A REVIEW OF INNOVATIVE INTERNATIONAL FINANCIAL MECHANISMS FOR BIODIVERSITY CONSERVATION

WITH A SPECIAL FOCUS ON THE INTERNATIONAL FINANCING OF DEVELOPING COUNTRIES’ PROTECTED AREAS

P. Gutman and S. Davidson
WWF-MPO

A Contribution to the COP9 of the CBD
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January 5, 2008
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### Acronyms and Abbreviations

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<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>BBOP</td>
<td>Businesses and Biodiversity Offsets Program</td>
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<td>BC</td>
<td>biodiversity conservation</td>
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<td>BIS</td>
<td>Bank of International Settlements</td>
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<td>BZ</td>
<td>buffer zone</td>
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<td>CBD</td>
<td>UN Convention on Biological Diversity</td>
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<td>CBNRM</td>
<td>Community Based Natural Resource Management</td>
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<td>CCC</td>
<td>UN Climate Change Convention</td>
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<td>CDM</td>
<td>Clean Development Mechanism</td>
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<td>CEPA</td>
<td>CBD’s Program of Work on Communication, Education and Public Awareness</td>
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<td>COP</td>
<td>Conference of the Parties</td>
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<td>CTT</td>
<td>currency transaction tax</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FM</td>
<td>financial mechanism</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>GEF</td>
<td>Global Environment Facility</td>
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<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development (World Bank)</td>
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<td>IFF</td>
<td>international financial facility</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IPES</td>
<td>international payments for ecosystem services</td>
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<td>IST</td>
<td>International Solidarity Tax</td>
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<td>IUCN</td>
<td>World Conservation Union</td>
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<td>MEA</td>
<td>multilateral environmental agreement</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<tr>
<td>OECD/DAC</td>
<td>Organization for Economic Cooperation and Development/Development Assistance Committee</td>
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<td>ODA</td>
<td>official development assistance</td>
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<td>PA</td>
<td>protected area</td>
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<td>PES</td>
<td>payments for ecosystem services</td>
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<td>PL</td>
<td>production landscape</td>
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<td>PRSP</td>
<td>poverty reduction strategy paper</td>
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<td>REDD</td>
<td>reduced emissions from deforestation and forest degradation</td>
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<td>SAPAF</td>
<td>South Africa Poverty Alleviation Fund</td>
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<td>SBSTTA</td>
<td>Subsidiary Body on Scientific, Technical and Technological Advice</td>
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<td>SDR</td>
<td>IMF Special Drawing Rights</td>
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<tr>
<td>SIDA</td>
<td>Swedish International Development Agency</td>
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<td>SO</td>
<td>GEF’s strategic objective</td>
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<td>U.N.</td>
<td>United Nations</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>WCMC</td>
<td>UNEP World Conservation Monitoring Center</td>
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<td>WIDER</td>
<td>UN World Institute for Development Economic Research</td>
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<td>WRI</td>
<td>World Resources Institute</td>
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<td>WWF</td>
<td>Worldwide Fund for Nature, also known as World Wildlife Fund</td>
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<td>WWF-MPO</td>
<td>WWF’s Macroeconomics for Sustainable Development Program Office</td>
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1. This report aims to contribute to the ongoing discussion about how to increase the flows of international funds for biodiversity conservation. This discussion has figured in the agenda of all major forums on the U.N. Convention on Biological Diversity (CBD) since the convention’s inception in 1992.\(^1\) The funding challenge has also been a concern of the conservation movement and has attracted the interest of the U.N. General Assembly, U.N. agencies, academics and international financial institutions, which have focused both on how to finance biodiversity conservation and on the broader issue of how to finance the provision of global public goods (the global commons).

2. This discussion will come to an important crossroads at the forthcoming Ninth Conference of the Parties to the CBD (COP9 of the CBD) to be held in Bonn, Germany, in May 2008. On the COP9 agenda are a review of innovative financial mechanisms and consideration of a draft strategy for resource mobilization in support of the achievements of the objectives of the convention.\(^2\) It is our hope that this report will help shape the initiatives that the COP9 will discuss and eventually endorse.

- Chapter 1 briefly discusses where we are and what the challenges are regarding international financing for biodiversity conservation.
- Chapter 2 briefly reviews traditional and innovative financial mechanisms available at local, national and international levels and then focuses on the international ones. Some 60 financial mechanisms are reviewed (and many more are listed in Annex A).
- Chapter 3 highlights a group of 11 financial mechanisms that, in the short term, may have better chances of being picked up by the CBD parties and of garnering support from governments, businesses and consumers.
- Chapter 4 addresses what it would take to “make it happen” and proposes some building blocks for an action plan to move from discussion to actually increasing the flow of both traditional and innovative international sources of financing for biodiversity conservation.
- Chapter 5 offers conclusions and recommendations. The latter are addressed to the forthcoming COP9.
- The annexes present more detailed information on several points of interest. Annex 1 covers various perspectives on innovative financial mechanisms, and Annex 2 discusses different approaches to current and potential ideas of payments for ecosystem services (PES) and international payments for ecosystem services (IPES).

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\(^1\) See CBD 2007, and CBD 2006a, 2006b and 2005. CBD 2006a has a good compilation of major provisions of the CBD and Conferences of the Parties (COPs) regarding financing in general and innovative financing in particular.

\(^2\) Following the directives of COP8 decision VIII/13.
1. The State of International Financing for Biodiversity Conservation

1.1. What Is the Problem?

3. Since its inception in 1992, the CBD has presided over a remarkable worldwide growth in biodiversity conservation (BC) efforts. Between 1992 and 2006, protected areas doubled in number, and their total surface grew more than 60 percent (see Figure 1). With the ambitious CBD 2010 target at hand, this rapid growth is bound to continue and attests to the world’s commitment to the CBD goals.

4. Unfortunately, this commitment to conservation has not gone hand in hand with a commensurable financial commitment, and funding for conservation, both national and international, has grown sluggishly. Figure 2 plots the financing for BC provided in recent years by the Global Environment Facility (GEF) and the World Bank (both remain mostly flat), and biodiversity-related bilateral aid of the countries of the Organization for Economic Cooperation and Development (OECD) (which goes up and down). Adding these three sources, a linear adjustment shows that together financing grew approximately 38 percent throughout the CBD’s life. There is little information on the evolution of biodiversity financing from other national and international sources, but there is no reason to believe that they have performed better. In a nutshell, funds for BC (scarce to begin with) are lagging behind the conservation agenda in general and the achievements of the CBD goals in particular, and risk bringing efforts to a halt.

5. Access to adequate funding is only one side of the coin. The other side is implementing effective and efficient conservation programs that make the most of available funds. And

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3 Figures for GEF are annual averages of GEF grants for biodiversity projects for each GEF replenishment period, based on figures from GEF’s online projects database (www.thegef.org). Figures for the World Bank are from World Bank 2006. Biodiversity-related aid from OECD members began before 1998, but figures are available only from that date onward (OECD 2007 and Paris 2006). All figures have been converted to 2005 U.S. dollars using OECD, ODA deflators. The linear adjustment for the years 1998–2005, where we have information for the three sources, is $y = 45.318x - 88628$. 
although this document focuses on the former, it briefly discusses the latter (in Chapter 4), since improving the quality of the conservation effort is a critical ingredient of a successful strategy to attract the additional funding the conservation movement is looking for.

1.2. Why the Focus on International Financing of Protected Areas?

6. Today, international financing covers the smaller part of global expenditure in biodiversity, with each country paying for most of its own BC costs. This is true for industrialized countries and for most developing countries, too, when the opportunity costs (which in most cases are the largest costs incurred when establishing protected areas) are added to the direct costs.

7. The current situation is not only unsustainable for many less developed countries that lack the resources to finance BC on their own, but it also contradicts the global character of biodiversity, its uneven distribution and the commitments of the parties to the CBD, considering that

- Biodiversity is not only of local or national importance; a large part of biodiversity provides valuable ecosystem services to the world. Thus its stewardship is also the responsibility of the international community (in the CBD terms, “a common concern of humankind”).
- The world’s biodiversity is unevenly distributed, with a large portion of it located in tropical areas of developing countries, which results in the current situation: wealthy countries with relatively little biodiversity to care for and poorer countries with a lot of biodiversity to care for (see Figure 3).
- The CBD and other multilateral environmental agreements (MEAs) have endorsed the tenet of “common but differentiated responsibilities,” meaning that funding for BC should follow this principle as well.

8. In a nutshell, both national and international financing are important for BC, but increasing international financing is critical to secure the conservation of global biodiversity. Likewise, BC encompasses several major strategies, but securing the viability of a representative world system of protected areas is at the core of them all.

Figure 3. Biodiversity and Funds Are Unequally Distributed

1.3. International Financing: Where Are We?

9. Based on the available fragmentary information, in recent years international financing for all types of BC may currently be around $4 billion to $5 billion\(^4\) a year, with some 30 percent to 50 percent of it going to finance protected areas (PAs).

- The largest amount — possibly as much as $2 billion annually in recent years — comes from high-income countries’ official development assistance (ODA). Most of this is in the form of country-to-country bilateral aid, and the rest is in the form of multilateral aid managed by the GEF, other U.N. agencies, the International Development Agency and multilateral development banks (see Figure 2).\(^5\)

As mentioned before, official funding for global BC grew modestly through the CBD years. Since most of these funds are concessional and come from the general aid pot, BC has to compete with all other aid demands. There is a widespread belief in the conservation community that environmental issues have been losing ground vis-à-vis other international priorities. However, throughout the past 15 years, according to OECD/Development Assistance Committee (DAC) figures, the share of BC has remained fairly constant, between 2.4 percent and 2.8 percent of total bilateral ODA. So changes in ODA for BC may have had more to do with overall fluctuations in ODA than with changes in BC’s share of it.

- Not-for-profit funding, coming from international conservation nongovernmental organizations (NGOs), private foundations and businesses-related foundations, may contribute more than $1 billion annually to international BC, but precise figures are difficult to estimate. On the one hand, the annual combined budget of just five international conservation organizations (WWF, IUCN, Conservation International, the Nature Conservancy and Wildlife Conservation Society) was more than $2 billion a year in recent years, and there are dozens of similar organizations. On the other hand, some of this money may not go to BC in developing countries, and there may be some double counting since some part of NGOs’ budgets comes from ODA sources. As in the case of ODA, not-for-profit sources for BC have grown sluggishly during the past decade, as they depend in equal measure on people’s awareness and on the state of the economy.

- Market-based sources include (a) international ecotourism and tourism, (b) markets for environment-friendly products (organic, certified, fair trade, etc) and (c) the incipient field of international payments for ecosystem services (IPES) like bioprospecting and biocarbon. This group of funding sources has grown quickly in the past two decades and hence has attracted high expectations. Still, with the exception of tourism and ecotourism, all other sources remain small, and their current contribution to global BC is unknown. Putting together the scant information available (e.g., a few cases of bioprospecting and IPES contracts in Latin America; reports that international ecotourism is already a major source of funding for national parks and wildlife conservancies in South Africa, Namibia and other Southern African countries), this source could amount to between $1 billion and $2 billion a year.

\(^4\) All dollar figures refer to U.S. dollars.

\(^5\) Figures for biodiversity-related foreign aid are difficult to estimate; beginning with the issue of deciding what does or does not qualify as biodiversity-related investment. The only available figures are the OECD ones (OECD 2007 and Paris 2006) and they are based on countries’ reporting. Many in the conservation movement believe that the OECD estimate of $2 billion of ODA a year going to biodiversity-related projects is a gross overestimation.
1.4. Protected Areas Financing Gap

10. Piecing together figures from different sources, the global expenditure (both national and international) in protected areas in recent years totals between $6.5 billion and $10 billion annually.\(^6\) Table 1 gives a crude estimate of the breakdown of those expenditures.

<table>
<thead>
<tr>
<th>A. All developing countries' investments</th>
<th>B. High-income countries’ aid to developing countries</th>
<th>C. High-income countries’ investments in their own countries</th>
<th>D. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3 to 2.6</td>
<td>1.2 to 2.5</td>
<td>4 to 5</td>
<td>6.5 to 10</td>
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Table 1. Estimated Annual Investment in Protected Areas
(Circa 2005, in billions of U.S. dollars)


11. How does this current funding compare with what would actually be needed? There are many different estimates of the funds needed for global BC, depending on the conservation target and the costs considered.

- Low-range estimates: Vreugdenhil (2003) proposes that an additional $1.1 billion a year would significantly improve basic management in developing countries’ existing PAs. Bruner et al. (2004) estimate an additional $1.7 billion a year is needed to improve basic management and an additional $4 billion a year for establishing and managing an expanded protected-area system in tropical countries.

- Medium-range estimates: James et al. (1999, 2001) estimate the total cost of adequate management of existing PAs (including opportunity costs) at $14 billion a year, and $20 billion to $25 billion a year would be needed for an expanded representative system.

- High-range estimates: According to Balmford et al. (2002), a global PA network encompassing 15 percent of the world’s total land area and 30 percent of its ocean area would cost some $45 billion a year (over 30 years and including management costs and opportunity costs).

12. If we take the above medium-range cost estimates and compare them with recent levels of global funding for BC (between $6.5 billion and $10 billion a year), the world is investing between 50 percent and 75 percent of what would be needed to properly manage existing protected areas, and between 25 percent and 50 percent of what would be needed to achieve the objectives of the CBD.\(^7\) While practitioners refine the figures, the CBD and the conservation community should consider the advantage of putting forward a fundraising target for global

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\(^6\) There is no way to make a similar estimate of the world expenditures in biodiversity conservation outside PAs because of the difficulties in disentangling the biodiversity component, if any, in millions of rural investments decisions.

\(^7\) A fully comprehensive global conservation program — which would also include the sustainable management of agriculture, forestry, freshwater, coastal and marine ecosystems — is said to cost approximately $300 billion a year (James et al. 1999). But one could assume that the largest part of these costs would be self-financed through the sale of sustainably produced goods and services.
biodiversity conservation. A financial target would complement the 2010 conservation targets and would help orient and energize a resources mobilization strategy.

1.5. The Challenges Ahead

13. Where could additional sources of international funding for BC come from? In the past 20 years, a lot of attention has been given to the search for new or innovative international financial mechanisms to supplement the government, NGO and charity funds that have been the traditional source of international financing for all types of global commons, including global biodiversity. Proposals are numerous; some are of a general character, attempting to raise money from wherever it is available, to pay for any and all global public goods including global biodiversity. A smaller group of proposals consists of environment- or biodiversity-focused financial mechanisms, which would raise funds from environmental-related activities and would use the funds exclusively to pay for global environmental conservation. Among these environment-focused financial mechanisms, the conservation community has been particularly impressed by the financial innovations in the Kyoto Protocol to the U.N. Climate Change Convention (CCC) and by the growth of markets and businesses for biodiversity and biodiversity-related ecosystem services. Most of this document is devoted to a discussion of these and other traditional and innovative financial mechanisms.

14. Still, the discussion on how to increase international funding for conservation, through either traditional or innovative financial mechanisms, has been going on for a long time now. Many good ideas have been suggested, yet little has ensued. The fact is that international funding encompasses many donors, many recipients and many institutional arrangements, and no financial innovation will happen until at least some of the key players commit to see them through. Hence, any financing proposal should spell out to whom it is addressed and what the minimum actions are — institutional arrangements and commitments needed to jumpstart the process. In short, to move from a list of possible financial mechanisms to actual implementation, a resource mobilization strategy, actions and some champions are needed. These issues are briefly addressed in the final two chapters of this document.
2. Existing and Innovative International Financial Mechanisms

15. The sources of funding for BC are few: governments, voluntary sources (including NGOs, foundations and other not-for-profits), markets and businesses. Financial mechanisms, on the other hand, count in the hundreds and are growing rapidly (see Annex 1). One of the reasons for this financial mechanism “inflation” is simply the level of detail. For instance, government funding can be presented as one financial mechanism or can be divided into dozens of particular programs and financial windows, each one presented as a financial mechanism on its own.

16. Another reason for the financial mechanism inflation is the lack of consensus on what qualifies as a financial mechanism. For example, many of the CBD discussions and documents lump under “financial mechanisms” three very different things: (a) mechanisms that would raise money for conservation (e.g., grants, government budget allocations, fees, green markets, PES, etc.); (b) activities to raise awareness among would-be funders (e.g., communication, education, campaigns, etc.); and (c) ways to manage the funds once they have been secured (e.g., putting them into a conservation fund, paying for conservation concessions, etc.). For this document, only mechanisms that fall under “a” are the subject of this review.8

2.1. Sources of Funding and Financial Mechanisms at Local, National and International Scale

17. Table 2 presents a picture of both traditional and innovative financial mechanisms (FMs) available for BC at the local, national and international levels. The list is quite aggregated, and it could be broken down into a larger and more detailed list of FMs, (and we do so in the following sections to discuss international FMs in more detail), but the level of detail in Table 2 is enough to discuss the big picture of biodiversity financing.

18. Currently, the principal sources and FMs for BC are (a) governments, through a variety of financial mechanisms; (b) voluntary sources, particularly conservation NGOs; and (c) markets and businesses, particularly through tourism and, in the case of sustainable use of biodiversity in production landscapes, through the emerging green markets.

19. What could be the principal sources and FMs for BC in the future? Some conservation stakeholders, frustrated with traditional financial sources’ failure to meet the world’s conservation needs, are calling for abandoning the “old” reliance on government and NGO funds and embracing “new” market-based opportunities for BC financing. There is a considerable leap of faith in these calls, since no innovative FM has thus far scaled up to become a significant source of funding for BC. Furthermore, even if we are successful in developing and scaling up new and innovative FMs in support of BC, this process is more likely to increase demands on traditional funding sources rather than marking their dismissal, given that

- Governments must develop and enforce the institutional and legal bases for many of these innovative financial instruments
- In many innovative financial schemes, what is new is the rationale and the way of raising the funds, but the funds still would come from or would be channeled through governments or NGOs.

8 Still, increasing society’s awareness of BC, or improving the way conservation resources are managed, can boost stakeholders’ willingness to pay for BC. For that reason, we discuss these issues in Chapter 4.
• Even the most private-driven, market-based FMs may require government and NGO support to pay for start-up costs, to help the poor and other disadvantaged groups cope with and take advantage of new markets and to ensure that the new FMs comply with social and equity standards.

• Last but not least, we should not equate traditional FMs and traditional sources. Traditional sources (governments, NGOs, tourism) can adopt and develop many innovative FMs, some of which we discuss in this chapter.

20. The bottom line here is that innovative financing schemes for BC may add complete novelties to the conservation finance tool box, but they will also call for redefining, re-energizing

<table>
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<tr>
<th>Local-Level Financial Mechanisms</th>
<th>More traditional</th>
<th>More innovative</th>
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<tbody>
<tr>
<td>- Protected areas entrance and fees</td>
<td>- Earmarking public revenues</td>
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<tr>
<td>- Tourism-related incomes</td>
<td>- Local green markets</td>
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<tr>
<td>- Local markets for sustainable rural products</td>
<td>- Local markets for all type of ecosystem services (PES)</td>
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<td>- Local NGOs and charities</td>
<td>- Local businesses’ goodwill investments</td>
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<tr>
<td>- Local businesses’ goodwill investments</td>
<td>- Local green markets</td>
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<tr>
<th>National-Level Financial Mechanisms</th>
<th>More traditional</th>
<th>More innovative</th>
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<tr>
<td>- Government budgetary allocations</td>
<td>- Earmarking public revenues</td>
<td></td>
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<tr>
<td>- National tourism</td>
<td>- Environmental tax reform</td>
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<tr>
<td>- National NGO fundraising and fund granting</td>
<td>- Reforming rural production subsidies</td>
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<td>- National businesses’ goodwill investments</td>
<td>- National-level PES</td>
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<td>- National green markets</td>
<td>- Green lotteries</td>
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<td>- National markets for all type of ecosystem services (PES)</td>
<td>- New goodwill fundraising instruments (Internet based, rounds, up, etc.)</td>
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<td>- National businesses’ goodwill investments</td>
<td>- Business-public-NGO partnerships</td>
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<td>- National green markets</td>
<td>- Business voluntary standards</td>
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<tr>
<td>- National markets for all type of ecosystem services (PES)</td>
<td>- National green markets</td>
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<tr>
<th>International-Level Financial Mechanisms</th>
<th>More traditional</th>
<th>More innovative</th>
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<tr>
<td>- Bilateral aid</td>
<td>- Long-term ODA commitments</td>
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<tr>
<td>- Multilateral aid</td>
<td>- Auction or sale of part of carbon emission permits and other cap-and-trade schemes</td>
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<tr>
<td>- Debt-for-nature swaps</td>
<td>- Environment-related taxes</td>
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<tr>
<td>- Development banks and agencies</td>
<td>- Other international taxes</td>
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<td>- GEF</td>
<td>- Reforms in the international monetary system</td>
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<tr>
<td>- International NGOs fundraising and fund granting</td>
<td>- Green lotteries</td>
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<td>- International foundations</td>
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<td>- Businesses voluntary standards</td>
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</tr>
<tr>
<td>- International green markets</td>
<td>- International green markets</td>
<td></td>
</tr>
<tr>
<td>- International markets for all type of ecosystem services (PES)</td>
<td>- International markets for all type of ecosystem services (PES)</td>
<td></td>
</tr>
</tbody>
</table>
and expanding traditional financial schemes. So, an agenda of resource mobilization for BC should include both new FMs and new roles for traditional ones. In other words, innovation should look at both sides of Table 2.

- Among the traditional funding sources at local and national levels: Government budgets; visitors and tourism; and NGOs are important now, and they will still be important in the future, with opportunities to grow and innovate.

- Among innovative FMs at local and national levels: Promoting PES, markets for green products, new forms of charity and business engagement in BC (e.g., private-public partnerships) all look promising.

- Among innovative FMs available only at the national level: Environmental tax reforms and the reform of production subsidies can be very important in high- and medium-income countries, but less so in less-developed countries where the tax base is small.

- Among innovative FMs at the international level: Long-term ODA commitments, environmental taxes, green lotteries, promoting PES and markets for green products all look promising, and we discuss them in more detail in the following chapters.

2.2. Focusing on International Financial Mechanisms

21. To a large extent, difficulties in raising international funds to pay for the conservation of global biodiversity are similar to the difficulties faced in funding any type of global public goods (e.g., world governance, conflict resolution, world peace, fighting endemic diseases and world poverty). The “global” in “global public goods” points to the fact that these goods are of interest to humankind, while their provision is beyond the borders of any single country (e.g., world peace, the conservation of tropical forests) or even beyond the borders of all countries (e.g., protection of the atmosphere or the open seas). The “public goods” in “global public goods” points to the fact that these are goods and services where markets do not perform well; hence, a large portion of them must be provided and paid for through public arrangements (e.g., world governance, conflict resolution, protection of the stratospheric ozone layer, conservation of world biodiversity).

22. The past 20 years have seen multiple discussions regarding reforming international governance and international financial arrangements to better cope with the global commons. A large part of this debate has taken place within the United Nations General Assembly, U.N. agencies and U.N. conferences, particularly the 1992 U.N. Conference on Financing for Development (U.N. 2001a, 2001b) and the 2004 U.N. General Assembly (Atkinson 2005). It has also attracted the interest of academic circles, from economics to political science.

23. A good deal of discussions on funding the global commons have focused on finding innovative FMs to increase the amount of resources and move them from today’s mostly discretionary financing toward more predictable flows. There are numerous such proposals,

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9 In economics, a good or service is considered a pure public good if its consumption is non-rival and non-excludable, e.g., clean air (Samuelson 1954). Institutionalism takes a broader and more social approach, considering as public goods any good or service that a majority of society would expect the government to provide to all or most of its citizens in an affordable and equitable manner, e.g., justice and public transport (Faust et al. 2001).

ranging from major overhauls of the world’s financial system to using cell phones to elicit donations from the public. In Annex 1, we present 12 lists of innovative FMs put forward in recent publications or international forums. In this chapter, we review many of these international FMs, focusing on those that look more appropriate to finance global BC.\(^{11}\)

24. To frame this discussion on financial mechanisms, we have assembled several tables listing on the one hand traditional or well-used FMs, and on the other hand seldom-used or never-before-used FMs for global BC. We have tried to be as comprehensive as possible, but differences and omissions when compared with similar lists or other experts’ opinions are to be expected.

The tables follow the traditional division in main sources: (a) government sources; (b) voluntary sources; and (c) market and businesses sources. Financial mechanisms in each table are presented in subgroups, and for each of these subgroups the tables comment on its importance as a current source of funding, recent trends and future prospects (as assessed by the literature and recent experts’ discussions). The tables also indicate if the mechanism is better suited to fund BC in protected areas (PAs), buffer zones (BZs) or production landscapes (PLs). Our assumption here is that government and voluntary sources are available for any of the three uses, but may be of particular importance to finance PAs, where land management options are few and the services provided to society are mostly in the form of public goods (existence, wildlife biodiversity banks, etc.). On the other hand, market-based financing opportunities may be more suitable to finance BC in PLs that have more flexibility regarding land uses and hence a larger variety of production and services to offer to potential buyers. BFs — which in some cases are themselves PAs — may fall in between.\(^{12}\)

After each table we briefly discuss the FMs in the table, and in Chapter 3 we pick up the discussion of a smaller group, which could become part of a financial strategy for the conservation of global biodiversity.

### 2.2.1. Government Sources: Traditional Financial Mechanisms

25. High-income countries’ ODA (FMs 1 through 7 in Table 3) is the most traditional and the largest source of international funds for global BC, and it will probably remain so for the foreseeable future. Table 3 gives an aggregate picture of ODA. Actually, many specific FMs are involved (grants, low-cost loans, debt-for-nature swaps, money and in-kind support, etc.).

\(^{11}\) There are few biodiversity-specific FMs (e.g., ecotourism, PA user fees, bioprospecting, PES). Most FMs can be used and are used to fund a variety of worthy causes, so that, for better or for worse, BC can be seen as competing with or being in the same boat as many other global commons.

\(^{12}\) In this document, we use protected areas (PAs) as shorthand for IUCN categories I through IV and buffer zones (BFs) as shorthand for IUCN categories V and VI and beyond.
Table 3. Government Sources — Traditional International Financial Mechanisms for Biodiversity Conservation

<table>
<thead>
<tr>
<th>FINANCIAL MECHANISM (FM)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-income countries’ budgetary allocations through ODA</td>
<td>Current importance: High</td>
</tr>
<tr>
<td>1. Bilateral ODA (country to country)</td>
<td>Recent trend: Some slowly growing, others flat or slightly diminishing</td>
</tr>
<tr>
<td>2. Regional ODA (regional organization to country or to a receiving regional organization)</td>
<td>Future prospect: Continue the trend or may be re-energized through increased awareness and innovative approaches</td>
</tr>
<tr>
<td>3. Multilateral ODA through GEF grants</td>
<td>Focused on/more appropriate for: PA / BZ / PL</td>
</tr>
<tr>
<td>4. Multilateral ODA through U.N. agencies’ grants</td>
<td></td>
</tr>
<tr>
<td>5. Multilateral ODA through other MEAs</td>
<td></td>
</tr>
<tr>
<td>6. Multilateral ODA grants and low-cost loans through the International Bank for Reconstruction and Development (IBRD) Group and regional development banks</td>
<td></td>
</tr>
<tr>
<td>7. Bilateral/multilateral ODA through official debt-for-nature swaps</td>
<td></td>
</tr>
</tbody>
</table>

2.2.2. Government Sources — Innovative Financial Mechanisms

26. Table 4 lists 25 government-driven innovative international FMs divided into six groups:
   • high-income countries’ budgetary allocations to international BC, or ODA based on new criteria and commitments
   • earmarking for international BC part (or all) of domestic or international taxes on activities that use or deteriorate the global environment
   • earmarking for international BC part of domestic taxes not related to the environment
   • earmarking for international BC part of international taxes not related to the environment
   • sharing the costs with future generations
   • reforms to the international monetary system

2.2.2.1. High-Income Countries’ Budgetary Allocations for BC Based on Specific Criteria

27. The common thread of all of these proposed innovations is to move government funding for global biodiversity away from today’s competition for a piece of the general discretionary ODA pot and toward more specific and long-term commitments.

28. For example, high-income countries could relate their funds commitment for international BC to their ecological footprint (FM 8 in Table 4). The rationale behind this proposal is that it responds to the polluter-pays principle, as well as to the common-but-differentiated-responsibilities principle, while leaving each country to decide where the funding would come from — from either the general budget or specific taxes. The well-known ecological footprint methodology (see WWF 2006a) could be used, but there are many alternatives to estimate proxies for a country’s impact on world biodiversity (e.g., net import of primary products or GDP per square kilometer).
<table>
<thead>
<tr>
<th>FINANCIAL MECHANISM (FM)</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| High-income countries’ budgetary allocations to international BC, or ODA based on new criteria and commitments | **Current importance:** None or minimal  
**Recent trend:** Technical and policy discussions  
**Future prospect:** Moderately good  
**Focused on/more appropriate for:** PA / BZ |
| 8. Contributions to a global environmental fund, or bilateral investment based on the donor’s global ecological impact |                                                                                                                                            |
| 9. Joint implementation (developed + developing country) of BC goals                     |                                                                                                                                               |
| 10. An international financial facility                                                 |                                                                                                                                               |
| Earmarking for international BC part (or all) of domestic or international taxes that use or deteriorate the global environment | **Current importance:** Low  
**Recent trend:** France and some other countries have recently implemented FM 11 to pay for international health programs (see Box 1). The German government is considering implementing FM 17.  
**Future prospect:** Slow progress. Some (e.g., FM 15, a tax on sea bed mining) have made it to international treaties, but never implemented. Others (e.g., FMs 10 and 15) have been tabled many times. 16 is currently in place in several countries  
**Focused on/more appropriate for:** PA / BZ |
| 11. A tax on international aviation                                                     |                                                                                                                                               |
| 12. A tax on international navigation                                                   |                                                                                                                                               |
| 13. A tax on the use of the stratosphere                                                 |                                                                                                                                               |
| 14. A tax on trade in tropical woods                                                     |                                                                                                                                               |
| 15. A tax on the use of oceans (on fisheries, mining the ocean bed, or high sea bioprospecting) |                                                                                                                                               |
| 16. A tax on greenhouse gas emissions                                                   |                                                                                                                                               |
| 17. National (or international) auction of (some) carbon credits or other cap-and-trade permits |                                                                                                                                               |
| Earmarking for international BC part of domestic taxes not related to the environment   | **Current importance:** None  
**Recent trend:** Discussions in the U.N. Some European governments have at times endorsed some of them. Mostly limited to academic and technical discussions.  
**Future prospect:** Low  
**Focused on/more appropriate for:** PA / BZ / AL |
| 18. A surcharge on domestic taxation                                                    |                                                                                                                                               |
| 19. Earmarking part of national or local taxes                                           |                                                                                                                                               |
| 20. A voluntary local tax paid to a global agency                                        |                                                                                                                                               |
| Earmarking for international BC part of international taxes not related to the environment | **Current importance:** None  
**Recent trend:** Discussions in the U.N. Some European governments have at times endorsed some of them. Mostly limited to academic and technical discussions.  
**Future prospect:** Low  
**Focused on/more appropriate for:** PA / BZ / AL |
| 21. A tax on currency transactions (CTT/Tobin tax)                                       |                                                                                                                                               |
| 22. A tax on international trade                                                         |                                                                                                                                               |
| 23. A tax on international arms trade                                                    |                                                                                                                                               |
| 24. A tax on international post and telecommunication                                   |                                                                                                                                               |
| 25. An international tax on the Internet or bit tax                                     |                                                                                                                                               |
| 26. Charges for exploration in or exploitation of Antarctica                            |                                                                                                                                               |
| 27. A tax on the use of the electromagnetic spectrum                                     |                                                                                                                                               |
| Sharing the costs with future generations                                               |                                                                                                                                               |
| 28. A long-term green bond                                                               |                                                                                                                                               |
| Reforms to the international monetary system                                             |                                                                                                                                               |
| 29. Incomes generated by the adoption of a world reserve currency (Stiglitz’s Drawing Rights) |                                                                                                                                               |
| 30. Use of high-income countries’ International Monetary Fund (IMF) Special Drawing Rights (SDRs) for global development |                                                                                                                                               |
| 31. Issue of new SDR for global development                                              |                                                                                                                                               |
| 32. Sale of part of the IMF gold stock                                                   |                                                                                                                                               |
29. A joint implementation commitment for biodiversity conservation (FM 9) could mimic the CCC Joint Implementation and Clean Development Mechanisms. Namely, high-income and developing countries (or a subgroup of both) would agree to implement jointly a selection of the CBD conservation targets. The rationale for this proposal is that high-income countries with little biodiversity to conserve could or should pay for the conservation of biodiversity in other countries (more on this in Chapter 3).

30. An international financial facility (FM 10) was proposed in 2003 by the United Kingdom and endorsed by France, with the goal of increasing international financing for the Millennium Development Goals (MDGs). In a nutshell, the international financial facility would seek to double current levels of ODA (from $50 billion to $100 billion a year) for a defined period of time, based on firm donor commitments. With the long-term commitment of donor countries as collateral, the international financial facility could then issue bonds to borrow money from international capital markets to increase resources available in the initial years, so as to achieve the 2015 MDG (see Mavrotas 2005).

2.2.2.2. Environment-Related Taxes

31. Instead of reaching into the general public budget to pay for international BC, countries could earmark for that purpose part of the revenues of existing or new taxes on activities that consume, pollute or otherwise damage the global environment (FMs 11 through 17 in Table 4). These taxes would at the same time encourage a reduction in the consumption or pollution of the global environment, which is good in itself (the size of the reduction depending on the price elasticity of the taxed activity), and would raise funds, part or all of which could be invested in the supply or protection of the global environment or other global causes. France’s International Solidarity Tax (see Box 1), which supports health programs in developing countries, is a possible example (more on environment-related taxes in Chapter 3).

**Box 1. The French International Solidarity Tax**

In mid-2006, France introduced a new countrywide International Solidarity Tax (IST). The IST is levied on all air tickets issued in France, as follows:

- for coach tickets, €1 for European destinations and €4 for destinations outside of Europe
- for business and first-class tickets, €10 for European destinations and €40 for destinations outside of Europe

It should be noted that the IST was designed for fundraising purposes, not to reduce aircraft’s air pollution. In its first year of operation, the French IST collected €160 million, which was transferred in full to the newly created Unitaid, an international fund that distributes medicine in low-income countries. Working closely with the World Health Organization, and with a first-year budget of €225 million (70 percent of which came from the French ITS), Unitaid has initially focused on combating AIDS, malaria and tuberculosis among children.

The French example shows that a tax for international purposes is possible. It also shows that it requires a lot of political capital to push it through. In the French case, it took many years of advocacy by France’s former President Chirac battling the opposition from the French travel industry and the critiques of several foreign governments. To this day in France, the IST is known as “the Chirac tax.” Thus far, among the current 26 members of Unitaid, only a handful — Chile, South Korea, Madagascar, Niger and Ivory Coast — have or are in the process of putting in place a similar air travel tax. All other 20 members contribute to Unitaid from their regular budgets. A particular case is Norway, which has earmarked for Unitaid a percentage of its already-existing tax on carbon emissions.

Source: Based on an article by M. Barber, published in *RFI Acutalité* on August 27, 2007; available at [www.rfi.fr/francais/actu/articles/092/article_55734.asp](http://www.rfi.fr/francais/actu/articles/092/article_55734.asp)
2.2.2.3. Earmarking Non-Environment-Related Domestic Taxes

32. In the framework of the discussions on funding the global commons in general and the MDGs in particular, some experts (see Jha 2002) have suggested piggybacking on existing domestic taxes, either by earmarking a portion of current taxes or adding a surcharge to them — the latter on either a mandatory or voluntary basis (FMs 18 through 20 in Table 4). The mandatory proposals (FMs 18 and 19) look more problematic to justify than either earmarking environment-related taxes, where the polluter-pays principle could be invoked, or creating up front new international taxes, where opportunity and equity could be argued as a rationale. Proposing a voluntary tax (FM 20) is an oxymoron: if it is voluntary, it is not a tax, and if it is a tax, it is not voluntary.

2.2.2.4. International Taxes

33. Many different world taxes to raise funds for global development have been discussed (FMs 21 through 27 in Table 4). Some have garnered support from a few governments, but none have been implemented yet (see a good discussion in Jha 2002). The best-known proposal in this group is a tax on currency transactions (CTT, FM 21), also known as the Tobin Tax.

34. Levying a small tax on foreign exchange transactions was first floated by the economist and Nobel Laureate James Tobin in 1972 as a way to reduce short-term international capital movements that might trigger exchange-rate crises (large devaluations and interest rate hikes that could harm the economy and the people in the affected countries). Yet it is the fundraising potential of such a tax (with estimates from $17 billion to $75 billion a year) that has come to dominate recent discussions, particularly during the run-up to the 2002 U.N. Financing for Development Conference (FfD) and the U.N. General Assembly’s 2004 discussions on innovative financing for development (see Atkinson 2005; U.N. 2001a, 2001b).

35. The feasibility and the different designs of a CTT (e.g., a two-tier tax or a tax extending to bonds and derivatives) have been abundantly researched. Different versions have been endorsed by several governments (e.g., Belgium, Canada and France), and all versions have been opposed by international financial institutions (IMF, Bank of International Settlements (BIS)) and the governments where most of the currency transactions take place (U.S., U.K.).

2.2.2.5. A Green Bond

36. One economic problem faced when investing in BC (and in many other environmental activities) is that today’s investment will deliver benefits way into the future. Owing to a positive economic time preference, the further in the future the benefit is, the less valuable the investment is today (discount rate). It seems fair, then, that future generations should pay for part of today’s investment in BC. This could be done through a long-term green bond (FM 28 in Table 4), which could be issued or backed in different proportions by northern and southern countries. This proposal has a lot of similarities with the international financial facility recently proposed by the U.K. government (FM 10), and we discuss it in more detail in Chapter 3.

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2.2.2.6. Reforms to the International Monetary System

37. It is widely accepted that the current international monetary system is far from optimal (as gauged by periodical crises, huge trade imbalances and the costs of staggering reserves), and several financial mechanisms have been proposed to reform it (FMs 29 through 32 in Table 4).

38. Joseph Stiglitz (2006a, 2006b), a Nobel Laureate economist, has recently championed the adoption of a new global reserve system. The idea was originally envisaged by the late economist J. M. Keynes (1942) during the Bretton Woods discussion that resulted in the creation of the IMF and the World Bank. According to their proponents, a “world reserve money” issued by an international agency would eliminate or significantly reduce countries’ need to hoard huge reserves of dollars and other foreign currencies. The results of this arrangement: (a) there could be a more stable global financial system, because the supply of world reserve money would easily enlarge or contract as needed, and would be safe from market expectations and exchange runs against it; (b) the “rest of the world” would save each year billions of dollars of opportunity costs of hoarding dollars or U.S. treasury bills;14 (c) the United States would be freed of the need to run a perpetual trade deficit to feed the world’s hunger for dollars; and (d) part of the annual issuing of this world reserve money could be directed to pay for global public goods.

39. The IMF has issued a limited amount of Special Drawing Rights (SDRs), but instead of assigning them to countries in need, it distributed them among all countries in proportion to the size of each country’s contribution to the IMF. The result of this distribution principle is that, as of today, most IMF-issued SDRs are owned by high-income countries that do not need them and have never used them. That is why for several years now, the global financier and philanthropist George Soros (2002) has championed the proposal that high-income countries donate their current IMF SDRs to a global development fund (FM 30).

40. Other related proposals have been for the IMF to issue more SDRs and assign them to less-developed countries (FM 31, see Aryeetey 2003), or to sell part of the IMF gold reserves and use the proceeds for global development purposes (FM 32).15

41. To this day, most of the above proposals remain highly controversial, and chances that any of them would be implemented in the foreseeable future are low. Although the conservation community should participate in these discussions of global international taxes and of changes to the international monetary system, a CBD financial strategy should not expect much from them in the short run. In terms of government-driven sources, it would be better for the conservation movement to focus on promoting financial mechanisms that are directly related to the environment in general and biodiversity conservation in particular.

2.3. Voluntary Sources: Present and Future

2.3.1 Traditional Financial Mechanisms

42. Voluntary funds collected from the public by NGOs and grants from private foundations (FMs 33, 34 and 35 in Table 5) are all important international sources of financing for global BC. Still, the dominant perception among the institutions involved is that contributions from these

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14 According to Rodrik (2006), the annual opportunity cost to developing countries of the excess reserves they hoard (that is, reserves over three months of imports) may reach 1 percent of their GDP.

15 Ironically, this proposal had the support of IMF management but was opposed by gold-producing developing countries, wary that it could trigger a fall in gold prices.
traditional sources are flat or growing slowly, even though private foundations have been recently enlarged by a strong stock market and contributions from the superrich (Micklewright and Wright 2005). Similarly, NGO-driven public or private debt-for-nature swaps (FM 36) were pursued with success during the 1990s, particularly in Latin America, but the number of these operations has decreased in recent years.

43. Fortunately, here as elsewhere, the main actors are exploring new financial mechanisms that may offer opportunities to increase voluntary contributions from households and businesses to fund global BC, and some of these innovations are discussed below.

44. Also, in recent years, conservation NGOs have added to their traditional agenda a strong focus on changing consumption, production and financial behavior of governments, businesses and households. This may result in both reducing the deterioration of the environment (a smaller human footprint) and increasing the availability of funds for global BC. Some of these FMs are discussed below in Section 2.4 on markets and businesses.

<table>
<thead>
<tr>
<th>Table 5. Voluntary Sources: Traditional and Innovative International Financial Mechanisms for Biodiversity Conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINANCIAL MECHANISM (FM)</strong></td>
</tr>
<tr>
<td><strong>Traditional fundraising and funds granting</strong></td>
</tr>
<tr>
<td>33. NGOs fundraise from their constituencies</td>
</tr>
<tr>
<td>34. NGO merchandizing and good-causes marketing</td>
</tr>
<tr>
<td>35. Foundations’ grants</td>
</tr>
<tr>
<td>36. NGO-driven public or private debt-for-nature swaps</td>
</tr>
<tr>
<td><strong>Tapping into people’s betting drive</strong></td>
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<tr>
<td>37. Green lotteries</td>
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<tr>
<td><strong>Tapping the megarich</strong></td>
</tr>
<tr>
<td>38. An international biodiversity fund based on businesses and private contributions</td>
</tr>
<tr>
<td><strong>Newer good-will fundraising instruments</strong></td>
</tr>
<tr>
<td>39. Sister parks (North/South or South/South)</td>
</tr>
<tr>
<td>40. Adopt-a-park</td>
</tr>
<tr>
<td>41. Roundups</td>
</tr>
<tr>
<td>42. Internet charity shopping</td>
</tr>
<tr>
<td>43. Affinity credit cards</td>
</tr>
<tr>
<td>44. Cell phone-based donations</td>
</tr>
</tbody>
</table>
2.3.2. Innovative Financial Mechanisms

2.3.2.1. Green Lotteries

Lotteries (FM 37) have been a fixture in human society for millennia, and in the past century governments have routinely earmarked some portion of lottery revenues to pay for highly visible social expenditures like education and health, and more recently for environmental conservation. There are also examples of private charity lotteries dating back to the 16th century. Private charity lotteries—private, not-for-profit lotteries whose sole purpose is to raise funds for civil organizations—have been growing in recent years, particularly in Europe. The Netherlands is the star case, with a consortium of three charity lotteries that in 2006 distributed 300 million euros among Dutch civil society organizations (CSOs). Although lotteries are old, this new crop of private charity lotteries are sophisticated undertakings, combining communication, technology, outreach and transparency to increase public appeal (see Box 2).

Box 2. Charity Lotteries: The Netherlands Experience

The Netherlands National Charity Lotteries began in 1989, distributing 4 million euros among three NGOs that year. By 2006, they were distributing 300 million euros among 120 CSOs, including sustainable development, human rights and environment protection organizations (e.g., Amnesty International, WWF and Oxfam, among many others). The success of charity lotteries in the Netherlands is based on several innovations:

- Transparency of funds’ management and distribution. From the lottery revenues, 30 percent goes to prizes, 50 percent is distributed to charities and 20 percent covers the lottery management costs.
- High media visibility for both the winners and the charities. The result is that one-third of the Netherlands households regularly buy charity lottery tickets.
- Close cooperation with the media. Lottery winners are hosted by TV shows along with presentations of the work done by the charities supported by the lotteries.
- Innovative lottery systems. For instance, in the Postcode lottery, postcodes (ZIP codes) are the lottery numbers, so when a postcode wins, the entire neighborhood/district/street shares the winnings.

Similar charity lotteries have been launched in Sweden and the United Kingdom and are currently being explored in several other countries. However, in some countries, Germany and the United States, for example, lotteries are the monopoly of federal or state governments, and attempts to establish private charity lotteries have failed to gain legal foothold.

Source: Kingma and Lier 2006; Koch-Weser and Jacobs 2007

Current private charity lotteries are of national or subnational scale, and most (but not all) of their benefits are distributed to their country’s CSOs. Some CSOs (e.g., Oxfam and WWF in the Netherlands) have a strong international reach, meaning that a significant portion of the funds they receive support social and environmental programs around the world.

There is considerable interest in using charity lotteries as a way to raise funds for the MDGs in general and for BC in particular. In 2004, the president of Finland proposed such a...
global lottery at Monterrey’s U.N. Financing for Development Conference, and the idea has been picked up by many international forums and development experts. Estimates of the fundraising capacity of a global lottery are some $6 billion a year (Addison and Chowdhury 2005).

2.3.2.2. An International Biodiversity Fund Based on Businesses and Private Contributions

48. In recent years, several issue-specific international funds have emerged (e.g., to fight HIV), capitalized by large businesses and private donations. They are the outcome of two factors: (a) an issue that galvanized the world community, and (b) the emergence of large private donors that want to play an active role in the use of their donations. Protecting the world’s biodiversity could become one such issue (FM 38 in Table 5). We discuss this further in Chapter 3.

2.3.2.3. New Goodwill Fundraising Instruments

49. Many conservation NGOs are experimenting with new fundraising technologies or importing financial mechanisms that have been successfully tried in other areas of national and international cooperation.

• Sister parks (North/South and South/South). This mechanism (FM 39 in Table 5) would be similar to the sister cities movement. There is already a good deal of technical cooperation between protected areas agencies around the world, but more could be done, including transfer of financial resources from richer to poorer parks. Such transfers are justified in that many surveys in high-income countries have found a significant public willingness to pay for international conservation. Of course, such transfers should not jeopardize conservation budgets of high-income countries’ PAs, and there are many ways to ensure that that does not happen.

• Adopt-a-park (FM 40). Many countries’ “adoption” campaigns have been successful in attracting support from the public and from businesses for a variety of causes and sites, from children’s health and education to urban parks and highways. The same approach has also been used in conservation, particularly for charismatic species. Most of these programs are based on fostering a special relation between the donor and the recipient, through information visits, token presents and public recognition (especially for business sponsors). PAs in developing countries may have many opportunities to build such a relation with foreign constituencies.

• Roundups (FM 41). In this mechanism, users allow utilities to round up (or salary payments to round down) the cents in their bills and donate the cents to a designated charity. Collection and transfer costs are low because modern payment systems are highly standardized and Internet based. Even if each donation is just cents, the totals can be huge. (See Koch-Weser and Jacobs 2007 for detailed descriptions of this and FMs 42, 43 and 44.)

2.4. Markets and Businesses

2.4.1. Tourism and Biodiversity Conservation

50. Foreign visitors and the tourism industry (FMs 45 and 46 in Table 6), particularly nature-based tourism and ecotourism, and the special-interest industry that caters to them (safari, hiking, fishing, etc.), are all traditional, market-based international sources of income for protected areas and nearby buffer zones in many developing countries. There are no estimates of what portion of the $6 trillion-a-year tourism industry goes to ecotourism, or how much the ecotourism business
actually contributes to biodiversity conservation. But there are many success stories — such as the case of Namibia’s conservancies, described in Box 3 — and many opportunities ahead, considering the rapid growth forecasted for international tourism and ecotourism. Still, international tourism and ecotourism are at the same time a potential source of financing for BC and a threat to it, since too much tourism (human traffic) can easily overwhelm biodiversity.

51. There are many traditional and innovative ways to make tourism and recreation a source of BC funding:
- PA entrance fees
- fees charged inside the PA for specific recreational activities (trekking, camping, fishing, etc.)
- visitors donations
- fees charged to private vendors inside the PA (private food stands, restaurants, lodges, tour operators)
- fees or taxes charged to tourist-related activities outside (but in the proximity) of PAs (e.g., charges on nearby hotels and tourist-related businesses, cruises, land transport, etc.)

Table 6. Markets and Businesses: Traditional and Innovative Financial Mechanisms for Biodiversity Conservation

<table>
<thead>
<tr>
<th>FINANCIAL MECHANISM (FM)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tourism</strong></td>
<td></td>
</tr>
<tr>
<td>45. Foreign tourists and ecotourists (households)</td>
<td>Current importance: High to low, depending on location&lt;br&gt;Recent trend: Growing&lt;br&gt;Future prospect: Fast-growing activity, but impact on PA may be problematic and distribution of tourism benefits may pose challenges&lt;br.Focused on/more appropriate for: PA / BZ</td>
</tr>
<tr>
<td>46. Tourism and ecotourism industry catering to foreign visitors</td>
<td></td>
</tr>
<tr>
<td><strong>Businesses initiatives</strong></td>
<td></td>
</tr>
<tr>
<td>47. International businesses’ goodwill environmental investments</td>
<td>Current importance: Medium&lt;br&gt;Recent trend: Growing&lt;br&gt;Future prospect: Good&lt;br.Focused on/more appropriate for: PL</td>
</tr>
<tr>
<td>48. Businesses’ codes of conduct and voluntary standards</td>
<td></td>
</tr>
<tr>
<td>49. Private-public partnerships</td>
<td></td>
</tr>
<tr>
<td>50. Private-NGO partnerships</td>
<td></td>
</tr>
<tr>
<td><strong>Green markets</strong></td>
<td></td>
</tr>
<tr>
<td>51. Ecolabeling schemes</td>
<td>Current importance: Medium&lt;br&gt;Recent trend: Growing&lt;br&gt;Future prospect: FM 50, 51, 52 – very large opportunities; FM 53 – slow growth outside the clean energy sector&lt;br.Focused on/more appropriate for: PL</td>
</tr>
<tr>
<td>52. Promotion of green consumption and production</td>
<td></td>
</tr>
<tr>
<td>53. International trade in organic, fair trade and sustainable products</td>
<td></td>
</tr>
<tr>
<td>54. International green investment funds</td>
<td></td>
</tr>
</tbody>
</table>
• fees or charges on foreign tourists (used in some countries where nature-based tourism is the major attraction for foreign tourists)
• community-based conservancies that use part of the tourism and safari revenues for BC (see Box 3)
• public-private partnerships, public-NGO partnerships and private-NGO partnerships to invest in environmentally friendly tourism developments with part of the benefits earmarked for biodiversity conservation

Box 3. Namibia Conservancies’ Extraordinary Success and the Limitations of the Model

Namibia is a sparsely populated middle-size country on the southeast coast of Africa. With 2 million inhabitants (in 2005) on a 0.8 million km² territory it has a population density of less than 3 persons per square kilometer.

Mining and urban activities make Namibia a low middle-income country, but jobs and incomes in rural areas are scarce. The country is arid and semi arid, with less than 10 percent of the territory covered by forests and more than 50 percent of the land unsuitable for agriculture. On the other hand, Namibia’s rural areas feature dramatic landscapes and outstanding biodiversity and mega fauna.

This combination of low rural population, low agricultural potential and good ecotourism opportunities mobilized Namibia and the international conservation community to develop one of the world’s most successful CBNRM programs. In 1987, Namibia passed a law giving rural communities the right to manage and profit from the wildlife in their territories, provided that the local population organized a conservancy and had a wildlife management plan. The first community conservancy was established in 1998. By the end of 2006 there were 50 registered conservancies encompassing 11.8 million hectares; or 14 percent of the country’s territory, with 230 thousand members, or 11 percent of the country’s population. From 1998 through 2006, foreign aid had contributed approximately 100 million dollars to this program.

The achievements of Namibia’s conservancies are commensurate with their size, and by 2006 included the following: (a) well-documented substantial increases in wildlife population; (b) a well-documented focus and positive impact on rural poverty reduction; (c) one-third of the conservancies covered all their costs, mostly through the sale of safari rights to private tourist operators; (d) 794 full-time and 5,100 part-time jobs created; (e) 4 million dollars of revenues to conservancies and 13.3 million dollars a year of revenues to related natural-resource-based enterprises; and (f) development of safety nets, diversification of land use and sources of livelihood, capacity building and training for CBNRM and tourism and empowerment and strengthening of local institutions.

Through all of these achievements, Namibia’s conservancies are making an important contribution to the country’s biodiversity conservation and, in a more modest scale, to poverty alleviation. Furthermore they are fully integrated into the country’s long-term development and poverty alleviation strategies, with a 2030 national target of 65 conservancies and 100 million dollars of employment and tourism incomes.

Namibia’s conservancies experience has important lessons for biodiversity conservation elsewhere. The model requires a combination of very low population densities and valuable biodiversity resources, as well as good governance, skillful program design and significant investment in capacity building of local communities. Long-term support from many national and international partners has been critical to the program’s success.

Source: NACSO, 2006, LIFE PLUS 2007 and personal discussions with the LIFE team.
• regulations, incentives or partnerships with the tourist development industry to reduce ecological impact in areas of biodiversity value [e.g., through environmental impact assessments (EIA) environmentally friendly building and operation standards, biodiversity offsets, etc.]

• regulations, incentives or partnerships with the nature-based and ecotourism industry to reduce ecological impact and increase the biodiversity payoff (e.g., through development of ecotourism circuits, best standards for environmental-friendly building and operation, etc.)

2.4.2. Business Initiatives

52. International businesses’ goodwill environmental investments (FM 47 in Table 6) are a traditional source of funding, although they are small when compared with funding from business-supported foundations (FM 35 in Table 5). Furthermore, these goodwill investments are usually bestowed near the business’s location, so their importance as a source of international funding for BC is very site-specific. Still, it is moderately growing. Large business-related donations and funds could be included here, but we discussed them under voluntary sources (FM 38 in Table 5) because they usually depend on the personal interest of one (or several) of the businesses owners.

53. Strictly speaking, businesses’ codes of conduct and other voluntary standards (FM 48 in Table 6), as well as other market-based initiatives, are not fundraising mechanisms — they do not raise money to put in a conservation fund (like ODA or voluntary contributions). What they do instead is to alter the behavior of some stakeholders in a way that reduces their pressure or damage on the environment and on biodiversity. In the end, these changes would reduce the need and the costs of BC. Businesses’ codes of conduct and other voluntary standards may encompass increasing energy efficiency, moving to renewable sources of energy, increasing efficiency in the use of nature-based inputs, procuring inputs from environmentally sustainable sources, utilizing biodegradable inputs and packaging, adopting best environment-related production practices and other courses of action.

54. Promoting private sector codes of conduct and voluntary standards in the food and natural resource industries is an area where NGOs have been very active, enlisting large buyers (e.g., IKEA’s pledge to buy certified wood, or Wal-Mart’s decision to sell certified fish and seafood). As discussed in the next section on green markets, these changes may bring international financial resources to global biodiversity conservation by increasing the demand for sustainably produced goods from productive landscapes. This should not only help biodiversity conservation in PLs, but should also reduce pressure on PAs and BZs. Businesses’ motivations to adopt these voluntary codes are varied, including new market opportunities, gaining public good will (a social license to operate), responding to consumer or NGO demands, assuming a leadership role, following the advice of business associations, staving off government regulations or leading the design of future regulations. Of course, the BC benefits of certifications and other voluntary standards depend on how well the standard has factored in biodiversity conservation (e.g., many “organic food” standards have little biodiversity payoff), and how well the standard is actually applied by the industry. In both accounts, there is a lot to be done.

55. Private-public partnerships (PPPs) and private-NGOs partnerships (FMs 49 and 50 in Table 6) are very recent undertakings. As examples of PPP, the GEF has recently put up a PPP that, among its first initiatives, will offer a prize for technological breakthroughs on carbon sequestration. DGIS, the Netherlands Development Cooperation Agency, has a budgetary line earmarked for a PPP that has engaged private companies in water and sustainable agriculture
projects in Africa and Latin America. Several other development cooperation agencies and development banks have similar ongoing programs. There have been a good number of private-NGOs partnerships, too (e.g., WWF with Lafarge and Coca-Cola), particularly in the area of ecolabeling and greening businesses’ procurement and production practices. Governments and NGOs have great expectations for these partnerships with the private sector. The fact is that public-private and NGO-private partnerships for BC are just beginning, and neither governments nor NGOs fully understand what motivates the private sector to enter into these sorts of arrangements.

2.4.3. Green Markets

56. Ecolabeling schemes (FM 51 in Table 6) have been championed by NGOs (certified wood, certified fish, sustainable soy, etc.) and have met increasing business and consumer interest. Certification has grown exponentially in the past 15 years, and it still has a large potential to grow and improve the on-the-ground conservation impact, thus becoming a force for biodiversity conservation on production landscapes.

57. Green markets (including organic, fair trade and sustainably produced goods) (FM 52 and 53) are the other side of the ecolabeling coin, and with well over $30 billion a year of world sales they command a small but fast-growing share in the world’s food and fiber markets. Furthermore, global demographic trends — an increasingly urban, older and richer population — suggest that demand for healthier, more natural (organic) and more environmentally friendly foods and fibers will continue to grow, creating large opportunities to leverage green markets to pay for sustainable agriculture and BC in productive landscapes.16

58. Green investment funds (FM 54) have been growing in high-income countries, mostly focusing on investing in the pollution control industry, clean energy and environment-friendly manufacturing. The few attempts during the 1990s to put in place international green investment funds to invest in biodiversity-related businesses in developing countries folded owing to poor performance or lack of investment prospects (Emerton et al., 2006). Lately, new and larger green investment funds have emerged, focusing on clean energy and carbon sequestration, and these may open new opportunities to finance BC in developing countries, particularly in projects related to biocarbon sequestration (Bayon et al. 2007).

59. Can green markets and green investment funds become an important source of financing for mainstreaming biodiversity conservation into productive landscapes and seascapes of developing countries? The answer depends largely on developing countries having the opportunity and capacity to produce and export green products and ecosystem services. Similarly, international green markets and green investment funds may become an important source of jobs and income for the rural poor of developing countries, provided that small farmers are able to participate in such markets (see Box 4).

16 Before we get carried away by multibillion-dollar market figures ($30 billion in organic food sales, $22 billion in carbon trading, etc.), it is good to remember that final market figures are a poor indicator of the money that actually reaches the farm, let alone the money that the farmer will actually invest in biodiversity conservation.
Box 4. Green and Fair Markets. Figures and Cases

- Globally, about 64 million acres of land are farmed organically, and the global market for organic products is valued at around $30 billion. Growth rates for organic product markets vary between 5 percent and 40 percent, depending on the country and the product (ISSD 2003[not in refs]).
- Sustainable forest products are another rapidly growing green market. Over the past 13 years, more than 223 million acres in more than 82 countries have been certified, according to the Forest Stewardship Council.
- Fair trade sales have increased by 10 percent annually since the 1970s, reaching approximately $400 million in 2000. Certified organic coffee in the fair trade market receives a premium of about $0.15 per pound. The fair trade network ensures that workers are paid fair wages in the local context, supports participatory workplaces, ensures environmental sustainability, supplies financial and technical support, respects cultural identity, offers public accountability and educates consumers.
- In Nicaragua, Hacienda San Rafael coffee farms used to combat the destructive borer beetle with 132 gallons of Endosulfan pesticide each year. Since becoming certified under the Rainforest Alliance’s certification program, the coffee farm has replaced the pesticide with “good practices” such as planting under the shade of more than a dozen native tree varieties, keeping the ground clean of fallen berries to deter pests, regularly monitoring to prune infected areas, using compost from the farm rather than synthetic fertilizers and other green farming practices. In addition to providing workers with meals and salaries, Hacienda San Rafael built and staffed a school that educates the children from the farm and surrounding communities and offers adult education, providing the students with books, uniforms and lunches. The farm also operates a health clinic in which a doctor visits twice a month.

Sources: www.fsc.org; www.fairtradefederation.org; www.rainforest-alliance.org; www.ifoam.org; Ladron et al. 2003

2.5. International Payments for Ecosystem Services and Biodiversity Conservation

60. Opportunities to finance BC through PES schemes have attracted a lot of attention in the past decade. The PES concept looks straightforward: Those who benefit from nature’s services should pay those who shoulder the cost of ensuring the provision of the ecosystem services in question. In practice, the issue is much more complex, and discussion lingers regarding many of the nuts and bolts. What qualifies as an ecosystem service? When does it deserve (or need) to be paid for? Can governments be the buyers? What are PES best practices? Thus far, what has been the on-the-ground environmental and livelihood benefit of PES schemes? In Annex 2, we briefly discuss some of these issues (and a more detailed discussion can be found in FAO 2007, Gutman 2007 and Wunder 2005).

61. There are currently many PES schemes at work around the world, but most of them are of local scale (usually regarding watershed-related ecosystem services in a small watershed); a few are countrywide (usually related to forest conservation); and even fewer are international, e.g., buyers in rich countries and sellers in developing countries. Among the latter are the following:

- Regulated biocarbon offset markets (FM 55 in Table 7) are still a drawing-board idea, but they are attracting increasing attention. Following the Kyoto Protocol, regulated world carbon trading is already big, with estimates of some $22 billion of trade in 2006. In that big total, the share of biocarbon, mostly reforestation, is currently very small. But things are changing fast, and biocarbon markets are expected to grow to some $1.5 billion in the next decade and
then keep growing. This may open significant opportunities to mainstream biodiversity in production landscapes of developing countries, through biocarbon payments for reforestation and agroforestry. Of course, the biodiversity benefits of reforestation and agroforestry projects depend on how they are done. On the one hand, reforestation with few or exotic species may have little if any BC payoffs; on the other hand, reforestation and agroforestry with high biodiversity values may be too expensive to attract biocarbon buyers. In that case, a biodiversity buyer could pay for the difference. If reduced emissions from avoided deforestation or reduced deforestation and degradation make it to the post-Kyoto agreements, the biocarbon market may become a major financial source for protected areas and native forests. Still, only few countries (with large forests and high baseline deforestation rates) can expect to receive substantial moneys from it (Ebeling, 2006).

Table 7. International Payments for Ecosystem Services:  
Innovative Financial Mechanisms for Biodiversity Conservation

<table>
<thead>
<tr>
<th>FINANCIAL MECHANISM (FM)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Payments for Ecosystem Services</td>
<td></td>
</tr>
<tr>
<td>55. Regulated international market for biocarbon offsets</td>
<td>Current importance: FMs 54 through 58 – medium to low; FMs 59 and 60 – low; FM 61 – none</td>
</tr>
<tr>
<td>56. Voluntary international market for biocarbon offsets</td>
<td>Recent trend: FMs 54 through 58 and 60 – growing; FM 59 – flat; FM 61 – none</td>
</tr>
<tr>
<td>57. Voluntary households environmental offsets</td>
<td>Future prospect: FMs 54, 55 and 57 – very large opportunities; FMs 58 and 60 – moderate growth; FMs 56, 59 and 61 – low</td>
</tr>
<tr>
<td>58. GEF payments for global biodiversity conservation</td>
<td></td>
</tr>
<tr>
<td>59. Bioprospecting fees</td>
<td></td>
</tr>
<tr>
<td>60. Voluntary international business biodiversity offsets</td>
<td></td>
</tr>
<tr>
<td>61. Regulated international business biodiversity offsets</td>
<td>Focused on/more appropriate for: PA / BZ / PL</td>
</tr>
</tbody>
</table>

- In parallel to the Kyoto convention, there is a growing voluntary carbon market (FM 56) that in many cases has paid for the conservation of forests in developing countries (e.g., the GEF-supported Costa Rica and Mexico payments for forest conservation programs, FAO 2007). Thus far, major buyers have been governments, businesses and international agencies, and in an enlarged post-Kyoto agreement, part of this demand will probably migrate to the regulated markets. Still, there are good reasons to believe that the voluntary market will keep growing, fueled by the demand of nonregulated sources that want to become carbon neutral (offset your trip, your vacation, your office, your business). Already, some of the largest Internet airline ticket vendors prompt you to buy carbon offsets or environmental offsets as part of your ticket booking (e.g., the Expedia website). Markets for voluntary households environmental offsets (FM 57) can be especially appropriate to attract “carbon-plus buyers,” who are willing to pay a premium for carbon sequestration with high biodiversity conservation and social equity standards that are not contemplated in the CCC-driven market (Richards and Jenkins 2007).

- Beginning in 1998, GEF has built a portfolio of some two dozen international PES projects (FM 58). Most of the projects are part of the biodiversity focal area implemented by the World Bank and are concentrated in Latin America. In these projects, GEF moneys have gone to pay for institutional development and capacity building and to directly pay for the part of the ecosystem services that are of global significance (see Box 5). Looking to the
future, GEF considers PES a key instrument to achieve two of the three GEF biodiversity strategic objectives (SOs): SO1, Catalyzing Sustainability of Protected Area Systems, and SO2, Mainstreaming Biodiversity in Production Landscapes/Seascapes and Sectors (GEF 2007).

- Bioprospecting (FM 59) raised high expectations in the 1990s when Costa Rica signed several contracts with international pharmaceutical companies that paid for the rights to prospect for new drugs in Costa Rica’s protected areas. But bioprospecting has thus far failed to become a significant source of PES.

- Several international corporations and conservation institutions are currently exploring the pros and cons of voluntary biodiversity offsets (FM 60), where a company pays for biodiversity protection or restoration as a way to voluntarily compensate for the ecological impact of its activities. (See the work of the Businesses Biodiversity Offsets Partnership, BBOP, at [http://www.forest-trends.org/biodiversityoffsetprogram/](http://www.forest-trends.org/biodiversityoffsetprogram/).) Some of the initial cases of BBOP are of international corporations paying for biodiversity offsets in developing countries (Bishop et al. 2006). The whole idea is in its beginning, and even on a voluntary basis it has raised criticism from conservation stakeholders concerned with the possibility that biodiversity offsets could open the door to increased on-site negative impacts (WWF 2006b).

- Mandatory biodiversity offsets are increasingly common at national or subnational levels. In the United States, offsets target specific ecosystem features (e.g., wetland banking, where developers must create or restore the same amount of wetland they plan to drain or the nutrients cap-and-trade trials in some basins). In Europe, the Netherlands and Germany have more encompassing regulations that require biodiversity offsets for a large array of developments and environmental impacts. Lately, there have been technical discussions regarding the feasibility of putting in place a type of regulated biodiversity offset on an international scale (FM 61). Still, the idea that environmental damage in one country can be compensated by improving the environment in another country raises many concerns — among the concerns are that it may undermine offset activities at local or national levels, that it may reduce financing for national and local conservation projects, that it could lead to relaxing requests to avoid negative local social and environmental impacts and that equating or substituting biodiversity in one place with biodiversity in another place may be neither socially nor ecologically acceptable.

### 2.6. Summing Up

Throughout this chapter, we have briefly discussed some 60 financial mechanisms, of which 20 can be labeled traditional because they have been at the core of financing for BC since the CBD inception, and the other 40 can be labeled innovative, because they are either relatively new or have never been attempted. Many of these FMs, traditional as well as innovative, have been the focus of research and discussion, and the reader can find more details in the publications mentioned in this and the following chapters and in Annex 1. However, a list of financial mechanisms is just an input to discussing a financial strategy, which is what we attempt in the following chapters.
Box 5. The GEF PES Experience: Still on the Fringe of Conservation Financing

**What is it?** As of mid-2007, GEF’s PES portfolio was small: fewer than two dozen projects, almost all of which were in the GEF Biodiversity Focal Area with the World Bank as implementing agency. Most of the projects were in Latin America, and the portfolio consisted of three types of PES projects:

- **Support for countrywide PES schemes (Costa Rica, Mexico).** These programs are country driven, using public moneys to pay farmers and rural communities for natural forest protection in private or communal lands outside public PAs. The ecosystem services of interest are watershed protection, biodiversity, carbon sequestration and landscape conservation for tourism. The buyers and payers are the national governments and GEF. Private buyers are a minority.
- **PES schemes as sources of income for the management of PAs and BZs (Peru, Ecuador, Lesotho/South Africa, Bolivia, Colombia and Venezuela).** Only in a few cases (Venezuela’s Canaima PA, Lesotho/South Africa) are the PES component well developed and buyers identified (e.g., hydroelectric company in Venezuela). In all other cases, PES is simply one among several sources of funding to be explored.
- **Local-level PES schemes to pay farmers and other land owners or managers for ecosystem services associated with sustainable agricultural practices (e.g., the sylvan-pastoral project in Nicaragua, Costa Rica and Colombia; and local projects in the Dominican Republic, Kenya and Venezuela’s Andes).** As in the above group, only in a few cases (e.g., the sylvan-pastoral project) are PES schemes central to the project and well defined from the beginning. Major buyers and payers in this group are governments and GEF.

**How has it performed?** Thus far, the GEF PES portfolio has been important to develop institutional frameworks and to build capacity in many countries. When the recipient country had previous PES experience (e.g., Costa Rica, Ecuador, Mexico), GEF projects have still been important to improve the design, management and delivery of the pre-existing programs, as well as for bringing in cofinancing.

Regarding buyers and sellers, all GEF PES portfolio projects are driven by government and GEF payments, with private buyers in the minority. Regarding country-level impacts, the GEF PES portfolio is a collection of small projects, and with the exception of Costa Rica, their countrywide direct impact will be minimal in terms of biodiversity conservation, mainstreaming conservation in productive landscapes, sustainable agriculture or rural social indicators. Take, for example, the case of the two countrywide programs:
- In Costa Rica, after 10 years of paying landowners to conserve natural forests, the area under contract is significant (some 15 percent of the country’s natural forests) yet the annual payments (some $10 million a year) represent less than 0.6 percent of the country’s rural income.
- In the case of Mexico, which so far has spent $20 million to $30 million per year on its PES program, the area under contract by late 2006 was less than 0.1 percent of the country’s natural forests, and the annual budget for PES was less than 1 percent of the country’s rural subsidies.

**What are the lessons?** So far, the most important lesson from the GEF PES portfolio is that a lot of replication and scaling up of existing projects, plus the design and implementation of new types of PES projects, will be needed to make PES schemes a significant financial source for biodiversity conservation and rural livelihoods.

Source: Based on FAO 2007.
3. Focusing on a Short List of International Financial Mechanisms to Support Developing Countries’ Protected Areas

63. Many lists of FMs are just that, a list that gives readers little clues about each mechanism’s potential and limitations. To go beyond that here, we focus on a short list of FMs that could become the backbone of international financing for a world system of PAs. Any short list is somewhat idiosyncratic, and different parties may want to add or delete from it. In our case, the financial mechanisms in Table 8 have been selected from the list of 60-plus FMs discussed in Chapter 2, based on the following criteria:

- to include the traditional FMs that thus far have been the core of financing for PAs
- to select innovative FMs that touch upon the three main sources of funds for BC, namely governments, nonprofits, businesses and markets.
- to select both direct fundraising mechanisms (mechanisms capable of delivering funds in the short run) and market-development mechanisms (which require a longer maturation period)
- regarding government sources, to select FMs that would move government financing from today’s 100 percent discretionary financing toward more binding and stable financial commitments
- to select innovative FMs that either are already at work but need to be scaled up, or that are brand new but have some level of support among CBD members

64. The first three traditional mechanisms in Table 8 are well known and we commented on them in Chapter 2, so we will not come back to them here. For each of the eight innovative international financial mechanisms in Table 8 (FMs 4 through 12), we discuss here (a) what it is; (b) what the rationale is; (c) how it would differ from the current situation; (d) what exists as far as background and support for the proposal; (e) what its pros and cons are; (f) what needs to happen in the short run to implement it; and (g) what is needed to scale up in the long run.

3.1. Some Innovative Financial Mechanisms to Increase International Financing From Governments

65. International public finance has many advantages, including that money is collected quickly and at low costs, and funds can be directed to BC priorities. But success depends on potential funders’ willingness to give the funds. We discuss below three proposals that merit consideration.

3.1. 1. Joint Implementation of Selected CBD Targets

66. **What is it?** One or more developed countries agree with one or more developing countries to jointly implement one or several CBD goals, or a subset of them (e.g., financing part of a global network of high-value PAs, or financing part of a network of tropical PAs). Developed countries would contribute financial resources on a long-term, predictable basis, and the developing countries would contribute the biodiversity resources to be protected. Developed countries could make their contributions to an existing or new fund or could manage this program through their bilateral aid.

67. **What is the rationale?** The CBD has put forward ambitious goals in terms of expanding the world’s PAs, but right now a large part of the direct and indirect costs of achieving these
goals fall on poor but biodiversity-rich countries that lack the resources to adequately fund conservation efforts on their own. A joint-implementation approach, where high-income countries with lower biodiversity team up with developing countries with higher biodiversity, would address this problem and bring new impetus to biodiversity conservation.

Table 8. A Short List of International Financial Mechanisms to Support Developing Countries’ Protected Areas

<table>
<thead>
<tr>
<th>Financial Mechanism (FM)</th>
<th>A. Traditional</th>
<th>B. New, but Already Initiated</th>
<th>C. Brand New</th>
<th>Main Actors Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional FMs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. High-income countries’ budgetary allocations through ODA (FM 1 through 7)</td>
<td>A</td>
<td></td>
<td></td>
<td>Governments</td>
</tr>
<tr>
<td>2. Voluntary sources (NGOs, foundations, households) (FM 33 through 44)</td>
<td>A</td>
<td></td>
<td></td>
<td>Not-for-profits</td>
</tr>
<tr>
<td>3. Tourism (FM 45 and 46)</td>
<td>A</td>
<td></td>
<td></td>
<td>Businesses, Not-for-profits</td>
</tr>
<tr>
<td>Innovative FMs to Increase Funding From Governments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Joint implementation of selected CBD targets (FM 9)</td>
<td>C</td>
<td></td>
<td></td>
<td>Governments</td>
</tr>
<tr>
<td>5. Issuing long-term “green bonds” (FM 28)</td>
<td>C</td>
<td></td>
<td></td>
<td>Governments</td>
</tr>
<tr>
<td>6. Environment (or international solidarity) taxes (FM 11 to 17)</td>
<td>B</td>
<td></td>
<td></td>
<td>Governments</td>
</tr>
<tr>
<td>7. Auction or sale of part of the carbon emission permits and other cap-and-trade schemes (FM 17)</td>
<td>C</td>
<td></td>
<td></td>
<td>Governments</td>
</tr>
<tr>
<td>Innovative FMs to Increase Funding From Voluntary Sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Green lotteries (FM 37)</td>
<td>B-C</td>
<td></td>
<td></td>
<td>Not-for-profits, Businesses, Governments</td>
</tr>
<tr>
<td>9. International biodiversity funds based on business/private contributions (FM 38)</td>
<td>B-C</td>
<td></td>
<td></td>
<td>Not-for-profits, Businesses</td>
</tr>
<tr>
<td>Innovative FMs to Increase Funding From Businesses and Markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Foster international markets for regulated biocarbon offsets (FM 55)</td>
<td>B</td>
<td></td>
<td></td>
<td>Governments, Businesses, Not-for-profits</td>
</tr>
<tr>
<td>11. Foster international markets for voluntary biocarbon and voluntary biodiversity offsets (FM 56, 57, 60)</td>
<td>B</td>
<td></td>
<td></td>
<td>Businesses, Not-for-profits, Governments</td>
</tr>
<tr>
<td>12. Foster green markets, including ecological certification and markets for sustainable production and ecosystem-friendly products (FM 51 through 54)</td>
<td>B</td>
<td></td>
<td></td>
<td>Not-for-profits, Businesses, Governments</td>
</tr>
</tbody>
</table>
68. **How would it be different from the current situation?** Currently, high-income countries contribute to BC in developing countries on a year-by-year discretionary basis. The only exception is contributions to the GEF, which are also discretionary but are on a four-year cycle. Short-term, year-to-year variability and overall low levels of financing act against the long-term character of biodiversity conservation. The joint implementation mechanism would move international financing for BC from today’s 100 percent discretionary financing toward more binding and stable financial commitments.

69. **Background and support.** Although a CBD joint-implementation scheme has not been proposed before, similar mechanisms exist or have been proposed in other international cooperation areas, for example, the CCC Joint Implementation and Clean Development Mechanisms. An international financial facility (IFF, FM 10) was proposed in 2003 by the United Kingdom and endorsed by France, with the goal of increasing international financing for the MDGs. In a nutshell, the IFF would seek firm commitments from high-income countries to double current levels of ODA (from $50 billion to $100 billion a year) for a defined period of time.

70. **Pros and cons.** There are advantages and disadvantage to the joint-implementation approach to biodiversity conservation. The pros include
- It appeals to the equal-but-differentiated responsibilities principle.
- The CCC has made joint implementation a familiar concept.
- It could raise significant amounts of money.
- Contributions from rich countries could come from either their general aid budget or environmental-related taxes and fees (see the two FMs discussed below).
- Joint implementation of BC can be clearly related to specific locations and specific targets, giving citizens and governments of donor countries a sense of partnership and achievement that is absent in more general aid.

The cons include
- Many donor countries reject the idea of long-term funding commitments (the fabled 0.7 percent of GDP for international development aid).
- Many donors are against earmarking portions of their international aid.

71. **What needs to happen in the short run?** The best short-term development would be at least one high-income country stepping forward and committing several million euros or dollars for the next five years to invest in joint BC programs and to champion the joint-implementation idea at the CBD, the GEF and other international forums. Finding a few willing countries may not be so difficult. For instance, the Nordic countries have been investing in climate-related joint-implementation projects long before it was regulated by the CCC. And it could be argued that being early starters makes more sense in BC than in climate change, because a small and early initiative in climate change may have negligible impacts, whereas even small investments in biodiversity conservation could result in critical gains.

72. If no high-income country is willing to step forward with a significant financial commitment, a more modest short-term goal could be to secure some support and resources to bring together a group of high-income and developing country representatives, agencies and experts to discuss the idea. They could come up with a more detailed proposal on how joint implementation could or should be done (e.g., elaborate on who should contribute how much, what relation with existing funds and agencies, what type of conservation projects).
73. **In the long run.** The best long-run scenario is that (a) joint implementation of the CBD goals is adopted as a principle by the parties to the CBD; (b) many countries pledge long-term resources to it; and (c) efficient ways to manage those funds are in place.

3.1.2. Issuing Long-Term Green Bonds

74. **What is it?** A group of countries (or countries acting individually, if not legally complicated) issues a bond with 20 to 30 years to maturity; denominated in euros, dollars or a basket of currencies; underwritten by an international financial agency or private brokers; and traded in financial markets. Because it is issued and paid by rich countries, the bond will be a low-risk, low-interest investment and hence attractive to a large segment of the investment market. The money raised with the green bonds would be invested in international biodiversity conservation. On maturity, the bonds would be paid by issuer countries.

75. **What is the rationale?** One economic problem faced when investing in biodiversity conservation (and in many other environmental activities) is that today’s investment will deliver benefits way into the future. Owing to a positive economic time preference, the further in the future the benefit is, the less valuable the investment is to today’s taxpayers (positive discount rate). It seems fair, then, that future generations should pay for part of today’s investment in BC that will deliver irreplaceable values for future generations to enjoy.

76. **How would it be different from the current situation?** Currently, governments borrow in the national and international markets to invest in infrastructure and other long-term services, and there are some cases where bond moneys may have been used to pay for protected areas’ infrastructure. But there is no precedent for an international green bond — or, for that matter, for an international development bond.

77. **Background and support.** The IFF, proposed in 2003 by the United Kingdom and endorsed by France (and already mentioned in the section on joint implementation), included issuing bonds to borrow money from international capital markets to increase resources available in the initial years, to help achieve the 2015 MDG (Mavrotas 2005).

78. **Pros and cons.** The pros of a green bond are (a) it has no or very low initial costs for participant countries; (b) both developed and developing countries could issue the bonds, for instance, in proportion to each country’s current GDP; and (c) beyond low-risk buyers, a green bond could also attract environmentally conscious investors. The cons might include that it has never been tried before, and some countries are reluctant to incur debt for the sake of the environment.

79. **What needs to happen in the short run?** Conditions here are similar to those mentioned for the joint-implementation mechanism. The best short-term scenario would be a few high-income and developing countries stepping forward and committing to issuing a green bond for several million euros or dollars. If no countries are willing to press ahead, a more modest goal could be to secure support to bring together a group of high-income and developing countries’ representatives, plus brokers and financial experts, to discuss the idea and come up with a more detailed proposal on how a green bond could or should be accomplished (e.g., a stand-alone green bond or as part of a development bond to achieve the MDGs).

80. **In the long run.** The best long-run scenario is that the green bond proposal is adopted by the international community, either as a specific green bond for achieving the goals of the CBD or as part of an international bond for achieving the MDGs.
3.1.3. Environmental (or International Solidarity) Taxes

81. **What is it?** Instead of reaching into the general public budget to pay for global biodiversity, countries could earmark for that purpose part of the revenues of existing or new taxes on activities that consume, pollute or otherwise damage the global environment.

82. Alternatively, following the example of the French air travel tax (FM 11), which goes in full to international aid (see Box 1 in Chapter 2), there may be an opening for earmarking for international BC other domestic taxes on activities that use or deteriorate the global environment. Such taxes may be feasible if they can be designed in ways that make them attractive to “pioneer” countries willing to go ahead in the absence of a multilateral agreement that may take a long time to come through.

83. **What is the rationale?** Environmental taxes would simultaneously attain a reduction in the consumption or pollution of the global environment, which is good in itself (the size of the reduction depending on the price elasticity of the taxed activity), and would raise funds, part or all of which could be invested in the supply or protection of the global environment or other global causes.

84. **How would it be different from the current situation?** Short-term, year-to-year variability and overall low levels of funding act against the long-term character of biodiversity conservation and sustainable use. Earmarking tax revenues would move international financing for biodiversity from today’s 100 percent discretionary financing toward more binding and stable financial commitments.

85. **Background and support.** Many environment-related taxes to pay for the global commons have been floated, and a few have been adopted.

- The 1982 U.N. Convention on the Law of the Sea had provisions regarding the international taxing of mineral exploitation of the deep sea bed, but such mining has not happened yet. Furthermore, most OECD countries have not signed on to the convention.

- Other types of taxes related to the use of biodiversity of global significance (tropical wood, stratosphere, exploitation of the high seas) have been repeatedly tabled, but still lack traction. For instance, recent technical meetings on marine protected areas have focused on the potential of taxing high sea bioprospecting as a source of revenue for marine PAs and also as a fund for access benefit sharing in accordance with the CBD (IUCN 2007).

- On the other hand, taxing greenhouse gas emissions and using part of the revenues to finance environmental conservation and other global commons is taking momentum. For example, the German government has recently proposed that the European Union (EU) auction some of the carbon emission permits that are currently distributed to industries for free and use part of the revenue to pay for global BC (FM 17). The proposal is similar to a carbon tax (FM 16), although depending on the legal frame, it could be labeled as a tax, a fee or a payment for ecosystem services.

86. **Pros and cons.** The advantages of environment-related taxes include: (a) there are several experiences at work; (b) the concept of taxing the use of the environment and using the revenues for environmental investment is well established at the national level; and (c) several
international treaties and negotiations have discussed them. However, many governments balk at
the idea of new taxes in general and more so taxes earmarked for international purposes.

87. **What needs to happen in the short run?** All that would be needed is for a few countries
to adopt the French solidarity tax model and earmark part or all of the tax revenues to fund global
biodiversity.

88. **In the long run.** The best long-run scenario would be that earmarking part of
environment-related taxes to fund biodiversity is adopted by a large number of countries.

3.1.4. Auctioning or Selling Part of the Carbon Emission Permits and Other Cap-and-Trade
Permits

89. **What is it?** The EU and other countries that participate in the cap-and-trade carbon
market would auction part of the carbon emission permits that are currently distributed to
industries for free and use part of the money raised to pay for global biodiversity conservation,
either by transferring these resources to a multilateral fund or through bilateral cooperation.

90. **What is the rationale?** The idea of charging activities that consume, pollute or otherwise
damage the global environment to raise money to pay for global public goods, including
biodiversity, has been suggested several times in the past. Auctioning a percentage of the carbon
permits now distributed for free and using the revenues to pay for environmental conservation is a
straightforward application of the polluter-pays principle.

91. **How would it be different from the current situation?** Currently, almost all permits in
cap-and-trade schemes are distributed for free (grandfathering), but the alternative of auctioning
all or part of them has been well researched and tried in a few cases. The grandfathering and the
auction approach would have the same pollution-control effect and the same economic efficiency
outcome. The difference would be that some of the benefits that in the grandfathering approach
accrue to private sellers would accrue to the government selling agency in the auctioning
approach.

92. **Background and support.** At a 2007 meeting of the environment ministers of G8
countries, the German representative proposed auctioning 10 percent of the CO₂ permits of the
European emissions trading scheme, with 50 percent of the revenues to be used to combat climate
change and the other 50 percent to halt biodiversity loss. Based on recent market prices,
auctioning 10 percent of the German permits alone could raise 300 million euros.

93. **Pros and cons.** Pros: (a) carbon permits already exist, they are already being traded and
the market is huge, and (b) the auction scheme may not face the resistance that a new tax may
face, and it may raise considerable revenues even if only a small portion of the permits are
auctioned.
Cons: (a) industries may resent having to pay for a portion of what they have received for free.

94. **What needs to happen in the short run?** All that would be needed is for a few
countries, or the EU, to adopt the German proposal or a variant of it.

95. **In the long run.** With governments considering cap-and-trade approaches for many
environmental fields (air pollution, water pollution, wetlands, biodiversity, etc.), the best long-run
scenario would be that the partial auctioning approach is adopted by the international community
and included in existing and future MEAs and their protocols.
3.2. Some Innovative Financial Mechanisms to Increase International Financing From Voluntary Sources

96. Voluntary sources of funding — NGOs, foundations, households and businesses — are anything but new. Still, a lot of innovations are being tried here. For example, conservation NGOs are experimenting with many innovative fundraising mechanisms, some based on new technologies (roundup schemes) and some based on importing FMs that have been successfully tried in other areas of national and international cooperation (e.g., sister parks, adopt a park, NGO-business partnerships). Here we look in detail into two of these innovative financing mechanisms: charity lotteries and dedicated funds.

3.2.1. A Multinational Green Lottery

97. **What is it?** Green lotteries are international charity lotteries that raise funds to invest in international biodiversity conservation. Several approaches could be pursued:

- The CBD alone, or in partnership with other international conventions, international agencies and NGOs, may be able to garner support for an international charity lottery from a group of countries. National governments would be asked to authorize selling the lottery in their territory and to grant it favorable tax treatment.
- If an international charity lottery proves too difficult to put in place, a network of country charity lotteries could also do the job. For example, the Netherlands Charity Lottery has already helped NGOs in several countries interested in duplicating the Dutch experience.
- Also, an Internet-based global green lottery might simplify many of the legal hurdles faced by the traditional lottery approaches.
- Another option could be a broader global charity lottery distributing benefits for several global causes, among them biodiversity conservation.

98. **What is the rationale?** There are many reasons why a green lottery is an attractive financial mechanism for BC. It is a strictly voluntary source of funds. It is a renewable source, available year after year. The benefits come with no strings attached and could be used for a wide variety of conservation purposes and in ways fully consistent with international social and environmental standards. Last but not least, even in the most conservative estimates, the amounts that could be raised are significant.

99. **How would it be different from the current situation?** The differences between the current charity lotteries and the present proposal are scale (from national to multinational) and focus (from general to biodiversity).

100. **Background and support.** There is considerable interest in using charity lotteries as a way to raise funds for the MDGs in general and for BC in particular. In 2004, the president of Finland proposed such a global lottery at Monterrey’s United Nations Financing for Development Conference, and the idea has since been picked up by many international forums and development experts.

101. **Pros and cons.** Among the pros: (a) it is a voluntary financing mechanism, no government expenses or new taxes involved; (b) considering that worldwide lottery sales in 2001 were in excess of $125 billion (Addison and Chowdhury 2005), if a green lottery could take up 2 percent of the market and keep 50 percent of the sales for BC investments, this would amount to $1.25 billion a year; and (c) biodiversity conservation can motivate new lottery buyers, delivering
even more than money. Among the cons: (a) some environmental stakeholders may consider lotteries, or gambling, a nonethical way to pay for conservation; (b) there is increasing competition in the lottery field; and (c) in some countries lotteries are a local government monopoly, and in all countries the field is heavily regulated, so that any new scheme will have to negotiate many legal hurdles.

102. **What needs to happen in the short run?** All that may be needed in the short run is for some CBD parties and governments to endorse the idea and provide some start-up resources for the design and development. The actual design and development of the lottery could be commissioned to existing charity lotteries or several conservation NGOs.

103. **In the long run.** In the long term, the best-case scenario would be that (a) more countries allow the lottery in their territory; (b) countries give the lottery a tax-exempt status; and (c) the lottery is able to gain a significant portion of the market.

### 3.2.2. International Biodiversity Funds Based on Business and Private Contributions

104. **What is it?** One or several international biodiversity fund that are capitalized by large businesses and private contributions

105. **What is the rationale?** In recent years, several issue-specific international funds have emerged (e.g., to fight HIV), capitalized by large business and private donations. These funds succeed because of two factors: (a) an issue that galvanized the world community, and (b) the emergence of large private donors that want to play an active role in the use of their donation. Protecting world biodiversity can become one such issue, too.

106. **How would it be different from the current situation?** Currently the GEF is the only international fund for biodiversity conservation, and it is based on countries’ contributions. On the other hand, there are many not-for-profit environmental funds, but they are small in scale, have a national or regional focus and mostly depend on public moneys. It could be argued that, currently, conservation NGOs and some foundations already do the job of a private-funded biodiversity fund, since they receive donations from private sources and use them to support BC worldwide (e.g., WWF). The potential of the international fund proposed here would be its ability to attract large donors that may not be reached by existing NGOs’ fund-raising mechanisms.

107. **Pros and cons.** An advantage of this new fund is that it would be a voluntary financing mechanism — no government expenses or new taxes involved — and it could raise considerable amounts of money. However, it would depend heavily on success in attracting the attention of a few big donors to start up the process, and it could compete with the fund raising of existing NGOs.

108. **What needs to happen in the short run?** The initial steps of such a fund include drafting the fund bylaws and finding a champion of international stature to raise funds for it. The actual design and operation of the fund will probably have to be negotiated with the initial donors.

109. **In the long run.** In the long term, the best-case scenario would be that the fund is established as a successful and efficient mechanism to deliver biodiversity and social improvements, hence increasing its potential to attract donations.
3.3. Some Innovative Financial Mechanisms to Increase International Financing From Businesses and Markets

110. Markets for biodiversity-friendly goods and services have great potential to support the sustainable use of biodiversity in productive landscapes and, to a lesser degree, in buffer zones and protected areas. Still it is important to recall that in most cases, market-based conservation is a long-term process, not a direct fundraising mechanism; it requires significant developments in both the supply and demand sides; and it may require spending considerable funds before it begins to pay back. The size of the market is not always a good indicator of the money that will actually go back to the rural supplier, let alone the money that will actually be invested in biodiversity conservation. Furthermore, guided by demand and supply, funds may or may not end up supporting conservation in priority areas.

3.3.1. Foster International Markets for Regulated Biocarbon Offsets

111. **What is it?** Interested parties in both the biodiversity and the climate change fields encourage the growth of an international market for developing countries’ biocarbon from biodiversity-friendly reforestation, agroforestry and avoided deforestation.

112. **What is the rationale?** There are good opportunities to increase financing for biodiversity conservation in developing countries through the sale of biocarbon offsets. This is contingent, however, on the emerging international markets for biocarbon becoming biodiversity friendly. In some cases — e.g., avoiding deforestation of natural forests — it may be a win-win alternative where BC adds no cost to carbon sequestration. In other cases — e.g., reforestation projects — the additional costs of doing it in a biodiversity-friendly way may be low, and there may be buyers or funders willing to step in to cover those extra costs.

113. **How would it be different from the current situation?** Following the Kyoto Protocol, world carbon trading is already big, amounting to some $22 billion in 2006. In that big total the share of biocarbon — mostly reforestation — is small, some $100 million a year, and only part of it has gone to developing countries. But things are changing fast: biocarbon markets are expected to grow to some $1.5 billion in the next decade and then keep growing. This may open significant opportunities to mainstream the sustainable use of biodiversity in production landscapes of developing countries through biocarbon payments for biodiversity-friendly reforestation and agroforestry. If reduced emissions from deforestation and forest degradation (REDD) make it to the post-Kyoto negotiations, the biocarbon market may also become a financial source for protected areas and native forests in developing countries.

114. **Background and support.** This is a development supported by many stakeholders — the GEF, the World Bank, many donors, many developing countries and other. But on-the-ground deals have been few, hampered by issues of measurement, permanence and leakages on the supply side and a preference to go for more straightforward industrial-emission reduction deals on the demand side.

115. **Pros and cons.** Among the pros: (a) there is a lot of support for the idea of forest conservation as a way to jointly deliver carbon sequestration and biodiversity; (b) there is a strong probability that the post-Kyoto arrangements will include REDD; and (c) moneys can be significant (Richard and Jenkins (2007) quote revenues of $2.35 billion per year for a reduction of 10 percent in deforestation rates at $10 per ton of CO$_2$). Among the cons: (a) thus far, measurement and monitoring problems have bogged down the regulated biocarbon market; (b) biodiversity-friendly biocarbon offsets may be more costly than other carbon sequestration
activities, requiring additional biodiversity buyers to make up the difference; and (c) funds may accrue to sellers in areas of little biodiversity value.

116. **What needs to happen in the short run?** The CBD should indicate to the Climate Change Convention its strong support for REDD and for the promotion of biodiversity-friendly biocarbon initiatives. The CBD, its parties and the GEF should support the development of methods, standards and best practices that encourage the growth of biocarbon offset markets. The CBD, its parties and the GEF should encourage and support developing countries’ conservation agencies in the preparation of biodiversity-friendly biocarbon offset projects that are able to attract buyers in the regulated carbon offset market. And finally, the CBD, its parties and the GEF should encourage, where appropriate, the growth of private sector-driven markets for biodiversity-friendly biocarbon offsets.

117. **In the long run.** In the long run, this market should grow as demand and supply grow, just as in any other market. Still, there could be an important role for the CBD to promote standards and regulatory frameworks that increase the biodiversity payoff of the market and also secure the rights and livelihoods of local communities.

**3.3.2. Foster International Markets for Voluntary Biocarbon and Biodiversity Offsets**

118. **What is it?** Interested parties in the biodiversity and climate change fields and in businesses encourage the growth of international voluntary markets for high-quality biocarbon and biodiversity offsets targeting the demands of businesses, households and conservationists.

119. **What is the rationale?** In parallel to the CCC Kyoto Protocol, there is a growing voluntary carbon offset market in the United States. There are good reasons to believe that this voluntary market will keep growing, fueled by the demands of nonregulated business sources and environmentally conscious households. Voluntary markets can be especially appropriate to attract “carbon-plus” buyers, willing to pay a premium for carbon sequestration that also provides high BC and adheres to social equity standards.

120. Together with the voluntary biocarbon market, there is a small but growing voluntary market for biodiversity offsets. In some cases, businesses are investing in biodiversity protection or restoration as a way to voluntarily compensate for the ecological impact of their activities, above and beyond regulatory requirements, or to gain social support for their operations. Other sources of demand are concerned households that want to compensate for their ecological footprint.

121. **How would it be different from the current situation?** Thus far, the voluntary biocarbon market in developing countries is small, and major buyers have been the same country governments (Costa Rica, Mexico, China), international agencies and donors (GEF, World Bank, Nordic countries) and to a lesser degree NGOs and businesses. Lately there has been an explosion of private companies offering carbon offsets to high-income countries’ households. Some of the sellers assert that the offsets they sell are in the form of forest plantations in developing countries. But the market is far from transparent, and the biodiversity impact of these initiatives is far from clear.

122. This proposal would address several of the above limitations by supporting the growth of high-quality, voluntary biocarbon and biodiversity offset markets that are capable of delivering significant BC gains by fostering the supply from developing countries and the demand from environmentally conscious businesses, households and conservationists of developed countries.
123. **Background and support.** Voluntary markets for carbon offsets, and to a lesser degree biodiversity offsets, are a recent concept spurred by, among others, (a) business interests in countries that have not signed the Kyoto Protocol; (b) past experiences with cap-and-trade regulations; (c) growing interest in market-based approaches to conservation; and (d) society’s growing concern for the state of the environment.

124. **Pros and cons.** Because they are voluntary, these markets should work to the satisfaction of all parties: voluntary markets can create a demand before regulation-driven demand kicks in (business demand for offsets) or where no regulation is foreseen (e.g., households’ demand). However, voluntary arrangements may close the way to more effective or more stringent regulations, and size or prices may remain low, compared to regulated markets.

125. **What needs to happen in the short run?** The CBD, its parties and the GEF should support the development of biodiversity standards for the voluntary markets, support education and communication among potential buyers and sellers and support programs to direct the voluntary demand of environmental offsets toward high-biodiversity-value projects in developing countries. The CBD, its parties and the GEF should encourage and support developing countries’ conservation agencies and other local conservation stakeholders in the preparation of biodiversity-friendly biocarbon and biodiversity offset projects that are able to attract buyers in the voluntary offset market of high-income countries. The CBD, its parties and the GEF also should work with NGOs and business to encourage, where appropriate, the growth of private sector demand and supply of voluntary biodiversity-friendly biocarbon and biodiversity offsets.

126. **In the long run.** In the long run this, as any other market, should grow as demand and supply grow. Still, there could be an important long-term role for the CBD and the CBD parties in partnership with relevant stakeholders to (a) promote standards that increase the biodiversity payoff of the markets for voluntary offsets; (b) secure the rights and livelihoods of local communities; and (c) educate and increase public awareness and demand.

3.3.3. **Foster International Green Markets (Including Ecolabeling and Markets for Sustainable Products and Ecosystem-Friendly Products)**

127. **What is it?** Major stakeholders in the biodiversity conservation fields, the agricultural development field and the food and fibers business collaborate in an array of initiatives to match green markets and sustainable use of biodiversity.

128. **What is the rationale?** With global sales of organic food at about $30 billion in 2005 and 247 million acres of sustainably certified forest, markets for green, organic and sustainably produced food and fibers may become the largest source of financing for mainstreaming the sustainable use of biodiversity into production landscapes. Each time consumers pay a premium, such as for fair trade coffee or certified fish, they are paying for two things: a consumption good (coffee, fish) and a service, namely the assurance that back in the countryside the good has been produced in a way that is environmentally and socially responsible.

129. **How would it be different from the current situation?** Current green markets are transparent to neither buyers nor sellers. In some cases (e.g., certified wood), buyers confront dozens of competitive certification schemes, small producers face steep costs to attain certification or access these new markets and consumers know very little about what they are paying for. Also, in most cases, little is known about how much of the shelf price goes back to farmers to pay for improved environments and livelihoods. Hence, there is a lot to do to improve
green markets’ contribution to biodiversity conservation in productive landscapes. A good transparency example has been established by several fair trade brands that state on the package the amount of the final price that will go back to the farm.

130. **Background and support.** Ecolabeling schemes (certified wood, certified fish, sustainable soy, etc.) have been championed by NGOs and have met increasing business and consumer interest. Certification has grown exponentially in the past 15 years, and still has a large potential for growth and improvement of on-the-ground sustainable use impact. Thus, ecolabeling could become a force for BC in productive landscape. Green markets (including organic, fair trade and sustainably produced goods) are the other side of the ecolabeling coin, and they command a small but fast-growing share of the world’s food and fibers market.

131. How much can green markets become an important source of financing for mainstreaming biodiversity conservation into productive landscapes and seascapes of developing countries? The answer depends largely on developing countries having the opportunity and capacity to produce and export such products. Similarly, international green markets may become an important source of jobs and income for the rural poor of developing countries, provided small farmers are able to participate in such markets.

132. **Pros and cons.** Green markets and ecolabeling are already big. And global demographic trends — an increasingly urban, older and richer population — suggest that demand for healthier, more natural (organic) and more environmentally friendly foods and fibers will continue to grow. On the other hand, while green markets may pay for BC in productive landscapes, they would contribute little to finance strictly protected areas. Moreover, market-driven mechanisms are difficult to direct to support specific areas of high biodiversity value.

133. **What needs to happen in the short run?** The CBD, its parties, the GEF, NGOs and food and agriculture development agencies (e.g., FAO, the International Fund for Agricultural Development, the U.N. Development Programme) should partner with business and consumer associations to (a) increase consumers’ awareness and willingness to pay for green products in high- and middle-income countries’ markets; (b) increase businesses’ interest and knowledge of the potential of green markets; (c) improve ecolabeling and certification schemes to make them more transparent to consumers and producers and ensure that they promote biodiversity conservation back at the farm; (d) improve access to high-income markets for developing countries’ green, organic, fair trade and sustainable products; (e) help small farmers in developing countries seize the green market opportunities; and (f) improve mechanisms to ensure that a portion of the price actually goes back to the field to pay for improved environments and livelihoods.

134. **In the long run.** The CBD, the CBD parties, conservation NGOs and relevant stakeholders could have an important role in helping this market grow by working to (a) increase awareness among consumers; (b) support best practices among producers and traders; and (c) monitor the biodiversity and livelihood benefits of green markets and certification schemes.

4.1. Who Decides on Financial Mechanisms for Biodiversity Conservation?

135. Currently, international funding for BC is a highly decentralized process, regarding both the financial instruments used and the financing decisions. Some multilateral environmental agreements — the U.N. Climate Change Convention and the U.N. Convention on the Protection of the Ozone Layer come to mind — include in their convention or its protocols a precise list of financial mechanisms that guide the majority of the investments in their area of concern. That has not been the case of the CBD. After appointing the GEF as the financial mechanism of the convention, the CBD has had many discussions on financing, but little has transpired from them.17 By what means and how much to finance global BC is currently the result of individual decisions by many stakeholders, including government spending in their own countries, bilateral aid, donor countries’ pledges to the GEF, conservation NGOs, development banks, other international agencies and more. Some discussion and coordination takes place, but to a larger extent each funder decides on its own how, how much and where to finance biodiversity conservation.

136. In the above context, any proposal on “Innovative International Financial Mechanisms to Achieve the Goals of the CBD Program of Work on Protected Areas” needs to acknowledge that the CBD is not a financing agency, and that the challenge is how to use the CBD system to bring the discussion to the real finance decision makers. The present document is addressed to the COP9 of the CBD, in the belief that the CBD could play a more proactive role in the discussion of financing for biodiversity conservation by fostering innovations and brokering new commitments. For example

- The CBD, directly or through the GEF, could call key donor and key recipient countries to a discussion and adoption of all or some of the FMs here discussed.
- The CBD, directly or through the GEF, could give technical support to countries or other conservation stakeholders willing to develop and adopt some of the financial instruments here discussed.
- The CBD, directly or through the GEF, could work with key NGOs and businesses to foster the development and adoption of some of the financial instruments here discussed.
- The CBD, directly or through the GEF, could bring the issue of financing for BC to international forums where financing for development and financing for the environment are being discussed.
- The CBD, through its organs or through the GEF, could reach out to other multilateral agreement agencies and forums to develop synergistic opportunities.

4.2. Institutional Arrangements to Promote Innovative Financial Mechanisms

137. The experience of the past 15 years is clear: Without an “institutional push,” many

17 The CBD and the GEF each have their own decision-making bodies: the CBD’s COP and the GEF’s Council. Although the same countries make up the COP and the Council, the representation and the representatives are not the same. Looking to both organizations’ bylaws and proceedings, there is no clear evidence that the GEF Council is legally bound to follow the CBD recommendations. Moreover, several GEF staffs have pointed out to the authors of this document that since the CBD tends to ask for everything, it makes it easy for the GEF to press ahead with its own agenda confident that whatever it does will always be in line with some CBD proposal.
innovative FMs will never happen, and the progress of others will be much slower. The GEF, which operates the CBD’s financial mechanisms, has an obvious role to play in this institutional push, but many of the innovative FMs discussed in this document and elsewhere fall outside of the GEF’s mandate. Thus, ad hoc institutional arrangement may be needed to move from ideas to implementation, and a champion willing to commit start-up financial support will be needed, too.

138. A small financial innovation task force — which could be located in the orbit of the CBD secretariat or one of the CBD working groups, or hosted by a donor willing to step in — plus periodic meetings of a larger group of stakeholders may work here. The function of the task force and the meetings would be to keep up the technical and policy momentum; network with the CBD parties, the CBD organs and FMs; and engage key donor countries, NGOs, businesses and other relevant stakeholders with the goal of brokering commitments and accelerating the development, deployment and scaling up of innovative FMs. Reporting on advances to the COP and the conservation community would also be a responsibility of this task force.

139. Last but not least, recent experience (the Jacques Chirac air travel tax in France, Gordon Brown’s IFF, Bill Gates’s focus in international health) shows that innovating on BC financing may well need one or more high-visibility champions — political figures or international personalities that can bring world attention to BC financing and engage key donor countries, NGOs, businesses and other relevant stakeholders with the goal of brokering commitments.

4.3. Improving the Supply of Biodiversity Conservation Programs

140. In a global arena where many pressing issues compete for attention and funds, the conservation movement cannot expect that innovative FMs will simply “happen.” To the contrary, significant efforts would be required to (a) make the BC supply more attractive; (b) better mainstreaming BC into the environment and development agenda; and (c) improve information dissemination and education among major stakeholders and the public at large.

4.3.1. Better Conservation Can Attract More Funding

141. Most people in the conservation field acknowledge that there is much to be done in terms of design and implementation of BC projects, which are routinely criticized for a lack of baseline data, targets, milestones, monitoring and evaluation (Ferraro and Pattannayak 2006). Improvements have been made in the past with support from the U.N. Environment Programme (UNEP), IUCN, GEF and CBD organs. But more is needed regarding (a) project quality: how projects are designed, implemented and monitored; (b) the time it takes for the funds to actually be put to work (for example, projects in the GEF may take up to five years to be approved); and (c) the assignment of scarce funds. Some proposals to enhance current practices include the following:

- **Improvements to projects’ quality:** Encourage conservation project developers and funders to adopt (or demand) higher standards and best practices in project design and implementation, particularly in terms of identifying clear qualitative and quantitative goals and milestones, baseline data, implementation strategies and monitoring and evaluation procedures. There is no dearth of guidelines and manuals, but on-the-ground use lags way behind. Existing relevant guidelines include the technical organs of the CBD (e.g., the Working Group on Protected Areas and the SBSTTA [http://www.cbd.int](http://www.cbd.int), the IUCN Protected Area Program (www.iucn.org) and the GEF projects monitoring and evaluation standards (www.thegef.org). Additionally, the CBD may want to consider endorsing a set of standards to assess and track conservation projects, provided that this does not demand protracted negotiations.
• Creating a portfolio of readily available, high-quality project proposals: Instead of the current situation where funds wait years, and sometimes go unused for lack of good projects, the CBD could encourage some of its members or related institutions and partners (GEF, IUCN, a consortium of NGOs, a group of willing donors) to invest in a “golden portfolio” program that would coach developing countries’ PA agencies in the preparation of high-quality, ready-to-be-financed projects. To become part of this golden portfolio, projects could be volunteered by interested parties (countries and other BC stakeholders) much in the way that the UNESCO World Heritage program works (http://whc.unesco.org).

The key innovation would be that the golden portfolio program would have resources to help develop projects into top-quality project proposals, as well as to help market them among potential donors. We could envisage one overarching portfolio or several thematic portfolios, each with a different focus (e.g., only PAs, or PAs + BZs, or biodiversity conservation plus other MDGs, etc.).

• Improvements in fund management: Environmental funds have been praised as an efficient way to manage BC funds. A variety of funds exist from which to choose, including local, national and international funds managed by NGOs, governments or international agencies (GEF). The main advantage of these funds is that they manage a significant amount of resources and are fully dedicated to tracking the environmental projects they support. This differs from international donors, who usually lack the time, staff or expertise to do so. There are disadvantages as well: Donors may be reluctant to freeze large sums of moneys in a third-party fund, or the fund management may be quite bureaucratic and cumbersome.

• Creating donor funds: Donor funds are an intermediate alternative, quite common in the development arena, although not so much in the BC field. For example, at the World Bank headquarters, several wealthy countries have put up funds to support specific activities (e.g., water and sanitation, education, or rural development). The donor country controls the fund’s purpose, decides on the fund replenishment and — usually through one or two designated staff at the World Bank headquarters — reviews and approves proposals. The World Bank staff presents project proposals to the funds, in some cases manages the grants and in other cases acts as the quality control for proposals from the field. International conservation NGOs could operate similar donor funds.

• Improvements in awarding funds: The fund-granting agencies (e.g., the GEF, the bilateral development agencies and also the country authorities that assign their funds and international funds to specific projects and local activities) could adopt innovative granting mechanisms designed to reduce conservation costs without compromising social equity and environmental goals. For example, reverse auctions have been used successfully in Australia and the United States to buy ecosystem services from farmers, and they also have been tested in developing countries (Brazil). Also, better project quality at entrance (discussed above) can reduce the time and cost of project selection and free resources to use in much-needed monitoring and evaluation.

• Taking risks: Improving the quality of BC requires testing innovative ideas and approaches. Fund-granting agencies (GEF, bilateral donor agencies) should not shy away from supporting a modicum of “learning-by-doing” projects, and they should encourage candid evaluations and frank reporting of what is or is not working and why, to ensure learning by doing.
4.3.2. Integrate Biodiversity Conservation With Other Environmental and Development Goals

142. There is room and need to raise funds for stand-alone BC projects. But, to achieve the CBD goals, more often than not conservation and sustainable use of biodiversity may need to be part of multipurpose projects and programs.

143. Some conditions to successfully integrate biodiversity conservation into economic and social development projects include (a) demonstrating that integrating BC in social or economic development projects is more cost effective and more socially acceptable than pursuing each one independently; (b) having clear goals and targets for the BC component and being able to measure and monitor them through the project; and (c) understanding and agreeing on the costs of pursuing the different goals and who would pay for what. If these conditions are met, building a portfolio of biodiversity projects that piggyback on other environmental, social and economic programs may be an important way to reduce costs and boost the appeal of investing in biodiversity. Such a mix may include the following:

- Mainstreaming BC into national and international development agendas: This has been a call from many quarters for some years now, not least from donors that want assurances that demands for BC funds are country-driven and are integrated into the overall country development strategy. Integration will not be achieved by general statements such as “conservation is good for development” or by sprinkling development plans and poverty reduction strategy papers (PRSPs) with the word “biodiversity.” What is called for is an effort to integrate BC at the same level of detail as the other components of the development agenda under discussion. Namely, if the development agenda is aimed at the goals, targets, milestones, sectors, programs or project levels, then the BC component needs to be mainstreamed at the same level of goals, targets, milestones, sectors, programs and projects.

- That is easier said than done, and the BC stakeholders (e.g., national conservation agencies, NGOs) may be asked to estimate and explain the additional costs and benefits of mainstreaming BC; the costs of inaction; the trade-offs; and how costs, benefits and trade-offs could be distributed. In most developing countries, conservation agencies and other conservation stakeholders are ill prepared for this task. Hence, this is an area where the CBD technical organs, the GEF and some of the CBD parties and partners should step in. Modest investments in capacity building; training; and piloting examples, manuals and best practices would have an important payoff.

- Mainstreaming biodiversity conservation into national and international development agendas should be seen as a two-way road: It is about taking full advantage of BC as a source of social and economic development, but it is also about taking full advantage of social and economic development opportunities to improve biodiversity conservation. Box 6 presents a good example of the latter: South Africa’s mainstreaming BC into poverty alleviation programs.

- Biodiversity conservation + carbon projects: As already mentioned in Chapters 2 and 3, there are great expectations and a lot of activity around piggybacking BC into biocarbon projects. In particular, agroforestry can provide a way to increase biodiversity in agriculture landscapes, and REDD can supply new sources of funds for the management of protected areas and other native forests.
• **Biodiversity conservation + poverty reduction projects:** A lot is usually said about BC’s ability to help reduce poverty, but there is nothing automatic here and documented successes are scarce (Adams et al. 2004). Boxes 3 and 6, on Namibia’s Conservancies and on South Africa’s Working for Wetlands programs, show two success stories with clear lessons regarding potentials and limitations. Some of these lessons show that (a) tourism, sustainable agriculture production and more recent PES create income opportunities from BC, but how and how much changes from case to case; and (b) ecosystem restoration is a large but temporary source of employment and incomes. Although successes are always site specific, there is room here to collate best practices and develop manuals or standards to help developing country practitioners.

**Box 6. Mainstreaming Biodiversity Conservation Into National Development Programs: South Africa’s Working for Wetlands Experience**

Mainstreaming BC into national development programs and particularly into PRSPs should be a two-way street: biodiversity conservation helping development and poverty alleviation, but also development and poverty alleviation helping biodiversity conservation. While Namibia’s conservancies are a good example of the former (see Box 3), South Africa’s Working for Wetlands program is a good example of the latter.

In recent years, the South Africa government has undertaken many programs to address the country’s unemployment rate of 40 percent and the fact that more than 10 percent of the population is below the poverty line. Among the programs, the South Africa Poverty Alleviation Fund (SAPAF) uses its budget to create jobs, training, and the like. Usually, this kind of program would pay for jobs in road construction and other traditional infrastructure projects. SAPAF decided to invest in “environmental infrastructure” as well as traditional works, and between 2000 and 2007 it gave $60 million to the Working for Wetlands program to invest in labor-intensive wetland restoration. In that seven-year period, the Working for Wetlands programs has

- restored 24,700 acres of wetland per year, improving water security in a water-scarce country
- created 2,000 full-time jobs per year
- focused on the poorest of the poor: recruiting among youth, women, single-parent families and families with an HIV-infected member
- devoted at least 10 percent of the work time to training and skills development for the job market
- increased self-esteem and confidence and reduced vulnerability through increased food security among participants

Working for Wetlands has also developed innovative management approaches to ensure that people deliver (e.g., work brigades with task-related payments) and do not overstay (two- to three-year employment limit, salaries below market minimum). The model has been successfully used in South Africa for other natural resource management programs, including eradication of invasive alien plants, community-based natural resource management, combating desertification and tourism infrastructure development.

The experience of South Africa’s Working for Wetlands shows that (a) ecosystem restoration can be a labor-intensive, pro-poor investment that delivers both biodiversity conservation and poverty alleviation; and (b) long-term funds commitment and skillful project design are necessary to succeed. Still, it is a short-term source of jobs, lasting until the restoration is completed and/or the funds are exhausted.

Source: [www.wetlands.org.za](http://www.wetlands.org.za), and personal communication with the program team
• **Biodiversity conservation + other MDGs**: There are opportunities to associate BC and other MDGs, particularly in the area of gender equity and empowerment of women. In many rural areas of developing countries, women play a critical role in natural resource management and also suffer the most from environmental deterioration (e.g., scarcity of firewood or water, indoor air pollution from the use of firewood).

### 4.3.3. Improving Information and Education Among Major Stakeholders and the Public at Large

144. There is a paradox in society’s current awareness of biodiversity issues. On the one hand, television, movies, magazines and the Internet are all full of messages and images regarding the plight of the environment and its charismatic species. Any urban dweller can talk about the polar bear losing habitat, the tropical forest being depleted, elephants being poached for ivory, etc. On the other hand, the public knows very little about what it would take to conserve biodiversity. Outside the CBD, few know what the 2010 goals are, let alone why it is important to achieve them or who should pay for them. It follows that the conservation community needs to invest in more compelling messages, better communication and more information campaigns to increase public awareness of biodiversity importance and the public’s willingness to pay for biodiversity conservation.

145. In this regard, the CBD may want to direct its program of Work on Communication, Education and Public Awareness (CEPA) to convene a meeting (or a series of meetings) with communication, marketing and conservation experts to take stock of current communication and education activities in key countries and media and suggest how to make a breakthrough in garnering the interest and willingness to pay from governments, civil society and the private sector. These meetings could include representatives of major media outlets to discuss their contributions to an awareness campaign to bring the message from the CBD to their audiences.
5. Conclusions and Recommendations

5.1. Conclusions

146. There is consensus in the conservation community that the lack of adequate financing is jeopardizing the achievements of the CBD goals, including the 2010 targets and beyond. Although discussions linger regarding the size of the gap, there is significant evidence that it is large and growing rapidly. Since the CBD’s inception in 1992, the world’s protected areas have grown by 100 percent in number and 60 percent in size, yet in the same period international financing for biodiversity conservation has grown only 38 percent.

147. Increasing both national and international financing is important for biodiversity conservation. But, increasing international financing is critical to the conservation of global biodiversity because a large portion of the world’s biodiversity is located in tropical areas of developing countries that lack the funds to pay for adequate conservation measures. Meanwhile, developed countries with much greater capacity for funding tend to have much less biodiversity within their responsibility. Hence, international financing for global biodiversity conservation fits directly within the common-but-differentiated-responsibilities principle endorsed by the CBD and many other multilateral agreements.

148. In the past 20 years, the international community has given a lot of attention to the search for new or innovative international financial mechanisms to pay for all types of global commons, including global biodiversity. Proposals are numerous, ranging from reforms of the international monetary system (which would entail protracted negotiations) to voluntary mechanisms (e.g., joint implementation, charity lotteries or voluntary offsets) that may need only the interest of a few parties to get them started.

149. This report discussed the pros and cons of many traditional and innovative international financial mechanisms, from new forms of ODA to green markets, focusing on financial mechanisms for the financing of protected areas. Following are the conclusions:

- Even if there is currently little chance of implementing the more general mechanisms proposed in support of the global commons (e.g., international taxes, new systems of international reserves), keeping the discussion alive is important for at least three reasons: (1) the rationale and the need for such proposals still exist; (2) what today seems improbable may look more attainable in the future (in part thanks to having kept the discussion alive); and (3) some of these schemes, while not ripe for international approval, may already be attractive to some countries on a voluntary basis or on a regional scale.

- In the short and medium run, there are better opportunities to raise funds for global biodiversity conservation pursuing biodiversity-specific innovative financial mechanisms that mix regulatory, voluntary and market-type initiatives. In Chapter 3, we put forward a short list of these sorts of financial mechanisms, with the purpose of highlighting options that may have good chances of being picked up by the CBD parties and garner government, business and consumer support (see recommendations below). We acknowledge that this short list is idiosyncratic, and the target — to be acceptable to key stakeholders — is a moving target. So, readers of this report may want to look back to the list of 60-plus financial mechanisms of Chapter 2 and come up with their own short list of what may be feasible in the short and medium run. One way or another, an agreement on a short list of financial mechanisms that the parties to the CBD can promote during the next four to seven years is necessary to
energize a discussion that has been dragging, with meager results, since COP1. Adopting a fundraising target would be useful, too.

- Any innovative financial mechanism, if successful, would supplement but not replace traditional ones. So, a forward-looking financial strategy is about innovative financial mechanisms, about how to reinvigorate the traditional ones and about how to best mix old and new.

- Without an institutional push, many innovative financial mechanisms will never happen and the progress of others will be slow. The GEF, which operates the financial mechanisms of the CBD, is an obvious player here; but many of the innovative financial mechanisms discussed in this document and elsewhere fall outside of the GEF’s mandate, and some new institutional arrangements may be needed to foster them. A champion willing to commit initial financial support would probably be needed as well.

- To increase the appeal of biodiversity among would-be funders, the conservation community needs to improve its performance in three critical areas: (a) the quality of the conservation programs and projects looking for international funding; (b) mainstreaming and integration of BC with other MDGs; and (c) information and education, targeting major stakeholders and the public at large.

5.2. Recommendations

1. Taking account of the COP7 and COP8 calls to explore new and innovative international financial mechanisms to support the achievement of the objectives of the Convention in general and the objectives of the Programme of Work on Protected Areas, and taking account of the forthcoming opportunity to offer new proposals in the run-up to the COP9, this study proposes that the COP9 of the CBD considers the following recommendations for inclusion in a strategy for resource mobilization to achieve the Convention’s objectives:

a) Stating the interest of the CBD to take a more proactive role in fostering financing for BC, directly and/or through the GEF, by (1) participating in the U.N. discussion on long-term solutions to international governance and financing for the global commons, of which global biodiversity is an important part; (2) calling key donor and key recipient countries to a discussion of specific FMs; (3) giving technical support to countries or other conservation stakeholders willing to develop and adopt innovative FMs; (4) working with key NGOs and businesses to foster the development and adoption of some of the financial instruments here discussed; (5) bringing the issue of financing for BC to international forums where financing for development and financing for the environment are discussed; and (6) reaching out to other multilateral agreement agencies and forums to develop synergistic opportunities.18

b) Challenging CBD parties to commit to the development, pilot implementation, adoption and scaling up of some or all of the following list of promising innovative financing mechanisms for BC, with a special focus on raising resources for the financing of PAs:19

- joint implementation of selected CBD targets
- auction or sale of a part of carbon emission permits and other cap-and-trade permits
- issuing long-term green bonds

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18 See more details in Chapter 2.
19 See more details in Chapters 3.
• enacting environment (or international solidarity) taxes
• creating a multinational green lottery
• establishing international biodiversity funds based on business/private contributions
• fostering international markets for regulated biocarbon offsets
• fostering international markets for voluntary biocarbon offsets and voluntary biodiversity offsets
• fostering international green markets

c) Approving specific institutional arrangements, to make sure that the above commitment has the necessary technical resources and momentum to go forward. A small task force, possibly in the orbit of the CBD secretariat or attached to a donor willing to step in, together with periodic meetings of a larger group of stakeholders, may be all that is needed. Their function would be to maintain the technical and policy momentum; to network within the CBD parties, the CBD organs and its financial mechanisms; to engage key donor countries, NGOs, businesses and other relevant stakeholders to accelerate the development, implementation and scaling up of innovative financial mechanisms; and to report on advances to the COP and the conservation community.20

d) Making a call to interested governments, agencies, businesses and NGOs to give core initial support to this endeavor by (1) becoming public champions for one or more of them; (2) pledging start-up funds; (3) pledging technical resources for the institutional mechanisms; and (4) stating their commitment to participate in the development of one or more of the innovative financing mechanisms mentioned above.18

e) Calling on both sides of BC funding, namely the fund-granting agencies (bilateral aid agencies, the GEF, etc.) and the BC fundraisers (developing country PA agencies, conservation NGOs, etc.), to improve the quality of conservation through the following:18
  • building a portfolio of high-quality programs and projects for protected areas, buffer zones and production landscapes that could be readily available to attract international funding
  • collating best practices and developing and disseminating manuals or standards for mainstreaming BC into international and national development plans in general and into poverty alleviation plans and programs in particular
  • building a portfolio of multipurpose projects where biodiversity goes together with other environmental (e.g., climate change) and MDG goals (e.g., rural women’s livelihoods)
  • promoting the adoption of internationally acceptable standards to assess and track conservation projects
  • developing innovative schemes that reduce time and increase efficiency in the disbursement of funds (e.g., reverse auctions)

f) That the CBD direct its program of Work on Communication, Education and Public Awareness (CEPA) to invite parties and partners to undertake a worldwide campaign to raise public interest and support for a well-defined, highly visible set of biodiversity conservation targets.

20 See more details in Chapter 4.
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Annex 1
Innovative Financial Mechanisms Proposed in the Last Decade

Below we have reproduced 12 lists of innovative financial mechanisms proposed in the last decade. Their purpose varies; some of them focus on financing for biodiversity conservation (Bayon, Lovink and Weening 2000; Bishop et al. 2006; CBD 2007; Emerton, Bishop and Thomas 2006; Gutman 2003; Verweij and de Man 2005) or a particular natural resource (Richards and Jenkins 2007) and in most cases list both national and international sources. Others look to leverage resources for global public goods and global development in general (Addison 2003, Addison and Chowdhury 2005, Addison, Matrovas, and McGilliveray 2005b Jha 2002, Landau 2004 and United Nations 2001a), and list only international sources.

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<tr>
<td>- Development of country-reduced emission from deforestation and forest degradation (REDD) programs</td>
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<td>- Fair trade PES carbon payments for community conservation</td>
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<td>- Carbon credits from agroforestry and small plantations</td>
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<td>- PES for certified small and medium forest enterprises, including community forest enterprises</td>
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<td>- Eco-certified agroforestry or agricultural products</td>
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<td>- Carbon soil fund for Africa</td>
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<td>- Pro-poor ecotourism</td>
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<td>- Certified forest management</td>
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<td>- Coordination between multilateral environmental agreements (MEAs) for bundled PES</td>
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<td>- Payments for watershed protection services</td>
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<td>- Regulatory and voluntary biodiversity offset programs</td>
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<td>- Other measures to promote small and medium forest enterprises including community forest enterprises</td>
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<td>- Forest fees and other incentives for state forest</td>
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<td>- Country level multilateral risk mitigation programs</td>
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<td>- Risk insurance for small and medium forest enterprises, including community forest enterprises</td>
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<td>- Securitization and eco-securitization</td>
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<td>- Macro-level funding through forest-backed bonds</td>
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<td>- Lotteries</td>
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<td>- Roundups (generate “micro-donations” by rounding up bills),</td>
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<td>- Credit cards (e.g., affinity programs that benefit charities)</td>
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<td>- Use your phone (send donations via text messaging)</td>
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<td>- Social/environmental stock exchange</td>
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<td>- Internet charity shopping</td>
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- Government-funded biodiversity education
- Reoccurring funding events (e.g., national conservation dinners)
- Object purchasing such as license plates, pins, etc.
- Biodiversity funding programs
- Land trusts and stewardship programs
- Conservation easements and tax incentives
- Innovative mechanisms (e.g., charge for use of plastic bags)
- Carbon tax
- Timber tax
- Currency transaction tax
- Environmental funds
- Bilateral, regional, and multilateral aid; ODA; national budgets
- Mainstream biodiversity into development and implementation of major development initiatives (PRSPs, CSPs, etc.)
- Debt-relief instruments that promote conservation
- Partnerships that promote financial investments in biodiversity (e.g., Global Initiative on Banking; Business and Biodiversity)
- Specific funding targets for environmental-related assistance (e.g., percentage of GNP)
- Bank loans in preferential terms for conservation
- GEF
- Taxes and tax exemptions to encourage environmental conservation or environmental donations
- A prototype fund
- Virtual international trading platform
- A cap-and-trade regime for biodiversity


- Africa’s bio-beef
- Biodiversity offsets
- Ecotourism enterprises
- Integrated land-based conservation
- Payments for carbon sequestration, especially biocarbon
- Payments for watershed protection
- Biodiversity management services
- Sustainable biofuels
- Integrated biodiversity conservation and sustainable use program
- Sustainable agriculture
- Sustainable forestry
- Nontimber forest products
- Sustainable fisheries
- Bioprospecting
- Biodiversity offsets
- Recreational hunting and sport fishing

- Domestic government budgets and foreign assistance
- Philanthropic (e.g., NGOs and foundations)
- Corporate funds
- Personal donations (cause-related marketing such as eco-labeling, adoption/“friends of”/sponsorship programs)
- Environmental funds
- Debt-for-nature swaps
- Fiscal instruments (taxes, budgetary transfers, subsidies)
- Benefits sharing
- Revenue sharing (private sector land lease arrangements with local villages, tourist hunting benefits, tourism revenues)
- Cost sharing
- Investment, credit and enterprise funds (e.g., biodiversity enterprise funds)
- Tourism charges
- Resource use/extraction fees
- Bioprospecting charges
- PES

In Verweij and de Man (2005). *We Can Not Afford More Biodiversity Loss: The Urgency of Protected Area Financing.*

- Bilateral
- Multilateral
- Bilateral/commercial debt-for-nature swaps
- Trust funds
- Markets for watershed services
- Markets for carbon sequestration services
- Markets for biodiversity services
- Markets for integrated services
- Conservation easements
- Conservation concessions
- Support to community-based conservation
- Regulative system for international timber trade
- Currency transaction tax: modified Tobin tax, two-tier currency transaction tax
- Carbon taxes
- Emissions trading schemes and taxes in relation to bunker fuels (aviation, shipping)
- Environmental tax mechanisms
- Reallocation of perverse incentives
In the UNU-Wider study on new and innovative sources of development finance (see Addison, Matrovas and McGillivray 2005a, 2005b, Atkinson, 2005, Jha 2002)

- Currency transactions tax (Tobin tax)
- A general tax on international trade
- Taxes on specified traded goods such as petroleum; more generally, a carbon tax
- A tax on international arms trade
- Surcharges on post and telecommunication revenues
- A surcharge in domestic taxation
- Earmarking of part of national or local taxes
- Parking charges for satellites placed in geostationary orbit
- Royalties on minerals mined in international waters
- Charges for exploration in or exploitation of Antarctica
- Charges for fishing in international waters
- Charges for the use of the electromagnetic spectrum
- A tax on international aviation
- A tax on international shipping
- Pollution charges
- A tax on the Internet, or bit tax
- A tax on traded pollution permits
- Creation of new Special Drawing Rights
- Sale of part of the IMF gold stock
- International Finance Facility
- Increased private donations for development
- Increased remittances from emigrants
- Global lottery
- Global premium bond


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<th>Mandatory Mechanisms</th>
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<td>Taxation of financial transactions</td>
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<td>Taxations of arms trade</td>
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<td>International financial facility</td>
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<td>SDRs for financing development</td>
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<th>Political Coordination</th>
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<td>Reduction of tax evasion and tax havens</td>
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<td>Increasing remittance’s benefits</td>
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<th>Voluntary Mechanisms</th>
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<td>Voluntary contributions through credit cards</td>
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<td>Socially responsible investing or ethical funds</td>
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Public
- Public budget funding
- Earmarking a percentage of taxes collected at national, state or local levels
- Special laws delivering extrabudgetary financial support
- Tax breaks, subsidies
- Earmarking a percentage of selective taxes collected at local, state or national levels (e.g., taxes on energy or cruise ships)
- Earmarking charges/fees/fines related to use or abuse of natural resources (e.g., water use, emissions, hunting fees)
- National, state and local development banks’ loans
- Environmental funds (endowment, sinking, revolving)
- Multilateral aid and development agency aid
- International development banks’ loans
- Bilateral aid

Private Nonprofit
- Community self-support groups; social capital
- Secular and faith-based charities
- Special fundraising campaigns
- Merchandising and good cause marketing
- Lotteries
- Social and environmental NGOs
- Foundations

Private for Profit
- Household saving and labor assets
- Community-based enterprises—formal/informal co-ops
- Micro-credit/saving/insurance
- Semiformal and informal microfinance institutions
- Private investment by local businesses
- Commercial bank loans
- Direct investment by nonlocal investors
- Private-public partnership (PPPs)
- Private sector-community partnerships
- Compensatory environmental investment of large developments
- Venture capital
- Portfolio investors (green funds)

Payments for Environmental Products
- Markets for organic agricultural products
- Markets for sustainably harvested nontimber forest products
- Markets for certified forest products
- Markets for certified fishery products
- Resource extraction charges directly collected by conservation projects
- Allocating part of national, state or local extraction fees to conservation projects in the extraction areas

Payments for Environmental Services
- Markets for biodiversity conservation and bioprospecting
- Markets for carbon offsets
- Markets for watershed protection
- Markets for landscape beauty, including ecotourism and tourism
- Markets for development rights and conservation easements
- Quasi-markets and nonmarket systems of payments for environmental services
- Users fees and entry fees directly collected by conservation projects
- Allocating part of national, state and local user fees to the conservation project in the area providing the environmental services
- GEF payments for global commons
- Funds for projects associated with international treaties
- Other possible systems of international payments for global commons
- Earmarking of international taxes

Reducing Additional Financing Needs
- Freeing up existing public resources (redirecting environmentally harmful subsidies to conservation activities)
- Encouraging the mobilization of private resources (e.g., securing tenure)
- Mechanisms to increase the accessibility to and to reduce the need for and cost of financing (e.g., pooling, insurance, guarantees)

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- Revenues from constraints on tax avoidance, evasion and tax competition among countries
- Revenues resulting from increased international cooperation to combat illegality and corruption
- Special Drawing Rights
- Improved micro-credit
- International air transport tax
- Carbon tax
- Currency transaction tax
- Taxation of the global commons (mining of sea beds or Antarctica)
- Tax or levies on natural resources extraction
- A tax on arms exports
- A bit tax
- Public/civil society/private partnerships

- National and international taxation (Tobin tax, international air and transportation taxes, carbon taxes)
- Grants and subsidies (GEF, environmental funds, private philanthropy grants)
- Loans from Multilateral Development Banks (technical assistance grants)
- Debt-related instruments
- Reforming tax system
- Removing damaging subsidies
- Environmental fines
- Tradable permits and extraction quotas
- Deposit-refund schemes
- Environmental performance bonds
- User fees/charges
- Charging for nature’s goods and services (PES)
- Joint implementation and carbon sequestration
- Credits and loans to “green businesses” (including export credits)
- Venture capital (equity or quasi-equity) for “green businesses”
- Guarantees for “green businesses”
- Securitization


- International finance facility
- Environmental taxes
- Taxes on financial transactions
- A surtax on the profit of multinationals
- A tax on arms trade
- Air transport tax
- Bit tax
- Tax on portfolio investment
- Wealth tax
- Tax on foreign direct investment
- Tax on the production of plutonium
- Measures against tax havens and banking secrecy
- Voluntary contributions associated to credit card purchases
- Voluntary contributions associated to utility bill payments
- Voluntary contributions when filling taxes
What Are PES and IPES?

In recent years, payments for ecosystem (or environmental) services (PES) have become a buzzword. The idea looks straightforward: Those who benefit from ecosystem services (ES) such as climate regulation, water quality, protection against natural and human-made hazards, soil formation, biodiversity conservation, natural recreation and so on should pay those who provide these services. In this way, money and market-like efficiency would flow toward conservation — chronically underfunded — and toward sustainable agriculture, which is usually shunned by farmers who see in it additional costs and minimal benefits.

Even if the terms “ecosystem services” and “payments for ecosystem services” look new, the idea behind them — that natural environments provide valuable services to humankind — is anything but new, and can be found in ecology and economic textbooks of 20 years ago (Odum, Erlich, Pearce, Oates, Freeman and others come to mind. What may be new is that some recent efforts to track the flow of ES particularly the Millennium Ecosystem Assessment — have brought a sense of urgency to the issue, underlining that the supply of many ecosystem services is in jeopardy. At the same time, the emergence of new arrangements for the provision of ES (e.g., conservation easements, conservation concessions, payments for carbon sequestration, payments for watershed protection, wetland banking, ecotourism) have raised expectations that there may be new ways of paying for conservation, in addition to the more traditional, and still dominant, public budget allocation, international aid and private charity.

The issue is far from settled, and the PES field is full of disputes. Among the supporters, some see it as a new panacea of market-driven conservation; others look at it mostly as a way to increase the efficiency of public expenditure in conservation; and still others are skeptical of how far this new fad will go in either the private or the public sector. Among PES opponents, some shun the whole idea of “payments” or even of “services,” considering them forerunners of the privatization of the environment or the further disfranchisement of the poor. Others are concerned with its political implications. For example, India’s lowland states oppose PES, fearing that it will make them debtors of upstream Himalayan states. Still others suggest that PES may run against the “polluter pays principle” (PPP), a cornerstone of European environmental policy, and wonder if PES may not open the door to rent seeking, bribes or even blackmail by the would-be providers: the “pay me or else” scenario. In the environmental movement, some conservationists argue that nature is invaluable, and ecologists are wary that market unbundling of ES may pitch ecological functions against one another (e.g., managing for maximum carbon capture may reduce water availability).

PES supporters answer the above concerns by pointing out, among other things, (a) that the purpose of the polluter pays principle is to internalize the bad: you pollute, you pay; while on the other hand the purpose of PES would be to internalize the good: you improve the environment, you get paid; 21 (b) that ES are already being traded, usually at a zero price, resulting in overconsumption and undersupply; (c) that payments would be due for improvements over a baseline; (d) that equity, property rights and bundling-unbundling issues can be factored into the design of PES schemes; and (e) that far from hurting the poor, PES could become a new way for the rural poor to increase their incomes through the stewardship of nature.

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21 Unfortunately, reality is messier than definitions would have it. If a factory buys ecosystem services to compensate for its pollution, is this a PPP? A PES? Both or neither?
With so many contrasting views at stake, it is no wonder that most PES meetings begin with animated discussions on what is or is not a true PES, and after some time decide to move on without having achieved a consensus (see Poats 2006). Without any expectations of solving the “what is a PES?” debate, we present below several of the better known PES definitions and their pros and cons as a frame.

- Let’s begin with the basics on which everyone agrees: In a PES scheme, those who benefit from ecosystem services pay those who provide those services. There is no problem here, but since nature always provides ecosystem services, with this definition every single dollar spent on conservation could be labeled PES. Clearly, this definition is too ample to be of much use, and most PES definition discussions focus on how to narrow it down. For example:

- PES experts at the World Bank narrow PES to transactions that bring together the direct providers and direct beneficiaries (the water company, the farmer downriver, the firm that needs to buy carbon offsets). Only in this way, they hypothesize, would PES bring to conservation the allocation efficiency of private markets. Note that this approach would leave out of PES a big chunk of the environment: most public goods or quasi-public goods and services for which there is no or too little private demand (and this includes most of biodiversity!). Even more is left out because the World Bank experts consider ES only those rendered ex situ (e.g., carbon sequestration, erosion control, water quality) but deny the ES label to in-situ services (e.g., the entrance to a national park, community-based conservancies in Africa auctioning annual permits for safaris in their lands).

- Sven Wunder, a CIFOR expert, has popularized a PES definition where the emphasis is not on private buyers and sellers but on voluntary and conditional transactions. The conditionality clause means that, should the seller fail to deliver the ecosystem service in question, the buyer can stop the payment. The point is well taken, although one should note that because of the complexity and randomness of natural systems, a multiyear approach is required and in many cases the buyers actually pay not for the ecosystem service itself, but for land use changes associated with the ecosystem service. The voluntary clause is more problematic, considering that some of the largest markets for ecosystem services (e.g., carbon sequestration, wetland banking, biodiversity offsets) are driven by government regulations (e.g., cap and trade). In these cases, any particular transaction would be voluntary, in the sense that the buyer can buy from this or that provider. But the fact that he is in the market looking to buy ES is not voluntary at all.

- Many in the conservation movement favor a broader definition of PES in which the buyers may be (a) the direct beneficiaries of the ecosystem services in question (e.g., consumers, businesses); (b) a private or public intermediary that passes the costs on to final consumers (e.g., a private or public water company that pays for watershed conservation and includes the cost in the water bills); or (c) the government procuring ES on behalf of society, as is the case with many other public goods (e.g., education, security, culture, social security). In this approach, what makes a PES a PES is that in any payment arrangement, those who pay are aware that they are paying for an ecosystem service that is valuable to them or to their constituencies — and those who receive the payments engage in meaningful and measurable activities to secure the sustainable supply of the ecosystem services in question. Some

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23 See Wunder (2005).
24 See Gutman (2007).
critics consider this definition too broad, and find little gain in now calling PES what previously were known as certification schemes, park entrance fees or conservation grants. Supporters answer that even for traditional finance schemes, adopting a PES approach may improve the procurement and delivery of conservation, as it makes both parts more aware of what they are paying and being paid for.

To PES or Not to PES?

The payment for ecosystem services wave has aroused expectations that PES may become the silver bullet of conservation, so it is worth underlining that even in the best possible scenario, PES would be one of many approaches needed to foster sustainable development. PES approaches are particularly suitable to promote conservation in rural areas, first as a way to compensate farmers and rural communities for the costs of adopting sustainable land uses that improve the flow of ecosystem services, and second (and probably to a lesser degree), to pay for part of the costs of managing public protected areas. But, a voluntary PES approach would be too slow to address an environmental emergency, or too unreliable to save a species or a habitat on the brink of extinction. PES also will not be appropriate to tackle most urban pollution problems, where the polluter pays principle seems more appropriate. The table below depicts where PES approaches would fit in the broader sustainability agenda.

<table>
<thead>
<tr>
<th>The urban sustainable development agenda</th>
<th>Appropriate approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase efficiency, reuse, recycle</td>
<td>• Internalize the bad: the polluter pays principle</td>
</tr>
<tr>
<td>• Move to renewable energy and organic products</td>
<td>• Include environmental costs into prices</td>
</tr>
<tr>
<td>• Change lifestyles and consumption away from overconsumption and pollution</td>
<td>• Education, persuasion</td>
</tr>
<tr>
<td></td>
<td>• PES, mostly as buyers</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>The rural sustainable development agenda</th>
<th>Appropriate approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Set aside a sizable sample of world ecosystems</td>
<td>• Build a representative system of protected areas</td>
</tr>
<tr>
<td>• Protect nature’s regeneration capacity (e.g., stop overfishing)</td>
<td>• Sustainable rural production</td>
</tr>
<tr>
<td>• Ensure ecological flows (e.g., ecological river flows)</td>
<td>• Internalize the good: the payment-for-ES principle. PES as sellers and buyers</td>
</tr>
</tbody>
</table>

International PES (IPES)

Most current PES schemes are of local scale (e.g., in Quito, Ecuador, the water company pays farmers for watershed conservation services) or of national scale (e.g., in Costa Rica, Mexico and China, governments pay farmers for forest protection or reforestation). International PES is less common than national or subnational PES, but still there are quite a few. To begin with, some well-known biodiversity conservation financial mechanisms that we usually do not see as PES could perfectly fit the PES definition: Tourism companies paying local communities for landscape and wildlife protection services, the international market for sustainable coffee, or bioprospecting contracts all can be considered IPES or quasi-PES schemes. Other IPES schemes are rather new, such as the growing international biocarbon market; and still others are in the design phase, including an international biodiversity offset market.
The table below (reproduced from Food and Agriculture Organization 2007) offers a taxonomy of PES opportunities both national and international regarding mainstreaming biodiversity in production landscapes, biodiversity conservation in private lands and biodiversity conservation in public protected areas.

<table>
<thead>
<tr>
<th>Opportunities to use PES to fund</th>
<th>Local and country level buyers</th>
<th></th>
<th>International buyers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A. Public</td>
<td>B. Private</td>
</tr>
<tr>
<td><strong>Mainstreaming biodiversity into production landscapes</strong></td>
<td>ES sold</td>
<td>A.1 Difficult in low-income countries for all I through IV</td>
<td>B.1. Difficult in low-income countries for all I through IV</td>
</tr>
<tr>
<td></td>
<td>I. Carbon sequestration (low to medium)</td>
<td>A.2 Better chances in middle- (and high-) income countries for II and III</td>
<td>B.2 Better chances in middle- (and high-) income countries for II and IV</td>
</tr>
<tr>
<td></td>
<td>II. Watershed and other natural resources protection (low to high)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>III. Biodiversity (low)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>IV. Sustainable produced food and fibers (high)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Biodiversity protection in private lands</strong></td>
<td>ES sold</td>
<td>A.3. Difficult in low-income countries for all I through III</td>
<td>B.3 Difficult in low-income countries. But there can be some rich buyers willing to pay for II (dams, cities)</td>
</tr>
<tr>
<td></td>
<td>I. Carbon sequestration (low to high)</td>
<td>A.4 Better chances in middle- (and high-) income countries for II and III</td>
<td>B.4 Better chances in middle- (and high-) income countries for voluntary and regulation-driven demand. For II, still needs to be in the vicinity of rich buyers</td>
</tr>
<tr>
<td></td>
<td>II. Watershed and other natural resources protection (medium to high)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>III. Biodiversity in situ and ex situ (low to medium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Biodiversity protection in public protected area systems</strong></td>
<td>ES sold</td>
<td>A.5 Governments are already paying for PAS. Adopting a PES perspective (e.g., valuing the ES of PA) may increase governments’ willingness to spend on conservation and the efficiency of the expenditure</td>
<td>B.5 Difficult in low-income countries. But there can be some rich buyers willing to pay for II (dams, cities). B.6 Better chances in middle- (and high-) income countries for voluntary and for regulation induced demand. For II, still needs to be in the vicinity of rich buyers.</td>
</tr>
<tr>
<td></td>
<td>I. Carbon sequestration (low)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>II. Watershed and other natural resources protection (high)</td>
<td></td>
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<td></td>
<td>III. Biodiversity in situ and ex situ (medium to high)</td>
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</table>
This report has been produced by the WWF-MPO's Promoting Payments for Ecosystem Services and Sustainable Financing for Rural Conservation and Development program, thanks to the financial and technical support received from the German Federal Ministry of the Environment. The Swedish International Development Agency (Sida) has been the major supporter of the overall program. We also acknowledge the support from several other donors and from the WWF constituency.

WWF’s mission is to stop the degradation of the planet’s natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption