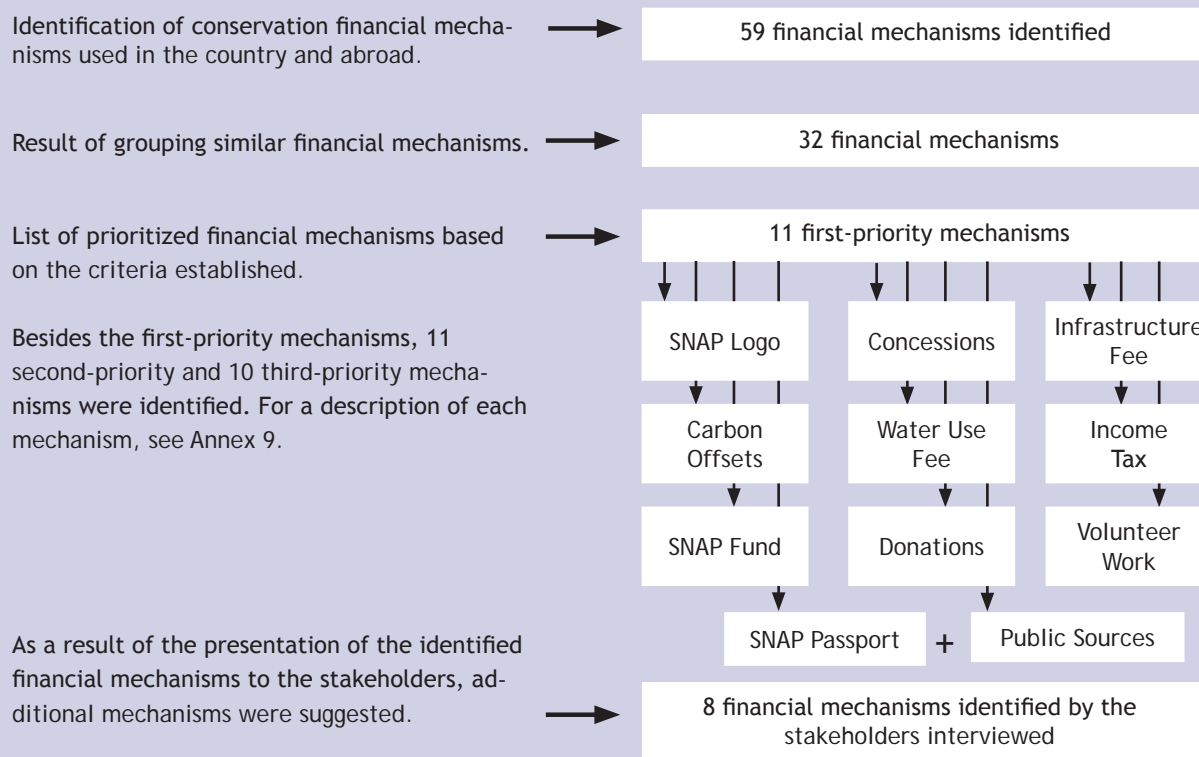
goods or services and in providing funds for the feasibility studies. Table 8 presents specific examples of goods and services, investors, and financial mechanisms. In turn, Figure 6 shows the process used in Ecuador to prioritize financial mechanisms for that protected area system. (Annexes 8 and 9 describe the methodology used.)

2.3. Selection of Financial Mechanisms

For the purposes of this document, the selection of financial mechanisms is guided by the results of the feasibility analysis²⁵ of one or more preselected financial mechanisms.

The results of the feasibility analysis²⁶ help to determine whether or not to proceed to implement the financial mechanism under study. If, during the

Figure 6: Sequence for Prioritization of Financial Mechanisms for the System of Protected Areas of Ecuador



Source: Ministry of Environment, Ecuador, 2006.

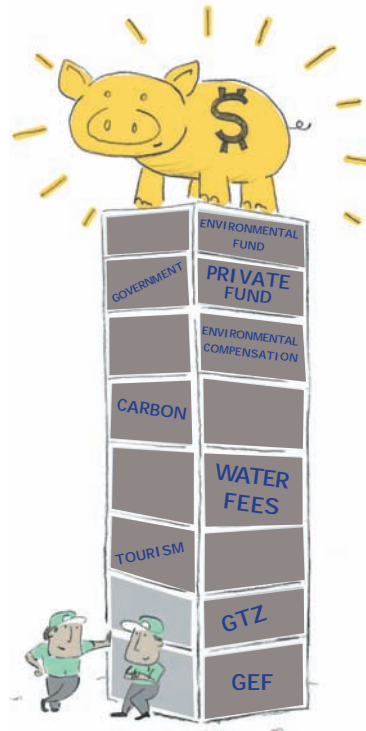
25. For a detailed review of this type of study, the following publications, among others, can be consulted: *Preparación y evaluación de proyectos* by Nassir Sapag Chain and Reinaldo Sapag Chain, McGraw Hill, Colombia; and *Evaluación privada de proyectos* by Arlette Beltrán and Hanny Cueva, Universidad del Pacífico, Peru. For specific resources on the development of feasibility studies in the conservation sector, please see the web page of the Conservation Finance Alliance: http://www.conservationfinance.org/Guide_Spanish/Spanish_home.htm.

26. This section is based on the article "What is a feasibility study?" published by Iowa State University. For further details, see: <http://www.extension.iastate.edu/agdm/wholefarm/html/c5-65.html>.

analysis, a financial mechanism is determined not to be economically, socially, and environmentally viable, this will save time, money, human resources, and further complications.

A viable financial mechanism generates an adequate flow of fiscal, social, and environmental benefits. The feasibility study analyzes and outlines different alternatives or methods to make the preselected mechanism financially viable; that is, the feasibility study helps to define the best operating model to implement the financial mechanism.

There are various reasons why a feasibility study should or should not be carried out. The directors of national parks, protected areas, or those who make final decisions, or those who make financial decisions, are often under internal and external pressure to avoid carrying out a feasibility analysis and are encouraged



Diversified Financial Options

to proceed directly with implementation of financial mechanisms with the expectation of rapidly generating funds. However, a feasibility study is a very strategic step at both program and financial levels, and has the added benefit of promoting transparency and responsibility. Most successful businesses usually have a detailed feasibility study. A feasibility study should be conducted by an expert consultant or team with experience in the area of financial mechanisms for conservation.

Business management principles, and the linkages and roles involved in the feasibility study, are presented in chapter 4. Box 7 presents a set of reasons to decide whether or not a feasibility study should be carried out

While pressure for not carrying out a feasibility study can be strong, financial planners should remain firm on their insistence on a thorough and accurate feasibility study. Once the decision has been made to pursue a financial mechanism, the deci-

Box 7. Reasons Why a Feasibility Study Should or Should Not Be Carried Out

Commonly-cited reasons for not carrying out a feasibility study:

- The protected area managers trust that the financial mechanism is feasible simply because other parks are already using it.
- If another feasibility study already exists from previous years, why do another one?
- Feasibility studies are simply ways for consultants to make money.
- The feasibility study has already been carried out by the company that will be in charge of implementing the financial mechanism.
- The feasibility study can be conducted internally using park staff.
- Feasibility studies are a waste of time. It is better to concentrate on conducting a survey, increasing park entrance fees, and allocating resources for urgent needs.

Reasons for carrying out a feasibility study:

It serves to:

- Define the scope of the project.
- Identify the best business operating model.
- Reveal new opportunities through a research process.
- Identify reasons not to proceed.
- Increase the possibility of success by identifying risk-mitigating factors.
- Provide updated and accurate information for better decision making.
- Expand possibilities for investment in protected areas.
- Verify that opportunities for success and failure were investigated in sufficient detail.
- Help to secure financing from investors or donors.

Adapted from the article "What is a feasibility study?" published by Iowa State University. For further details, see: www.extension.iastate.edu/agdm/wholefarm/html/c5-65.html.

sion is hard to reverse because there may be internal and external institutional pressures. Therefore, the protected area will have to live with the consequences of a bad decision. Thus, conducting a feasibility study is a strategic and essential step, and, if carried out to high quality standards, can be the best investment the protected area has ever made.

A brief description of the key elements in a feasibility study is presented below. This section does not indicate how these steps are implemented since a large number of studies have been published on this subject

- **Concept and description:** Clear definition of the financial mechanism to be used (taxes, fees), its relationship to protected area goods or services (wood, water), and interested clients, and investors (public sector, private companies).
- **Advantages and disadvantages:** The benefits and limitations of the selected financial mechanism are specifically identified. Above all, it is important to determine the level of stability/variability of income generation and whether the long-term prospects are good.
- **Market analysis:** Detailed study includes potential clients; behavior of the demand, level, and characteristics of the national and international competition;²⁷ market size; prices and costs; providers; entry barriers; substitute or alternative products or services; location; and seasonality, among others.
- **Operating model:** This should present one or more options related to the process of producing the selected good or service, the management structure, estimated volumes, key processes, processes that can be subcontracted, and productivity indicators, among others. From these, links to activities in the management plan can be made.
- **Fiscal and administrative reform:** Accurate assessment of modifications to the regulatory framework that will allow implementation of the financial mechanism under analysis. The level of required change needed should be established in order to evaluate the mechanism's capacity to have an impact and the time that must be invested in order to achieve the desired changes.

- **Financial analysis:** Determination of the levels and times of investment, the flow and behavior of income and expenditure, identification of unit costs, calculation of the break-even point, contribution profit margins, cost-effectiveness, and identification of key variables to model and simulate the future behavior of net income and returns.
- **Risk analysis:** Identification of potential sources of risk in terms of image, operations, market, conservation, the consequences for the management of the protected area at financial and program levels; and the measures that can be applied to control and/or mitigate adverse situations that arise during implementation of the financial mechanism. It is important to indicate that risk cannot be entirely minimized or eliminated.
- **Potential to close financial gaps:** Net quantification of the financial mechanism's contribution to the costs of the protected area, in both basic and optimal scenarios, as determined by the gap analysis. Together with the risk analysis, estimating the returns generated by the financial mechanism under analysis will facilitate comparison with other alternatives.
- **Recommendations:** To facilitate decision making, planners should present summarized information about the advantages and disadvantages of the operating models analyzed. Strategic suggestions should also be included concerning links with key stakeholders, the impact on the regulatory framework, how to attract potential investors, required staff skills and experience, compatibility with neighboring communities and their cultural and social framework, the implementation phases, the strategy to cover preinvestment costs, start-up, operation, and the management model, among others.

Whether at the level of the protected area or of the protected area system, the critical elements on which the selection of more complex financial mechanisms should be based are: information on the amount of investment required, the rate of return, and the level of risk. In turn, the central factors that will contribute to the successful implementation of the financial mechanism and to closing the financial gaps of the protected areas are: an appropriate selection of mechanisms, achievement of

27. When we analyze the competition, for example, it is important to take a local, national, and international approach. If the feasibility of increasing tourism to protected areas is analyzed only by surveying current visitors, one loses the perspective of the national or international tourists who are in the country but do not visit these areas; and, also the perspective of tourists who have chosen other tourist destinations in other countries.

the necessary investment, the availability of a supportive regulatory framework, coordination and partnerships with key stakeholders, and efficient implementation.

Diversification of Financial Mechanisms

The results of the pre-selection and selection of financial mechanisms constitute the first step toward diversifying financial options. Diversification can be defined as the practice of maintaining a wide variety of financial alternatives in order to minimize vulnerability by distributing risk. At the same time, in the case of protected areas, this means reducing dependence on international sources and central government budget allocations. The principle behind the diversification of financial mechanisms is the same as the one that applies to diversification of investment portfolios such as retirement funds, trust funds, and stock market investments. This is the principle of “not putting all your eggs in one basket.”



Therefore, diversifying financial mechanisms for protected areas is the best way to manage the unpredictable risk fluctuations of traditional sources, such as: international donors, government funding, projects, and endowment funds. These sources are subject to changes in the agendas of international cooperation organizations, government willingness to pay the duration of the projects, and, in the case of endowment funds, market fluctuations that can have a negative effect on interest-rate returns.

Diversifying financial mechanisms means creating a varied portfolio combining various mechanisms that may be international, national, and/or local, and either market or non-market based. For example, a diversified portfolio may include a trust fund that is capitalized through a debt swap and/or a GEF project, government funds, international donors, and self-generated income, among others. The diversification of mechanisms does not occur when protected areas only use two or three international financial mechanisms for their financing. For example, a protected area does not have a diversified portfolio if it is only financed by GEF, TNC, and USAID, since these sources are purely international.

2.4. Lessons Learned

- One should take advantage of the opportunities market economies generate to attract investments. Protected areas represent an important business opportunity for private investors. Therefore, it is important to establish a legislative and regulatory framework that enables support and participation of the private sector.
- When identifying and selecting financial mechanisms, planners should focus on innovative options to complement traditional financing sources. Identifying and eliminating legal, regulatory, and administrative barriers that hinder existing and potential financial mechanisms is an important step in this process. Strategic allocation of the resources generated should also be promoted. Moreover, financial mechanisms can be designed to combine fiscal, social, and environmental benefits.
- Economic feasibility studies are valuable tools to determine the real potential of financial mechanisms. The omission of these studies can lead to poorly-informed decisions and implementation problems that can cause low financial returns. Also, planners should consider a wide range of potential investors when conducting their feasibility studies.
- It is essential for protected areas to maximize the use of different financial mechanisms in order to reduce risks associated with income fluctuation. Financial sustainability of protected areas without adequate diversification of financial mechanisms is not possible.

Enabling Conditions: Assessing the Legal and Institutional Framework

From a financial standpoint, one of the greatest challenges for the consolidation of protected area systems is the absence of a favorable legal and institutional framework to ensure sufficient and long-term funding. Thus, beyond the usual rhetoric on the importance of nature, there is a critical need for effective national and global regulatory frameworks aimed at strengthening technical financial capacities for protected areas.

Low investment in protected areas has generated significant financial gaps in most of the protected area systems around the world. For this reason, it is essential to increase the capacity to mobilize, administer, and distribute financial resources, as well as to develop the enabling legal and institutional conditions that will ensure financial sustainability in the future. Many opportunities exist to simplify and improve the complex legal and institutional framework of the institutions responsible for managing protected areas. These changes, however, should recognize the current context and needs of demanding market economies. Along these lines, legal and institutional modifications should also focus on promoting fiscal, social, and environmental benefits, and establishing mechanisms that are more transparent and responsible.

Because legal frameworks generally focus on the regulation of operational aspects related to budget implementation (for example, payroll and acquisition of goods or services), it is important to transition to more favorable conditions that focus on the mobilization of financial resources, the adoption of

business management principles, the establishment of innovative financial mechanisms, and the autonomy of financial management based on principles of modern governance.

Generally, laws and regulatory frameworks have concentrated on the creation of new protected areas (policy of command and control), neglecting the corresponding creation of environmental fiscal policy to support protected area financing. According to the IUCN, international financing of protected areas has not been able to match the rapid growth of protected areas and their associated management costs — over the past four decades there has been a ten-fold increase in the number of protected areas reported by the World Conservation Monitoring Center, with over 120,000 sites reported. The area under protection has likewise expanded, from 2.4 million km² in 1962 to over 20 million km² in 2004. Roughly 12% of the global land surface is now defined as protected area.²⁸

This chapter presents guidelines for conducting an assessment of the legal and institutional framework at the national level. It presents the steps and benefits of policy reform and summarizes the lessons learned from policy reform in Costa Rica. The topics covered in this chapter will help to answer to the following questions:

- What does a national legal and institutional framework consist of?
- What are the opportunities and challenges for policy reform to improve protected area financing?

²⁸ IUCN, 2006.

- Why is it necessary to promote legal and institutional reform to support the financial plans of protected area systems?
- What tools can be applied to assess the legal and institutional framework?
- What are the steps in the process of policy reform?

3.1. Legal and Institutional Structure

The efficiency of the legal and institutional framework depends largely on the importance each government places on the conservation of its natural resources, which is clearly reflected in its environmental, social, and fiscal policies.

The legal and institutional framework supporting protected area finance should include legal, administrative,²⁹ and participatory elements, such as.

Legal:

- Tax laws to ensure the generation of funds at system and site levels (taxes, fees, fines, etc.).
- Compatibility between local, national, and international legislation.
- Efficient law enforcement and coercive mechanisms.
- Administrative regulations to guarantee the autonomy and legal sustainability of institutions that administer protected areas.
- Promotion of private sector participation and environmentally-friendly resource production.
- Legal framework regulating land tenure.
- Mechanisms to regulate the transparent and effective resource allocation, management, and control.
- Management monitoring and evaluation schemes.
- Mining, forestry, energy, and other sectors related to the extraction of natural resources.

Administration and Management:

- Financial planning and harmonized strategic planning.

- Decision making and executive management based on accurate and decentralized administrative and financial information.
- Compatibility with national development plans.
- Strategic and financial planning at area and system levels.
- Integration of all components of the protected area system, considering all types of expenses (for example, staff, operating expenses, investment in infrastructure, and equipment).
- Consolidation of national conservation and environment guidelines at the inter-ministerial level.
- Dedicated and trained human resources, and sufficient and well-allocated financial resources.

Participation:

- Clear communication of the benefits derived from environmental initiatives in order to ensure participation of government organizations (for example, ministries of Finance, Industry and Tourism, and the legislative body).
- Broad participation of civil society organizations in the co-administration and mobilization of financial resources.
- Linkage with the private sector in order to facilitate communication of technical knowledge and financial resources.
- Adequate benefits sharing.

It is important to note that laws and regulatory frameworks evolve at different rates, depending each country's political and socio-economic context. Annexes 10, 11, and 12 show the evolution of the legal and institutional framework in Costa Rica.

3.2. Assessment of the Legal and Institutional Framework

Often the legal and institutional framework affecting protected area financing is not conducive to improvement of protected area funding due to limitations such as:

29. Among the administrative management aspects, it is important to consider the institutional capacities needed for the effective management of financial resources. Such institutional capacities include leadership, strategic vision, administration of the organization, personnel management, resource development, financial administration, external relations, and program capacity. See *Institutional Self-Assessment: A Tool for Strengthening Nonprofit Organizations*, Devine et al., 2001.

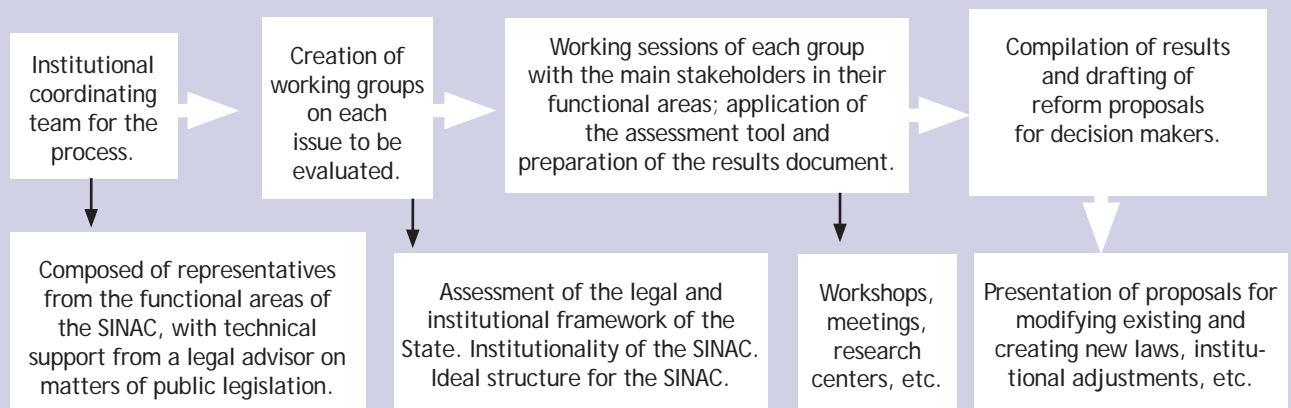
- Lack of consistency between sectoral laws and regulations and those related to conservation.
- Existence of legal gaps with limited regulation and lax control.
- Limited promotion of innovative program models.
- Little openness to creative financial schemes.
- Laws that do not correspond to the current context
- Lack of harmonization with international regulations.
- Regulatory excess (for example, specific definition of percentages, quotas).
- Lack of mechanisms to ensure transparency and responsibility.

The financial sustainability of protected areas is directly linked to the national legal and institutional framework. For example, depending on the type of regulations, it may not be possible to establish a decentralized system for payment of park entry fees, tourism concessions, sustainable extraction of natural resources, etc. However, provided that these financial options are environmentally and legally viable, they can contribute to improve protected area financing, and therefore should be implemented.

By assessing the legal-institutional framework, planners can identify the critical issues that have the greatest impact on limiting financial management and institutional dynamics. In particular, the legal and institutional assessment enables planners to determine the effectiveness of laws and regulations. The assessment provides a systematic description of the critical limiting factors, and a set of specific proposals for improvement. These proposals can range from simple modifications in daily operations to the creation or reform of specific laws. It is important to stress that every reform proposal should be supported by a communications plan and lobbying process led by protected area stakeholders.³⁰ This is discussed further in Section 3.3.

The National System of Conservation Areas (SINAC) of Costa Rica implemented a systematic process for assessing that country's legal-institutional framework. Figure 7 illustrates the steps that were followed. It should be noted that these steps are applicable at the level of both protected area systems and individual areas, and that these steps encourage broad participation of stakeholders representing different sectors of civil society.

Figure 7. Stages in the Assessment of the Legal and Institutional Framework in Costa Rica



30. For example, if a fiscal reform is proposed with the aim of improving the financing of a protected area system, it will be essential to involve key stakeholders representing the Ministry of Finance, the State Comptroller's Office, congress, the private sector, and civil society organizations, among others, in order to achieve broad representation and legitimacy to facilitate the desired legal-institutional change.

Legal and Institutional Assessment Tool

SINAC developed a practical tool to carry out a rapid assessment of the legal and institutional framework regulating protected areas. This tool, included in Annex 13, enables the development of a baseline of the legal-institutional framework of the system of protected areas. The application of this tool makes it possible to develop a basic idea of how effectively the legal-institutional framework supports the protected area system. This information is very useful for those responsible for public policy and decision making, and for other stakeholders related to the field of conservation. The tool divides the analysis into two categories:

1. Current legal and institutional framework. This section presents a set of questions that facilitate identification and analysis of the most relevant issues in the current situation. It also provides the opportunity to propose specific changes with respect to each of the issues discussed.

2. Ideal legal and institutional structure. This section presents a set of questions focused on improving the protected area system as a whole. The inputs generated in the previous section are key to designing a consistent proposal to promote sustainability of the protected area system.

The two categories above promote broad discussion, facilitate establishing benchmarks to evaluate the issues discussed, and support identification of improvements. The aim is to generate recommendations to assist in the development of an initial action plan designed to achieve the required policy reforms.

Since large differences exist in the legal and institutional contexts of each country, not all of the questions and benchmarks may be applicable. Therefore, before using this tool, it is important to refine the questions and benchmarks to be used. This process can be complemented by adding additional questions and benchmarks, according to the specific needs of the system.

Guidelines for Applying the Assessment Tool

It is recommended that the tool be applied by a facilitator experienced in conducting participatory

processes and familiar with conservation laws and institutions. The stakeholders involved in the application of this tool should represent the public sector, business entities, NGOs, grassroots organizations, and other sectors linked to the conservation and financial sectors.

Before applying the tool with stakeholders, the facilitator should explain the context and objectives for the process. Besides the questionnaire, the process is enriched with discussions about the practical experience of the participants. It is recommended that a full day be allowed for the application of the tool.

It should be noted that the tool can be applied individually (through interviews) or with groups (through workshops). However, group application tends to be more effective since it allows for feedback and exchange of viewpoints among the participants, thus contributing to a more comprehensive analysis to support reform proposals. Annex 14 includes guidelines for facilitators who will use this tool.

The tool includes guiding questions and alternative activities to facilitate dialogue and exchange. However, it is possible to add questions in order to make the assessment as meaningful as possible. There is a section after each guiding question that can be used to consolidate the analysis and suggest improvements.

Since the purpose of this tool is to carry out a rapid assessment, the approach to data gathering emphasizes qualitative analysis over quantitative analysis. In this way, it seeks to map the central issues and sub-issues that emerge from the assessment in order to identify critical areas for reform. The process also includes the evaluation of the level of consensus among the different stakeholders regarding their assessment of the problems and proposed solutions.

The results of the assessment can be presented using concept maps³¹ or summary tables to provide an aggregate picture of the most critical areas on which the reform interventions will focus. Based on the results of the assessment, an action plan to implement the reform proposals with the greatest impact

31. Concept maps are graphic representations that facilitate the organization of concepts, ideas, results, and their interconnections according to criteria of affinity. They are very useful for synthesizing and communicating key information.

potential is prepared. The next step should be to begin the process of negotiating and implementing the proposed reforms.

3.3. Policy Reform

This section provides planners with an overview of different steps involving the implementation of policy reform. Policy reform is not a linear process,³² and often a new environmental problem is not incorporated into the political agenda, but it can be managed in a systematic manner.

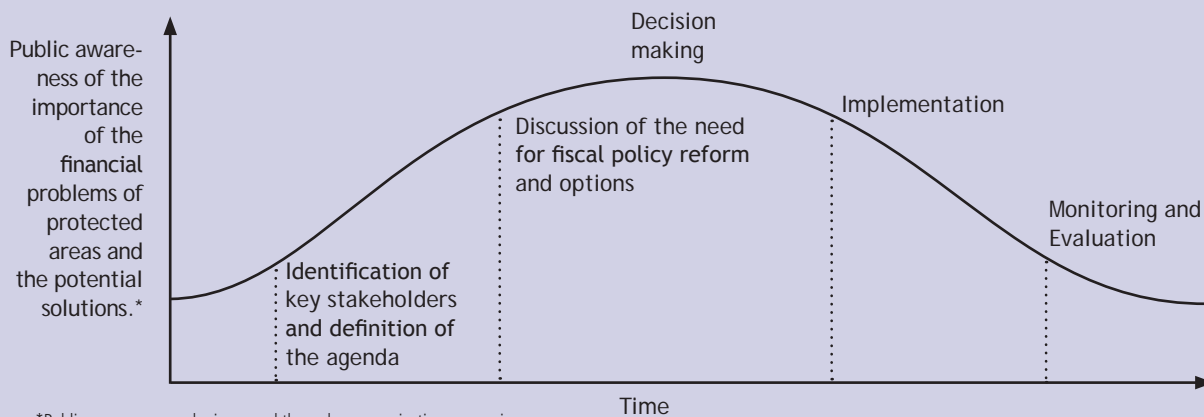
In reality, most of the problems are already known and, depending on the local circumstances and context, these problems may or may not be priorities in the policy agenda. Likewise, the policy options available to resolve these problems are not completely unknown (World Bank et al., 2005). Because of this, it is important to be prepared to recognize and intervene when an opportunity for policy reform presents itself, or to create an opportunity for policy reform.³³

Part of this preparation includes being familiar with the process of policy reform (see Figure 8). This ap-

proach assumes that the policy reform process starts at a point in which public awareness of an environmental problem (in this case, under funded protected area systems) is critically low and needs to be raised. At this point, the key stakeholders are identified and an agenda (action plan) is put forward. At this stage, civil society organizations and the media can play an instrumental role in raising awareness of the issue of under funded protected areas. The increases of the problem's profile in the public opinion will trigger the discussion over policy options to solve it. After different policy options have been considered and weighed, and public perception of the problem continues to rise, the critical moment comes when decision makers (politicians and senior managers of government agencies) need to convert policy considerations into practical policy because their decisions will be backed by public opinion.

The results of realistic analyses of protected areas financial needs and gaps, and the contribution of protected areas to the national economy and equity, combined, offer a powerful tool to raise public awareness and persuade decision makers to take action.

Figure 8. The Process of Fiscal Reform to Support Protected Area Financing



*Public awareness can be increased through communications campaigns that convey realistic financial needs and gaps, and accurate assessments of the contribution of protected areas to economic growth and equity.

Source: Adapted from *Environmental Fiscal Reform*, World Bank, May 2005.

32. For more information, see *Environmental Fiscal Reform – What should be done and how to achieve it?* Boyd, Richard et al. World Bank, 2005.

33. For example, taking advantage of the established political venues: COP, the World Parks Congress, meetings of the G8 Group, meetings of the OECD, changes of elected government officials or authorities, among others, with whom it is possible to reach political compromises through intense lobbying efforts.

Box 8: Elements to Consider When Planning Environmental Fiscal Environmental Reform*

Key stakeholders:

- Poor populations and vulnerable groups (considering gender, ethnic groups, location, etc.).
- The private sector.
- Civil society (NGOs, the press, academic institutions).
- Politicians and decision makers (ministries, legislators, political parties).
- Bureaucrats (at every level).
- Development agencies and international stakeholders.

Opportunities:

- Taxes on natural resource extraction.
- Charges or fees (payment for environmental services).
- Reform of perverse (environmentally harmful) subsidies.
- Environmentally-related taxes.
- Conventional taxes (sales tax).

Barriers:

- Policy experts who say what to do but not how to do it.

- Conservation policy experts who place too much emphasis on “command and control” policies.
- Lack of “political will.”
- Lack of institutional capacity.

Critical actions led by the environmental community:

- Involve the Ministry of Finance (interested in generating income and achieving synergy with the general tax framework, and administrative simplicity).
- Develop links to the political process in order to communicate reform objectives and identify the “winners and losers” in the process.
- Promote the use of fiscal instruments to resolve environmental problems.
- Move from command and control policies to the use of economic instruments.
- Develop environmental capacities in the government (promote institutional cohesion, transparency, responsibility, and auditing).

- Substantiate and communicate the multiple benefits of reform.

Social Benefits (Poverty Reduction):

- Access to infrastructure.
- Investment in anti-poverty measures according to Millennium Development Goals.

Environmental benefits:

- Better management of natural resources.
- Reduction of pollution.
- Mitigation/adaptation to climate change.
- Funds for government agencies.

Fiscal benefits:

- Generation of funds.
- Reduction of distortions.
- Reduction of the need for central funds.

*Source: Environmental Fiscal Reform, World Bank, May 2005.

Generally, policy decisions that are made without public support are not sustainable in the long-term. The implementation of reforms should be accompanied by permanent monitoring and evaluation in order to keep the reforms up-to-date, communicate the results achieved, and ensure that the reforms respond to socioeconomic and environmental conditions. Likewise, in order to facilitate decision making and the support of public opinion, it is important for fiscal reform to provide, ideally, multiple benefits: social, environmental, and fiscal. An environmental fiscal reform that achieves social benefits, in addition to financial and conservation benefits, is more likely to be accepted than one that simply focuses on obtaining funds for conservation. Table 9 presents a hypothetical example of how a fiscal reform can pro-

vide the three above-mentioned benefits. In addition, Box 8 illustrates the elements to consider when planning policy reform.

3.4. Lessons Learned

- At all levels of protected area administration, there should be clarity regarding the processes and policies that are established for use and management of financial resources allocated to the conservation of protected areas. Much of the conservation resources problem can be solved through more effective management of financial resources.
- In order to work toward the financial self-sustainability of protected areas, it is indispensable to have a firm policy that attracts qualified staff

Table 9. Environmental Fiscal Reform

Example: A government has earmarked one percent of the income from gasoline sales tax that will be allocated to the national protected area system.

Fiscal benefit

The gasoline sales tax generates, for example, US\$200 million annually for the government. Out of this amount, US\$2 million, or 1 percent will be allocated to support national parks.

Environmental benefit

US\$1.5 million is allocated to finance patrolling and enforcement programs in the national parks.

Social benefit

The national park authority allocates US\$.5 million annually to support basic sanitation work in indigenous communities in and around protected areas. This can be doubled with one-to-one matching funds from private sector sources.

to manage effectively both conservation aspects and the administration of financial resources for protected areas. It is essential that the staff of protected area systems have strong skills for management and administration of public and private funds.

- All reforms of the legal and institutional framework that are related to the administration of financial resources affecting third parties should promote

participation of all stakeholders, using broad consultation and dissemination strategies in order to avoid unnecessary opposition during implementation.

- The legal and institutional reforms that are promoted should consider how they fit within the existing regulatory structure of the country. For example, the Ministry of Finance is more likely to accept and adopt policy reforms that are simple and administratively feasible.

The System-Level Financial Plan Based on Business Principles

Financial plans and business plans are formulated in different ways depending on the objective of the plan and, in practice, the terms financial plan and business plan are often used interchangeably. There is no single recipe for how to formulate these plans, but it is important to establish differences and links between these two cornerstones of financial planning.

In this document, we will use both financial and business plans to address strategic and resource mobilization aspects. We consider the financial plan a much broader strategic document which summarizes a wide range of aspects related to the financial planning process. The business plan, on the other hand, is a tool designed to guide the implementation of specific market-based financial mechanisms and is subordinated to the financial plan. These key operational definitions are included in Box 9.

One of the biggest challenges in ensuring the financial sustainability of protected areas is to formulate operative and innovative financial plans. To accomplish this, financial plans must include clear business principles and solid links to both the private sector and government organizations, particularly those outside the environmental sector. In addition, financial plans are instrumental for:

- Clarifying key operational definitions (for example, feasibility studies, financial plans, and business plans).
- Linking financial plans at the level of individual protected areas with the plan for the protected area system.

- Strengthening financial management capacity.
- Strengthening informed decision-making by adding finance and economic information to science.
- Incorporating adaptive business practices from the corporate sector.

The questions this chapter will help to answer include:

- What does a financial plan consist of and what are its elements?
- What does a business plan consist of and what are its elements?
- Why should protected areas financial management be based on business principles?
- What are the differences and links between feasibility studies, financial plans, and business plans?
- What are the necessary conditions and steps for developing financial plans?
- What does the expected product look like?

4.1. The Financial Plan

A system-level financial plan establishes lines of strategic action to mobilize financial resources and build financial management capacity to support a network of protected areas. In this sense, a financial plan evaluates the financial condition of protected area operations, provides information on current and future needs, and defines options for leveraging resources from both the public and private sectors.

It is important to emphasize that a system-level financial plan does not replace a protected area master or strategic plan, but rather complements it

Table 10. Approaches to Financial Plans

Traditional approach

1. Short-term approach and unclear financial goals.
2. Undefined financial needs.
3. Based on international donations, trust funds, and central government funding.
4. Focus on “what should be done.”
5. Doesn’t provide incentives for the self-generation of resources.
6. Mainly focuses on ecological objectives.
7. Limited support to resolve institutional capacity issues.
8. Discourages the development of laws for the development and retention of resources.
9. Generates dependence on international donors and the public sector.
10. Undefined implementation responsibilities and follow up.

Market-based approach

1. Defined short-, medium-, and long-term financial goals.
2. Realistic financial needs and gaps.
3. Based on diversification of income, cost reduction, and strategic allocation.
4. Focus on “how to do it.”
5. Promotes self-management and the use of supply and demand analysis to attract resources.
6. Seeks to link conservation with fiscal and social objectives.
7. Identifies and resolves financial capacity problems.
8. Promotes fiscal reform and regulation to generate and retain resources at protected areas level.
9. Promotes financial mechanisms supported by the private sector, and public-private partnerships.
10. Dedicated staff and clear implementation and follow up responsibilities.

with strategic financial guidelines. The formulation of the system-level financial plan based on business principles facilitates transition away from a traditional funding approach that is highly dependent on international support (projects and trust funds) and often incipient central transfers to a more operational, market-based model that focuses on financial autonomy, realistic needs, diversification of funding sources, self-generation of income, cost optimization, and strategic resource allocation, among other elements. Table 10 compares the main characteristics of these approaches.

The transition from a traditional approach to one based on business principles is not simple or easy. Beyond the technical challenges, the adoption of financial plans based on business principles poses institutional and management challenges. One of the most important institutional challenges is the legal and regulatory reform required to create a more autonomous and investment-friendly protected area system. Thus, two management challenges are the need to develop leadership abilities, and promote a more entrepreneurial approach among protected area managers and government decision makers.

Although the foregoing aspects are not solely financial in nature, these challenges affect progress toward financial sustainability. Therefore, financial plans should include clear strategies to address and overcome these barriers during their implementation.

4.2. Business Principles

The continuous decline of international funding and the limited growth of government allocations and protected area endowment funds are increasing governments’ attention to use business principles when formulating financial plans. For instance, Ecuador, Peru, Costa Rica, Belize, and Grenada are in the process of implementing such plans. In the United States, there is substantial experience with business plans for national parks, implemented by the National Park Service and the Center for Park Management at the National Parks Conservation Association.³⁴

When formulating a financial plan, the use of clear operational terms (see Box 9) can facilitate adapting and applying key business sector principles to increase the opportunities for financial success. These principles are illustrated in Figure 9 and include:

- **Realism:** Accurate and verifiable costs, needs and gaps are defined by applying accounting methods

34 . Developed through the Business Plan Initiative, Center for Park Management, National Parks Conservation Association, www.npca.org/cpm.

Box 9. Financial Planning – Key Operational Definitions

Financial sustainability: The government’s ability to ensure sufficient and stable long-term financial resources, to allocate them in a timely and appropriate manner, and to cover the total costs of protected area management. Financial sustainability is not possible without solid and effective institutions for protected area management (IUCN, 2006). Sustainable finance implies the “supply” issue of generating more revenue, but just as importantly, the “demand” side challenge of managing PA financing needs (UNDP, 2007).

Financial planning: For protected areas systems and individual protected areas, we consider financial planning a working framework. It includes interactive processes with many stakeholders. Ideally, it creates broad ownership across constituencies, systematizes actions, and attracts sufficient resources to fund the protected area system in a stable long-term manner. It includes the different processes related to (a) assessing financial needs, income, expenses, and financial gaps, (b) selection and feasibility assessment of financial mechanisms and cost reduction strategies, and (c) formulation of financial plans supported by defined business principles and business plans. Financial planning may also include assessment of the legal and institutional framework to enable the establishment of diverse financial mechanisms and implementation of the financial plan.

Financial plan (also known as sustainable finance plan): A business-oriented management tool that summarizes the protected areas’ financial history (income, expenditures,

financial needs and gaps) and describes feasible financial mechanisms and cost reduction strategies to address the needs and reduce gaps. A financial plan may include summaries of the feasibility analyses and business plans to guide the implementation of specific financial mechanisms. Additionally, this plan may include strategic reforms to improve the legal and regulatory framework related to protected areas financing, and capacity building aspects.

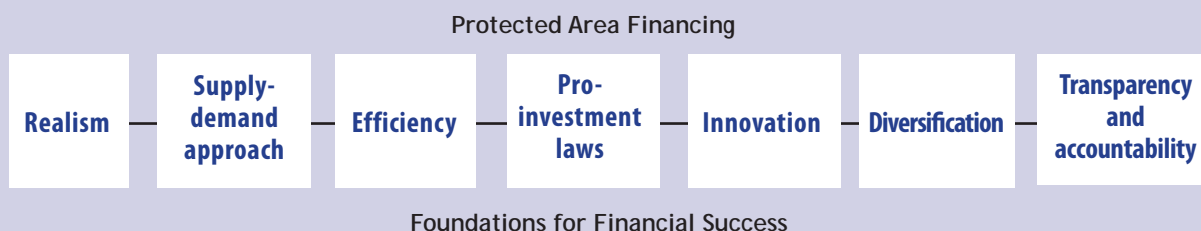
Feasibility study: An analysis tool that determines whether a given financial mechanism is feasible (see Chapter 2). A feasibility study defines different alternatives or models to make the given mechanism operational and facilitate selection of the best operating model for implementation. If a financial mechanism is not feasible, consideration may be given to corrective measures to eliminate shortcomings or, in extreme cases, the mechanism may simply be dropped. A feasibility study is not a business plan.

Business plan: A management tool that outlines the necessary actions to implement a financial mechanism and maximize economic returns. Thus, based on the best operating model defined in the feasibility study, the business plan presents the steps and activities needed for the most efficient implementation of the financial mechanism. This should be developed only when the financial mechanisms selected in the financial planning process are determined to be feasible. In summary, a business plan provides a “roadmap” for the strategy that will be used to implement the financial mechanism.

that include the use of metrics to connect the goals of conservation programs with actual costs for minimum and optimal levels of protection. Costs are directly linked to what is required (for example, staff and equipment) to achieve the goals of each conservation program; and the financial gaps are determined by comparing available resources with financial needs.

■ **Supply and demand approach:** Seeks to improve the relation between providers of ecosystems’ goods and services with the needs of customers, both the public and the business sector, in order to generate sustainable financial resources. The supply and demand approach helps to better determine the price and quantity of goods and services sold in a competitive market (for example, tourism). It aims

Figure 9. Business Principles Relevant to Financial Planning in the Conservation Sector



at balancing the quantity demanded by consumers, and the quantity supplied by providers (producers). The use of business plans is critical in the supply and demand approach.

- **Operational efficiency:** Making best use of the resources available. In practice, this means adopting standards, reducing costs without reducing quality, improving processes, implementing quality control initiatives, and establishing incentives to improve performance. Operational efficiency is measured through an efficiency ratio “expenses as a percentage of revenue.” A lower percentage is optimal because it means that expenses are low and revenue is high. Operational efficiency looks at maximizing profit by minimizing costs, taking external factors and environmental and social aspects into account.
- **Pro-investment policies:** Demonstrating the friendliness of policy (business legislation and regulation practice) to carry out business, especially for investors from the private sector, but also for the public. It includes a wide range of policies that are applicable to the conservation sector. For example, in the 2008 issue of the “Doing Business” report of the World Bank and the International Finance Corporation, countries received scores in ten specific policies: starting a business; dealing with licenses; employing workers; registering property; getting credit; protecting investors; paying taxes; trading across borders; enforcing contracts and closing business (see www.doingbusiness.org).
- **Innovation:** This is a key element in both cultural and financial terms. The first focuses on promoting a culture of change, creativity, and continuous improvement, thinking how things can be done differently and more effectively, developing new services, providing better attention to visitors, etc. The second focuses on connecting change with increase value (customer or producer value) and is a major driver to increase revenue. Innovation also includes adoption of processes and technologies to enable the development of unique and comparative advantages.
- **Diversification:** Consisting of the selection of a varied portfolio of financial mechanisms used to finance all the costs related to the management of the protected areas network, both market and non-market-based mechanisms. Diversified income sources are indispensable to maximize economic

returns and manage risk through risk distribution. See Chapter 2 for a more detailed discussion of diversification.

- **Transparency and Accountability:** Both are central to good governance in protected area management and particularly in financial management. For the purpose of this publication, transparency implies financial openness and good communication. In this sense, budgets and financial statements are considered to be transparent when available for public review (for example, through the Internet). Accountability refers to responsibility, account-giving (obligation to report), and liability of public officials in their positions, for their actions, decisions, and the resulting consequences. Transparency and accountability are indispensable elements to minimize opportunity for authorities to abuse the system in their personal interest, both in the public and corporate sectors. Therefore, it is necessary to introduce mechanisms that generate timely and accurate information, facilitate public access to financial information, transparency, and accountability standards and designate clear responsibilities for financial management. The management of public funds requires dedicated and responsible staff, efficient financial and accounting systems, accurate and timely reports, and communication of results.

Writing the Business Plan



A great deal of useful indicators for transparency can be found at the IFI Transparency Resource webpage www.ifitransparencyresource.org, including indicators for governance, policy and strategy formulation, evaluation and audits, accountability mechanisms, disclosure policies, public information and websites. Advanced transparency indicators are commonly used at international financial institutions (IFI) such as the World Bank and the International Monetary Fund.

As more protected areas and protected area systems adopt the aforementioned business principles in their financial planning, the possibilities of attracting more funds in a sustainable manner will increase.

4.3. Components of a Financial Plan for a System of Protected Areas³⁵

The essential components of a financial plan may vary from one country to another, due to differences that exist between protected area systems, the legal and institutional frameworks, and the financial needs and options available. In general, a financial plan should include the following elements:³⁶

Protected Areas System Background

This section of the financial plan provides a concise overview of the protected area system. The main topics should include: a description of the areas that make up the system (geographic extension, natural and cultural resources, and infrastructure), current legislation (summary of the legal framework and legal challenges), historical evolution (increase or reduction in the number and size of the areas), mission of the agency responsible for managing the protected areas (functions and operational structure), description of the program areas in the management plan, contributions made by the system of areas to the development of the country, maps of the protected area system, and other information that facilitates understanding the characteristics, challenges, and opportunities of the system of protected areas.

Financial Background

This component of the plan presents the historical evolution of income, expenditure, and investments (consolidated for all areas of the system). The financial background should list income according to sources (national, international, private, public, etc.) and type (transfers, self-generated income, donations, etc.). Information on expenditures should specify the expenditure structure (staff, materials, services, etc.) and break down costs by functional area, according to categories in the management plan. In terms of investment, the financial background should include the types of capital goods and studies that have been financed and their relations to the protected area financing. It is very important for the financial background section to also include a brief

description of the impact of the lack of financial resources on the natural resources in the protected area system.

Objectives

The financial plan should clearly specify the objective and the action lines to achieve such objective. The plan will guide the process of obtaining the necessary resources to implement all of the programs of the management plan of the protected area system. The objective and actions should produce concrete and lasting changes such as initiatives for self-generation of income, diversified income sources, cost reduction, and standards for transparency and accountability.

Summary of Financial Needs and Gaps

This section presents a summary of the evolution, current status of, as well as financial projections for, the projected area system through the analysis of total income, conservation needs (basic and optimal levels), associated costs (operational and investment), and financial gaps (see Chapter 1).

The “gap” analysis of the financial situation makes it possible to determine the necessary financial resources and establishes a framework for selection of the financial mechanisms that will help to cover the system’s needs. The summary of the financial gap analysis conducted at the program-area level provides a complete picture of the cost of current operations and the material, financial, and human resources used. For example, the summary for the tourism and recreation program area may include subprograms related to collection of entrance fees, interpretation centers, and visitor security and protection.

Investment Priorities

The investment priorities section should specify the program areas that should receive more attention and, therefore, more financial resources. The definition of priorities should consider two levels of analysis: a) a review of the results of the financial analysis showing each program area’s financial situation and needs, and b) the determination of key program areas included in the management plan essential for conservation.

The results of the investment priority analysis provide a basis for selection of program areas where resources

35. *Business Plans for Parks and Protected Areas*, The National Parks Conservation Association (NPCA), 2005, has been referenced to develop this section.

36. Annex 15 illustrates the components of a financial plan based on the experience achieved in Ecuador.

obtained with the financial plan should be allocated. A good prioritization of program areas will make it possible to allocate resources strategically and to attract complementary resources.

Market Analysis

A market analysis provides an overview of who the clients, competition, and different stakeholders are, from the social, economic, and political context in which the protected area system functions.

The analysis of clients (such as investors, visitors, local communities, and donors) focuses on a client profile (number, origin, preferences) and historic trends (for example, over the last five years). Analysis of the competition focuses on businesses or institutions that provide products and services similar to those existing in the protected areas. For example, in the case of the tourism sector, it identifies and profiles other service providers of activities such as white-water rafting, kayaking, adventure camping, sport fishing, and hunting. The competition can be analyzed at the local, national, and international level.

Summary of Financial Mechanisms (Mechanisms, Feasibility Analysis, and Business Plans)

Based on financial needs and priorities, and the market analysis, this “strategy” section presents a summary of available and feasible mechanisms. It is important to include a summary of the selection process and the alternatives chosen, together with their respective operating models.

The description of the financial mechanisms chosen should be associated with the program areas where resources are allocated. In this way, if the financial plan includes the use of debt swap mechanisms, trust funds, or tourism initiatives, it is important to make clear where the funds generated will be allocated.³⁷ That is, this section should specify the management programs or sub-programs to be supported with these resources, the level of reduction of financial gaps, the scope of the financing (covering the whole system of protected areas or some areas in particular), whether or not a connection exists with other financial mechanisms, and the need for legal reforms and capacity building activities, among other aspects. It is also important to

Table 11. Options for Diversification of National Park Entry Passes and Fees

(Market-oriented fees are determined by considering the type of entry, service, number of people, and duration of pass.)

Passes and services	Number of people	Duration of pass	Payment type	Point of purchase
<ul style="list-style-type: none"> ■ General admission to a national park ■ General admission to several national parks (cluster, regional and/or provincial)^ ■ General admission to all parks in a system^^ ■ Diving pass ■ Hunting pass ■ Camping pass ■ Special event pass ■ Guided tour pass ■ Horseback riding pass ■ Fishing pass ■ Kayaking pass ■ Research pass* 	<ul style="list-style-type: none"> ■ Individual ■ Group ■ Family ■ Corporative ■ Schools (primary and secondary)** ■ Vehicles pass: small-vehicle (up to 7 people) and large-vehicle (more than 7 people) 	<ul style="list-style-type: none"> ■ Daily ■ Multiple entries ■ Weekend ■ Weekly ■ Monthly ■ Annual (valid one year from date of sale) ■ Seasonal*** 	<ul style="list-style-type: none"> ■ Cash ■ Credit card ■ Debit card ■ Airline miles ■ Credit card points ■ Electronic (e.g., Paypal-type) ■ Exchange for goods or services ■ Gift cards ■ Supermarkets 	<ul style="list-style-type: none"> ■ Banks ■ Internet ■ Protected areas ■ Government agencies ■ Tourist agencies ■ Consulates

^ For example, South Africa's Wild Card, a smart card that records information on use frequency. See www.sanparks.org/tourism/wild/

^^ Can be marketed as National Parks Passport (for example, Mexico's Conservation Passport). See www.conanp.gob.mx/pasaporte.

* Paid by academic or research institutions, public or private.

** Paid by the Ministry of Education, private schools, and/or private companies.

*** Spring, summer, fall, and winter.

37. It is worth pointing out that not all financial mechanisms have the same flexibility for the allocation of funds. For example, there is less flexibility in the case of park entrance fees; it is important for this income to be allocated primarily to services for visitors (water fountains, paths, signage, restrooms, cabins, etc.).

Box 10. Key Elements of a Business Plan

Component	Description
Description of the mechanism	Identifies the characteristics of a business opportunity (good or service) and the value added.
Market analysis	Analyzes the main characteristics of the market (size, trends, etc.) and evaluates the distinctive elements of the product or service with respect to its competitors. Also evaluates whether there are barriers to its acceptance.
Marketing plan	Includes price setting, positioning of the product or service, and its promotion and distribution, consistent with market conditions.
Operations	Describes the key activities to develop and offer the selected product at a competitive price.
Investment and return (cost efficiency)	Determines the total investment (fixed assets, intangible assets, and working capital), projects the income and costs throughout an evaluation period, and estimates the level of return.
Legal and administrative aspects	Focuses on the legal and institutional aspects required for implementation of the business plan. Also defines the functions and responsibilities of the necessary staff.

In developing a business plan, it is important to consider the following criteria:

- **Impact and socioeconomic benefits:** Job creation, positive environmental benefits, and resource generation, for example.
- **Technical feasibility:** Having mastery of the technical process (for example, ecotourism) in order to

achieve the proposed goals through the optimal use of resources.

- **Implementation capacity:** Assignment of adequate staff for management, administration, and operations.

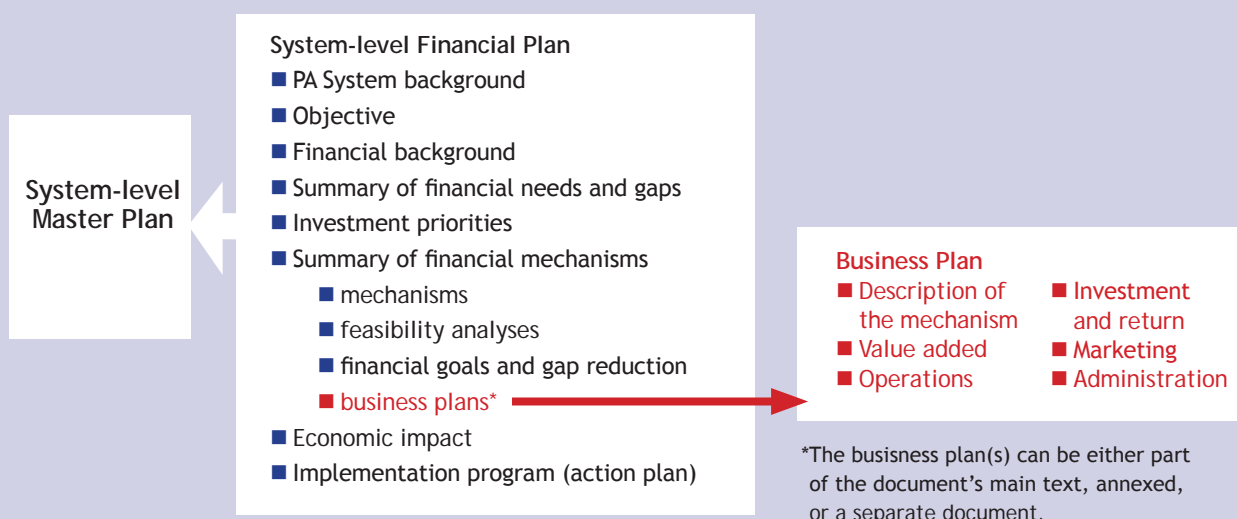
Adapted from: Estrategia de Generación de Ingresos Propios: Planes de Negocios. Training Materials. G. Rivero, Pact, 2004.

indicate the procedure that will be used to evaluate the financial plan and its impact. This topic will be discussed in section 4.4.

To the extent that the selection of financial mechanisms is based on analyses and research, it is impor-

tant to attach summaries of the feasibility studies³⁸ that substantiate the financial viability of each of the selected mechanisms, and a summary or summaries of the business plans³⁹ that facilitate implementation of market-based mechanisms requiring a business plan. The business plan can be formulated to support a spe-

Figure 10. Components of a Financial Plan for a Protected Area System



38. Feasibility studies are critical elements of a financial plan. Such studies make it possible to reduce the uncertainty associated with financial mechanisms and facilitate the best selection of financial alternatives for a protected area system.

39. Within a financial plan, business plans focus on all aspects related to implementation of the most appropriate operating model for a selected financial mechanism. Business plans are a useful management tool to ensure that the financial goals of the selected mechanism are met

Table 12. Economic Impact of Foreign Visitors to Laughing Bird Caye National Park (LBCNP), Belize (in US\$)

Total Foreign Visitors to LBCNP in 2004	6,980
Number of non-dive visitors	5,809
Average tour price	\$90
Value to tour operators	\$522,810
Number of scuba divers	1,171
Average dive-trip price	\$170
Value to dive operators	\$199,070
Direct revenue to tour operators	\$721,880
Average hotel price in Placencia per person – shared (2003)	\$90
Value of hotel for night of LBCNP visit	\$631,097
Meals and miscellaneous expenses day of visit	\$30
Value meals and miscellaneous expenses	\$209,400
Total value 1-day LBCNP visit to Placencia	\$1,562,377

cific mechanism, or could include various mechanisms in a protected area. See Box 10 for the key elements of a business plan and the link to the financial plan. In the case of tourism, for example, it is essential to have business plans. These plans help to improve or establish the link between supply and demand. A very specific case is that of the collection of payment for tourism services offered by national parks (entry fees), which are too often, due to limitations in the regulatory framework, based on a single and rigid entry fee payable only at the parks' entrance. An example of the different elements (for example, type of pass and service, number of people, duration of pass, payment method, and point of purchase) to consider when designing market-based entry fees is available in Table 11.

As noted at the beginning of this chapter, there is no single recipe for how financial plans and business plans should be formulated; recall that for purposes of this publication, the business plan is subordinate to the financial plan. Figure 10 illustrates how the business plan(s) is included within the broader framework of a financial plan, and Box 11 summarizes the process of linking Ecuador's financial plan and business plan.

Economic Impact

This section describes the economic impact of the protected area on the community, the region, and the country, as well as the external benefits of protected areas, such as watershed protection and clean air. Like

the marketing plan, the economic impact analysis section can be as detailed as desired or can be summarized in a table. However, as a general rule, the shorter and more concise, the better. The process of economic impact analysis is, in fact, very specialized and complex, generally involving a separate assessment. The goal of this section is to provide readers with a summary of the economic impact of the protected area. This section is useful to mobilize political will to support implementation of your financial plan by focusing on the way monetary and non-monetary benefits flow, where these benefits are generated, and who the ultimate recipients of such benefits are. For example, the economic impact analysis can illustrate how protected areas help to generate spending (for example, from visitors), both inside and outside protected areas. Table 12 illustrates how this information can be presented.



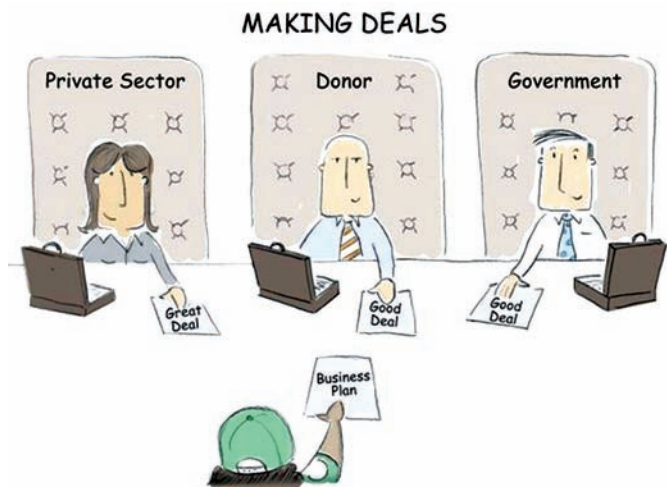
Plan of Action

Implementation Plan

This plan refers to the programming of all the actions necessary to carry out the financial plan. The implementation plan should cover the following key topics:

- **Program of activities:** Inclusion of all actions related to market and non-market-based financial mechanisms, including business plans and all institutional, legal, and regulatory aspects.
- **Budget:** Clear determination of the resources needed to implement the plan and its financing.
- **Decision-making structure:** Determination of levels of decision making and their functioning.
- **Assignment of staff:** Identification of necessary staff (quantity and quality) and determination of their roles and responsibilities.
- **Communications plan:** Definition of actions aimed at disseminating financial information to internal and external stakeholders of the system of protected areas.

The components of a financial plan can be adjusted according to the context of each country or region (in the case of financial plans being developed at the



subsystem level, such as the federal, state, or municipal level). In turn, every financial plan should include elements such as a preface (by the director of the protected area system), an executive summary, and other elements needed, depending on the specific context (bibliography, annexes, financial tables, etc.). Finally, it is worth remembering that a financial plan is essential because it:

Box 11. Financial Plan and Business Plans in Ecuador

From 2004 to 2007, the Ministry of Environment of Ecuador led a process aimed at improving the financial sustainability of the 36 areas that make up the National System of Protected Areas of Ecuador (SNAP). The process began with the formation of a working group representing nine organizations that share an interest and specific capabilities for supporting the Ministry of Environment with technical and financial resources.

The first stage of the process consisted of a system-wide financial needs analysis, which produced valuable information on the current financial status of SNAP, as well as a 10-year projection of financial needs and gaps. This information was obtained through an analysis of the main barriers and structural limitations to increasing the amount of resources SNAP currently receives. These analysis inputs made it possible to adequately gauge the requirements of financial planning. Based on the analysis, the planners developed specific instruments on three levels.

The first level, the financial sustainability strategy, consisted of macro-level strategic planning for the whole SNAP, including the analysis of supply and demand for resources. This strategy proposed alternative financing mechanisms and identified a set of legal, political, and institutional elements that created an enabling environment for financial sustainability. At the second level, specific business plans were developed for each of the most promising alternatives and for mechanisms that were considered in the financial sustainability strategy. Finally, at the third level, steps were taken to operationalize different instruments at the level of implementation plans and specific evaluation systems, in order to measure the progress of each priority line of action. These planning levels clarified the hierarchy of the different planning instruments and facilitated organizing the participation of different stakeholders in the implementation of each instrument. Annex 15 contains a summary of these plans.

- Promotes a shift toward attitudes that support the adoption of business strategies.
- Aligns financial opportunities with protected area conservation objectives.
- Promotes informed decision making supported by financial information.
- Anticipates funding cuts and proposes solutions.⁴⁰
- A feasibility analysis, part of the financial planning process, determines whether a financial mechanism is worth the investment of time, effort, and resources (see Chapter 2).
- A market analysis helps to understand the strengths and weaknesses of the market, and enables planners to make adjustments to achieve the financial goals.

The financial plan is the protected area's "business card." Thus, the government, donors, the private sector, and the general public see protected area managers as business professionals who know their financial situations, have clear financial goals, and know how to reach them.

4.4. Measuring of Progress

Traditionally, implementation of financial plans at the protected area system level has not had mechanisms to evaluate progress and facilitate timely feedback.

As part of the effort to fill this gap, the United Nations Development Program (UNDP), in coordination with members of the Conservation Finance Alliance (CFA), has developed a scorecard⁴¹ to measure progress of protected area systems toward financial sustainability. This tool is discussed below, and Box 12 contains basic principles on how to evaluate a financial plan.

The UNDP's Scorecard was officially launched in October 2007 in Bariloche, Argentina, during IUCN's Second Latin American Congress on National Parks and Other Protected Areas. This tool is already being implemented widely, and the results have helped to identify the strengths and weaknesses of those systems of protected areas needing more support. The results also demonstrate to government agencies the importance of providing greater financial support and pro-

moting legal reforms to improve the financial systems of protected areas.

The Scorecard makes it possible to evaluate both the available funding supply and the demand for funds to satisfy financial needs at both the site and the protected area system levels. At the same time, the tool allows the assessment of protected area financing on two levels: a) analysis of the financial system of protected areas (what amount of resources is being used and how much is needed for effective management), and b) analysis of the structural basis established to improve long-term financing. A summary of the main aspects of the Scorecard tool is presented below.

Objective: To aid governments, donors, and NGOs in evaluating different aspects of a protected area system's financing by analyzing its current performance and progress toward a better financial situation. The tool is designed for protected area systems but can be used at other levels (such as departmental and regional levels).

Structure: The tool has three parts:

- Part I requires financial information to analyze costs, income, and both current and projected financial gaps. It facilitates quantitative analysis and provides information to determine financial objectives and the amount of additional funds needed.
- Part II includes three components: a) the governance structure for sustainable financing (covering legal, policy, and regulatory issues, among others), b) business plans and cost-analysis tools for effective management (addressing such aspects as financial planning, accounting, business plans, levels of expenditure, increased income, cost control, cash flow, etc.), and c) tools and systems for resource generation and mobilization (focused on maximizing existing or potential income mechanisms and diversifying income sources in order to reduce vulnerability).
- Part III covers the scoring process and the measurement of progress.

40. *Business Planning for Protected Areas*, Center for Park Management, 2002.

41. *Financial Sustainability Scorecard for National Systems of Protected Areas*, Bovarnick, UNDP, June 2007.

Scoring: The scoring system makes it possible to compare the year-by-year progress of a given country or group of countries. It is important to consider that

certain variables may not be applicable to all of the countries evaluated. At the same time, some aspects may be more relevant in some cases. Due to these

Box 12. Evaluation of Performance and Impact of Financial Plans

Generally, the impact of financial plans is measured in terms of their effect on biodiversity conservation objectives. While this is adequate from a conservation perspective, it has many limitations from the point of view of the mobilization of financial resources and the diversification of income sources.

An appropriate measure of the performance and impact of financial strategies focuses on analyzing the reduction of financial gaps and the fulfillment of financial sustainability goals. In particular, a measure of financial impact should cover such matters as increased revenues, cost reduction, diversification of sources, strategic resource allocation, and other relevant matters. A set of aspects that can be considered in evaluating the impact of a financial plan is presented below.

Once the targets for the assessment have been established, it is important to develop performance indicators, which may be qualitative, quantitative, or behavioral. It is important for these indicators to consider the following aspects: a) target group (for whom), b) quantity (how much), c) quality (how well), d) time (when), and e) place (where). For example:

What Do We Want to Measure?

Direct impacts: For example, results related to the funds generated to close financial gaps.

- The performance of specific financial mechanisms (for example, how much income an endowment generates or what revenues are generated by park entrance fees).
- Whether the funds generated by the financial mechanisms contribute to covering the needs of priority program areas and to reducing financial gaps.
- The growth of financial resources at the level of protected area systems or individual protected areas.

“Ten national parks, close to urban areas, in the National System of Protected Areas (where annual revenues from visitor entrance fees have fallen to less than US\$30,000) will increase their revenues by 50% between January 2006 and December 2007, recovering the level of revenues recorded in the 1990-1995 period in accordance with the standards, financial mechanisms, and goals in the 2007 Business Plan.”

Annex 16 describes the steps to formulate performance indicators based on the NORAD (Norwegian Agency for Development Cooperation) approach.

Finally, in order to support the process of evaluating the impact of financial plans, it is necessary to have external audits performed by the national comptroller’s office or specialized private firms. These audits provide revised information on the level of transparency and responsibility in accountability for one protected area and/or the system of protected areas.

Indirect impacts: For example, results related to other matters that contribute to the achievement of the goals of the financial plan.

- Increased financial management capacity of the protected area system.
- Efficiency in the use of financial resources.
- Efficiency of the legal framework.

factors, it is possible to change the relative weight assigned to the variables in order to better reflect local and assessment conditions.

Application: The Scorecard should be applied by a working team from the protected area system. Members of the team should have extensive knowledge of the system's finances and be supported by experts, donors, and NGOs. The time needed to fill out the Scorecard depends on the availability of financial data for Part I. Using this information, the staff can fill out Part II and obtain the score (Part III) in one day's work. The time needed for Part I will depend on the available data, but since much financial information is often not available, additional assistance may be needed to generate and compile the financial data for Part I.

The Scorecard is available online in English and Spanish: www.undp.org/gef/05/kmanagement/newpublication.html. Also see: www.conservationfinance.org. In addition, Box 12 presents basic criteria to assess the performance and impact of financial plans.

4.5. Lessons Learned

- The development of a system-level financial plan is a process that requires implementation of a set of activities that should be framed within the general guidelines established by the national authority for the protected areas system. It is important to note that the existence of a system-level financial plan will make it possible to generate a macro strategy for all areas of the system, including those with less financial potential that may require subsidies from central funding or wealthier protected areas.
- Rather than emphasize the differences between a market objective and a conservation and development objective, which may present conflicting interests, the market approach should be considered a useful tool to achieve the conservation *and* development objectives. It is critical to internalize this link to all conservation stakeholders.
- Among the most important risk factors that should be considered in planning for implementation of a system-level financial plan is the resistance to change in some governmental levels that are inclined to maintain the status quo, avoiding changes that can affect the form and structure of their current operations.
- A key problem to overcome is the lack of confidence in the public sector. This situation becomes an entry barrier for potential financial opportunities offered by the private sector. In order to build trust in the public sector, attention should be given to improving transparency and accountability during planning and implementation.
- It is critical to improve the understanding of the importance of financial information to support decision making, so that government officials will support the implementation of financial plans.
- A financial plan is a tool that builds on a series of already existing planning instruments. It is not intended to replace a strategic plan for a system of protected areas; on the contrary, the financial plan strengthens the strategic plan from a financial perspective.
- The development of a financial plan is a dynamic process that should be continuously reviewed and updated based on newly available information, situations, new opportunities, etc.

Annexes

Annex 1. Methods for Protected Area Financial Analysis

Activity-Based Cost Accounting (ABC)

This method assesses revenues, expenditures, and financial needs and gaps related to protected area operations. It can be used at the site or system level. This method has been successfully used by the US National Park Service; and by the Center for Park Management (CPM) and The Nature Conservancy in collaboration with various national governments. Activity-based costing is part of the business planning process used by the National Park Service's Business Management Group.

ABC accounting is an easy to use results-oriented method that makes a link between conservation goals and actual costs. It is based on the organization of the activities carried out in protected areas through functional areas and programs. The functional areas consist of the different categories of operational activities required to manage protected areas (including the cost of the central protected area agency), which include programs and subprograms, with programs being the parts of the operation that require separate management. Using metrics, costs are allocated to each program and subprogram for basic and optimal levels of conservation; financial gaps are determined by comparing available resources with financial needs (basic and optimal). This method makes it possible to arrive at actual and reliable costs since the allocated costs are directly linked to the goals of each of the protected areas conservation programs.

In addition, this tool is very useful for defining investment priorities and reducing costs. Above all, activity-based costing introduces realism into conservation finance. The information produced by the financial analysis is fundamental to the development of financial

plans and mechanisms to close the gaps detected. For more information on this method, visit: www.npca.org/cpm/, www.conservationfinance.org, and www.conserveonline.org/workspaces/patools/resources/finance/financeresources. The Nature Conservancy in collaboration with members of the CFA offers a comprehensive On-line Training Program on Business Planning for Protected Areas which includes a module on ABC accounting. For details and programming please visit www.conservationfinance.org.

Threshold of Sustainability

The "Threshold of Sustainability" is the minimum level of investment required in tourism management to ensure that the protected area's natural capital does not decline. The threshold of sustainability is reached by ensuring adequate investment in key management programs such as: impact monitoring, basic infrastructure, security, and interpretation and information. These costs could be built into a sustainable finance plan for protected areas where tourism is suitable, and must be an integral part of annual park budgets. For more information on the "threshold of sustainability," please visit: www.conserveonline.org/workspaces/tncetourismprogram/publications.

Financial Analysis of the National System of Protected Areas (SNAP), Ecuador

This analysis includes a description of the methodology and scope of the study and the results. The methods focus on analyzing sources of funding, financial resource flows, spending trends, defining financial needs for basic and optimal (integral) management scenarios, and definition of financial gaps. The analysis used the SNAP's database to organize the financial information. The analysis was supported by MAE, TNC, CI, KfW,

Environment Fund, Ecociencia, Fundación Natura, USAID, IUCN, Mentefactura, and CEC. The study and the database can be downloaded from the following link: www.ceda.org.ec/descargas/biblioteca/analisis_necesidades_snap.pdf.

Financial Needs Analysis of the SINANPE, Peru: 2005-2014

The method includes the selection of representative protected areas for the financial analysis, the analysis of the PA system's finance (revenue and expenditure) from both a historical and a current perspective, and the definition of funding needs and gaps for basic and optimal conservation. This analysis was used to develop a 10-year projection (2004-2014) of revenues and expenditures in order to determine the long-term financial needs. The analysis also includes (in annexes) detailed information on revenues, expenditures, projections, and the financial gap for each national protected area in SINANPE (National System of State-Protected Natural Areas). This method required a comprehensive field study in 19 highly representative natural protected areas of the SINANPE, selected using a set of agreed-upon management indicators; and included the management cost of the central protected area agency. The analysis was financed by the World Bank financed project "Participatory Management in Natural Areas" (GPAN), and the SINANPE II project, financed by KfW, provided technical support. The complete version of the analysis and the database can be downloaded from the following link: www.inrena.gob.pe/ianp/ca/downloads/Documentos%20de%20interes/El%20financiamiento%20del%20SINANPE/Estudio%20de%20necesidades%20y%20brecha%20financiera%20SINANPE_web.pdf.

MYCOSIS

This model uses Excel sheets to record recurrent costs (staff, vehicles, etc.) and necessary investments. Mycosis also offers a set of key benchmark indicators or vari-

ables for management of natural reserves. This method has been used for global studies, in Federal Conservation Units in Brazil and Honduras. The version applied in Honduras can be downloaded from the following link: www.birdlist.org/cam/honduras/hn_parks_study1.htm.

MARFUND

This method is used by the Coastal and Marine Protected Areas Fund of the Mesoamerican Reef. Protected areas are classified according to country, type (coastal or marine), size (small, medium, or large), and phase of operation (start-up, consolidation, full operation). The financial part of the model uses Excel, and provides information on operating expenses, investments, and revenues at the protected-area level. This method has been used in Belize, Honduras, Guatemala, and Mexico. The category of regional-level expenditures is also considered in order to reflect the demands of coordination and control by member countries, and the process of adding information. Additional information, including the file downloadable version, can be found at: www.marfund.org/indexingles.html. This method was developed with support from WWF and MARFUND.

Long-term Financial Planning for Parks and Protected Areas

This method connects long-term strategic programs and financial planning. It also uses Excel spread sheets. It includes detailed steps to estimate the resources needed to implement conservation programs and covers key areas such as: threats, activities, fundraising strategies, personnel, land acquisition, expense details and summary, and revenue allocation. This method is useful to determine the different levels for information gathering and analyses. It was developed by TNC with support from USAID. The manual can be downloaded from: www.parksinperil.org/resources/art18405.html#consfinance.

Annex 2. Draft Proposal for the Development of a Financial Sustainability Plan for the System of Protected Areas¹

Goals and Objectives

The primary objective of this initiative was to provide the government of Jamaica with a roadmap to address two concerns: financial sustainability for the protected area system, and improved financial management of protected areas through the formulation and implementation of business plans. This roadmap will include the necessary steps to establish the proper institutional framework and identify the financial mechanisms that can be implemented.

The first phase of this initiative include three components: 1) identify the system-level financial needs and gap, thereby establishing a target funding amount that will meet the conservation goals and objectives of the system, and will close the gap; 2) identify the policy barriers to financial sustainability and recommend steps to break down those barriers, and, then, identify appropriate and viable financial mechanisms to achieve financial sustainability; and lastly, 3) develop a financial sustainability plan for the system.

The implementation aspects of this initiative are not included in this proposal but will immediately follow completion of this financial sustainability plan. The development of the financial plan will train protected area managers in business planning principles and strategy development (including feasibility assessments of potential financial mechanisms). With this added capacity and business plan analysis, protected area managers will be able to make more informed decisions that have an impact on their developing realistic goals and objectives.

The specific objectives of this initiative (Phase I) are the following:

- The CBD Programme of Work requirements for Phase I are met
- Have an integrated biodiversity gap and capacity gap assessments in their financial planning for the protected area system.
- Defined the funding gap based on cost accounting methods and a tested methodology.
- Key protected area staff and administrators will have a fundamental understanding of financial sustainability planning and both sustainable finance theory and application.
- External local capacity has been built for financial planning and for the possible establishment of a protected area financial management curriculum at the local university.
- Several financial strategies are identified that will broaden the diversity of funding for the protected area system.
- An action plan is in place to implement several of these financial strategies.
- Protected area stakeholders maintain a high degree of buy-in to the financial plan.
- The ideal political and legal framework is identified to promote and facilitate financial sustainability for the protected area system.

In Phase II, the financial sustainability initiative will address formulation of site-level business plans and implementation of site- and system-level financial strategies to improve the financial sustainability and management effectiveness of the protected areas system.

1. A similar structure was used to develop the draft for the Financial Plan of the PA System of Jamaica, currently being discussed.

Timescale and Work plan for Phase I

	Start Date	Details
A Financial analysis	July - September 2006	<ul style="list-style-type: none"> ■ Meet with government officials to kick off project and define key stakeholders ■ Draw up a detailed work plan and share it with key stakeholders ■ Set deadlines for data required by Government / NGOs ■ Work with Government and partners to identify biodiversity and capacity goals and objectives for the system ■ Collect financial and administrative data from Government and NGOs managing PAs ■ Research flow of funds from source to expenditure ■ Analyze budgeting and accounting principles and methodology for PA system and sites
B Screening and feasibility of financial mechanisms	August - September 2006	<ul style="list-style-type: none"> ■ Research system and site-level financial mechanisms ■ Identify protected area goods and services (biodiversity, recreation, etc.), drawn from management plans and conservation plans ■ Conduct market analysis and quantify demand ■ Identify political, legal, and market barriers to financial sustainability for the system ■ Draft cost-benefit analyses for each financial mechanism
C Formulate financial sustainability plan for the PA system	September - November 2006	<ul style="list-style-type: none"> ■ Work with stakeholders and Government to create a framework for the financial sustainability plan ■ Draft outlines of implementation plans for key financial strategies ■ Complete draft financial sustainability plan for review ■ Finalize plan

Annex 3. Terms of Reference for the Financial Analysis of the SNAP, Ecuador

I. Objectives

1. Identification of budgeted costs of the SNAP for the applicable years and at the three administrative levels of the Ministry of Environment (MAE): central, regional, and protected area levels.
2. Identification of actual (implemented) annual expenditures, including resources from the central government budget and contributions from other institutions and international cooperation.
3. Determination of self-generated funds at the protected area level.
4. Definition of financial needs to cover basic and integral (optimal) management cost of the SNAP.
5. Analysis and definition of the gap between real baseline expenditures (2003) and the estimates of financial needs to cover the basic and integral management costs of the SNAP, in coordination with the Protected Area Management Team. The analysis will include different levels such as: budgets at district and individual protected areas; budgets of protected areas with similar geographic distribution; budgets of protected areas supported by the National Environmental Fund (FAN); and groups of protected areas grouped by management categories.
4. Carry out visits to Regional Districts as necessary to gather information.
5. Collect information and data using different information sources whenever possible (NGOs and cooperation agencies, among others).
6. Systematize and analyze the information according to the objectives, scenarios and hypotheses.
7. Define financial performance criteria and indicators based on the basic and integral management cost of the SNAP, using the 2003 expenditure baseline as a reference.
8. Produce information on the 2003 actual expenditures and present it and validate it in Regional District workshops.
9. Participate in analyzing information on basic and integral management costs with the Protected Area Management Team.
10. Develop a budget projection for protected areas considering baseline data and the needs to cover basic and integral management costs.
11. Prepare interim reports and presentations for discussion with the Promoting Group, MAE, donors, and other key actors.

II. Key Tasks

1. Coordinate actions with the Financial Plan Working Group (known as Promoting Group) to obtain information from the Headquarters and Provincial Districts of MAE, as well as from NGOs and the international cooperation.
2. Review and adjust the proposed methodology and tools for information gathering.
3. Support the Protected Area Management Team in preparing a “working folder” for information gathering.
12. Work with the Protected Area Management Team to develop a final document with the results of the Financial Analysis of the SNAP, including: method, opportunities for replication, systematization and analysis of the financial information, conclusions, and recommendations.
13. Present the Final Report to different stakeholders.

III. Expected Products

1. A document describing the methodology, scope of work, limitations, and information sources used to calculate the baseline.

2. Matrices with information on actual 2003 expenditures and self-generated revenues.
3. Analysis of the financial gap between 2003 baseline expenditures and the financial needs to cover basic and integral management costs, including financial indicators.
4. Financial projection to 2010 based on the results of the study and income assumptions.
5. A final study document integrating the results produced by the Protected Areas Management Team and the Financial Team, based on the objectives of the study, including conclusions and recommendations, methodology, and process.
6. PowerPoint presentations on the results of the study to be used in presentations to different stakeholders and donors.
7. Communications material on the results of the study to be used by protected area managers.

Source: Ministry of Environment of Ecuador / TNC, 2005.

Annex 4. Key Actions to Gather Information During Visits to Protected Areas

Before Visits

- Communicate to the protected area (PA) staff the objectives, scope of work, and work plan for the study.
- Send PA staff the forms, explain how to complete them, and specify the type of information needed.
- Review the travel itinerary, coordinate logistical aspects, agree on a visit schedule, and confirm PA staff attendance.
- Review secondary information from the PA on finance, administration, and management

During Visits

- Hold a workshop with selected PA staff to inform them of data collected, analyze the figures, and exchange opinions.

- Conduct interviews, as necessary, with key PA staff and local entities that support the PA.
- Determine cost management difficulties to be considered in the recommendations.
- During the process, always ask: Why is this resource needed? How can the costs of this activity be reduced while maintaining quality?

After Visits

- Consult with PA staff on any doubts and/or gaps in the information received.
- Validate the information with protected area staff.
- Analyze and systematize the validated information.

Source: F. León, Office of Protected Natural Areas (IANP), 2006.

Annex 5. Methods for Data Collection

A variety of methods can be used to collect data. Some of the most important include:

■ Interviews:

Conducting interviews is an effective way of obtaining qualitative information. Interviews can be structured or semi-structured; i.e. scripted or conversational. For example, interviews with protected area staff in charge of specific programs are useful to gather information on expenses, investments, and revenues.

■ Surveys:

Surveys are a very useful tool to collect qualitative information and can be in printed form or on the Internet. The Internet is recommended, and less expensive, because there are service providers with existing platforms and easy to format surveys that automatically compile and process survey results.

■ Workshops with Focus Groups:

These meetings bring together relevant actors to exchange ideas about a specific topic. For example, a workshop can be held with cooperating institutions to discuss issues related to financing, donations, and commitment periods. Likewise, government authorities can be called on to analyze the flow of funds (revenues and expenditures) in the protected area system; and key protected area staff can be brought together to discuss the elements that make up each management program.

■ Workshops:

These meetings may include different actors and are particularly useful for defining joint action agendas, reviewing results, and validating information.

Annex 6. Validation of Information Gathered through Workshops – Experiences in Peru, Ecuador, and Costa Rica

System of Protected Areas

	Peru	Ecuador	Costa Rica
Actions performed during the Workshops	<ul style="list-style-type: none"> ■ The information was analyzed in a participatory manner taking into account the experience and knowledge of area coordinators and thematic coordinators from the Office of Protected Natural Areas (IANP). ■ Information collected during on-site visits was refined through coordination meetings and telephone interviews with area directors to adjust data on the forms and validate information on the inventory of protected area assets. 	<ul style="list-style-type: none"> ■ Information obtained in the different workshops was refined by conducting interviews with area managers as a means of correcting imprecision and errors in completion of the matrices and addressing inconsistencies in the information on the inventory of protected areas assets. 	<ul style="list-style-type: none"> ■ The technical team presented the information to the working group the day after the workshop. The working group reviewed the information and made the necessary corrections. ■ The information produced by each protected area was consolidated and analyzed. ■ The information was submitted in CD-ROM format to staff in each conservation area for daily use.

Sources: Financial Strategy for the National System of Conservation Areas of Costa Rica. Phase 1: Financial Needs Plan 2004-2006; Process of Developing the Long-term Financial Plan for the SINANPE. Phase 1: Analysis of the Financial Needs of the SINANPE 2005-2014 (Peru); and Analysis of the Financial Needs of the SNAP in Ecuador.

Annex 7. Financial Gaps of Laughing Bird Caye National Park, Belize (in US\$)

I Functional Areas	II Available Resources				III Scenarios			IV Financial Gap	
	Sources				Total Funds	Basic Funds	Optimal Funds	Basic Funds	Optimal Funds
	Gov't	Int'l NGOs	Local NGOs	Own Revenues					
	A	B	C	D	E (A+B+C+D)	F	G	H (F-E)	I (G-E)
RESOURCE MANAGEMENT & PROTECTION									
Patrolling and Enforcement	-	7,315	-	12,562	19,877	25,310	30,244	5,434	10,367
Wildlife Mngmt. & Habitat Restoration	-	-	-	-	-	-	-	-	-
Zoning and Boundaries	-	356	-	681	1,037	5,740	9,649	4,703	8,612
Wildland Fire Management	-	-	-	-	-	-	-	-	-
Cultural Resource Management	-	-	-	-	-	-	-	-	-
Subtotal	-	43,115	-	19,154	62,270	92,787	127,353	30,518	65,083
TOURISM & RECREATION									
Visitor Safety and Protection	-	1,721	-	5,050	6,771	5,888	7,486	(883)	715
Recreation Fee Collection	-	2,432	-	4,453	6,885	4,386	5,184	(2,499)	(1,701)
Visitor Education and Interpretation	-	4,334	-	5,206	9,540	11,063	16,308	1,523	6,768
Concession and Recreation Special Uses	-	-	-	-	-	5,460	22,838	5,460	-
Subtotal	-	8,486	-	14,709	23,196	26,797	51,817	3,601	28,621
COMMERCIAL PRODUCTS & USES									
Fishing (Marine Resources)	-	-	-	-	-	-	-	-	-
Timber and Forest Products	-	-	-	-	-	-	-	-	-
Non-Renewable Resources	-	-	-	-	-	-	-	-	-
Special Commercial Uses	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-
MANAGEMENT & ADMINISTRATION									
General Management and Administration	-	16,587	-	682	17,270	14,385	16,385	(2,884)	(885)
Financial Management and Administration	-	16,035	-	193	16,228	14,485	16,035	(1,743)	(193)
Planning	-	12,678	-	872	13,550	15,115	17,315	1,565	3,765
Partner Relations	-	13,251	-	898	14,150	34,712	66,816	20,563	52,666
Information Technology	-	4,945	-	157	5,102	9,997	30,161	4,895	25,059
Subtotal	-	63,496	-	2,802	66,299	88,694	146,712	22,395	80,413
COMMUNITY DEVELOPMENT & OUTREACH									
Formal Environmental Education	-	7,603	-	388	7,991	104,216	106,166	96,225	98,175
Public Outreach and Info. Dissemination	-	21,134	-	436	21,570	13,741	24,485	(7,828)	2,915
Alternative Livelihoods	-	9,818	-	214	10,032	4,566	7,466	(5,466)	(2,566)
Subtotal	-	38,555	-	1,038	39,593	122,522	138,117	82,930	98,524
FACILITY OPERATIONS & MAINTENANCE									
Buildings, Grounds, and Utilities	-	11,406	-	2,504	13,909	13,123	15,623	(787)	1,714
Roads	-	-	-	-	-	-	-	-	-
Trails	-	972	-	2,221	3,193	3,783	6,049	590	2,856
Docking Facilities (Marine)	-	631	-	1,097	1,728	3,219	4,168	1,492	2,440
Transportation and Vehicle Fleet	-	9,340	-	855	10,195	8,580	9,237	(1,616)	(958)
Campgrounds and Picnic Facilities	-	666	-	1,228	1,894	2,079	2,808	185	914
Subtotal	-	23,014	-	7,904	30,919	30,783	37,884	(136)	6,965
TOTAL	-	176,667	-	45,608	222,276	361,584	501,883	139,308	279,607

Source: *Business Plans for Parks and Protected Areas*, Center for Park Management, National Parks Conservation Association, 2005, United States.

The previous table shows the results of the financial analysis in the case of Laughing Bird Caye National Park. The information in this table has improved the understanding of the protected area's financial situation and makes possible the identification of priority investment areas. The information in the table is organized into four blocks:

I) Functional Areas: This information shows resource allocation organized by program activity instead of the typical breakdown by expenditure item (such as staff, rent, supplies, etc.).

II) Available Resources: This section provides information on the protected area's current financing, organized by type of source.

III) Scenarios: These show the resources needed to implement program activities in basic and optimal scenarios.

IV) Financial Gap: This block brings together results of the financial needs and gaps analysis, and shows the existing financial gap between available resources and those resources needed for basic and optimal scenarios.

A review of the table shows a financial gap of 62% between the total expenditure covered in the current situation (US\$222,276) and the projected expenditure for the basic scenario (US\$361,584). This gap increases to 125% when expenditures in the current situation (US\$222,276) are compared with those projected for the optimal scenario (US\$501,883). The programs showing the largest financial gaps are: Community Development and Outreach, Management and Administration, and Resource Management and Protection. These results make clear that, depending on the level of threats, these programs require a greater level of investment.

Annex 8. Identification, Prioritization, and Selection of Financial Mechanisms for the System of Protected Areas of Ecuador

The methodology used for identification, prioritization, and selection of financial mechanisms is based mainly on the collection of information from primary and secondary sources, the establishment of prioritization criteria, an analysis of the feasibility of implementing the prioritized mechanisms, and finally, grouping the identified mechanisms. The steps followed in this process are presented below.

a) Review of secondary information sources:¹ This step focused on identifying financial mechanisms at national and international levels. The information gathered provided a clear description of the mechanisms, how they work, and the results of their application.²

b) Prioritization: The prioritization was based on the criteria and indicators presented in Table A.

This criteria was supported by a rating system (1-3) where 1 indicated that the mechanism is performing inadequately and 3 that the mechanism is performing satisfactorily. Based on these criteria and the scale adopted, 11 of the 59 mechanisms identified were selected as high priority. The mechanisms selected were: SNAP logo, SNAP Fund, concessions in protected areas, fees for infrastructure in protected areas, sale of carbon bonds, water-use rates, donation of 25% of income tax to the system, other donations, volunteer work in protected areas, SNAP Passport, and presentation of projects for funding through the Special Account for

Table A: Criteria and Indicators for the Prioritization of Financial Mechanisms

Criteria	Indicators
1. Management capacity	a. Capacity for control of payment and use. b. Administrative capacity of the MAE. c. Capacity to promote the mechanism.
2. Financial aspects	d. Degree of complexity of information requirements and/or previous studies. e. Level of investment required to develop the mechanism. f. Financial appeal of the mechanism.
3. Environment compatibility and risk	g. Degree of adaptation to local values. h. Degree of consistency of the mechanism with local and national conservation objectives. i. Risk that the mechanism may threaten biodiversity. j. Risk of generating perverse incentives to carry out other activities.
4. Policy and legal feasibility	k. Existence of a law or rule to regulate the mechanism. l. Existence of policy support for implementation of the mechanism. m. Time frame for implementation of the mechanism.

Source: Prepared by Mentefactura, 2006.

1. The main sources of information used were experiences and documents available on the Internet primarily from institutions involved in environmental conservation.

2. Fifty-nine mechanisms were initially identified.

Productive and Social Revitalization, Scientific and Technological Development, and Fiscal Stabilization (CEREPS).

d) Conducting in-depth interviews: The purpose of the interviews was to determine the current perception of prioritized mechanisms, their feasibility, their attractiveness to investors, key actors, and also other mechanisms. The interviews were conducted with actors that currently finance or may potentially finance the SNAP.

e) Feasibility: In order to identify the most viable financial mechanisms, the prioritized mechanisms were analyzed from a legal perspective considering the changes or reforms needed in the current legislation to allow their operation. This analysis considered the

legal scenarios presented in Table B and included an in-depth review of the existing regulations for each mechanism identified.³

Finally, the time and money required for the necessary changes were estimated for each mechanism.

f) Selection of financing categories: Based on the above steps, the selected mechanisms were grouped in three categories: corporate social responsibility (SNAP logo and corporate donations), tourism (SNAP Passport and fees) and personal donations/contributions (donation of 25% of income tax and donations by Ecuadorians and foreigners), as well as financing from government sources and international cooperation.

Table B: Legal Scenarios Considered in Ecuador

Scenario	Definition	Time Frame
"No changes in current regulations"	Mechanisms whose implementation only requires direct enforcement of the current legal system.	Short-term
"Minor changes in current regulations"	Mechanisms whose implementation requires reforms to secondary norms contained in Ministerial Agreements and/or Executive Decrees.	Medium-term
"Profound changes in current regulations"	Mechanisms whose application requires reforms to legal norms, such as organic and ordinary laws.	Long-term

Source: Prepared by Mentefactura, 2006.

³ The results were validated by a group of legal experts from different institutions.

Annex 9. Prioritization and Description of Financial Mechanisms, SNAP Ecuador

First Priority	Description
1 SNAP logo	Creation of a logo that facilitates private funding of protected areas in exchange for rights to use the logo to promote commercial products and/or services.
2 Service concessions	Service or infrastructure concessions in protected areas; the concession permitting process should take less than 17 months.
3 Antenna installation fee	Payment for installation of cell phone and television antennas in protected areas.
4 Sale of carbon credits	Revenues for the system from carbon offsets generated by planting new forests and implementing deforestation reduction projects.
5 SNAP Passport (for tourists and/or operators)	Annual payment for a Passport allowing yearly unlimited entry to protected areas in the system.
6 Public sources (other than central budget)	Public funding from various sources, such as the CEREPS.
7 Personal and/or corporate donations	Donations from individuals and/or the corporate sector; this may be implemented through “adopt-an-acre” or “adopt-an-animal” programs.
8 Donation of 25% of the income tax	Donation of part of the income tax to support conservation.
9 Water use and/or watershed protection fee	Payment from users to ensure the future provision of water through conservation of the watershed.
10 SNAP Endowment Fund	Creation of a fund to finance conservation with contributions from cooperation agencies and the private sector.
11 Volunteer work	Capitalize on people’s environmental concerns and involve them in performing volunteer activities in protected areas.
Second Priority	Description
12 Annual permits for installation/operation of towers for electric power lines	Annual permits for installation and operation of towers for electric power lines in areas of the system, with authorization of the MAE.
13 Scientific research licenses	Licenses to conduct scientific research activities.
14 Debt-for-nature swaps	Assess opportunities for new transactions with mechanisms such as the Tropical Forest Conservation Act/U.S. Treasury
15 Airport surcharge fees for tourists	Fees collected from all tourists entering the country and a commission percentage from all cruise ship passengers.
16 Annual infrastructure permits	Permits for oil companies to develop and/or use infrastructure in areas of the System.

Second Priority <i>(continued)</i>	Description
17 Fuel subsidies	Establishment of subsidies for the use of diesel and gasoline for patrolling protected area systems.
18 Tourism entrance fees to protected areas	Review of the tourist fee system based on realistic potential supply and demand for each individual protected area.
19 Hotel surcharges	Surcharges to hotel guests in or near protected areas.
20 Aermits for pipelines operation	Annual permits for the installation and operation of multipurpose pipelines in and across protected areas (natural gas, crude oil).
21 Bioprospecting permits	Sale of permits to specialized commercial interests marketing health benefits of marine or terrestrial protected area products.
22 Environmental compensation and mitigation (offsets)	Payments for damages to the environment. A direct payment to support protected areas or to create similar ecosystems to offset those damages; for example, impacts from an oil pipeline, hotel, or hydroelectric infrastructure.
Third Priority	Description
23 Payment of mooring or anchorage fees	Fees paid by vessels in protected areas within or around marine protection zones.
24 International financing	Financing from multilateral or bilateral sources.
25 Governmental budget allocations	Increasing central government funding for conservation.
26 Fishing licenses	Commercial and sport fishing licenses in marine and freshwater protected areas.
27 Diving permits	Fee paid by divers and instructors in marine or freshwater systems, with different fees for nationals and foreign visitors.
28 Taxes to polluters	Establishment of taxes in sectors that damage the environment.
29 Private grants	Donations from individuals, foundations, and NGOs.
30 Management cost reductions	Strategic partnerships with other sectors connected with the system; for example, tourist dive boats could support the task of patrolling, thus reducing conservation costs.
31 VAT surcharge	Establishment of a VAT surcharge to support conservation.
32 Fees for extraction of natural resources	A percentage of revenues derived from the fees for extraction of products from protected areas. This mechanism may include revenue from fees for registration of the designation of origin of these products.

Annex 10. The Legal and Institutional Framework of the SINAC, Costa Rica

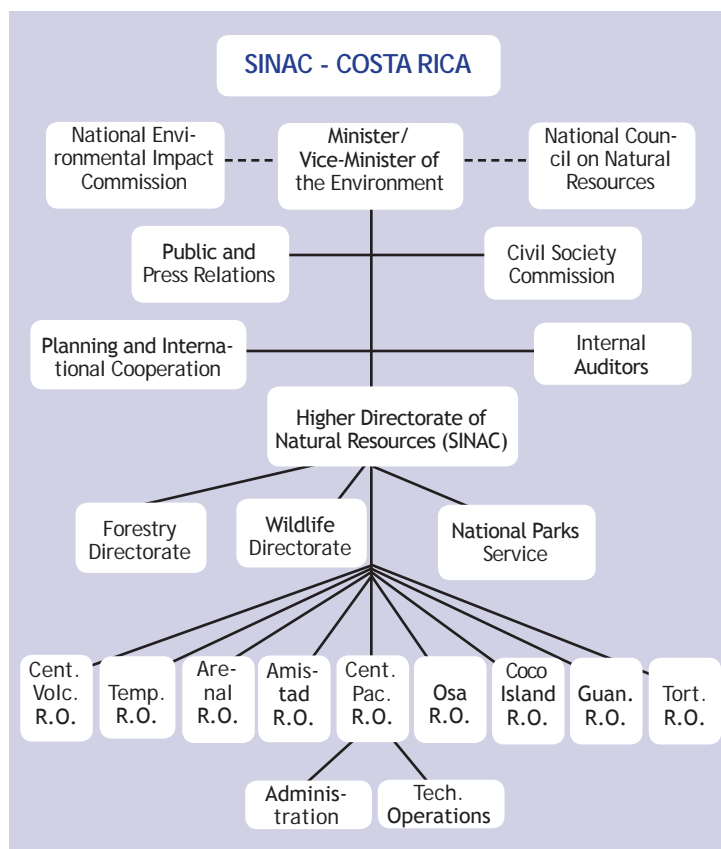
Costa Rica’s National System of Conservation Areas (SINAC) includes three directorates, 11 conservation areas, 32 regional offices, and 160 protected areas. It has specific powers and multiple relations with state and private entities at local, national, and regional levels. The legislation that currently regulates SINAC is one of the most complete, and is the result of a process of evolution and flexible adaptation of both programming and financial aspects (see Annexes 11 and 12).

Evolution of the System

The SINAC was created in the 1980s with the establishment of the model of Regional Conservation Units, which grouped national parks according to similar regions; however, each national park maintained a degree of autonomy through its management units.

In the following years, SINAC continued to evolve and Costa Rica’s national parks became core areas of absolute protection and included buffer zones (territories adjacent to national parks with restrictions on natural resource use that would enhance park protection). Only three national parks – Corcovado, Guanacaste, and Palo Verde – were included in this plan. This model did not have broad coverage because it was based on national parks and their surroundings, leaving several areas of national territory at the “margin” of protection and conservation efforts since these adjacent areas were not given park status.

SINAC’s management model was restructured beginning in 1994. The new structure involved merging the three directorates directly managing natural resources at the Ministry of Natural Resources, Energy and Mines (MIRENEM), namely, the General Forestry Directorate (DGF), the National Parks Service (SPN), and the General Wildlife Directorate (DGVS). The purpose of this merge was threefold: to ensure that the entire system would operate under the managing unit, to improve coordination of interventions, and to



optimize resource administration. The responsibility for control of this process was assigned to the Higher Directorate of Natural Resources.

Initially, the process of integrating the three branches of DGF, SPN, and DGVS was complex due to differences in each branch’s territorial distribution, organizational cultures, and working methods. However, the integration process has gradually taken shape as a result of a clear definition of the strategic framework.

Strategic Framework of SINAC

Vision: SINAC is the leading conservation organization which provides quality services and implements conservation programs for protection of biodiversity and management of natural resources. The SINAC vision has three elements: active participation of society, resource mobilization, and the development of innovative ideas for responsible environmental management

Mission: To conserve biodiversity, ensure the sustainable use of natural resources, and promote a fair sharing of the benefits and costs of biodiversity use.

Operational Principles, represented by the “3 D’s”:

- Democratization: Participation and gradual incorporation of civil society in decision making.
- Deconcentration (redistribution): Transfer of administration of human, financial, material, and administrative resources to conservation areas.
- Decentralization: Complete financial autonomy and the gradual transfer of decision-making authority to conservation areas.

Regulatory Framework for Administrative and Financial Matters

SINAC is governed by the following laws: Planning Law (No. 5525), General Law of Public Administration (No. 6227), Fiscal Contingency Law (No. 8343), Administrative Contracting Law (No. 7494), Law of the Comptroller General of the Republic (No. 7428), Law on Financial Balance of the Public Sector (No. 6955), Law of Tax Simplification and Efficiency (No. 8114), Law on Financial Administration and Public Budgets (No. 8131), Internal Control Law (No. 8292), and the Law against Corruption and Illegal Enrichment in Public Administration (No. 8422).

The Comptroller General of the Republic supervises SINAC and is also responsible for approving, controlling and monitoring its financial operations.

Current Situation

SINAC currently represents “a model of decentralized and participatory institutional management that

integrates powers over forestry, wildlife, and protected areas in order to plan and execute processes to achieve the sustainable management of the country’s natural resources.” Administratively, SINAC is a system consisting of conservation areas and a central headquarters.

SINAC is a decentralized agency with instrumental legal status and great financial autonomy, although it receives administrative supervision from the Ministry of Environment and Energy (MINAE) for management, planning, coordination, and control. In the future, it is expected that SINAC will be a decentralized agency with its own legal status and financial autonomy. Also, SINAC will delegate resource administration to conservation areas and protected wildlife areas. The advantages of making SINAC an autonomous agency are:

- Eliminate the ‘single account’ principle established in article 66 of the Law on Financial Administration and Public Budgets.
- Autonomy for budgeting and resource administration.
- Transfer of decision making powers from MINAE to SINAC.
- Full implementation of SINAC’s operating principles – democratization, deconcentration, and decentralization.
- Powers would be deconcentrated from SINAC to the conservation areas.

Source: SINAC, 2007.

Annex 11. Evolution of the Legal and Institutional Framework for Conservation in Costa Rica

Law 4465 (1969)

Purpose: Provide for the protection, use, conservation, and promotion of the country's forest resources according to the principle of multiple use of renewable natural resources. This law created the General Forestry Directorate (DGF), which made possible the establishment of protected areas, forest reserves, national parks, and biological reserves, as well as measures to conserve and increase wild flora and fauna. The establishment of wildlife refuges was not considered. To deal with these responsibilities, the DGF established regional offices distributed throughout the country according to a territorial division similar to that established by MIDEPLAN.

Law 6048 (1977)

Purpose: Promote the development and management of national parks for conservation of the country's natural heritage. At the same time, this law moved the General Subdirectorate of National Parks into the General Forestry Directorate within the General Directorate of the National Parks Service at the Ministry of Agriculture and Livestock. The main focus of this law was the protection and control of national parks and biological reserves. Other aspects related to communities next to protected areas were not addressed.

Law 7317 (1992)

Purpose: Ensure wildlife conservation by introducing three management subcategories: national state-managed wildlife refuges, privately-managed reserves, and mixed public-private managed reserves. This law also created the General Directorate of Wildlife, an independent unit of the Forestry Directorate, with responsibility for administering Wildlife Refuges.

Law 7575 (1996)

Purpose: Adapt the functions of forestry law to current demands of Costa Rican society by introducing updated conservation concepts. This law also authorized transformation of the General Forestry Directorate into the State Forestry Administration and created other entities related to the forestry sector. Among these, the Forestry Financing Fund is responsible for raising funds from forestry-based payments for environmental services, and for obtaining financing from other activities related to the natural resources sector.

Annex 12. Evolution of the Legal and Institutional Framework for Conservation, Financial Aspects, Costa Rica

Law 4465 (1969)

Aspects related to financial support for the forestry sector and the Forestry Fund include:

- Fees charged for forest use in forest reserves, national reserves, and state-owned farms under DGF management
- Revenues from all fines and forfeitures received in accordance with the law.
- Revenues from fees charged for exploitation of secondary products such as vegetable charcoal, chicle, rubber, roots, mangrove bark, and other similar products.
- Tariff revenues from the export of forestry products and by-products.
- Voluntary contributions from conservation organizations and other physical or legal entities as may exist or may be created in the future with an interest in natural resource conservation.
- Legacies, donations, and, in general, all kinds of goods and fees that are deposited in the Forestry Fund by law or individual choice.
- Contributions from international organizations or foreign governments in accordance with agreements entered into for the development of forestry programs in particular and of renewable natural resources in general.
- Revenues from a tax on the extraction of timber (i.e., per-cubic-meter).

The Comptroller General of the Republic is in charge of overseeing of the Forestry Fund.

Law 6084 (1977)

The creation of the National Parks Fund was based on the following articles:

Article 6: The National Parks Service (SPN) shall be allocated resources from the ordinary and extraordinary budgets of the Republic. The National Parks

Service shall also receive the following revenues, which shall be deposited in the National Parks Fund:

- Donations made by the State or any physical or legal person, to be administered by the SPN. These donations are exempt from payment of Charity Taxes, University Stamp Taxes, and Public Registry fees; it is necessary to formalize these exemptions according to the Civil Code and related laws.
- Entrance fees to national parks as determined by the SPN.
- Such resources as may be generated by the SPN pursuant to exercising the functions and powers legally conferred upon it
- Revenues from the sale of national park stamps, established in the following article.

Article 7: A national park stamp shall be established and issued by the Central Bank of Costa Rica, which will collect its revenues. The denominations of the stamp are:

- One-colón stamp, which shall be included on all types of municipal permits; and
- Five-colones stamp, which shall be paid for:
 - Passports and safe conducts issued to leave the country, not applicable to those persons exempted from taxes and fees by current treaties and laws.
 - The necessary documents for the first-time registration of a motor vehicle in the Public Registry of Motor Vehicle Ownership.
 - Authentications of signatures performed by the Ministry of Foreign Affairs.
- One-hundred-colones stamp, which shall be paid annually by all social clubs, public dance halls, and similar for-profit facilities, as well as upon applications to open this type of business.

Law 7317 (1992)

This law includes the creation of the Wildlife Fund, as provided for in the following article:

Article 11: In order to ensure that the objectives of this law are achieved and to meet the expenses arising from this law, the General Wildlife Directorate of the Ministry of Natural Resources, Energy, and Mines shall receive resources from the Wildlife Fund, consisting of:

- Revenues generated by the wildlife stamp tax (Article 124 of Law 7317).
- Amounts received from permits and licenses (established in articles 31, 38, 53, and 64 of Law 7317).
- Legacies and donations by physical and legal persons, as well as national and international organizations, both public and private, and contributions from the State or its institutions.
- Revenues from fines and forfeitures received in accordance with Law 7317.

Law 7575 (1996)

The purpose of this Law is to diversify revenue sources and clarify revenue allocation. Article 39 establishes the following concepts related to revenue generation:

Article 39: The resources of the Forestry Fund shall consist of the following:

- Amounts collected from the tax on wood.
- Legacies and donations received by the Ministry of Environment and Energy.
- Contributions from national and international organizations, both public and private, according to agreements or donations.
- The issuance of forestry bonds already approved or which may be issued in the future. These bonds may be used to pay all kinds of taxes or fees.

- Revenues the State receives from fines and forfeitures according to this law.
- Revenues from the sale of trees from forest nurseries and of wood of unknown ownership, as well as income from forfeitures, as appropriate.
- Revenues from the sale of forest seeds.
- Revenues from the sale of publications and other documents as necessary to meet the purposes of the law.
- Amount from fees or rates that the Ministry of Environment and Energy establishes for natural resource use permits granted in protected wildlife areas comprising the State's natural heritage, regardless of their management category.
- Resources from other revenues related to the forestry sector.

The Protected Wildlife Areas Trust was created as a more flexible instrument of management that merges the National Parks Fund and the other two funds (Forestry and Wildlife) into one trust fund. This law also updates the costs of national park entrance fees (fiscal stamps) and authorizes the charging of different entrance fees to protected wildlife areas for residents and non-residents, as well as the charging of different fees for different protected areas based on the services provided.

Finally, this law authorizes the SINAC to grant concessions for non-essential services in protected areas, as provided in article 39 of this Law.

Annex 13. Evaluation Tool for the Legal and Institutional Framework of the System of Protected Areas, used by the SINAC in Costa Rica

Instructions

For sections 1 and 2:

- Each question should be carefully considered, and the facilitator should take notes of the main points made.
- The benchmark responses to each question should be read carefully; the first benchmark in the boxes is the ideal state while the last benchmark represents a less desirable state. Next, the most appropriate answer to the question should be marked with an “X.”

- Finally, specific areas requiring more attention will be identified in order to develop a feasible plan of action to achieve structural changes in the legal system.

For section 2:

- Consider the aspects discussed in section 1 as input to identify the ideal, the legal, and the institutional framework.

1. Legal and Institutional Framework:

1.1. Does the State’s legal and institutional framework allow for creation of autonomous institutions capable of adjusting their structures to the changes needed to achieve the financial sustainability of the System of Protected Areas?

Benchmarks

	Public institutions exist with administrative and financial autonomy to establish their own internal mechanisms for regulatory and administrative control and implementation of their resources.
	The operations of some state institutions are administratively and financially separate from operations of the Single Account, but not from the directives issued by public resource regulatory agencies.
	Through operation of the Single State Account, the legal and institutional framework allows some institutions to use their resources in accordance with the specific purposes for which the allocations were made.
	The State legislation establishes that all directorates, organizations, and institutions shall administer their resources under the concept of a Single State Account; the Treasury Department or Ministry of Finance defines the corresponding budget for each agency.

Based on the selected benchmark, briefly explain the current situation and analyze options to improve the legal and regulatory framework for the System of Protected Areas.

1.2. Does the State’s legal structure allow for the generation and retention of an entity’s own revenues, for example, either taxes or self-generated resources (like the sale of goods and services)?

Benchmarks

	The State’s legal structure allows for the generation, approval, and retention of specific revenues including, but not limited to, taxes, and the collection of these revenues by the institutions interested in managing them.
	Intermediary agencies exist to manage or approve incorporation of new revenue items by the institutions.
	The State’s legal structure retains the power of approval over any revenue items institutions may incorporate.

Based on the above benchmark, indicate the Protected Area System’s opportunities for generating its own revenues.

1.3. Is there a budget preparation and approval process for protected areas?

Benchmarks

	The State’s legal structure allows for incorporation of all self-generated resources into an institution’s budget.
	The Treasury Department or Ministry of Finance defines the spending limits of institutions; additional resources can only be incorporated through negotiation with this institution.
	The State’s legal structure allows institutions themselves to prepare and approve their own budgets.
	Other government institutions exist with the authority to approve institutional budgets.
	The State structure has legislation providing that budgetary management of financial resources shall only be managed in accordance with the Budget Law of the Republic.

Explain the current situation and indicate opportunities for improving the budget preparation and approval process.

1.4. Does the current legal and institutional framework of the System of Protected Areas contain all of the required elements to ensure revenue generation and promote long-term financial sustainability?

Benchmarks

	Current legislation allows for the generation and management of revenues by non-governmental organizations.
	The legislation considers the possibility of creating alternative revenue generation mechanisms.
	The legislation on the System of Protected Areas considers revenue generation through taxes or other own revenue sources.
	The revenues of the System of Protected Areas come directly from State contributions/funding.

Explain the current legal situation and indicate opportunities for improving legislation on revenue generation for the protected area system.

1.5. Are there adequate mechanisms for the participation of the civil society (NGOs, associations, clubs, and others) in protected areas revenue-generation?

Benchmarks

	The State's legal and institutional framework allows for total participation of civil society through concessions, the creation of alliances, and other mechanisms for management of all protected areas.
	The State's legal and institutional framework allows for participation of civil society through the concession of some services considered non-essential, the creation of strategic alliances, and other mechanisms for management of some protected area services.
	The legal and institutional framework of the System of Protected Areas allows for participation of civil society only through administrative contracting mechanisms established by the State (requests for bids, direct contracting, or others).
	The legal and institutional framework does not allow the participation of civil society in the financial affairs of the System of Protected Areas.

Explain the current situation and indicate opportunities for improving revenue management with the participation of civil society.

1.6. Are protected area revenues managed in a centralized manner?

Benchmarks

	Each protected area has its own account and is responsible for managing its own resources.
	Protected area revenues may be deposited directly into a single account or fund managed by the System of Protected Areas.
	Revenues from the sale of goods and services may be deposited into a special subaccount or fund in the Single State Account.
	Not all revenues generated, but only taxes, need to be deposited into the General Fund accounts of the Single State Account.
	All revenues generated by the System of Protected Areas must be deposited into the General Fund accounts of the Single State Account.

Explain the current situation and indicate opportunities for improving it

1.7. How are budget allocations made for protected areas and the System of Protected Areas?

Benchmarks

	The System of Protected Areas allocates its budget based on the operating costs of each protected area.
	The System of Protected Areas has designed a budget distribution method with variables applicable to all protected areas.
	The System of Protected Areas allocates to each protected area a portion of the budget equal to what that protected area generates.
	The System of Protected Areas allocates a percentage of the budget to each protected area.
	The System of Protected Areas allocates the same fixed budget to each protected area.

Explain the current situation and indicate opportunities for improving budget allocations for protected areas.

1.8. Is the financial structure appropriate for financial resource management?

Benchmarks

	There is a solid financial structure that allows revenues, expenditures, and investments to be managed in a transparent, timely, and responsible manner, including the generation, management, implementation, and control of resources.
	There is a somewhat solid financial structure that may allow revenues, expenditures, and investments to be managed in a transparent, timely, and responsible manner.
	The protected areas have a minimum, required financial structure.
	The existing financial structure is not sufficient for revenue management (generation, administration, implementation, and control of resources).

Explain the current situation and indicate opportunities for improving the financial structure of protected areas.

1.9. Are adequate staff resources dedicated to management of financial resources and the financial plan?

Benchmarks

	The System of Protected Areas has sufficient human resources well trained dedicated to management of financial resources and the financial plan.
	The System of Protected Areas has sufficient human resources with basic skills for management of financial resources; but there is no financial sustainability plan or staff responsible for it.
	The System of Protected Areas has no staff trained to manage financial resources; there is no financial sustainability plan or staff responsible for it.
	The protected areas do not have a person on staff knowledgeable about financial management.

Explain the current situation and indicate opportunities for improvement

1.10 Is a financial sustainability plan being developed for the System of Protected Areas? Indicate the state of the process or the reasons why it is not being done.

1.11. What role do specialized NGOs play in the strengthening of the System of Protected Areas?

	Level of participation: High-medium-low		Level of impact: High-medium-low		Decision-making: High-medium-low
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Comment on and/or explain your choices.

1.12. Is there community participation in financial management of protected areas? If so, indicate how and what its benefits are; if not, indicate the reasons.

2. Ideal Financial Structure for a System of Protected Areas

Areas	Description	Does it exist?	
		Yes	No
Financial Management - Accounting - Budgeting	Responsible for efficient financial management, including tasks such as the keeping and preparation of financial records and reports and the development and maintenance of fee collection and resource management systems, among other tasks.		
Long-term Financial Sustainability	Responsible for formulating, implementing, updating, and evaluating both a long-term financial strategy and business plans for the protected area system.		
General Services	Responsible for providing maintenance services for vehicles, infrastructure, general equipment, and other such items.		
Administrative Contracting and Inventory Control	Responsible for contracting for goods and services, processing various acquisitions, and managing inventory control.		
Human Resource Management	Responsible for the processes of hiring, induction, training, and human resource development in general.		
Information and Technological Support Systems	Responsible for the development of financial, accounting, and management systems and databases.		

2.1 What are the biggest challenges to improve efficiency in the existing structures?

Conclusion

What priority actions are needed to bring about changes in the legal and institutional framework? Consider the following levels:

Inter-institutional commissions	<hr/> <hr/> <hr/>
Governmental negotiation (lobbying, legal reforms)	<hr/> <hr/> <hr/>
Participation of other actors (private sector, academia, civil society)	<hr/> <hr/> <hr/>

Annex 14. Guidelines for Facilitators of the Assessment of the Legal and Institutional Framework of the Protected Area System

General Aspects

An assessment is most effective and objective when facilitated by an outside professional. The facilitator assists in designing an appropriate assessment process for the specific situation. Assessments can be conducted using a variety of approaches, which may include personal interviews, work in small groups, and/or a workshop. The main goal is to promote a general discussion on the current stage of development, as well as future directions. The facilitator acts as a moderator throughout the process, documenting the assessment process and helping to identify the best approaches to develop an action plan for improvement. Objective reflection and clear direction are the result of a well-planned and well-facilitated assessment. When choosing a facilitator, keep in mind that institutional development professionals are best suited to perform this task because they have the necessary skills to plan and implement institutional strengthening processes.

More so than with any other type of intervention, the facilitator must build trust and confidence in participants to conduct an effective assessment. Also important is defining the degrees of confidentiality that will be used with the resulting information. Finally, every effort should be made to ensure that the assessment is not being conducted only to comply with donor requirements.

Before the Assessment

It is important to work very closely with key actors involved in the protected area system to clarify the purposes of the assessment and jointly design an implementation process that fits the organizational culture.

During the preparation process, the facilitator should:

- Coordinate the appropriate time for and carefully plan the assessment
- Establish contact with public organizations (Ministry of Finance or Treasury, Planning, Comptroller) and

specialized private institutions having information on protected area financing (TNC, WWF, CI, IUCN).

- Ensure that key actors understand the process, benefits, and expected results.
- Allow the National System of Protected Areas (SNAP) to determine who should participate in the assessment (including internal and external participants) and formally convene the assessment

Before beginning an assessment process, the use of the information generated during the assessment should be discussed to determine the degree of confidentiality required to satisfy all stakeholders.

During the Assessment

At the beginning of the assessment, the facilitator should explain to participants the background and objectives of the exercise and describe the process that will be used. In addition, the facilitator should cover the following topics in the introduction:

- Specify the potential benefits offered by conducting an assessment: identification of gaps and priorities, improved effectiveness, demonstrated professionalism to donors, promotion of access to fund, monitoring and documentation of progress, and highlighting areas of disagreement that can lead to rich discussion and learning.
- Indicate if an international NGO or other external organization is in any way involved and its objectives in participating in the self-assessment
- Explain why the assessment is most effective if the process is externally facilitated.
- Emphasize the value of mutual learning and of the shared vision the assessment can provide.
- Explain the format of the assessment
- Indicate that discussions should focus on the future. The goal is to identify and solve problems, not to dwell on past complaints.

After the Assessment

What happens after the assessment is as important as, or more important than, the exercise itself. Aspects to consider:

- The assessment should establish a baseline for measuring progress over time. Based on assessment results, an action plan should be developed that will include the goals to be achieved within a specific timeframe. The action plan should also identify the individuals responsible for meeting those goals.
- Ideally, the facilitator should provide follow-up support to monitor the progress of the action plan periodically.
- The aggregate results and recommendations from the assessment should be used as key input to carry out initiatives to reform the legal and institutional framework; ideally, these initiatives should be incorporated into the overall financial strategy.

Annex 15. Development of a Financial Plan: The Case of Ecuador

This section presents the main components of a financial plan based on experience gained in Ecuador.¹ The information included in this annex has been drawn mainly from the following documents: a) Financial Sustainability Strategy for the National System of Protected Areas: 2007–2016² and b) Financial Sustainability Plan for the National System of Protected Areas of Ecuador.³ The financial plan contains the following ten sections, summarized below.

1. General Framework of the National System of Protected Areas

The Constitution of Ecuador states that the National System of Protected Areas (SNAP) is a matter of public interest to ensure conservation of the protected areas, their biodiversity and the ecological services they provide in accordance with international

treaties and agreements (article 86, number 3, and article 248). Further, the Constitution provides that the State has sovereign rights over biological diversity, natural reserves, protected areas, and national parks. Their conservation and sustainable use shall be conducted with the participation of the communities involved and by private initiative.

According to its Strategic Plan (2007–2016), the SNAP promotes integrated management of Ecuador's protected areas through administration of four of its subsystems: the State Natural Areas (PANE), Protected Areas of Sectional Governments (APGS), Community, Indigenous, and Afro-Ecuadorian Protected Areas (APC), and Private Protected Areas (APPRI). Of these subsystems, the PANE has the greatest geographic coverage (see Box A).

Box A. The State Natural Areas (PANE)

The PANE currently protects 4,757,986 hectares of land surface (18.7% of Ecuador's national territory) and 14,110,000 hectares of sea surface that contain biological and ecological elements of importance to the current and future well-being of the Ecuadorian people. PANE contains natural resources of national interest, such as water sources that supply population centers and both extensive crop and livestock production areas. In addition, this territory provides scenic beauty to the tourism industry, Ecuador's fourth largest revenue source. The protected areas are also home to significant cultural diversity represented by the presence of many indigenous peoples and nations, and Afro-Ecuadorian populations.

At present, the PANE consists of 35 areas, 13 of which are larger than 100 thousand hectares (Galapagos Marine Biological Reserve; National Parks: Yasuní, Galapagos,

Sangay, Llanganates, Sumaco-Napo-Galeras, and Podocarpus; Cuyabeno Fauna Production Reserve; Ecological Reserves: Cayambe Coca, Cotacachi-Cayapas, Los Illinizas, Antisana, and Mache-Chindul); and 11 areas with extensions greater than 5,000 hectares (Limoncocha Biological Reserve; Wildlife Reserves: Muisne River Estuary Mangroves, El Zarza, La Chiquita, Isla Corazón, Paschoa, Santa Clara Island, and Pulumahua Geobotanical Reserve; El Condor National Park; and National Recreation Areas: El Boliche and Parque Lago). The remaining 11 areas (Fauna Production Reserves: Chimborazo and Manglares El Salado; National Parks: Machalilla, Cotopaxi, and El Cajas; Ecological Reserves: Cofán-Bermejo, Cayapas Mataje, Manglares-Churute, Arenillas, and El Ángel; and El Quimi Biological Reserve) are less than 5,000 ha. The oldest protected area in Ecuador is Galapagos National Park, created in 1936, and the newest is El Quimi Biological Reserve, created in January 2007.

Source: MAE, 2007.

1. The financial sustainability process of Ecuador's protected areas was supported by: the Promoter Group (led by the MAE, see Annex 17), the Coalition to Advance the Implementation of the Program of Work on Protected Areas of the Convention on Biological Diversity, G9 (a group of international NGOs that coordinates actions and allocates funding), and the Donor Working Group (bilateral and multilateral donors that coordinate investment priorities for the MAE).
2. Developed by the Ministry of Environment of Ecuador and other agencies, 2007.
3. Prepared by Mentefactura. Ecuador, 2007.

Table I. Policy and Legal Framework for the Financial Sustainability of the SNAP

Policy Framework

- Convention on Biological Diversity - OR 647 of March 6, 1995. (OR: Official Government Bulletin)
- Millennium Declaration (2000).
- National Biodiversity Policy and Strategy 2001-2010 - ED 2232 of January 9, 2007.
- Forestry Strategy.

Legal Framework

- Laws: on Environmental Management (Law 37, OR 245 of July 30, 1999), on Water (OR 687 of May 18, 1987), on Tourism (and Regulation of Tourism in Protected Areas - OR 733 of December 27, 2002), on the Electricity Sector (and the Environmental Regulation for Electric-

ity Supply - ED 1761, published in OR 396 of August 23, 2001), on Tax Reform (OR 325 of May 14, 2001), on the Stock Market (OR 367 of July 23, 1998), and on the Modernization of the State and of Public Sector Budgets.

- Codification of the Forestry Law - OR 418 of September 10, 2004.
- Statute of the Legal-Administrative Regime of the Executive Function - ERJAFE.
- Civil Code - OR/ Sup 104 of November 20, 1970.
- Regulations: General Regulation of the Law of Public Sector Budgets and Substitute Regulation to the Regulation of the Organic Law on Fiscal Responsibility, Stabilization, and Transparency.

Although the Constitution and several laws declare the SNAP to be of public interest, this recognition is not included in all sectoral policies and practices. The legal framework for the management of the System of Protected Areas is summarized in Table I.

Ecuador’s protected areas play a critical role, not only because they are guardians of biodiversity so that future generations can enjoy natural resources and their potential uses, but also because these protected areas

generate environmental goods and services that currently contribute to the economic growth of Ecuador’s cities and local communities. Table II shows illustrates some the benefits provided by protected areas.

In Ecuador, 227,986 people (1.75% of the population) live inside or on the borders of protected areas. These people depend directly on protected areas for their livelihood and the maintenance of their traditional ways of life.

Table II. Benefits Provided by Protected Areas⁴

Benefits	Description
Recreation and development	Tourism is the country’s fourth largest industry. In 2003, Ecuador hosted a total of 403,000 visitors (68% were domestic tourists). Of this number, 260,745 visited mainland protected areas (Ministry of Tourism, 2003).
Generation of water supply	34% of the Ecuadorian population (4.5 million people) receive water in their homes from resources provided by protected areas. The country’s capital city alone consumes more than 17 billion liters of water per month to meet the needs of its population (1.5 million people), industry, and surrounding irrigation areas.

4. Based on studies conducted by Mentefactura (2007), Villacrés (2005), and others.

A general picture of the contributions protected areas make to the livelihoods of these populations was developed by Lascano and others in 2007⁵. The key aspects identified by the study were:

- Provision of food and medicinal plants. Although these benefits vary by region, the average family benefit is US\$127 per month (an average of US\$200 per month in the highlands, and of US\$83.30 per month on the coast). In the highlands, 80% of these revenues are attributable to natural resource extraction.
- Significant non-monetary contribution. This contribution is evident in the use of resources for home construction, the manufacture of household articles, the construction of means of transportation, and the use of firewood and water.
- The contribution of tourism activities are low in comparison to extractive activities that put pressure on protected areas (only 5-7% of households have one member employed in tourism activities).

2. Financial Background

A first aspect identified in the Analysis of Financial Needs of the SNAP is the significant difference in funding between the Galapagos National Park and Marine Reserve and the continental protected areas (MAE, 2005):

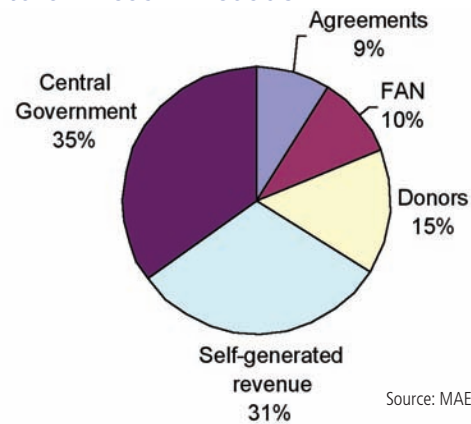
- Total investment in State Natural Areas in 2003 was US\$8,718,650 (0.05% of the State budget). Of this amount, 70% was allocated to the Galapagos National Park and Marine Reserve and only US\$2,705,788 to State Natural Areas in the mainland.
- Taken together, the State Natural Areas in the mainland have an inventory of goods and equipment valued at US\$1,610,373, equivalent to 38% of the total inventory of protected areas of the Galapagos. This situation is partly explained by the high capacity of the Galapagos National Park to self-generate revenues. In 2003, this area produced 4.8 times more self-generated revenues than all of the 31 continental areas combined (MAE, 2006).
- In 2003, 306 people worked in protected areas of the Galapagos (30% were officials of the Ministry of Environment), while 277 people worked in the

continental SNAP (158 were direct employees of the MAE and 119 were financed by project and donor resources). The Amazon areas have the least staff in relation to size (Yasuní and Cuyabeno have a ratio of over 80,000 hectares per employee) and there are five areas with no staff assigned to them (MAE, 2005).

Another key finding of the financial analysis is the definition of the financial gaps.

- The results of the analysis established that the resources available to State Natural Areas on the mainland only cover 45% of the required funds for a basic conservation scenario. This shortfall has led to limited investment, a small number of park guards, and insufficient equipment to meet each area's demands and needs (MAE, 2005).
- Of the amount allocated to State Natural Areas on the mainland, US\$215,741 correspond to investment expenditures and US\$1,733,706 to recurrent expenditures (72% of the latter amount is allocated to personnel).
- The current financing of State Natural Areas includes donor participation, the Protected Areas Fund, and funding through agreements (see Figure A). The largest percentage of funding comes from fiscal resources (35%).
- Self-generated revenues in protected areas of the mainland come almost exclusively from the sale of

Figure A. Funding Sources for State Natural Areas in Ecuador



5. For this study, 939 surveys were conducted in 21 protected areas with a 5% margin of error.

park entrance tickets (fiscal stamps). Some 87% of revenues were generated by five areas: Cotopaxi, Machalilla, Cuyabeno, Chimborazo, and Cotacachi-Cayapas. At the other end of the scale, 13 areas generated less than 5% of self-generated revenues in 2006.

3. Objectives

The Financial Sustainability Strategy for the National System of Protected Areas of Ecuador (2007–2016) has one general objective and five specific objectives.

General Objective:

Achieve long-term financial sustainability for the PANE by implementing strategies to generate funds, ensure effectiveness of expenditure, and establish structures for participation in the management of the areas, as well as implementation of communication strategies and policy advocacy for the SNAP.

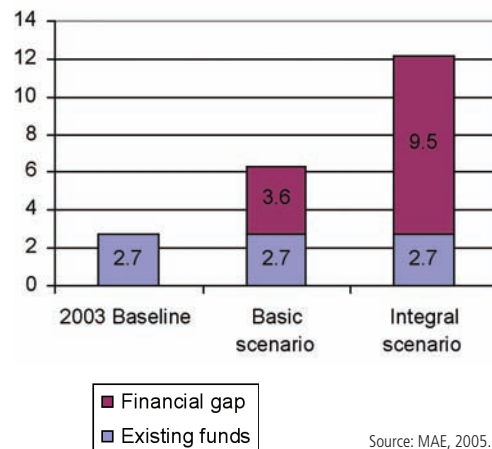
Specific Objectives:

- **Objective 1:** Increase funding: the state’s contribution to the SNAP; contributions from public and private actors (both national and international) and self-generated revenue.
- **Objective 2:** Generate a clear regulatory and institutional framework to promote participation of private and community actors in funding mechanisms for the SNAP.
- **Objective 3:** Position the SNAP as a strategic sector for Ecuador’s economic development, as well as in public opinion and with decision makers.
- **Objective 4:** Strengthen the capacity of the National Park Authority for management and administration of State Natural Areas and consolidation of other subsystems of the SNAP.
- **Objective 5:** Ensure that public, private, and community actors participate actively in implementation of the financial sustainability strategy.

4. Determination of Financial Gaps

According to the Analysis of Financial Needs (MAE, 2005), the 31 continental protected areas require a total of US\$6,293,455 per year for the basic sce-

Figure B: Financial Needs and Gaps of State Natural Areas in Ecuador (in millions of US\$)



nario and US\$12,211,681 for the integral scenario. The current annual gap is US\$3,587,667 for the basic scenario and US\$9,505,893 for the integral scenario (see Figure B). The results of the 2005 Financial Analysis indicate that the State Natural Areas have not improved their financial situation compared to the level of financing achieved in 1998.

5. Analysis of Investment Priorities and Funding Strategies

This analysis identified barriers to improving the system and described the current situation with regard to 13 critical aspects affecting financial viability of the system. The process established specific strategies to address the challenges of the system. These strategies were grouped into two categories: a) resource generation (fiscal resources, self-generated revenues, individual and business donations, capitalization of the national environmental fund, international donations, sustainable tourism, third-party administration, and site-based management), and b) consolidation of the SNAP (legal and institutional framework, social recognition of the SNAP, positioning of the SNAP, and strengthening administrative and financial management capacities). Table III summarizes the main challenges and strategies identified to promote financial sustainability of the National System of Protected Areas of Ecuador.

Table III. Matrix of Problems and Strategies: SNAP – Ecuador

Problems	Current Situation	Strategies	Expected Situation
State investment is insufficient to cover the financial needs of the SNAP.	State funding only covers 16.4% of the basic needs of the SNAP. In addition, there is limited capacity to influence budget allocations.	Increase fiscal resources by reorienting State investment.	The financial requirements of the Basic Scenario have been covered and progress is being made toward achieving the Integral Scenario in a significant number of protected areas in the PANE.
Inadequate mechanisms to increase current revenues and limited diversification.	The SNAP is currently financed by four stable revenue sources: the State Budget, tourism revenues, the protected areas fund, and other agreements. There is insufficient investment in the SNAP due to the limited capacity to generate and manage resources from different sources.	Apply and diversify self-funding mechanisms, including reinvestment instruments.	Multiple funding strategies are being used for the SNAP. Innovative financial mechanisms are being applied to the management of other subsystems of the SNAP.
There is a lack of involvement of private-sector actors in the financing of State protected areas.	There are few experiences with private sector support for the management and financing of PAs in the PANE.	Develop donation instruments to channel resources from individuals and private-sector enterprises.	Companies and individuals recognize the importance of the PNAs in the PANE and contribute to their management.
Few areas are covered by the protected areas fund (FAN).	The FAN supports only 11 PAs in the PANE with limited funds for each.	Capitalize the protected areas fund.	All protected areas in the PANE are included in the FAN cycle with funds assigned to support their management.
Funding from international cooperation has declined in recent years and investments often overlap.	The trend of international cooperation funding has been declining in Ecuador since 1998, and there is often overlap between investments in the same areas and issues.	Coordinate a strategy with international cooperation agencies to scope out and increase funding streams.	Coordination channels exist for cooperating agencies to invest in the SNAP and their financing has increased.
Insufficient investments to increase and improve the quality of services and number of visitors to the SNAP.	Lack of financing to improve the quality of PA services for tourism activities, such as infrastructure and guide service, among others.	Implement the sustainable tourism strategy in protected areas.	Sustainable tourism management models involving visitors in PA conservation have been implemented in the protected areas and generate revenues for the System.
Lack of clarity regarding participation and joint administration.	There is no concerted policy on participation, joint administration, or delegation. A concession is being developed as a pilot case study in El Boliche Recreation Area.	Implement the strategy of third-party administration.	Local actors are incorporated in the SNAP through successfully managed third-party administration strategies.
Coordination mechanisms are lacking involvement by different actors and interest groups.	Lack of coordination and participation in the management of the SNAP, with limited involvement of other actors in financial management.	Promote coordination of actors at the local level, where they can have an impact on generating benefits for communities (Management Plans).	National, international, and local actors are involved in management of the SNAP and participate in financing the System. Local communities receive direct benefits from the SNAP and are familiar with it. The services provided by protected areas are recognized and valued by authorities, communities, and direct and indirect users.

Table III. Matrix of Problems and Strategies: SNAP – Ecuador (cont.)

Problems	Current Situation	Strategies	Expected Situation
The regulatory and inter-institutional framework does not respond to the financial sustainability needs of the SNAP.	Ambiguities in the legal framework hinder diversification of revenue mechanisms. The current legal framework does not recognize the possibility of developing new instruments and mechanisms, and there is no clear process for inclusion of other sectors. There is confusion about responsibilities at the level of NPA managers, Regional Directorates, and the National Directorate for Biodiversity, Protected Areas and Wildlife (DNBAPVS). This situation also affects collaboration by diverse organizations such as local governments and international cooperation.	Strengthen the regulatory and interinstitutional framework to develop and introduce a coherent and simplified legal basis for the raising, management, and efficient reinvestment and expenditure of resources generated in the SNAP.	The Environmental Authority has a coherent and simplified legal basis for the raising, management, and reinvestment of resources generated in the SNAP, as well as their efficient expenditure. There is a solid structure for the implementation of the Financial Sustainability Strategy (FSS) of the SNAP; this structure involves different management actors and allows them to interact directly with each other.
The financing of the SNAP is not a strategic priority for the State, the private sector or the civil society.	There are no mechanisms to disseminate the contributions the SNAP makes to the national economy and the development of the country.	Promote social recognition of the contributions protected areas make to national development, thereby motivating support and commitment by the State, the private sector, and the civil society.	The SNAP has been positioned in State policies as a key element for the country's development. There is social recognition of the contributions that protected areas make to national development.
Decision makers do not consider the SNAP to be an essential factor for the well-being of the country's cities and development.	Few decision makers know about the SNAP and, consequently, have not incorporated it into their agenda.	Position the SNAP in State policies as a key element in the country's development in order to influence decision makers.	Political support exists in various State agencies to apply the FSS of the SNAP.
Limited autonomy and few incentives for PA administrators to achieve adequate levels of funding.	PA managers have limited financial management authority. There are no incentives for introducing new financial planning models and tools.	Strengthen the national Environmental Authority and protected areas for the implementation of the FSS of the SNAP.	The Ministry of Environment has a structure (the DNBAPVS) that implements and monitors the FSS of the SNAP, providing incentives for protected area revenue generation. The protected area managers have financial management authority.
Limited capacity for implementation, control, and monitoring of financial resources.	Financial management links between the different levels of the MAE are weak or nonexistent, especially between Ministry Headquarters and the PA Administrative Units. This situation creates problems for financial and administrative management. The government's capacity to make strategic financial decisions is limited by the lack financial information.	Restructure administrative and financial management of the SNAP, simplifying the planning hierarchy and generating explicit links with other management areas.	The administrative and financial management of the SNAP is closely related to planning for the System. The Andean Guarantee System (SAG) has been implemented throughout the PANE and has resulted in greater transparency of financial information on expenditures and contributions to protected areas from public and private organizations.

Box B. Strategies for Fiscal Management, International Cooperation, and Policy Advocacy

Fiscal Management Strategy:¹ This strategy aims to identify whether the barriers that hinder increasing financial resources for the PA system are of an economic, structural, and/or legal nature. This strategy will help to determine the best operational model and indicators to manage public funding.² For example, revenue and expenditure flow. This strategy will help to identify reforms to increase resources such as: administrative reform, information management, and legal reform.

International Cooperation Strategy: This strategy seeks to promote a better articulation amongst international cooperation agencies and organizations in order to optimize efforts and generate synergies between organizations involved in the financing of the PA system through a coherent “Country Agenda;” and improve coordination with the MAE, SNAP, the Directorate of International Affairs at MAE and INECI. Particularly, coordination beyond the Galapagos National Park and Marine Reserve, which is the protected area of greatest interest to international cooperation agencies.

Policy Advocacy Strategy:³ The aim of this strategy is to ensure that the different initiatives and mechanisms proposed to achieve the financial sustainability of the System are known and adopted by key actors. To this end, decision makers must support the objectives of the Financial Sustainability Strategy for the SNAP in order to improve co-financing, accomplish legal reforms, and build capacity. The development of a policy advocacy strategy requires identifying actors involved in the implementation of each financial mechanism. Thus, the strategy will develop tailored approaches to engage actors, including specific timing and the key messages to be conveyed. In addition, the products developed in the FSS for the SNAP will be interconnected and linked to other related national and local processes that can provide additional support.

Notes:

1. Work in progress, only information on the proposed working methodology is available.
2. Annex 18 shows the operation model of public finance planning in Costa Rica, Colombia, Ecuador, and Panama
3. Work in progress, only information on the proposed working methodology is available.

6. Financial Sustainability Strategies

Ecuador has made important progress in implementing a national financial sustainability strategy for its system of protected areas. For example, establishing clear guidelines for financial management, international cooperation, and policy advocacy (see Box B).

In addition, the process of implementing the strategy of self-generated revenue is presented below,

together with the results achieved. This strategy focuses on three markets: 1) the corporate and business sector, 2) the public at large, and 3) incoming (international) tourism.⁶ The process followed in the analysis of the above-mentioned markets has included four stages: identification of actors, conducting a market study on the financial mechanisms, development of a marketing strategy, and development of the mechanisms.

6. Foreigners who visit the country.

7. Identification of Actors

The first step was to carry out the “Mapping of Actors Associated with Conservation Finance.” This activity consisted of conducting in-depth interviews and systematizing the results together with other relevant information from studies and other sources. The aim of this activity was to generate a project matrix showing the sources, amounts, and uses of cooperation funds for the SNAP, and to develop a proposal for a conservation finance cluster.⁷ In Ecuador, the cluster approach has been used to show the current operation of the sector on a national level, providing a description of the different financing actors, their scope of work and how they are related. This process demonstrated the need for a variety of communication channels and allowed the development of proposals involving new actors, mechanisms and institutions to promote greater interaction within the cluster. The steps taken in this stage were:

a) **Collection and analysis of information on actors:**

This consisted of systematizing information on the investment lines of cooperating agencies, considering the amounts invested and the projects in which they participated from 1991 to 2005,⁸ as well as the cooperation agencies’ priority areas, main activities, etc. Examples of the information collected are presented in Tables IV and V.

b) **Classification of actors identified:** Actors were classified as current or potential based on whether or not they were currently participating in financing⁹ the SNAP, as well as by activities they carried out and their area of work. Actors include cooperation agencies, service provider companies (consulting, advising, etc.), public sector (local governments, the State, ministries, etc.), private sector (actors with which strategic alliances could be established), and community organizations.

c) **Analysis and grouping of actors:** Information generated in the previous step was used to develop the conservation finance cluster. This approach simplified mapping of actors and their relations, making it possible to clarify which actors were needed for the cluster to operate efficiently. The groups of actors in the financial cluster included potential clients, direct suppliers, promoters, the government sector, and other support sectors (national and international organizations).

d) **Validation and consolidation of donor information:** Information collected from secondary sources (including studies by the government agency responsible for international cooperation – the Ecuadorian Institute for International Cooperation, INECI) had to be validated with different donors in order to agree on the level of investments and project

Table IV. Example of Information on Projects Financed by International Cooperation (Bilateral, Multilateral, and South-South)

Donor	Counterpart and/or Implementing Agency	Name of Project	Start Date	End Date	Amount Allocated (US\$)	Source
U.S. Government	MAE/TNC/Fund. Antisana/Ecociencia/Rumicocha Foundation	Parks in Peril 2000	2001	2007	1,152,103	INECI (2006)

Source: Prepared by Mentefactura, 2006.

7. A cluster is a group of actors from different sectors or industries.

8. This time frame was the agreed upon period for assessing the investments in the SNAP.

9. In addition to the actors involved in the financing of the SNAP, other actors that could provide services to the System were also identified. These included administrative, financial, training and consulting services.

programming. Thus, with support from the MAE, a month-long validation process was conducted through which input was obtained from 9 of the 31 organizations. One of the key findings was the need to systematize information regarding the operation of international cooperation.

8. Conducting a Market Study on Financial Mechanisms

A market analysis was conducted involving design and application of surveys and in-depth interviews, according to the financial mechanisms and

target audiences¹⁰ identified. The steps taken were as follows:¹¹

a) Conceptualization of priority funding mechanisms:

The prioritized mechanisms were conceptualized by considering the different audiences to which they were directed (product differentiation approach). Table VI shows the products and markets analyzed.

b) **Definition of the sample:** This was determined according to the population size of each target audience and the required sampling error. The market

Table V. Example of Forms of Operation of the Main Donors

Donor	Operation	Scope of work	Funds (US\$)	Source
United States Government, through USAID	The bilateral programs of technical and economic assistance of the United States Government to the Government of Ecuador officially began in 1942. USAID-Ecuador works in areas of technical and economic cooperation, coordinating most of its international environmental programs and activities with various national and international counterparts, both public and private.	Five priority areas on a national level: - Development of Northern and Southern Border Areas - Biodiversity Conservation - Poverty Reduction - Strengthening of Democracy USAID's environmental programs focus on long-term projects addressing national and global environmental challenges.	Analysts estimated that by 2003 the funds channeled into USAID's biodiversity conservation program in protected areas (through different NGOs) amounted to 3.8 million dollars.	Ecumenical Projects Committee (2001).

Source: Prepared by Mentefactura, 2006.

Table VI. Markets and Products

Products	Markets		
	Corporate/Business Sector	Ecuadorian Population	Incoming Tourism
Conservation logo Donation of 25% of income tax to the SNAP SNAP Passport (gift for clients)	"A minute of clean air" "Donate your change for a condor's nest" Collection of entrance fees from Ecuadorians	Incoming tourist donations SNAP Passport Entrance fees	

10. Surveys were administered to Ecuador's major private companies and to foreigners visiting the country (incoming tourists). Tourism fees were assessed using information generated by a study of on-site demand from eight protected areas. These survey forms may be requested from info@mentefactura.net

11. Steps b, c, d, e, f and g may be outsourced to a company with experience conducting market studies in order to speed up the process and allow the working team to focus primarily on process design and review and analysis of the results.

study targeted tourism companies and was based on 207 surveys. Additionally, 406 surveys were taken with incoming tourists, and 500 surveys were taken by the public at large. Table VII summarizes the characteristics of the survey process.

c) **Definition of areas for survey administration:** In accordance with geographic distribution of the target audience, surveys were conducted with companies on a national level. These surveys focused on higher density areas (the coast and highlands of the country), while surveys of incoming tourists were administered in the preboarding room at Mariscal Sucre International Airport (Quito).

d) **Design of surveys/questionnaires for each target audience:** The sections and questions included on the surveys were tailored to the mechanisms to be evaluated and the working hypotheses. The surveys have four parts: a) an introductory section explaining the objectives of the survey and other relevant information, b) a general section focused on identifying the respondent's interest in financial mechanisms and conservation of the SNAP, c) this section focuses on the financial mechanisms to be evaluated, aimed at learning the respondents' perceptions of these mechanisms, the most appropriate means of implementation, the characteristics of the service, and willingness to pay, and d) a final section

dedicated to the socio-economic background of the respondents.

The surveys of companies took 15 minutes to administer and were conducted by phone using the CATI System (Computer Assisted Telephone Interviewing), while the surveys of incoming tourists involved their taking no more than 20 minutes to independently complete the questionnaires.

e) **Training of survey administrators:** The survey administrators¹² were trained through a thorough review of the survey and the required management process.

f) **Processing information:** Cross-tabulation techniques were used to determine relations and differences in each sampling segment and in the total. The key results of the market research are shown in Figures C, D, E, and F.

g) **Analysis of results by target audience:**¹³ The results of the study were analyzed and used to develop "General Market Guidelines for Sustainable Financing of the SNAP" (see Box C). These guidelines were organized from two perspectives aimed at: a) generating strategic guidelines for sustainable financing of the SNAP, and b) providing strategic market guidelines for prioritized financial mechanisms.

Table VII. Markets and Type of Study

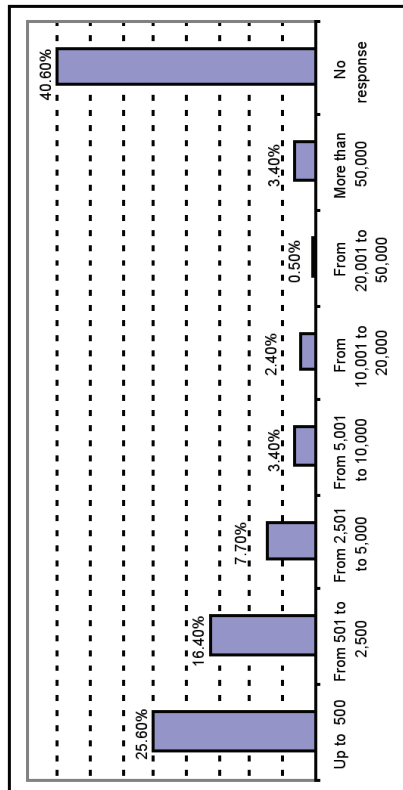
Markets

	Corporate/Business Sector	Ecuadorian Public at Large	Incoming Tourism
Type of Study	Surveys and interviews. Sample of 207 respondents drawn from the Superintendence of Companies, the Internal Revenue Service, and the Ecuadorian Consortium for Social Responsibility.	500 surveys of mid- to high-income shoppers at Supermaxi Supermarkets and Fybeca Pharmacies in Quito, as well as in-depth interviews with organizations conducting donation campaigns.	Administration of surveys in preboarding rooms at the international airport. Sample of 406 respondents (tourists over age 17, residents of North America, Latin America, and Ecuador).

12. The number of survey administrators varied depending on the sample being considered as well as the length of time allocated to conduct the surveys.

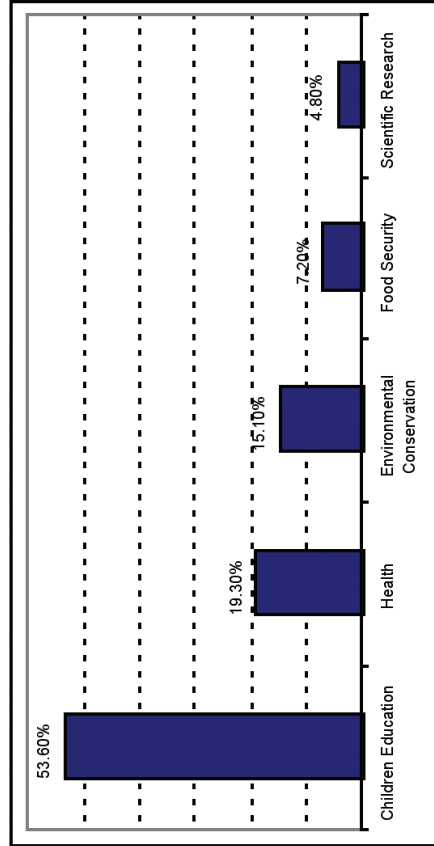
13. One of the most important findings was the limited level of positioning of the MAE and the SNAP in the national context. This research showed that development of strategic alliances with institutions from other sectors, together with a clear communication strategy on resource use and its effects, could improve the positioning of the MAE and the SNAP.

Figure C. Average Amount of Donations by Companies



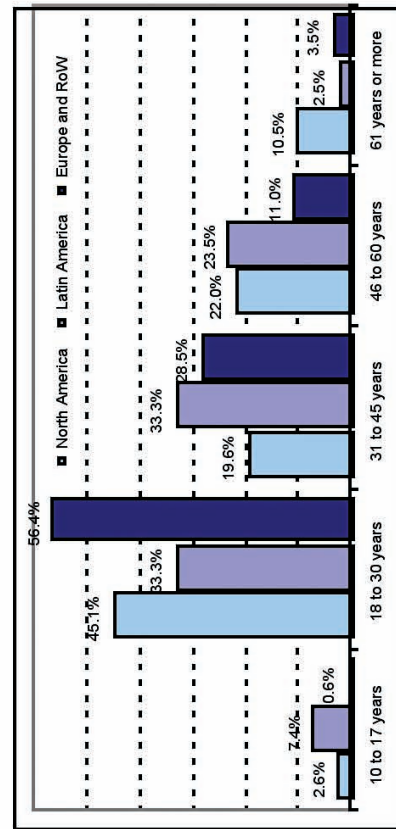
Base: 207 Respondents

Figure D. Sector that Should be Prioritized



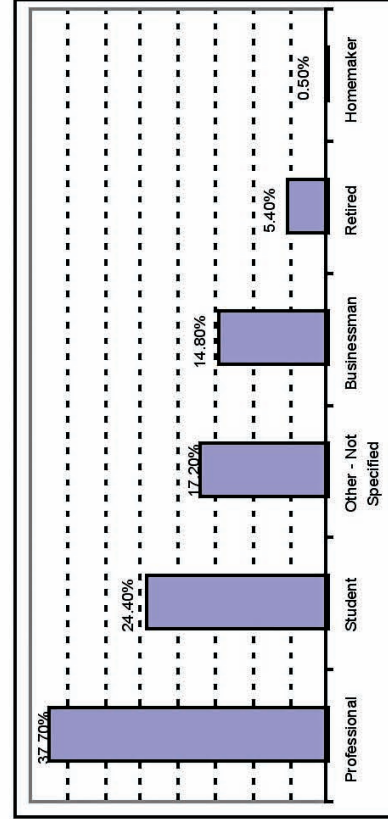
Base: 207 Respondents

Figure E. Tourists by Age and Region



Base: 406 Respondents

Figure F. Current Occupation of Tourists



Base: 406 Respondents

9. Development of a Marketing Strategy

After formulating the guidelines mentioned in the previous activity, a “marketing plan” was developed for the different products identified. The steps followed were:

a) **Identification of different product lines:** This step involved identifying the specific actions needed for each mechanism, including the characteristics of the target groups, and the potential product portfolio. Table VIII shows an example of a product line aimed at corporate or business donations.

b) **Development of strategic guidelines for the promotion of different products:** These guidelines were used to develop a communications campaign and purchase media space to help position and promote the products (see Table IX).

c) **Development of a media plan:** For each product, media were selected and time frames established for dissemination of promotional messages. The communications media to be used varied depending on the different target groups. Table X shows suggested media outlets for dissemination of promotional messages to each segment.

d) **Determination of product prices:** This step consisted of estimating costs and analyzing the results of the willingness to pay for each prioritized product (see Table XI).

e) **Strategy for distribution:** Different strategies were developed based on the market segment to be served. For example, in the corporate sector the strategy developed consists of employing a sales force to make door-to-door visits to offer the products of

Box C. General Market Guidelines for Financing the SNAP

The guidelines presented below focus on improving the image and capacity of the MAE and the SNAP:

- Build a team of people in the MAE to professionalize resource management and fundraising for the System. This will be accomplished by strengthening the MAE’s capacity for marketing, sales, and promotion of new financing mechanisms.
- Promote MAE’s contribution to sustainable development in Ecuador through the improvement of natural resources management. Special attention should be put on promoting the MAE as a highly qualified and efficiently managed institution with transparent management of its funding mechanisms.
- Strengthening accountability and communications mechanisms of the Environmental Authority. This can be achieved through the development and use of efficient administrative and financial mechanisms capable of generating periodic financial reports.
- Demonstrate and communicate how additional funding is helping to achieve conservation goals.
- Establish a systematic public relations and communication process as part of a social responsibility strategy to facilitate positioning of the MAE and the SNAP as mechanisms for national development.
- Raise the political profile of the SNAP to improve national public opinion and in the market in general.
- Prioritize diversification of stable, long-term funding sources for the protected area subsystems.
- Implement mechanisms to effectively allocate funds and measure the effectiveness and cost-efficiency of expenditure on conservation.
- Promote alignment and harmonization of the international cooperation agencies that support the SNAP in order to avoid duplication of efforts.
- Design and propose strategies to increase State budget allocation to the SNAPP and promote development of new mechanisms and economic instruments.
- The revenues generated through the implementation of the additional financial mechanisms identified in this study should be complemented and not replaced by the State’s budget allocation to the SNAP.

the SNAP to different company executives. The potential customers are cultivated through a Customer Relations Management System (CRM). Table XII shows the suggested distribution strategies for each market analyzed.

f) **Operational structure:** The structure is central to the operation of the marketing plan and will be the “resource-generating machine” for the SNAP. The suggested structure consists of a business unit which includes three sections: 1) marketing, in charge of designing and implementing activities to enhance

Table VIII. Example of the Identification of a Product Line

Product Line	Positioning	Target Group(s)	Product Portfolio
Corporate donations for protection of the country's natural capital	“By helping to protect the SNAP, your company is having a profound impact on the protection of some of the most biodiverse natural areas in the world. You will be periodically updated on the use of your contribution and its impact on conservation. In addition, the MAE will recognize and promote your efforts for habitat protection.”	Large and medium-sized companies that actively support their communities through donations or direct investment in matters of social or environmental interest.	Logo for Conservation of the SNAP. Contribution of 25% of income tax to the conservation of the SNAP. SNAP Passport.

Source: Prepared by Mentefactura, 2007.

Table IX. Example of Product Promotion

Product Line	Message	Objective	How to Achieve this Aim?
Corporate donations for protection of the country's natural capital	Clearly communicate what is being offered and appeal to the sensitivity of the target groups to motivate their participation.	Appeal to the sensitivity of the target groups, report on activities carried out, and account for funds received.	Select an endangered animal from Ecuador that has been globally “humanized” and inspires tender feelings to be a symbol of the need for protection.

Source: Prepared by Mentefactura, 2007.

Table X. Media Used to Communicate Promotional Messages

	Markets		
	Corporate/Business Sector	Ecuadorian Public at large	Incoming Tourism
Media Used to Communicate Promotional Messages	Business and airline magazines, direct mail campaigns, public relations, national TV, environmental sustainability and business seminars, high-level events and advertisements in newspapers of national circulation.	Specific to each project to be implemented jointly with a retail consultant specialized in mass communications strategies using TV, radio, newspapers. Promotional messages should be linked to ongoing publicity for the SNAP.	Airline magazines, projection of a video on the SNAP, airport stands and collection boxes, use of billboards, bilingual website, publicity on Google and Yahoo.

Table XI. Prices Used for the Financial Analysis (US\$)

SNAP Passport		
Domestic Tourists		6
Foreign Tourists		40
Donation of 25% of Income Tax		
Large companies		24,000
Employees of large companies		50
Medium-sized companies		1,875
Employees of medium-sized companies		25
SNAP Logo		
Large companies		15,000
Medium-sized companies		1,300
Tourist Donations		
Incoming Tourists		23
Incremental Revenues from Fees		
Foreign Tourists		4
Domestic Tourists		1

To estimate the demand for different financial strategies, respondents were asked about their interest in each of the products.

In order to establish the level of demand for the price that would generate the most fundraising profit, the demand for each product was determined using top-box responses, and the willingness to pay for each product was analyzed.

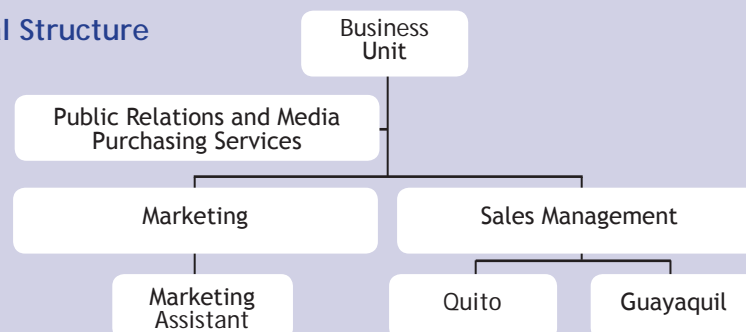
Table XII. Markets and Distribution Strategy

	Markets		
	Corporate/Business Sector	Ecuadorian Public at Large	Incoming Tourism Market
Distribution Strategy	Door-to-door sales force, use of a customer relationship management system (CRM), and public relations activities.	The channels used will be those chosen by the consultant selected as the partner for each project. The relationships developed through sales to the corporate sector will provide access to donations from the employees of the companies visited.	Website of the SNAP; points of entry to the protected areas; points of sales and collection boxes in the country's main airports; travel agencies and qualified tourism operators; tax on domestic flights; and a sales team for the corporate sector.

the image of the SNAP and its products, 2) sales, in charge of fundraising, and 3) public relations and media, in charge of promotion and dissemination. (See diagram below on Proposed Organizational Structure.)

g) **Collection of financial information:** This step focused on quantifying the market and involved estimating the potential demand for each type of product offered. This information was then used to determine associated revenues and costs. Table XIII presents details on the size of each market segment

Proposed Organizational Structure



10. Development of Financial Estimates

Based on the information collected, revenue and expenditure estimates were developed for each mechanism in order to analyze the required levels of investment and the returns associated with different scenarios, recovery periods, etc. The steps involved in this activity were:

- Identification of all operating costs.
- Calculation of initial and additional investments.
- Determination of types and levels of revenues.
- Definition of the time frame for evaluation.
- Determination of the capital cost to update revenue and cost flows.

- Calculation of performance measures (net present value, internal rate of return, etc.).

A comparison of the costs and benefits of different financial mechanisms facilitated choosing those offering the greatest returns and impact

Tables XIV and XV show a breakdown of total projected sales and the consolidated cash flow.

As the tables show, the experience of the National System of Protected Areas of Ecuador provides important information on both process and outcomes, which can serve as valuable benchmarks to support the financial sustainability of other protected area systems.

Table XIII. Size of Market Segments

Segments and Products	Estimated Size of Segment	Unit Description
Large companies	500	
Passports	380	employees/companies
Contribution of 25% of Income Tax	380	companies
Employees	128	employees/companies
'Diamond' Conservation Logo	48	companies
Medium-sized companies	2,000	
Passports	1,360	employees/companies
Contribution of 25% of Income Tax	1,360	companies
Employees	21	employees/companies
'Gold' Conservation Logo	375	companies
Incoming Tourism	203,998	
Donations	64,780	# of tourists per year
Passports without Galapagos	41,387	# of tourists per year
Passports with Galapagos	25,825	# of tourists per year
Incremental Revenues from Fees	261,738	
Foreign Tourists	82,633	# of foreign tourists per year
Domestic Tourists	179,105	# of domestic tourist per year
Ecuadorian Donations		
Campaign # 1		Including the conducting of an annual campaign generating net revenue of US\$100,000.
Campaign # 2		
Campaign # 3		

Source for Tables XIII-XV: MAE, 2005.

Table XIV. Projected Sales by Product for the First Five Years in US\$

Segments and products	Units	Year 1	Year 2	Year 3	Year 4	Year 5
SNAP Passport						
Large companies	Annual transactions	1,615	2,423	3,230	3,230	3,230
	Average revenue per transaction	6	6	6	6	6
Medium-sized companies	Annual transactions	1,360	1,428	1,904	1,904	1,904
	Average revenue per transaction	6	6	6	6	6
Incoming Tourism	Annual transactions	8,277	14,485	20,693	20,693	20,693
	Average revenue per transaction	40	40	40	40	40
Subtotal US\$		348,944	602,517	858,538	858,538	858,538
Donation of 25% of Income Tax						
Large companies	Annual transactions			8	15	23
	Average revenue per transaction			24,000	24,000	24,000
Employees of large companies	Annual transactions			969	1,938	2,907
	Average revenue per transaction			50	50	50
Medium-sized companies	Annual transactions			68	68	95
	Average revenue per transaction			1,875	1,875	1,875
Employees of medium-sized companies	Annual transactions			1,428	1,428	1,999
	Average revenue per transaction			25	25	25
Subtotal US\$				394,050	624,900	921,030
SNAP Logo						
Large companies	Annual transactions	12	24	36	48	48
	Average revenue per transaction	15,000	15,000	15,000	15,000	15,000
Medium-sized companies	Annual transactions	94	187	281	375	375
	Average revenue per transaction	1,300	1,300	1,300	1,300	1,300
Subtotal US\$		300,992	601,985	902,977	1,203,969	1,203,969
Tourist Donations						
	Annual transactions	16,195	32,390	32,390	32,390	32,390
	Average revenue per transaction	23	23	23	23	23
Subtotal US\$		364,388	728,775	728,775	728,775	728,775
National Donation Campaigns						
Subtotal		100,000	100,000	100,000	100,000	100,000
Total US\$		1,114,323	2,033,276	2,984,340	3,516,182	3,812,312

Table XV. Cash Flow Summary for the Proposed Projects

CASH FLOW SUMMARY - FSS FOR THE SNAP						
YEARS/BUDGET ITEMS	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1. REVENUES						
SNAP Passport	-	348,944	602,517	858,538	858,538	858,538
Donation of 25% of Income Tax	-			394,050	624,900	921,030
SNAP Logo	-	300,992	601,985	902,977	1,203,969	1,203,969
Tourist Donations	-	364,388	728,775	728,775	728,775	728,775
National Donation Campaigns	-	100,000	100,000	100,000	100,000	100,000
Total Revenues		1,114,323	2,033,276	2,984,340	3,516,182	3,812,312
2. SALES COSTS						
	-	16,407	28,105	40,264	43,962	43,962
3. SALES EXPENSES						
	-	1,036,207	885,236	1,142,663	1,122,080	1,190,821
4. ADMINISTRATIVE EXPENSES						
		60,000	60,000	60,000	60,000	60,000
5. GENERAL EXPENSES						
	-	42,000	42,000	42,000	42,000	42,000
6. PRE-TAX PROFIT						
	-	-40,290	1,017,935	1,699,413	2,248,140	2,475,528
7. TAXES						
	-	-10,073	254,484	424,853	562,035	618,882
8. NET PROFIT						
	-	-24,174	610,761	1,019,648	1,348,884	1,485,317
9. PLUS DEPRECIATION						
		11,480	11,480	11,480	11,480	11,480
10. PLUS AMORTIZATION						
11. OPERATING CASH FLOW						
	-	-12,694	622,241	1,031,128	1,360,364	1,496,797
12. INVESTMENTS						
	-47,800					
13. WORKING CAPITAL						
	-	-1,606,827				
14. NET CASH FLOW						
	-47,800	-1,619,521	622,241	1,031,128	1,360,364	1,496,798

Annex 16. Guide to Formulating Performance Indicators¹ for Financial Sustainability

Performance indicators are used to define how to measure the results or changes achieved in the different stages of a project or activity. Indicators can be of different types:

- **Quantitative**,² for example, the number of financial instruments that have been established in a protected area or system of protected areas.
- **Qualitative**, for example, how effectively the financial mechanisms are working.
- **Behavioral**, for example, protected area systems will give priority to developing business plans and establishing financial mechanisms.

When direct quantitative indicators are used, yet have a “general” quality, it may be necessary to include indirect indicators that carry more specific information, such as the following:

Expected Result	Direct Indicator	Indirect Indicators
Increased revenues in all areas of the National System of Protected Areas.	Entry fees to protected areas (national parks).	Purchase of equipment for park rangers. Park administration offices have zinc roofs. Park trails are marked with treated wood signs.

Defining How to Verify the Results

Indicators show the performance standard an activity must reach in order to achieve a general or specific objective, and the desired results associated with that objective. Thus, indicators provide a basis for carrying out

monitoring and evaluation, which should specifically address the following aspects:

- Target group (for whom)
- Quantity (how much)
- Quality (how well)
- Time (by when)
- Location (where)

Formulating Indicators

A good indicator is:

- **Substantial**, i.e., the indicator reflects an essential aspect of an objective or result, in very precise terms.
- **Independent**, at different levels. The same indicator should not be used for more than one objective, result, or activity.
- **Factual / Objective**. The indicator should reflect fact rather than subjective impression. The indicator should have the same meaning for people involved in the activity as for outside observers.
- **Plausible**, i.e., the changes recorded can be directly attributed to implementation of the activities undertaken.

Indicators should be based on data that can be obtained and verified. Indicators should draw on data from readily available, reliable sources or data that can be collected without too much effort

The measures provided by indicators should be accurate enough for the indicators to be objectively verifiable. An indicator is “objectively verifiable” when different persons using the same measuring mechanism independently of one another obtain the same result

In the early stages of implementing an activity, indicators are only “guiding values” with which to analyze the ratio-

1. Adapted from “The Logical Framework Approach”, NORAD.

2. As much as possible, quantitative measures should be formulated in such ways that they can be measured (quantified).

nale of the activity. Indicators must be reviewed when activities have progressed and the review finds it necessary to replace the indicators with more specific ones.

Example of the Development of a Financial Sustainability Indicator

Expected result

“Increased financial resources”

1. Identify the indicator

For example, entry fees to national parks.

2. Determine the target group

For example, national parks where annual revenues from visitor entrance fees have fallen to less than US\$30,000.

3. Define the quantity

For example, 10 national parks will increase their revenues from entrance fees by 50%.

4. Define the quality

For example, maintaining an acceptable level of revenues at least equivalent to the amount raised in the 1990-1995 period (over US\$50,000 per year).

5. Define the time frame

For example, between January 2006 and December 2007.

6. Establish the place

National parks close to urban areas in the National System of Protected Areas (SNAP).

7. Integrate the above-defined elements

Indicator: “Ten national parks, close to urban areas, in the National System of Protected Areas (where annual revenues from visitor entrance fees have fallen to less than US\$30,000) increase their revenues by 50% between January 2006 and December 2007, recovering the level of revenues recorded in the 1990–1995 period in accordance with the standards, financial mechanisms, and goals in the 2007 Business Plan.”

Annex 17. The Promoter Group and the System of Protected Areas of Ecuador

The process of moving toward the financial sustainability of the SNAP is led by the Ministry of Environment of Ecuador (MAE) through its National Directorate for Biodiversity, Protected Areas, and Wildlife, with support from a broad group of NGOs and cooperation agencies.

Within this institutional framework, a Promoter Group was formed in 2004 to provide technical, financial, and policy support for the financial sustainability planning process. The Promoter Group consists of: Ministry of Environment, The Nature Conservancy, Conservation International, USAID-Ecuador, IUCN, KfW, National Environmental Fund, Ecociencia, Fundación Natura, SNAP-GEF Project, and Mentefactura (a consulting firm hired to develop the financial plan).

The promoter group has been instrumental in supporting the development of the financial plan, and has produced four important outcomes.

a) Creation of awareness of the financial sustainability challenges of the SNAP.

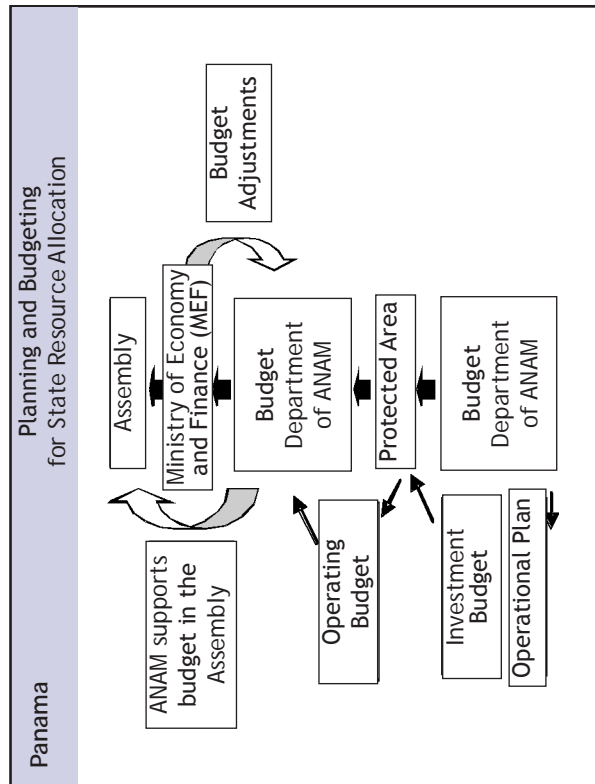
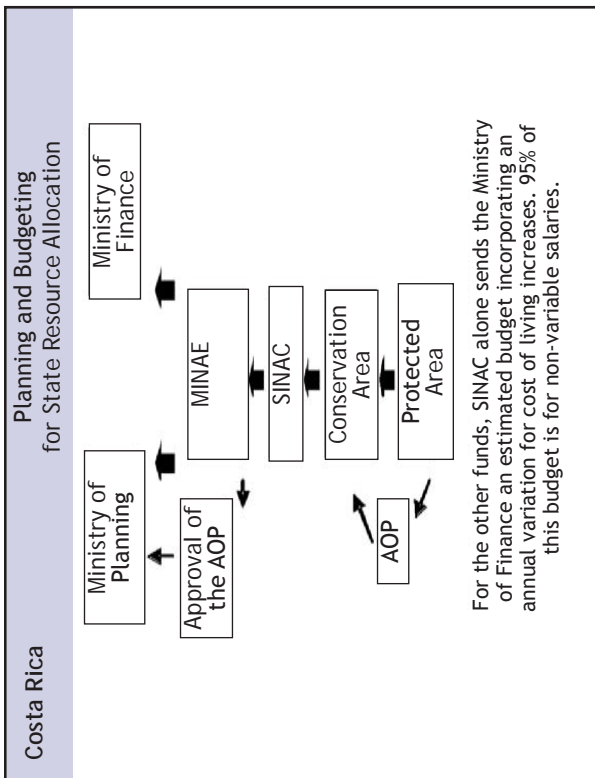
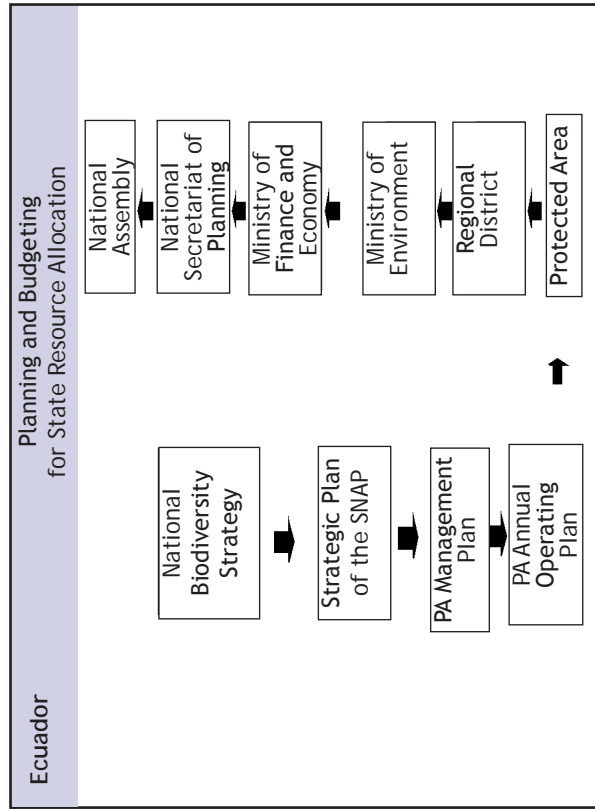
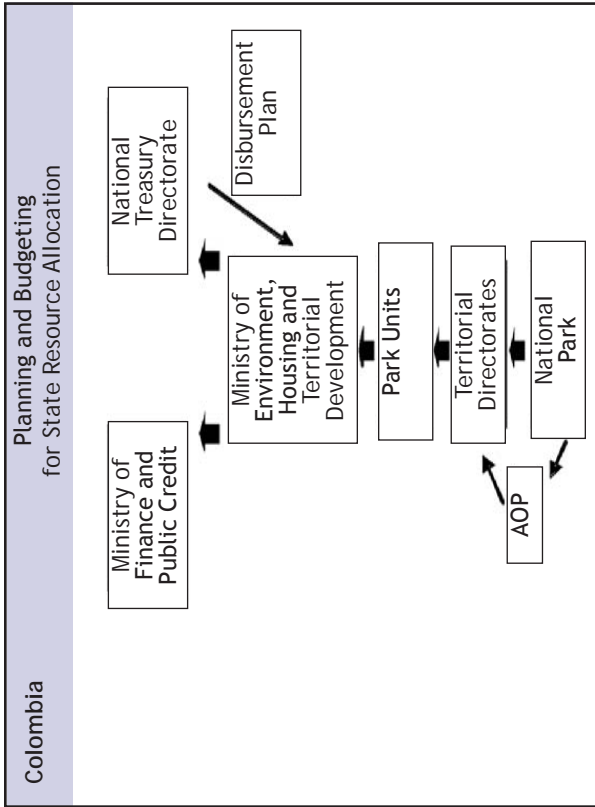
b) Positioning and visibility of the problem on inter-institutional agendas.

c) Provision of basic information on the financial needs and current state of the System.

d) As a result of the above achievements, the national system of protected areas has begun to capitalize on the results of the project through additional revenue generation for the System by different sources.

It is recommended that other key non-traditional actors be strategically involved, such as the Ministry of Economy (Finance or Treasury), Ministry of Planning, Ministry of Tourism, the Comptroller General of the State, and representatives from the private business sector and academia. This includes government actors, in particular those that have a great influence on financial decisions in the planning process, as shown in Annex 18.

Annex 18. Planning and Budgeting Hierarchies in Selected Countries



Source: Menteffactura (2006) 2008, based on interviews.

AOP: Annual Operating Plans

Annex 19. Sample of Financial Mechanisms: Market and Non-market Based

Non-market based options

- Government's budget allocations
- Private capital donations
- Corporate long-term contributions
- Debt-for-nature swaps
- Trust funds

Market based options

"User-pays principle" options: fees and taxes which are directly based on renewable use of natural resources in and outside protected areas:

Tourism-based fees and taxes

- Park entry fees
- Recreational activity fees (dive fees, hiking fees, boat and mooring fees)
- Concession fees
- Hotel taxes

Payments for environmental services

- Watershed protection
- Carbon sequestration

"Polluter-pays principle" options: compensation fees, earmarked taxes and fines based on natural resource use

- Fines and damage awards, pollution charges, fuel taxes
- Environmental compensation
- Natural resource extraction fees (leases, concessions, royalties, and severance taxes) for: timber, minerals, oil and gas, commercial-scale fishing

Earmarked revenues which are NOT related to environment, for instance:

- "Sin taxes" (for example, on cigarettes, alcohol, gambling)
- Sales tax surcharge on green labeled or non-labeled products
- Special license plates and postage stamps

Options based on activities outside PAs that could be earmarked for conservation: Land use taxes, forestry taxes, grazing fees, mining fees and severance taxes, oil concessions, lease payments and royalties, sand and gravel excavation charges

- Real estate taxes
- Water supply, hydropower, and sewage charges
- Pesticide and fertilizer taxes
- Fines (for example, for pollution, illegal logging, illegal fishing)
- Environmental compensation
- Carbon taxes
- Biodiversity offsets
- Profits from green venture capital funds and eco-enterprises

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Websites of Interest

www.ambiente.gov.ec	Ministry of Environment of Ecuador. Agency responsible for establishing national environmental policies and coordinating conservation interventions.
www.ambiente.gov.ec/paginas_espanol/4ecuador/areas.htm	National System of Protected Areas of Ecuador (SNAP). Agency responsible for controlling and monitoring conservation and preservation activities.
http://biodiversityeconomics.org/the_spider.html	The Spider is a leading resource for biodiversity economists that allows searches on a selection of sites on environmental economics, and is sponsored by IUCN and WWF.
http://www.forest-trends.org/biodiversityoffsetprogram/	The Business and Biodiversity Offset Program (BBOP) is a partnership to explore biodiversity offsets benefits.
www.conservationfinance.org	Conservation Finance. This site provides information and resources on financing for conservation. It also promotes cooperation and learning about financing strategies among governments, international agencies, and NGOs.
www.ecociencia.org	Fundación EcoCiencia. Ecuadorian Foundation for Ecological Studies. Provides information on the programs and activities it implements in Ecuador.
www.ecolex-ec.org	Environmental Management and Law Corporation (ECOLEX). This site provides information and research resources.
www.ecuanex.net.ec/natura	Fundación Natura. Ecuadorian Foundation for the Protection and Conservation of Nature.
www.extension.iastate.edu/agdm/wholefarm/html/c5-65.html	Detailed information on the feasibility study approach and its applications. Also presents a clear distinction between feasibility studies and business plans.
www.fan.org.ec/	National Environmental Fund (FAN). Private, non-profit that supports financing of environmental management for sustainable development of Ecuador.
www.fonafifo.com	National Forestry Financing Fund. Data on reforestation processes and Payment for Ecosystem Services.
www.fundecor.org	Foundation for the Development of the Central Volcanic Mountain Range. Provides information on forest certification processes, coverage maps, etc.
www.inbio.ac.cr	National Biodiversity Institute. Important information on conservation, biology, and the state of biodiversity in Costa Rica.
www.inei.gob.pe	National Institute of Statistics and Information. The National Institute of Statistics and Information (INEI) is the governing body of the National Systems of Statistics and Information in Peru.
www.inrena.gob.pe	National Institute of Natural Resources. Peru's public authority responsible for carrying out and promoting the necessary actions for sustainable use of renewable natural resources, conservation of biodiversity, and sustainable management of rural environments.
www.jpat-jm.org/netcentr/reflibrary/pdfs/SitAnalJaPASystem.pdf	Situational Analysis of Jamaica's Protected Area System.
www.katoombagroup.org	International Katoomba Group gatherings are events for sharing ideas and developing the implementation of Payments for Ecosystems Services (PES).
www.mag.go.cr	Ministry of Agriculture and Livestock of Costa Rica. This site contains information on sustainable production processes and an extensive virtual library.

www.mef.gob.pe	Ministry of Economy and Finance of Peru. The MEF designs, proposes, and executes economic and financial policies to promote economic growth.
www.mentefactura.net	Mentefactura. A private organization that has worked on and supported the development of the Financial Sustainability Strategy for the SNAP - Ecuador.
www.minag.gob.pe	Ministry of Agriculture of Peru. MINAG promotes competitive, profitable, and sustainable agricultural, and the appropriate use of sustainable natural resources.
www.minae.go.cr	Ministry of Environment and Energy. Governing body for matters related to the environment, energy, and telecommunications, in Costa Rica.
www.minam.gob.pe	Ministry of Environment of Peru. MINAM is the national environmental authority of Peru.
mideplan.go.cr/sides/ambiental/	System of Sustainable Development Indicators (SIDES), Costa Rica.
www.nature.org/wherewework/southamerica/ecuador/	The Nature Conservancy (TNC), Ecuador. This website describes the conservation programs and activities TNC is involved in.
www.profonanpe.org.pe	Peruvian Trust Fund for National Parks and Protected Areas. PROFONANPE provides stable, long-term financing for biodiversity conservation in Peru.
www.redlac.org	The Latin American and Caribbean Environmental Funds Network (RedLAC). The website contains current tools for improving management of environmental funds.
www.sernap.gov.bo	National Service for Protected Areas. SERNAP maintains representative samples of Bolivia's biogeographic provinces through the implementation of policies, strategies, plans, and programs, and the development of regulations.
www.sinac.go.cr	National System of Conservation Areas of Costa Rica. The Directorate of the MINAE responsible for overseeing conservation and protection of Costa Rica's protected areas.
www.sinaccr.net	National System of Conservation Areas of Costa Rica (SINAC). Information and documents related to the financial sustainability process for Costa Rica's protected areas.
www.sirefor.go.cr	Forest Resources Information System of Costa Rica. Relevant information on timber extraction permits and sustainable forest exploitation.
www.iucn.org	The World Conservation Union. IUCN provides opportunities for discussion and the exchange of information on conservation issues.
www.worldwildlife.org/conservationfinance/	World Wildlife Fund. This site presents innovative tools to promote conservation finance, as well as extensive information on Debt-for-Nature Swaps, Trust Funds, etc.

