Background

Protected areas are the cornerstone of conservation. Although modern protected areas were not created until the late 19th century, humankind has conserved important and unique natural sites from the beginning of times. In the last 100 years, the growth in coverage of protected areas under the various IUCN management categories has been impressive and at the end of the 20th century totaled over 30,000 sites, covering more than 14 million sq. km, and representing close to 10% of the total land area of the planet (Green and Paine, 1997).

Concomitant to this progress in establishing protected areas, the world has also seen important conservation gains at the level of policy and institutional development, rising awareness, the growth of engaged civil society and NGOs, and increased stakeholder involvement in conservation. There has also been substantial progress in scientific knowledge regarding biodiversity distribution patterns and conservation priorities. At the same time, the planet’s natural heritage and with it the sustainability of its ability to maintain life is under continued and ever growing attack. It is in this context that protected areas and their long-term management must remain one of the top priorities for humankind today.

The Global Socio-Economic Environment

Socio-economic indicators for many regions show a continued struggle for most societies to fully emerge into the modern developed world. Recent attempts at the creation of free markets and democratic societies have partially failed because of the continued presence of cumbersome bureaucracies, lack of clear and inalienable property rights, and weak judicial systems (de Soto, 2001). As a result, and despite a continued improvement for most of the developing world in education and health, other socio-economic indicators such as poverty, unemployment, and unequal wealth distribution continue to pose major social and political challenges. Some regions, such as sub-Saharan Africa, present even greater and more daunting difficulties due to a combination of extreme poverty, rapidly growing populations, land degradation, AIDS and other contagious diseases, and civil unrest.

It is extremely important to maintain this difficult socio-economic reality as a background in any discussion related to protected areas and financing. A main challenge continues to be the lack of financial resources for the payment of the recurrent costs of conservation, in particular protected area management,

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biological monitoring, and scientific research. In most countries, small budget allocations from
governments are the norm, are to be expected into the foreseeable future, and are not surprising in an
environment in which other priorities, widely perceived by societies to be more urgent, take precedence.
The arguments in favor of public expenditures on the environment (e.g., the existence of externalities,
market failures, complex trans-boundary and trans-generational issues linked with environmental
challenges, etc.) are clearly not sufficient to tilt the balance in favor of protected areas.

The central thesis in this paper therefore is that the solution to the lack of budget allocations for the
proper management of protected areas is not necessarily an increase in such budgets. Although
increased budgets are desirable because it is a measurement of the relative priority that governments
place on protected areas, it is not necessarily the only solution or even the proper solution. It is simply not
realistic to expect developing countries with system-wide institutional and governance weaknesses in all
areas of government to absorb the full costs of managing protected areas in the short and mid terms.

Definition of Needs

There is a shortage of current resources to properly finance the needs of establishing and maintaining
systems of protected areas at the national level. Estimates by James et al. (1997) show needs in
developing countries that vary from US$142 per sq. km to $2,190 per sq. km, and actual budgets only
ranging from US$36 per sq. km to $US1,012 per sq. km. The average for developing countries was a
need of $US 436 per sq. km versus actual allocations of US$161 per sq. km, suggesting that current
allocations only cover one-third of needs. A more recent study by Balmford et al. (2002) estimates the
needs for an ideal global system at US$45 billion per year against current expenditures of only ca. $US 6
billion per year, suggesting that current allocations cover less than one-sixth of needs.

According to a study by Barcena et al (2002), public-sector environmental budgets in the Latin America
and Caribbean (LAC) region have fluctuated widely over the past decade, but despite variations among
countries, investment on the environment amounts to less than 1% of GDP on average.

Such realities are not necessarily unique to the LAC region. In a sense, small budget allocations could be
seen as positive signals if they reflected a healthy tendency to reduce the size and intervention of the
state in all aspects of society, as long as this decrease was replaced by other forms of financing and by
increased efficiencies. Under this scenario, greater diversification of funding sources and participation of
the private sector in conservation would be expected. Unfortunately, this is not the case. As a result, the
small government budgets allocated to conservation have created a dependency on outside funding
(particularly overseas development assistance, ODA) to finance many environmental activities.

Barcena et al (2002) provide a summary of these trends for LAC. The total allocation of ODA for
environmental purposes is estimated in that study at about US$100 million per year for the 1990s. Such
figures, however, are difficult to track because official figures only include environment-specific funding,
excluding environmental funding through other sectors (thought to be very substantial). Multi-lateral loans
is another major source of financing, and include ca. US$3.3 billion from the World Bank (active projects
in 2002), US$10.6 billion from the IDB (for the decade of the 1990s), very substantial funding from the
Andean Finance Corporation (US$3.1 billion for sustainable development in 2001 alone), and additional
funding through the Central American Bank for Economic Integration (CABEI), the Caribbean
Development Bank (CDB), and the United National Development Program (UNDP). Other sources of
funding for the environment include debt relief through the HIPC2 initiative (expected to reach close to
US$9 billion in the case of Bolivia, Guyana, Honduras and Nicaragua); debt-for-nature swaps (US$523
million to date); funds through the Enterprise for the Americas Initiative (swaps for countries qualifying
under the Brady Plan) with close to US$1 billion to date; the 1998 US Tropical Forest Conservation Act
(TFCA), with ca. US$200 million; the Global Environment Facility (GEF) with ca. US$2 billion in the
1990s; the Montreal Protocol (US$50 million), and others.

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2 High Indebted Poor Countries
In the particular case of biodiversity in LAC, between 1990 and 1997 the region attracted close to US$4 billion for conservation projects for 3,489 projects funded by 65 sources. Of this total, 55% was invested in South America, 35% in Central America and Mexico, 5.5% in the Caribbean, and 5% in the LAC region as a whole. Mexico and Brazil attracted the most funding (45% of the total). Protected areas received the majority of this funding (Castro and Locker 2000).

Worldwide, it is possible to track investments in biodiversity both directly (with a specific biodiversity objective), and indirectly (when biodiversity benefits even if it is not a primary objective) through the OECD’s Creditor Reporting System (CRS). The top 6 funding countries (France, Germany, Japan, the Netherlands, United Kingdom and the United States) provided an average in the 1998-2000 period of ca. US$840 million per year. Measuring funding for the environment, however, presents difficult methodological challenges. A recent review by Swanson and Lunden (2003), for example, shows that the estimates of environmental investments as a percentage of total ODA range between 2% and 14%.

Although dependency on foreign funding is a reality in the short term, such dependency can only be seen as a temporary, pragmatic solution to a momentary situation. The continued need for financing for development is a reality, as agreed at key international fora such as the 2002 Monterrey Conference on Financing for Development. At some point, however, countries must assume the financial responsibility of conserving their own natural heritages, given that it is them that will reap the social and economic benefits of conservation and protected areas.

Although the final solution is not yet totally clear, what is clear is that the two keywords that must be present in the solution are diversification and sustainability.

**Conservation Finance Experience**

For the most part, the basic foundations for successful biodiversity conservation and protected area management are already present in many parts of the world, but much remains to be done. Some progress has already taken place, and financial sustainability is being built slowly throughout the planet. Various mechanisms have been developed, including tax incentives, economic incentives, environmental trust funds, private sector partnerships, and legal tools to promote private conservation. Table 1 (taken from IUCN, 1999) presents a summary of some of these tools:
## Table 1
### Innovative Financial Instruments and Approaches
(Source: IUCN, 1999)

<table>
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<th>Tools</th>
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| Tax Incentives for Conservation | - Income tax deductions for conservation contributions  
- Tax deductions for certain kinds of land use  
- Tax exemptions for conservation activities or properties devoted to conservation (such as land used for private nature reserves) |
| Economic Incentives          | - Allocation of tax revenue in a way that rewards conservation (e.g., to jurisdictions that have significant land in protected areas)  
—Fees to support conservation (e.g., fees for the use or extraction of natural resources like minerals, timber, and water)  
—Controlled access to shared resources (e.g., government could use a combination of regulation and limited ownership rights to provide incentives for conservation of shared resources such as fisheries)  
—Trading of development permits (e.g., government can create tradable permits for development of a given area that can be used in conjunction with “credits” for conservation activities)  
—Performance bonds (e.g., for development projects with a high risk of environmental damage, governments could require advance payment of a “bond” to pay for environmental mitigation if it is later needed)  
—Eco-labeling (e.g., consumers and governments can promote “green” products through the use of a system of labeling that allows purchasers of a given product to evaluate its impact on the environment)  
—Biodiversity prospecting and other benefit-sharing mechanisms (e.g., incentives for biodiversity conservation can be created by resource use agreements, such as in the pharmaceutical industry, that provide a portion of revenues generated to be returned to the country, region, or community where that resource is found)  
—Elimination of perverse incentives (e.g., subsidies or other incentives that encourage the overexploitation of resources)  
—Identification and support of economic alternatives to unsustainable resource use, especially in areas of growing environmental scarcity  
—Sustainable use of resources for local and national income generation. This can help biodiversity projects become economically viable and sustainable for local populations  
—Ecotourism |
| Environmental Trust Funds    | —Environmental trust funds or revolving funds from locally generated revenues (e.g., tourism revenues, tourism taxes, and licensing fees)                                                                 |
| Private Sector Partnerships  | —Eco-enterprises, concessional or contingent loans (to help start biodiversity projects), micro-credit systems, bankable commercial projects, and venture capital funds in the biodiversity area |
| Legal Tools to Promote Private Conservation | —Promoting/facilitating donations of land, money, or other assets to conservation organizations  
—Promoting conservation easements (whereby landowners retain ownership of land, but use it for limited purposes while permanently removing their right to use it for non-conservation purposes)  
—Promoting/facilitating conservation agreements (whereby landowners enter a legal agreement to manage property according to specific conservation terms, often in exchange for payment)  
—Promoting/facilitating land exchanges (whereby property owners can exchange property that is significant for conservation reasons with a different property or equal value, but lesser conservation significance) |

Of these tools, Conservation Trust Funds have proven to be very effective in helping to diversify funding sources for protected area management. There is substantial knowledge regarding the advantages and disadvantages of various institutional and financial designs of Trust Funds. In general terms, Trust Fund Institutions must have clear missions, representative governance structures, professional staffing,
transparent decision-making processes, aggressive capitalization approaches, and professional fund management. Any deviations from these general norms can be detrimental to institutional effectiveness, as shown in the GEF Review of Conservation Trust Funds (1999). A successful example of institutional maturity is provided by the Latin American and Caribbean Network of Environmental Funds (REDLAC), which currently includes 23 such funds in the region, with a combined capital of US$500 million and over 3,000 projects under financing (www.redlac.com).

The Future of Conservation Finance

Economic volatility remains a major challenge in most parts of the developing world. In the last two decades, the world has witnessed extreme changes in its economic moods and prospects. Clearly, and unless countries continue to implement sustainable and long-term economic reforms aimed at full insertion in the global economy, they will not be able to grow at rates necessary to eradicate poverty and achieve sustainable development.

This economic background will be present and govern all prospects for future successful conservation of protected areas; conservation must therefore be understood in this context if it is to make continued gains. From this perspective, the funding picture for conservation will continue to be dependent upon foreign assistance in the short and mid-terms, unless countries grow economically and their citizens are willing to absorb the costs (and reap the eventual benefits) of conservation. Such long-term proposition is strongly dependent upon the emergence of a middle-class that has satisfied its basic needs and is willing to demand additional gains in quality of life linked to environmental quality; thus, a major determinant of future environmental gains is closely linked to income growth and poverty alleviation.

The prospects for foreign direct investments in conservation remain strong in the short term, with renewed commitments made around the World Summit of Sustainable Development (WSSD) in Johannesburg in 2002, despite the recent and very strong shift towards direct support for poverty alleviation from bilateral agencies at the expense of environmental issues (Lapham and Livermore, 2003). It is imperative, however, to develop new funding sources if diversification is to occur. A key concept that needs to be emphasized is that sustainability does not imply the continued financing of conservation projects, but rather, sustaining conservation results. Thus, financing must be seen as a temporary intervention with the aim of changing the behavioral patterns of societies and economies so that biodiversity can be conserved. In this context achieving sustainability of conservation is multi-dimensional, and progress is needed along political, social, economic, and ecological fronts. Such challenges require continued efforts, renewed commitments, and permanent vigilance of all those concerned with enhancing the human condition by preserving the biological wealth of the planet.

Over the long-term, however, dependence upon continued financing of biodiversity conservation will be synonymous with failure. According to Smith and Martin (2000), "discussion of sustainability should shift from how can we design a project that will make a contribution to biodiversity conservation and what does it take to make it sustainable? to what does it take for biodiversity to be sustainable, and how can we design a project, together with other activities, to make a contribution to that?" Thus, eventually, biodiversity conservation needs to occur naturally, as a result of the routine incorporation of conservation considerations within all productive and economic activities (i.e., mainstreaming). For mainstreaming to occur, conservation needs to be an integral part of economic development at the sectoral level, where the maintenance of ecological processes should be a central pillar of decision making, and where mitigation of impacts is seen as a tool of last resort. In this context, protected areas and the long-term effectiveness of their management will always be a top priority.
Bibliography


