Innovative Mechanisms to Manage Environmental Expenditures in Africa, Asia and Latin America and the Caribbean (LAC)

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The views expressed in this paper are solely those of the author. Work on this paper is still in progress and the author would welcome your comments addressed to: mgmoye@aol.com

ABBREVIATIONS AND ACRONYMS

EAI	Enterprise for the America Initiative (USA)
FANP	*Fondo para Areas Naturales Protegidas* Fund for Natural Protected Areas (Mexico)
FMCN	*Fondo Mexicano para la Conservación de la Naturaleza* Mexican Nature Conservation Fund
FNMA	*Fondo Nacional de Meio Ambiente* National Environmental Fund (Brazil)
FONAFIFO	National Forestry Financing Fund (Costa Rica)
FONAMA	*Fondo Nacional para el Medio Ambiente* National Environmental Fund (Bolivia)
GEF	Global Environment Facility
GDP	Gross Domestic Product
GFA	Green Fund Agency (Trinidad and Tobago)
HIPC	Heavily Indebted Poor Countries
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IPG	Interagency Planning Group on Environmental Funds
KEHATI	Indonesian Biodiversity Foundation
LAC	Latin America and the Caribbean
MIF	Multilateral Investment Fund (IDB)
NEAP	National Environmental Action Plan
NEF	National Environmental Fund
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PACT	Protected Areas Conservation Trust
PIP	Public Investment Program
PROFONANPE	*Fondo Nacional para las Areas Protegidas por el Estado* National Protected Areas Fund (Peru)
PROMAD	Environmental Management and Decentralization Project (Mexico)
PRSP	Poverty Reduction Strategy Paper
RedLAC	*Red de fondos ambientales de Latinoamérica*/Latin American and Caribbean Network of Environmental Fund
SEMARNAP	*Secretaria de Medio Ambiente, Recursos Naturales y Areas Protegidas*/Office of Environment, Natural Resources and Protected Areas (Mexico)
TFCA	Tropical Forest Conservation Act (USA)
USAID	United States Agency for International Development
USA	United States of America
WWF	World Wide Fund for Nature / World Wildlife Fund

Executive Summary

Environmental funds have had a limited but growing impact in developing countries, with more established in Latin America than any other region. They focus more on "green" issues and sustainable development than "brown" issues.

Three general categories can be identified:

- **Government environmental funds** include: comprehensive National Environmental Funds (NEFs), pollution abatement funds and forestry funds which are typically created by national law, controlled by government and financed primarily through public sources of revenue (domestic budget and ear-marked taxes).

- **Conservation trust funds** are generally registered as private legal entities although they are established under a variety of different legal regimes, and have majority non-governmental boards or strong participation of civil society. They raise funds from different sources (donations, debt-for-nature swaps, user fees, government budget allocations) and focus primarily on financing conservation and sustainable development activities through grants.

- **Private sector funds** are private funds that provide equity and credit financing to private sector companies making environmental investments.

This paper argues that environmental funds have proven to be an effective tool for ensuring a long-term stable source of financing for selected environmental objectives and for channeling funding to targeted groups, regions and sectors which otherwise might have less access to funding. Environmental funds have also shown promise as conveners of different actors concerned with the environment, a role that helps to build a constituency for the environment, ultimately contributing to increased domestic funding for the environment in developing countries.

It is important to focus on institution building for environmental funds to create credible national institutions. Whether a fund is government-controlled or not, key factors for successful environmental fund operation include: checks and balances for governance, along with transparent and efficient systems for disbursing funding, monitoring results and auditing financial records.

There is a need for more evaluation of the performance of environmental funds in order to develop best practices guidelines for these funds.

I. Introduction

1.1 Although the environment is often portrayed as a national priority in developing countries, it is one of the first sectors to experience budget cuts when countries undergo adjustment programs or experience financial crises. Public sector environmental ministries and agencies in developing countries, particularly in the poorest countries, are typically under-funded and inadequately staffed. Growing awareness of environmental problems has not translated into increased public resources for the environment in most developing countries, with environmental expenditures rarely exceeding 1% of GDP.

1.2 Environmental Funds have been introduced in many developing countries in order to respond to the need for additional and more effective financing to address long-term environmental problems. The objective of this paper is to review experiences with institutional arrangements for management of environmental expenditures in Africa, Asia (excluding China) and Latin America and the Caribbean (LAC), focusing primarily on environmental funds. It is not intended to replicate the many studies on environmental financing mechanisms (some of which are found in the bibliography), but rather to highlight the more interesting cases, identify emerging trends and reflect on lessons learned from past experience.

1.3 So far, environmental funds have had a limited but growing impact, both in terms of the geographical scope of their operations and the financial resources that they manage. Although they exist in many Latin American countries, there are relatively few environmental funds operating in Africa and Asia. Compared to traditional sources of financing for the environment (see section II), they manage a relatively small share of overall resources. Although their financial impact may appear marginal, their role as a catalyst in providing seed funding should not be underestimated.

1.4 Environmental funds have focused more on "green" issues than "brown" issues in Africa, Asia and LAC. This is no surprise given that that the economies of many countries in these regions are dependent on exploitation of natural resources. In developing countries, environmental funds have also focused more on sustainable development, recognizing that environmental objectives need to be integrated into efforts to reduce poverty.

1.5 As Section III describes, several different types of environmental funds have been introduced, including: comprehensive National Environmental Funds (NEFs), pollution abatement funds, forest funds, conservation trust funds, community-based funding mechanisms, land conservation trusts, and private sector investment funds. Although diverse models can be identified, there is no "one size fits all" environmental fund in developing countries. In fact, in some countries, more than one type of fund has been introduced in order to channel different funding sources or respond to funding needs.

1.6 This paper argues that environmental funds have proven to be an effective tool for ensuring a long-term stable source of financing for selected environmental objectives and for channeling funding to targeted groups, regions and sectors which otherwise might have less access to funding. Whether through user fees, earmarked taxes or donor-funded endowments, it makes sense to secure funding to tackle long-term environmental problems that require sustained investment. By targeting funds, environmental funds can also introduce new models for decentralized environmental management and greater participation of civil society and the private sector.

1.7 Environmental funds have also shown promise as conveners of different actors concerned with the environment. As the Global Environment Facility (GEF) evaluation of conservation trust funds concluded, “to succeed, conservation trust funds need to be more than just financial mechanisms” (GEF, 1999, p. 11). Over time, it is hoped that this critical role of some funds will help to build a constituency for the environment, ultimately resulting in the allocation of more domestic resources for environmental conservation and protection.

1.8 This paper challenges some of the common wisdom often heard about environmental funds in developing countries. For example, government-controlled funds are not *a priori* worse than non-governmental funds, as long as there is commitment to achieving environmental objectives, some measure of objective oversight and autonomous management, as well as active participation by environmental stakeholders. There is anecdotal evidence that non-governmental management boards can be as dysfunctional (e.g., through the dominance of a particular individual) in their own way as governmental boards that have become politicised.

1.9 A common criticism of environmental funds in developing countries is that they are donor-driven. This paper argues that in a fund’s early years donor involvement ensures greater accountability. As they mature, the most successful funds become truly national institutions. By building institutional capacity, including the ability to access diverse sources of funding, they become country-owned institutions able to respond to national environmental needs.

1.10 Since most environmental financing mechanisms have only been introduced in developing countries over the past fifteen years, evaluation of the performance of these mechanisms is still at an early stage (see section IV). Although some early successes and failures have been documented, in many cases, the record for environmental funds is not well known. As a result, best practice guidelines will continue to need to be developed and refined based on new case studies.

1.11 To realize their potential, environmental funds will need to attract additional funding which enables them to “scale up” their environmental impact. In order to achieve this objective, this paper advocates for a continued focus on institution building for environmental funds. The future success of and continued support for environmental funds will depend on building credible national institutions with checks and balances for governance, along with transparent and efficient systems for disbursing funding, monitoring results and auditing financial records.

II. Managing Environmental Expenditures in Africa, Asia and Latin America

2.1 It is currently difficult to monitor public spending on the environment in Africa, Asia and Latin America as a result of the lack of collection of statistics on environmental expenditures at the international level. Although the United Nations Statistics Division has developed a classification system for environmental indicators that includes statistics on environmental expenditures, so far it has not been possible to collect these statistics due to the lack of systematic compilation by national statistics services

2.2 A sampling of available statistics reveals that environmental expenditures ranged from less than 0.5 to 1.5% of GDP in many developing countries. For example, in South-east Asia environmental expenditures rarely exceeded 1% of GDP. For poorer countries in other parts of the world, the percentage may be less than 0.5%. For these countries, official development assistance continues to constitute the largest source of funding for environmental programs.

2.3 Without a clear picture of domestic environmental expenditures, it is difficult to assess the financial impact of environmental funds. RedLAC, the Latin American and Caribbean Network of Environmental Funds (*Red de fondos ambientales de Latinoamérica*) is a networking organisation that represents 24 environmental funds in Latin American and the Caribbean. Collectively, the environmental funds manage more than US$150 million in endowment funds and have a combined annual budget exceeding US$70 million.

2.4 Traditional Institutions for Managing Environmental Expenditures. In Africa, Asia and LAC, the traditional institutions responsible for managing public environmental expenditures are government ministries. A centralized Ministry of Environment typically coordinates national planning, policy development and project implementation. Line ministries are responsible for implementing projects for specific sectors (e.g., agriculture, energy, forestry, rural development etc.). Within these ministries, departments manage multi-year projects financed by domestic resources (government budget and sometimes ear-marked taxes) and external resources (donor grants and loans).

2.5 Although most developing country governments implement public investment programs (PIP) for budgetary planning purposes, in many countries, execution of the budget does not necessarily correspond to the PIP. Since the environment is less of a priority than sectors such as education and health, environment ministries frequently have shortfalls in their budget allocations. There may also be inadequate record keeping relative to donor disbursements for project execution.

2.6 Environmental Agencies. Some countries have created parastatal agencies with a specific environmental mandate, including environmental protection agencies and protected area agencies, in order to reinforce environmental management capacities.

These agencies vary in the degree of independence that they have from the government ministry that they report to. As discussed below, some government environmental funds have been created as financing mechanisms for environmental management agencies.

2.7 Environmental Management Agencies. Environmental management and protection agencies have been introduced in some developing countries based on models found in OECD countries. National environmental management agencies can be found in a variety of countries around the world, but there are also regional, local and municipal agencies responsible for managing environmental expenditures. **TO BE COMPLETED**

2.8 Protected Areas Agencies. One of the main objectives of multi-donor projects for protected areas in developing countries has been to reinforce the institutional framework for managing protected areas, often through the creation of a semi-autonomous protected areas agency. Although the legal status of protected area agencies varies from country-to-country, some common characteristics of these "parastatal" agencies can be identified. They often have an independent board, although typically dominated by government representatives. Since they are not subject to government rules for procurement and employment, they are more effective in responding to the decentralized needs of protected areas. Staff morale and motivation can be high since their employees are not civil servants.

2.9 In many developing countries, governments finance only a small portion of the cost of operating protected area systems through budgetary allocations. Bilateral and multilateral donors and international conservation NGOs provide a major source of funding, primarily through grants. Some protected area agencies may also generate their own resources through park entry fees and other tourism-based user fees (see section 3.5.13 below).

2.10 Governments are increasingly seeking to formalize co-management arrangements with private organizations that have been contracted to manage protected areas on behalf of the public sector. Although in many countries, there is resistance to the concept of outright privatization of parks because of the challenge to national sovereignty, the benefits of private participation are often recognized through these institutional arrangements, which include management contracts with NGOs and private companies.

Box 1: Public-Private Partnership in the Masai Mara, Kenya

The Trans Mara County Council has contracted the Mara Conservancy, a private consortium, to manage its portion of the Masai Mara National Reserve. In its first few weeks of operation in June and July 2001, the Mara Conservancy collected more than five times the amount previously collected in one year by the Council. Under its management contract with the Council, the Mara Conservancy is responsible for ticketing, revenue collection, tourism management, security and wildlife conservation. Among the benefits of this partnership are new investments in reserve infrastructure and increased compensation for local communities who are entitled to 19% of the reserve's revenues.

Leader-Williams, N. and Walpole, M.J. (October 25, 2001). "Masai Mara tourism reveals partnership benefits." Nature, volume 413.

2.10 Special Case of Countries Implementing Poverty Reduction Strategies. The enhanced Heavily Indebted Poor Countries (HIPC) framework, agreed in 1999, created an explicit link between HIPC debt relief and poverty reduction. In order to qualify for debt relief, HIPC countries are required to draft Poverty Reduction Strategy Papers (PRSPs) in collaboration with the International Monetary Fund (IMF) and the World Bank. A recent World Bank review showed that so far the environment has not been well integrated into interim PRSPs (Bojö, December 2001). There is also evidence that environmental stakeholders have only played a limited role in the participatory process required for elaboration of PRSPs.

2.11 There is increasing recognition that the environmental dimension of poverty needs to be mainstreamed into PRSPs. Since PRSPs provide the framework for both government budgetary allocations as well as donor assistance in HIPC countries, it is important that as countries finalize their PRSPs, they link PRSP indicators and targets for the environment to budgetary allocations for the environmental sector.

Box 2: HIPC

Launched in 1996, the Heavily Indebted Poor Countries (HIPC) initiative is an agreement by the international community to help poor countries with good policy performance to escape from unsustainable debt burdens by providing comprehensive debt relief. Forty-two countries, mostly in sub-Saharan Africa, are currently classified as HIPC countries. So far, about US$40 billion in nominal debt service relief has been committed for 26 countries. (World Bank, March 2002).

III. Types and Characteristics of Environmental Funds in Africa, Asia and LAC

3.1 Types of Environmental Funds. This paper identifies three general types of environmental funds based primarily on their objectives and their governance. Comprehensive National Environmental Funds (NEFs), pollution abatement funds and forest funds are typically **government funds** created by national law, controlled by government and financed primarily through public sources of revenue (domestic budget and ear-marked taxes). **Conservation trust funds** are generally registered as private legal entities although they are established under a variety of different legal regimes, and have majority non-governmental boards or strong participation of civil society. They raise funds from different sources (donations, debt-for-nature swaps, user fees, government budget allocations) and focus primarily on financing conservation and sustainable development activities through grants. **Private sector funds** are private financing institutions that provide equity and credit financing to private sector companies making environmental investments.

3.2 Types of Government Environmental Funds

3.2.1 Comprehensive National Environmental Funds. Many of the National Environmental Action Plans (NEAPs) drafted in recent years included the creation of a government-sponsored NEF to finance a broad range of environmental objectives, including both "brown" and "green" issues corresponding to the objectives of the NEAP. These funds have also been created in conjunction with the establishment of environmental management agencies (e.g., Chile's and Egypt's Environmental Protection Funds). Comprehensive NEFs may also serve as "umbrella" funds that manage fund sub-accounts for a variety of purposes (e.g., Bolivia's FONAMA before it was restructured).

3.2.2 Although many comprehensive NEFs have been created by law, whether a government NEF is operational depends in large part on the government's commitment to allocating resources to the fund. One major obstacle to creating this type of fund for countries undergoing structural adjustment has been government financial authorities' reluctance to create extra-budgetary funds through ear-marked taxes when fiscal discipline (often prescribed by IMF conditionality) requires a single financial window. This may explain why so many government NEFs have been created on paper in African countries, but never actually capitalized.

3.2.3 Although they may have a broad agenda, in reality many of these funds have tended to focus more on "green" issues (e.g., Brazil's National Environmental Fund - FNMA) or "brown" issues. Egypt's Environmental Protection Fund and the Thailand Environmental Fund both function primarily as **pollution abatement funds.**

Box 3: Thailand Environment Fund

To complement command and control approaches, Thailand has introduced market-based instruments, including pollution charges, a deposit refund scheme, product certification, subsidies and an environmental fund. Established in 1992 under the National Environmental Quality Act, the Thailand Environment Fund promotes investment in pollution control. The fund provides grants to government agencies for investments in wastewater treatment, loans to local administrations and state enterprises for air pollution control and waste water treatment and disposal facilities, loans to private operators installing legally required pollution treatment equipment, and grants to NGOs for other activities related to environmental quality.

Initial sources of capital for the fund included: Thailand's Fuel Oil Fund (US$180 million), the Revolving Fund for Environmental Development and Quality of Life (US$20 million) and grants from the Thai government (US$50 million). The Japanese government extended a soft loan of US$100 million to the Thai government for the fund. The fund also collects pollution charges, including service fees, penalties and other sources.

The fund is supervised by the National Environmental Board (composed of the Cabinet as members) and managed by a special inter-ministerial Environmental Fund Committee. The Office of Environmental Policy and Planning is responsible for administration, management, fundraising and coordination of the fund. The Industrial Finance Corporation and Krung Thai Bank serve as financial intermediaries for the fund's credit facilities.

Adapted from: Foundation for the Philippine Environment, The Nature Conservancy, UNDP (1997). *Report on the First Asia-Pacific Forum on Environmental Funds.* Cebu, Philippines, February 16-21, 1997.

3.2.4 Governments have also used environmental funds as a means to promote decentralized environmental management through financing of pollution abatement projects. For example, in Colombia's innovative pollution charge program, some of the revenues generated through pollution charges support **regional decontamination funds** that finance local investments in cleaner manufacturing and wastewater treatment. Although regional autonomous corporations play an oversight role, a commercial bank has collected the fees, administered the funds and disbursed them for approved projects (World Bank, 1999).

3.2.5 The Environmental Management and Decentralization Project (PROMAD), under development in Mexico, draws on the Colombian model, as well as experiences in Eastern Europe. Through the creation of **state environmental funds**, PROMAD aims to decentralize public environmental management while increasing the proportion of public budgets allocated to the environment through pollution charges and potentially ear-marked taxes. So far, this project has not gone beyond a pilot phase because of uncertainty about the financial mechanism to be adopted (e.g., controversy over a proposed fuel tax).

3.2.6 Forest Funds. A recent overview identified forest funds in 32 countries in Africa, Asia and Latin America (Lindsay and Rosenbaum, January 2001). The concept originated in Europe and the US, and spread to Latin America by the 1970s and to Africa and Asia by the 1980s. Forest funds have a mixed reputation, although there is a lack of documentation regarding their operation. A notable case that has tarnished the reputation of forest funds is Indonesia's Reforestation Fund, which has been restructured since the fall of the Suharto regime because of charges of corruption and mismanagement. On the other hand, Costa Rica's FONAFIFO is often cited as a model for innovative forest financing.

Costa Rica's National Forest Financing Fund: Environmental Services Payment Program

Costa Rica's National Forestry Financing Fund (FONAFIFO) was established in 1991 to provide loans and incentives for reforestation. In 1996, a new forestry law provided the legal basis to compensate private landowners for environmental services, including biodiversity conservation, watershed protection, absorption of carbon emissions and protection of forested areas recognized for scenic beauty. Since 1997, the Environmental Services Payment (ESP) program has transferred US$46 million to forest owners, thereby stimulating private forest conservation as an alternative to exploitation.

Funds for the ESP program have come from a fuel tax (recently eliminated), the Carbon Fund, and most recently watershed projects. Since 2000, a World Bank-financed "Eco-Markets" project has focused on institutional strengthening of FONAFIFO in order to address bureaucratic bottlenecks of the ESP program.

Charpentier, Silvia (2001). "National Conservation Finance Strategy, Costa Rica Case Study, 1994-1998." From *Mobilizing Funding for Biodiversity Conservation: A User-Friendly Training Guide.*

3.3 Characteristics of Government Environmental Funds

3.3.1 Legal Status. Government environmental funds have typically been established through national legislation. Although most funds function as part of the government, the degree of autonomy of the fund has varied depending on its legal status. In a few cases they have been established with a quasi-independent legal status (e.g., the South African National Forest Recreation and Access Trust).

3.3.2 Management. Governance and management structures vary widely among government funds. In its simplest form, a government-controlled fund may only exist as a separate account in the budget of a government agency or ministry (which can be the environment ministry, but may also be the finance ministry). Government funds have also been established as a separate office within a government ministry or agency. There may be a board of advisors that reviews the administration and spending plan of the fund.

3.3.3 In some cases, authority for the fund has been split between more than one government ministry (usually the line ministry or environment ministry and the finance ministry). In this case, although the line ministry is responsible for administration of the fund, the finance ministry typically approves the fund's budget (see box 5 below).

Box 5: Trinidad and Tobago's Green Fund Levy

Trinidad and Tobago recently established a Green Fund Levy through the Miscellaneous Taxes Act of 2000. The Green Fund Agency (GFA) will manage funds generated through a levy of 1% on gross sales of companies doing business in Trinidad and Tobago (to be reduced to 0.075% in 2002). The idea behind the fund is to involve the private sector in financing environmental activities. Through August 2001, the levy had collected T&T$ 43 million (US$7 million). Although the GFA's board includes non-governmental and private sector representatives, control of the fund has now been effectively shifted to the Government with the Treasury and the Ministry of Environment charged with financial management and grants disbursal.

Smith, David (2001). "The Case of the Green Fund Levy in the Republic of Trinidad and Tobago." *In Mobilizing Funding for Biodiversity Conservation: A User-Friendly Training Guide.*

3.3.4 As the case of Bolivia's National Environmental Fund (FONAMA) demonstrates, it is important that government NEFs not become politicised. In its early years, FONAMA was known as a highly successful fund that attracted funding from several international donors. After a change of government in 1993, FONAMA lost its privileged status as an independent agency reporting directly to the President. It is currently part of the Ministry for Sustainable Development and Environment, but based on a negative evaluation conducted in 1996 (Asselin, et al., January 1996) most of its fund sub-accounts have been transferred to other funds.

3.3.5 Funding Sources. Funding sources for government environmental funds include: government budget, ear-marked taxes, development bank loans, donor funding, user fees, and environmental fines and penalties. Ear-marked taxes, fines and penalties are usually raised from the sector that is financed through the fund. There have been some exceptions, as Trinidad and Tobago's Green Fund Levy and Costa Rica's fuel tax demonstrate. The Inter-American Development Bank provided concessional loans for NEFs in Argentina and Brazil, as did the World Bank in Venezuela.

3.3.6 A new source of revenue that has stimulated the creation of government environmental funds is environmental service payments. These payments, which include water-based and carbon-based financing mechanisms, are designed to compensate land users for the environmental services that their land generates. The payments provide an incentive for land users to take in to account the value of these environmental services in making land use decisions that affect ecosystem conservation.

Box 6: Water-based Finance Mechanisms.

Water-based finance mechanisms have been introduced in developed countries, such as France and the USA, and are currently being implemented in several Latin American countries, including Brazil, Colombia, Costa Rica, El Salvador, Ecuador and Guatemala. Water-based finance mechanisms encourage water service beneficiaries - both citizens and businesses - to pay directly for the services they receive by protecting the source of the water, often located in forested areas upstream. Although private deals and trading schemes have been introduced, the most common institutional arrangement for watershed finance mechanisms is public payment schemes where government pays for the environmental service, raising the financing through tax revenues, bond issues or user fees. In order to implement a public payment scheme, intensive negotiations between government agencies, watershed land use decision makers, water service beneficiaries, and environmental NGOs are required. The regulatory and legal framework generally also needs to be modified. As public payment schemes in Colombia (Eco-tax) and the State of Parana, Brazil have demonstrated, these schemes are localized and often implemented through decentralized authorities.

Adapted from: Johnson, Nels, Perrot-Maître, Danièle, White, Andy (2001). *Developing Markets for Water Services from Forests: Issues and Lessons for Innovators.* Forest Trends, World Resources Institute, The Katoomba Group.

3.3.7 **Forest funds** have received revenues through a variety of sources, including: general government revenues, income from government forests, forest-related taxes, fines, penalties and seizures, donations and grants and environmental service payments. In countries where the finance law requires that all government revenues must be channeled through the government treasury, a government fund may depend on revenues flowing through the treasury. For example, in both Cameroon and the Central African Republic, forest funds that previously received revenues directly from ear-marked forest taxes now rely on government budget allocations. In the Central African Republic, this has resulted in a sharp decrease in the fund's annual budget and uncertainty regarding the fund's ability to implement its annual spending plan (Carr-Dirick and Moye, 2002). Since the forest fund is the primary source of government counterpart funding for donor-financed environmental projects, this means that the government may not be able to meet its obligations to donor, therefore compromising implementation of environmental projects.

3.3.8 Expenditure.

As described above, comprehensive NEFs support a wide range of environmental objectives and beneficiaries. Even though a NEF supports broad objectives, it is still possible to focus the activities of the fund. For example, Chile's Environmental Protection Fund finances environmental protection and nature conservation through local community initiatives and activities designed to strengthen the capacity of communities (CONAMA-Chile, 2001).

3.3.9 Pollution abatement funds in developing countries have financed projects designed to address human sanitation needs and industrial pollution. Eligible beneficiaries may include private sector companies, government agencies at the local and regional level, and not-for-profit organisations. For example, in its 2000-2001 pilot year, the Egyptian Environmental Protection Fund focused on solid waste management and wastewater (Arab Republic of Egypt, 2001).

3.3.10 Forest funds have supported a variety of forest-related activities, including: administration of the forest bureaucracy, public land management, reforestation, management planning, market promotion, community forestry, and research. They may also be used to compensate local communities or private landowners, as described in box 4 above.

3.3.11 Disbursement Mechanisms. Government funds operate primarily as sinking funds, which disburse all of their principal and investment income over a fixed period of time, and revolving funds, which receive new income on regular basis (e.g., from ear-marked taxes) to replenish the capital. Generally, grant funding is provided for not-for-profit projects. Pollution abatement funds have also provided concessional loans and interest rate subsidies to profit-making projects. Financial intermediaries often administer credit facilities for pollution abatement financing on a revolving basis.

3.3.12 Programming and Project/Grant Appraisal. For some forest funds, programming for the fund may simply consist of reviewing the equivalent of the Forest Ministry's annual budget proposal. Well-conceived grants programs, such as the grant cycles of Chile's and Egypt's Environmetal Protection Funds, have detailed grant procedures, including identification of priorities and beneficiaries, the types of funding available and a time-table for submission of proposals. In Chile's case, proposals are subject to a first review at the local level to ensure that the submission complies with procedures established by the grants program.

3.3.13 Auditing. Government-controlled funds are subject to government auditing requirements, which may or may not include an annual audit. The quality of auditing depends on the capacity and standards applied by the host government.

3.4. Types of Conservation Trust Funds.

3.4.1 About forty of the environmental funds that have been created in Africa, Asia and LAC are conservation trust funds, including over twenty in LAC, about ten in Africa and only four in Asia. In order to avoid confusion with "green" investment funds found in developed countries, the term **conservation trust fund** is used in this paper instead of "green funds". The two most common types of conservation trust funds are **protected area funds**, which fund recurrent costs of protected areas management and activities in buffer zones of protected areas, and **grant funds**, which channel funding for targeted groups (e.g., communities, NGOs) in support of conservation and sustainable development. Some funds incorporate elements of both types of funds.

3.4.2 Community-based Funding Mechanisms. Community-based funding mechanisms have been established in high biodiversity areas outside of parks to enable local communities to generate income from natural resources. The idea is that if local communities engage in sustainable income-generating activities, then they will safeguard natural resources in their communities. For example, community-based safari hunting and eco-tourism projects have been introduced in African countries. Another community-based funding mechanism currently being tested is **direct payments** to communities living near parks for conservation performance (Ferraro, 2001). This concept is considered to be highly controversial because of the risk that direct payments will create high expectations for compensation that, if discontinued, will result in renewed exploitation of natural resources by communities.

3.4.3 **Land conservation trusts** can be an effective way to protect biodiversity on private lands. Although a community or private landowner may have specified development rights on land held in a land conservation trust, the trust guarantees basic protection of biodiversity.

3.5 Characteristics of Conservation Trust Funds

3.5.1 Legal Status. Conservation trust funds are typically established under the laws of the country in which they operate, although in a few cases they have been established offshore (e.g., Foundation for Environment and Development in Cameroon) because of the lack of an appropriate legal status in the host country.

3.5.2 In common law countries, conservation trust funds have been registered as trust funds in the strict legal sense. In civil law countries (including many French- and Spanish-speaking countries of Africa and Latin America), the closest legal equivalents are foundations or *fideicomisos.* Environmental funds have also been registered as associations and international organisations. In some countries, conservation trust funds have also been established specifically by law or by government decree.

> **Box 7: Trust Fund:**
>
> Defined as a sum of money or other assets that 1) can only be used for specified objectives; 2) must be maintained separate from other sources of funding; and, 3) is managed and controlled by an independent board of directors.

3.5.3 Since conservation trust funds operate as private not-for-profit grant-making organisations, it is important that a fund's legal status guarantees its independence (as long as its operations are in accordance with its stated objectives), provides tax exemptions for both donations received and revenues generated by investments, and allows for free transfer of funds into and out of the host country (if the fund's capital is invested out of the country).

Box 8: Best Practices in Mexican Government Support for the Fund for Natural Protected Areas

In 1996, the Fund for Natural Protected Areas (FANP) was established within the Mexican Nature Conservation Fund (FMCN) with an endowment of US$16.5 million through a restructured GEF project. The original endowment fund, designed to support 10 strategic protected areas, is being expanded to support an additional 12 protected areas. The GEF has approved a grant of US$22.5 million, and the FMCN and the Government of Mexico (GOM) are working in partnership to raise a 1:1 match for a total of US$45 million.

One of the key factors in the success of FANP is the GOM's on-going commitment to fundraising for the FANP, and to strengthening the institutional and fiscal base for protected areas management. In 2000, the GOM created the National Commission for Protected Areas, which reports directly to Mexico's environmental agency (SEMARNAP). GOM fiscal resources for protected areas management increased ten-fold between 1994-2000. As a result, while the GOM continues to pay personnel costs for protected areas, the FANP focuses on funding for biodiversity protection, management capacity building and local partnerships in management and operation of the reserves.

Based on: World Bank (November 22, 2000). *Mexico-Consolidation of the Protected Areas Program (GEF).* Project Identification Document.

3.5.4 Management. A distinguishing feature of most conservation trust funds is that they tend to have mixed boards most often with a non-governmental majority. Most conservation trust funds have a management board and a secretariat responsible for day-to-day operations. In civil law countries, it is common to also have a general assembly, although the management board is most often the key decision-making body. There are often board committees responsible for technical review of projects or financial matters. In some cases, there are also representational committees at the local or regional level that allow for election of board members (e.g., the Mgahinga Bwindi Impenetrable Forest Conservation Trust's (Uganda) Local Community Steering Committee).

3.5.5 Effective selection and rotation of members and operational procedures for boards are critical for successful conservation trust fund operations. There is no magic formula for how to constitute a perfect board and have it operate effectively. Some experts on board development recommend small boards; others suggest that larger boards with an executive committee offer a wider range of expertise (e.g., legal, financial, technical) of board members. Most conservation trust fund boards have some degree of representation of diverse stakeholder interests. Regardless of how representational a board is, the most effective boards incorporate members who serve in their individual capacity with high personal commitment to the conservation trust fund's mission.

3.5.6 There are special challenges to establishing boards in developing countries. In some countries, the concept of voluntary service is less well known than in more developed countries. There may also be a shortage of qualified, reputable candidates for a board.

3.5.7 Funding Sources. The largest sources of funding for conservation trust funds are bilateral donors (through grants and debt-for-nature swaps) and multilateral donors, with the GEF being the most important donor. Some foundations (MacArthur, United Nations Foundations) and international NGOs (Conservation International, The Nature Conservancy, WWF) have provided start-up funding and limited capital.

Box 9: Bhutan's Commitment to Conservation

The Bhutan Trust Fund for Environmental Conservation is considered to be the first conservation trust fund. The Government of Bhutan's commitment to conservation is among the most recognized in the world. Although the fund has a majority governmental board, this has not prevented several bilateral donors from investing in the fund. Although WWF and UNDP both played important roles in the fund's early development, the fund's board was fully "Bhutanised." in 2001.

3.5.8 It has been a major challenge for incipient funds (seeking matching funding) as well as established funds to raise new endowment funding. Some European bilateral donors are prohibited from donating funds in perpetuity without supervising the use of the funds.

3.5.9 Debt-for-nature swaps. Beginning with the first debt-for-nature swap in Bolivia in 1987, an estimated 30 countries have benefited from debt-for-nature swaps that have generated over $1 billion for the environment. Debt-for-nature swaps have been a major source of funding for the establishment of environmental funds in Latin America, primarily for biodiversity conservation and sustainable development. While only a few funds were established through swaps in Africa (Tany Meva in Madagascar) and Asia (Foundation for the Philippine Environment in the Philippines), several funds in Latin America channeled debt-for-nature swap proceeds to local organizations and protected areas.

3.5.10 A debt-for-nature swap involves the cancellation of external debt of a developing country in exchange for local currency funding for nature conservation and environmental protection. The early swaps were **three-party debt-for-nature swaps**, where a conservation organisation (often supported by funding from a bilateral aid agency) purchased sovereign debt at a discount in the secondary market and then negotiated with the debtor country government for cancellation of the debt in exchange for payment in local currency or bonds.

3.5.11 The introduction of the Paris Club debt swap clause in bilateral debt rescheduling agreements in the 1990s provided a framework for conversion of debt owed to bilateral creditors. Creditor governments, such as Belgium, Canada, France, Germany, the Netherlands, Switzerland and the USA, established **bilateral debt reduction programs** that reduced Official Development Assistance (ODA) debt in exchange for government funding for development and environmental programs.

3.5.12 As a result of the U.S. Government's Enterprise for the Americas Initiative (EAI), eight Latin American countries (Argentina, Bolivia, Colombia, Chile, El Salvador, Jamaica, Peru, Uruguay), created Americas funds which provide grants for environmental, community development and child survival programs. Since its introduction in 1990, EAI has reduced nearly US$1 billion face value of debt, while generating about US$180 million in conservation and development funds (Sheikh, 2002). The Tropical Forest Conservation Act (TFCA), introduced in 1998, authorizes debt-for-nature swaps in support of tropical forests world-wide.

Box 7: PROFONANPE's Experience with Bilateral Debt-for-Nature Swaps

The Government of Peru has negotiated bilateral debt swaps with six of its creditors (Canada, Germany, Finland, the Netherlands, Switzerland and the USA). Established in 1992 to support the conservation and management of 14 protected areas in Peru, PROFONANPE (Fondo Nacional para las Areas Protegidas por el Estado), PROFONANPE has been the beneficiary of seven of these bilateral debt-for-nature swaps, totaling $16.6 million with Germany, Canada and Finland. Two new swaps with Germany have been approved for $13 million and PROFONANPE has been selected to manage funds under another swap that is currently under negotiation with the USA. PROFONANPE has re-invested some of the interest earned through debt swap sinking funds in endowment funds. This innovative approach has allowed PROFONANPE to both fund specific programs through debt swaps and increase endowment funds for long-term sustainable financing.

Adapted from: Paniagua, Alberto (2002). *PROFONANPE's Expertise in Environmental Fund Management and Financing Protected Area Projects.* Unpublished case study.

3.5.13 Tourism-Based User Fees. One of the key features of tourism-based user fees is that there is a clear link between the fees charged and the tourist's "willingness to pay" for biodiversity conservation. Certain countries authorize protected areas to keep a portion of the revenues collected from park entry fees. Local communities may also benefit directly from the fees. Environment funds established as revolving funds are often an effective way to collect user fees and ensure that they go directly to support the area where they are collected.

3.5.14 Expenditure. One of the challenges for a protected areas fund is establishing a well-defined relationship with the protected area agency or agencies that are the primary beneficiarie(s) of its grants program. Although typically protected areas funds also provide grant funding for communities and local NGOs working in areas around protected areas, there is an on-going need for coordination with the government protected areas agency and individual parks.

3.5.15 Grants funds typically have higher overhead costs than protected area funds because of the need to manage many grants for a large number of small beneficiaries. They also invest heavily in capacity building for their grantees.

3.5.16 Disbursement Mechanisms. Conservation trust funds are typically established as endowment funds, sinking funds, revolving funds, or a combination of the three types, depending on the source of funding. Endowment funds, which spend only income generate by the fund's capital, are designed to exist in perpetuity. The permanent nature of endowment funds can ensure a "basic sense of resource security" for protected areas (GEF, 1999).

3.5.17 Investment Policy. Most of the endowment funds operational today were created during one of the longest running bull markets in history. As a result, it has been a shock for some funds to see their capital shrink in the wake of the recent market downturn. It has underlined the importance of a well-developed and implemented investment policy for endowment capital.

3.5.18 Conservation trust funds disburse funding primarily through grants. Some of the more sophisticated conservation trust funds (e.g., FMCN-Mexico, PROFONANPE-Peru) have also become financing agents for donor-funded projects. A few funds in Latin America are now acting as country administrators for the GEF's small grants program.

3.5.19 Programming and Project/Grant Appraisal. Since the amount of money available for a conservation trust fund's grants program is often small relative to the environmental needs of the country, it is important that the fund establish a focused strategy for grant-making in order to achieve programmatic impact. Conservation trust funds have found that a technical review committee, often with non-board members serving in a technical capacity, is an effective way to review grants.

3.5.20 Auditing. Funds established with donor funding or independent of government are generally required to undergo regular independent audits, often by an internationally recognized accounting firm.

3.6 Types and Characteristics of Private Sector Funds. In the past few years, a number of private sector investment funds have been created to finance environmental investments. The objective of funds such as the Terra Capital Fund (Brazil), the Eco-Enterprises Assistance Fund (Latin America) and the Kijani Initiative (Africa) is to fund for-profit investment in "biodiversity businesses," including aquaculture, organic agriculture, eco-tourism, sustainable forestry and non-timber forest products. For the most part, the funds invest in equity of the financed ventures.

The International Finance Corporation (IFC) and the IDB's Multilateral Investment Fund (MIF), have provided capital for the funds, along with private sector investors. The IFC has financed the private sector role with complementary funding provided by the GEF to subsidize the funds' environmental capacity. The MIF has also financed specialized investment funds for clean technology and environmental services.

IV. The Way Forward: Evaluation of Performance of Environmental Funds

4.1 The relative youth of environmental funds in the developing world has meant that most evaluations of environmental funds have focused more on the institutional aspects of environmental fund development rather than the impact that these funds have had on biodiversity conservation and the environment. Although there are documented success stories regarding environmental funds, one also hears anecdotal reports of funds that are doing less well. For example, common critiques are that a fund is dominated by a single individual or is dependent on a single donor. Upon investigation, it may become apparent that the real story is obscured by local politics or that the fund has not done a good job of showcasing its achievements. Sometimes the criticism is accurate, but there is no objective basis upon which an assessment can be made.

4.2 The GEF's 1999 evaluation of "Experience with Conservation Trust Funds" continues to set the standard by which conservation trust funds are evaluated in Africa, Asia and Latin America. The evaluation analyzed the experience of thirteen funds. One of the most valuable contributions of the GEF evaluation in providing guidance on institutional aspects are checklists on "Factors Important for Establishing a Trust Fund" and "Factors Important for Successful Trust Fund Operations," (see Annex 1). The World Bank has also conducted evaluations of completed projects with conservation trust fund components that were funded with GEF resources.

4.4 Along with the GEF, USAID has been one of the most important donors to environmental endowment funds through contributions of grant funds and debt-for-nature swaps. In 1999, USAID conducted a desk review of funds supported by USAID (Page, 1999) that revealed that although not enough information was available yet to determine the biological conservation impacts of these funds, they do "play a catalytic role in protecting the environment in host developing countries and have other strong development impacts." USAID has also commissioned external evaluations of FONAMA in Bolivia (Asselin, Linares, Norris, 1996) and KEHATI in Indonesia (Chemonics, 2000).

4.5 In 2001, USAID's EAI/TFCA Secretariat initiated a series of EAI evaluations to evaluate lessons learned from EAI trust funds for existing funds and for new funds to be established under the TFCA. The first fund to be evaluated is the Environmental Foundation of Jamaica, which was described as a "model" EAI trust fund. The timing for the EAI evaluations is propitious since many of the EAI funds are in transition, with the Bolivia and Colombia accounts being transferred to private funds, Chile's fund almost extinguished and Argentina's fund non-operational.

4.6 RedLAC is currently conducting an assessment of its environmental fund members to showcase their experience at the World Summit on Sustainable Development, and to create a database for development of RedLAC's strategic plan. It is encouraging that the environmental funds themselves are developing best practice guidelines based on self-assessment and exchanges between funds over the past few years.

4.7 Although there is beginning to be a body of documentation evaluating the performance of conservation trust funds, so far there is not similar literature available relative to government environmental funds, particularly forest funds, and private sector funds. Pollution abatement funds may be able to draw on experiences of environmental funds in Central and Eastern Europe (CEE), the New Independent States (NIS) and China. Endorsed in 1995, the "St. Petersburg Guidelines on Environmental Funds in a Transition to a Market Economy" provide minimum performance guidelines for successful public environmental funds.

Annex 1

Factors Important for Successful Trust Fund Operations

- Clear and measurable goals and objectives. A "learning organization" mentality and environment, oriented towards results and achieving objectives, and flexibility to make adjustments in objectives or approach based on feedback and experience.

- A governance structure with appropriate checks and balances, conflict of interest provisions, and succession procedures. "Ownership of the fund by its board and other governing bodies, indicated by members' commitment of time, engagement in policy and leadership and building support of the fund with varied constituencies.

- Linkage between the trust fund and the leadership of any national biodiversity strategy or environmental action plan.

- Ability to attract dedicated, competent staff, particularly a strong executive director. Harmonious and productive board-staff relationships.

- Basic technical and other capabilities that permit the fund to become a respected and independent actor in the community. Access to, and constructive use of training, mentoring, and technical assistance programs to build capacity.

- Constructive relationships with relevant government agencies, with intermediary organizations that provide services to grantees, and with other organizations in the community. The fund should avoid becoming an executing agency itself.

- Financial/administrative discipline combined with program flexibility and transparency, and procedures that support this and are consistently applied.

- Mechanisms for continuing to involve a wide range of stakeholders in the fund's programs and direction, with enough clear vision and leadership to avoid being pulled in many directions and program fragmentation.

- Asset management competitively selected; diversified portfolio of investments; financial expert to provide regular reporting; and oversight by fund boards comparing actual performance to benchmarks.

- A supportive, nurturing Implementing Agency task manager, able to bring in the resources and expertise needed.

Global Environment Facility (January 1999). ***Experience with Conservation Trust Funds.*** **Evaluation Summary Report #1-99, p. 14.**

ANNEX 2

Checklist of Best Practice Guidelines for Environmental Funds

TO BE COMPLETED

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<u>Internet Sites for Environmental Funds</u>

Belize:	www.pactbelize.org
Bhutan:	www.bhutantrustfund.org
Costa Rica:	www.fundecor.org
Mexico:	www.fmcn.org
Peru:	www.profonanpe.org.pe
Philippines:	www.fpe.ph
RedLAC	www.redlac.org