

Achieving Sustainability of Biodiversity Conservation

Report of a GEF Thematic Review

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Preface

The GEF Monitoring and Evaluation (M&E) team is tasked with analyzing and documenting GEF results. Until now, conclusions of these efforts have been in the form of evaluation and study reports, annual Project Performance Reports, and GEF Lessons Notes. With the introduction of the M&E series of Working Papers, we are publishing reports that are not full-fledged evaluations, but nevertheless deserve attention.

Many of the issues and early results that these reports identify will be pursued later in broader evaluations to arrive at more definite conclusions. We expect the M&E working papers to be a valuable catalyst for promoting dialogue on issues and results of importance within GEF's operational areas and efforts. We therefore look forward to your feedback and suggestions. Please contact us through the coordinates listed below and visit the GEF Web site to find out more about the Monitoring and Evaluation program.

This report is the result of a "thematic review" conducted by the secretariat's monitoring and evaluation team in 1999. Initially, financial sustainability of biodiversity projects was identified as the review's focus. However, in the course of consultations with GEF's implementing agencies and colleagues in the secretariat, the M&E team was encouraged to expand the review to include factors that influence the overall sustainability of biodiversity conservation. One of the authors, Scott E. Smith, was a member of the M&E team at the time of the review. The other author, Alejandra Martin, was contracted by the team for this review.

The report is based on (a) a review of a wide range of literature on sustainability, sustainable development, and factors that influence sustainability of biodiversity conservation; (b) a paper commissioned from IUCN-The World Conservation Union that examined the question of sustainability of biodiversity conservation from the NGO perspective; (c) a survey of, and discussions with representatives from, other multilateral and bilateral donor agencies; and (d) a review of experience and insights gained about sustainability from the design and implementation of GEF projects, based on a desk study of PIR reports, project evaluations, and completion reports, and interviews with a few GEF coordinators and project managers.

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Achieving Sustainability of Biodiversity Conservation

Report of a GEF Thematic Review

During the 1998 GEF Project Implementation Review (PIR), it was decided that the corporate Monitoring and Evaluation team would carry out in 1999 a small number of “thematic reviews.” One of the issues identified for review was the financial sustainability of biodiversity projects. In the course of consultations with representatives of GEF’s implementing agencies and secretariat, however, it became clear that GEF’s biodiversity team felt that a review limited to financial sustainability issues would not meet its needs. Instead, the M&E team was encouraged to expand the review to include factors that influence the *overall sustainability* of biodiversity conservation. This broader and much more ambitious scope, then, became the focus of the review.

The review involved four components:

- **Literature review.** We consulted a wide range of literature, including a number of documents still being finalized. Initially, we identified books and articles that address sustainability and sustainable development conceptually. We then moved to more empirically-based literature that focuses on various factors that influence sustainability of biodiversity conservation. Many of the sources reviewed (e.g., WWF, 1999; Brandon, Redford and Sanderson, 1998; Mayers and Bass, 1999; Church and Brandon, 1995; World Bank, 1998a; Biodiversity Conservation Network, 1999) draw on a number of case studies, analyses and/or evaluations of experience

with conserving and sustainably using biological diversity. A selected bibliography of the literature consulted is included in Annex 1. Those we considered to be key references are highlighted in bold.

- **Examination of NGO perspective.** A paper was commissioned from IUCN-The World Conservation Union, which at that time was the central focal point for the GEF-NGO Network, to examine the question of sustainability of biodiversity conservation from the NGO perspective. IUCN developed a questionnaire that explored four dimensions of sustainability: policy framework, finance, programs, and partnerships. It was distributed to NGOs engaged in GEF projects around the world. Due to time constraints and other factors, however, only ten responses were received. IUCN conducted an extensive search of NGO reviews, policy papers, lessons learned, and internal practices to complement results from the questionnaire. IUCN’s report (IUCN, 1999) reflects the questionnaire responses, interviews with international NGO officials, and the NGO literature review.
- **Survey of multilateral and bilateral donor agencies.** We conducted a survey of, and held discussions with representatives from, other multilateral and bilateral donor agencies. Information and insights were gathered about how these organizations define sustainability for their biodiversity programs, and what expectations they have for achieving

sustainability over particular time periods. Thirteen agencies were contacted. Responses were received from seven—the Canadian International Development Agency (CIDA), the Department for International Development (DFID) in the United Kingdom, the French Global Environment Facility (FFEM), the German aid agency (GTZ), the Inter-American Development Bank (IDB), the Norwegian Agency for Development Cooperation (NORAD), and the Swedish International Development Agency (SIDA).

- **GEF project experience.** The final component was a review of experience and insights gained about sustainability from the design and implementation of GEF projects. This component was carried out through a desk study of PIR reports, project evaluations, completion reports, and other documents. Interviews were also conducted with a few GEF coordinators and project managers. These interviews focused more generally on factors influencing sustainability, rather than specific project experience.

This was envisioned as an initial review of the complex set of factors that influence sustainability of biodiversity conservation. We found very little in any of the four components of the review that analyzed sustainability of biodiversity conservation explicitly, based on empirical field experience. We did not find many evaluations or specific analyses of sustainability; most of those that we found (with the exception of the 1995 USAID evaluation, Church and Brandon, 1995) were completion reports, not *ex post* evaluations. Much of the case study material is based on activities that are still underway. It is with a sense of modesty, therefore, that we highlight our conclu-

sions. Further discussion within GEF of our findings, further analysis of experience, and further dialogue among GEF and others in the development and conservation community who are studying these questions will undoubtedly refine and modify them. This paper is intended to stimulate reflection and discussion, not provide answers or prescriptions.

Focusing broadly on the sustainability of biodiversity conservation led us to four overarching conclusions that provide the context for the rest of the review. These conclusions are discussed in the first section. Following that, we present our synthesis of the major factors that influence sustainability of biodiversity conservation. The starting point for this synthesis was the discussion during the 1998 PIR (GEF, 1999a, p. 28). It draws on all four components of the review, although the specific framework and labels are ours. The third section identifies a number of approaches, many illustrated by GEF experience, that show how projects can foster long-term sustainability of biological diversity. Last, we summarize the conclusions from the review.

This final section is divided into three parts. First, we highlight what we found to be the main advantages and challenges faced by GEF in achieving sustainability of biodiversity conservation. On this basis, we identify what we believe are realistic expectations for GEF projects regarding sustainability. Next, we suggest five areas to which GEF and others could give priority attention in order to improve their contributions to making biodiversity conservation sustainable. We close with a brief discussion of possible next steps that GEF may want to consider to further its analysis and understanding of this subject.

A Context for Considering Sustainability of Biodiversity Conservation

Focusing broadly on the sustainability of biodiversity conservation led us to four overarching conclusions: (1) it is essential to identify clearly what biodiversity one seeks to sustain, on what scale, and over what time period; (2) since much biodiversity will remain outside protected areas, a discussion of sustainability must include conservation and sustainable use on privately owned lands; (3) the major factors that affect sustainability are the socioeconomic and political¹ root causes of biodiversity loss; and therefore (4) a comprehensive, long-term, and adaptive approach is needed to conserve biodiversity sustainably.

The discussion of sustainability of biodiversity conservation must begin with a clear definition of what *biodiversity* one is seeking to *conserve* and *sustain*. The term “biodiversity” typically refers to ecosystem, species, or genetic diversity. Maintaining desired diversity at one level will have very different requirements than conserving it at another. Conservation priorities and indicators of success will be different if one is trying to sustain the population of a specific species or if the aim is to sustain the ecological benefits contributed by that species within larger ecosystem processes (Redford and Robinson, 1995). Likewise, it will not be possible to preserve all current biological diversity from the pressures of popula-

tion growth and increased consumption. Choices and trade-offs will have to be made; an acceptable degree of loss must be determined (Mayers and Bass, 1999; Redford and Robinson, 1995; CIFOR, 1999). These decisions require value judgments about which resources should be sustained by which means, as well as for and by whom (Kane, 1999). One major dimension of these decisions is whether to emphasize resources or ecological services of current or likely future *economic use to humans*, or to stress the *existence value* of a wide diversity of ecosystems, species, or genes in their own right. Another is geographical: should priority be given to diversity that is important or unique locally, nationally, bioregionally or globally? What to conserve will always depend on one’s objectives and the context in which conservation occurs. Ideally, efforts to conserve and sustainably use biological diversity will be based on a clear understanding of these trade-offs, actions will be prioritized to optimize the chances of achieving conservation objectives, and a wide range of stakeholders—especially those expected to bear to costs of conservation—will be involved in making these decisions.

Establishing, managing, and sustaining protected areas is essential for the conservation of biodiversity. However, the area of land and water given some type

¹ By “political,” we mean the policies that provide the incentives and disincentives related to the conservation and sustainable use of biodiversity, the processes by which these policies are made and enforced, and the influence of groups or individuals on these processes.

of effective protection is, and will remain, relatively small. Even if protected areas are selected on the basis of their biodiversity value, e.g., the “hot spots” of high diversity or endemism, a major portion of the world’s biodiversity will not be included in these areas. This diversity will need to be conserved on privately owned lands. What happens in the production landscape, and the incentives and disincentives that influence how private land owners make decisions regarding resource use, are central to long-term sustainability of biodiversity.

There is consensus that the major causes of biodiversity loss are habitat loss and degradation.

Discussion of “sustainability” should shift from “how can we design a project that will make a contribution to biodiversity conservation, and what does it take to make it sustainable?” to “what does it take for biodiversity to be sustainable, and how can we design a project, together with other activities, to make a contribution to that?”

However, a robust conclusion that emerges from our review is that the *root causes* of biodiversity loss—and thus the threats to sustaining that biodiversity—are found in the socioeconomic and political context that motivates local actions. Biodiversity conservation is inherently political, and the most significant challenges facing conservation efforts are not biological but social and political (Brandon, Redford and Sanderson, 1998, p.2). In fact, WWF’s recent analysis of the root causes of biodiversity loss finds that the threats to biodiversity are “overdetermined,” that is, they have many causes and addressing only one or a few of them will not result in sustainable conservation (WWF, 1999). Socioeconomic and political factors, therefore, figure prominently in our synthesis of necessary ingredients for sustainability discussed in Section 2. The value and benefits of biological diversity are not well articulated or understood, and are often not perceived to be sufficiently real or immedi-

ate. As a result, typically there are weak constituencies for conservation within governments or more broadly in societies, and biodiversity conservation is given low priority in the face of more immediate pressures for increased consumption and generation of income from resource use. This translates into little political will to adjust policies and incentives, to enforce environmental regulations, to strengthen conservation institutions, or to allocate sufficient resources for conservation, let alone to consider different approaches to “development” that would put less pressure on resource consumption. Field-based projects are important for biodiversity conservation. But unless the underlying root causes are effectively addressed, biodiversity will not be sustained.

This argues convincingly for a comprehensive, strategic approach to conserving and sustainably using biological diversity. National biodiversity strategies, and international support for them, should fully integrate biodiversity considerations into broader national and local policies and priorities. The challenges of biodiversity conservation cannot be viewed as the concern of a limited number of interest groups and government environment officials, but must engage the broad range of government officials, businesses, NGOs, and others concerned about “development,” and the external organizations that support them. This will require a commitment by countries and international agencies to coordinate actions closely and to remain engaged for substantial periods of time. When projects are selected and designed, including with countries’ own resources, the discussion of “sustainability” should shift from “how can we design a project that will make a contribution to biodiversity conservation, and what does it take to make it sustainable?” to “what does it take for biodiversity to be sustainable, and how can we design a project, together with other activities, to make a contribution to that?” Phased and flexible programs, scaled to local institutional capacity, and with discipline provided by results-oriented milestones and effective monitoring and evaluation systems, are essential for such an approach to succeed. Such assistance must be managed in an adaptive way, building on feedback from experience.

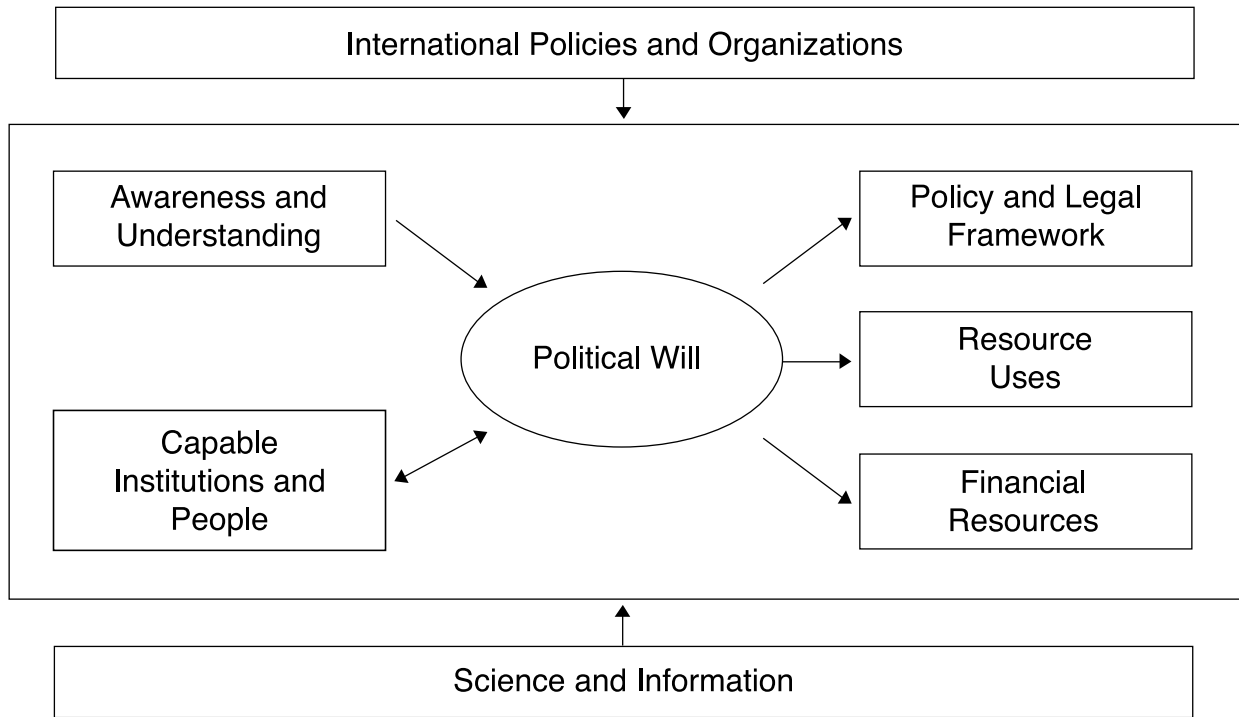
Factors That Influence Sustainability

This section presents our synthesis of the factors that influence—the conditions that are needed to achieve—sustainable biodiversity conservation. It is based on the wide range of material we consulted and input we received from all four components of the review. We did not find a framework or model that we could borrow or validate. In fact, we found little in the literature, or donor or NGO experience, that explicitly addresses the ingredients of sustainability of biodiversity conservation, *per se*. Instead, we drew on insights about sustainability and sustainable development in general, as well as a growing literature on the root causes of biodiversity loss and the results of biodiversity conservation and sustainable use projects in the field, to put together a synthesis of key factors that affect sustainability.

The central ingredient is the political will to conserve and sustainably use biological diversity. It is critical for everything else, and its absence is widely lamented as a cause for continuing biodiversity loss (cf., Brandon, Redford and Sanderson, 1998, pp. 406, 419; OECD, 1999). Political will is essential at many levels: locally, nationally, and internationally. Two key factors that influence political will are awareness

and understanding of the value of biodiversity and the benefits of its conservation, and the capacity of institutions and people to influence policy, engender commitment to conservation, and effectively channel resources to and carry out actions in the field. Institutional capacity, of course, is also affected by the degree of political will. In addition, three other important ingredients to sustainability are largely the product of adequate political will: the policy and legal framework and the incentives it provides for (or against) conservation; the extent to which the value of biodiversity and the services provided by robust, biodiverse ecosystems are real and immediate, reflected in markets and, therefore, resource uses; and the adequacy and diversity of financial resources allocated for conservation. Finally, two additional factors impact on these other six in a cross-cutting way. The international context of policies, commitments, and organizations is a very important determinant of sustainability of biodiversity nationally and globally. And the availability of sound science and reliable information is essential to support all of the other ingredients of sustainability. These eight factors are depicted in Figure 1 and discussed briefly below.

Figure 1: Factors that Influence Sustainability



Political will. Political leaders and institutions at all levels—local, national, and international—determine policies, the degree to which they are implemented or enforced, and resource allocations that affect whether biodiversity is sustained or not. The degree of their commitment to conservation and sustainable use, and the extent to which this commitment is continually reinforced through the political support of their constituents and other influential interest groups, determines whether conservation will be sustainable.

Political leaders everywhere, but especially in developing countries, face a range of competing choices for improving the well-being of their people, regions, or countries. They are influenced by a variety of interests, and in this process privileged groups and short-term perspectives often prevail. The challenge for those interested in conservation is to make these leaders and interest groups aware of the benefits of biodiversity and the habitats that sustain it, how conservation and sustainable uses of biological resources

can meet development aspirations and objectives, and conversely, how extractive and exploitative economic uses can undermine long term well-being. Outside agencies can play an important role by strengthening the hand of the local conservation community in the debate over development approaches and resources.

Ownership and commitment at every level is key for sustaining biodiversity conservation. Opening political processes or creating new vehicles to give voice to all stakeholders—including those directly affected by the condition of biological resources—can increase commitment. So can providing a means for stakeholders to participate in, and have control over, decision-making about biodiversity. Active participation enables all players to feel more responsible for conservation outcomes. It also creates “checks and balances” among stakeholders, and keeps them involved as long as there is a sense of equitable distribution of benefits and costs (IUCN, 1999).

The **West Africa Pilot Community-Based Natural Resource and Wildlife Management** project is jointly implemented by Burkina Faso and Côte d'Ivoire to conserve one of the region's most diverse and threatened ecosystems: the Comoé. Each country is responsible for strengthening local community and government capacities to manage wild plant and animal resources, improving management and use of habitat and wildlife populations and local land management practices and infrastructure, and establishing a system for monitoring and evaluation project implementation.

Like most African countries, poverty alleviation is the main focus of these countries' national plans. From the start, one country committed to placing environmental concerns on the political agenda and has channeled a steady flow of resources for four years to this project. This allowed for the transparent selection of high level staff, and the project management unit was better positioned to focus attention on non-financial matters such as community diagnostics, training, and community outreach. This government's efforts to promote community planning have paid off in local revenue creation from wildlife exploitation, which may replace project funds in the future. The other participating country's project staff is also excellent, and the local communities are enthusiastic about the project. However, the central government is struggling with decentralization and willingness to devolve wildlife management to local levels. Government commitment has been characterized as "marginal" at best, and resources have not been forthcoming. In this case, lack of commitment has seriously constrained transboundary conservation.

A 1995 evaluation of USAID's support for protected area management identified three important determinants to elevating biodiversity conservation among the competing demands faced by policy makers: effective coordination among public and private sector groups and among politically important government agencies; close partnerships between local, national, and international NGOs, and between the private sector, NGOs, and government; and strong advocacy for conservation within the government, among the general public and educated urban elites, and among local populations (Church and Brandon, 1995, p. 31).

Experience has shown that building commitment and political will is a continuous political process that must be constantly reinforced (Mayers and Bass, 1999). Attention needs to be given to garnering support from a range of the political spectrum, transcending partisan politics or the term of a particular government administration (Resource Futures International, 1998). Efforts need to be made to avoid turning projects into political promises, and political neutrality needs to be sought at all times (McCallum and Sekhran, 1997).

Two factors significantly influence the degree of political will: awareness and understanding, and capable institutions and people. Without them, it is unlikely there will be sustained commitment to biodiversity conservation.

Awareness and understanding. Sustainable conservation of biodiversity must be based on an understanding by all key stakeholders of the material and spiritual benefits of conservation, and the costs of failing to conserve biological diversity. Only by being aware of these benefits and costs, and building pride in one's natural heritage, can support be mobilized for, and informed decisions made about, the trade-offs inherent in long term conservation.

While an understanding of the benefits of biodiversity is important to promote among those in immediate contact with biological resources, the underlying threats to biodiversity increasingly come from urban areas and larger resource-based corporations. Thus, the awareness by urban residents and private enterprises of the impact on biodiversity of government policies and their consumption or production patterns is crucial. Businesses and urban areas are also likely to be more influential politically. Likewise, it is essential that multinational businesses and people living in industrialized countries are aware of and understand the global drivers of biodiversity loss and habitat degradation.

The true test of awareness is the extent to which it leads to changed behaviors. This often takes longer and is more complex than simply transferring knowledge (Church and Brandon, 1995, p. viii). Generational, cultural, and socioeconomic differences largely determine the rate at which change occurs.

For outside donors seeking to play a role in this process, experience has shown that it can take considerable time to gain local trust. Extensive groundwork on community organizing is often needed as a foundation for community-based efforts.

Capable institutions and people. A vibrant and well-informed net of organizations that effectively influence policy and provide vehicles for political support for conservation activities is crucial to create and sustain political will and translate awareness into effective actions and policies. This requires a variety of public and private institutions with responsibilities for the conservation of biodiversity that are capable of carrying out their principal functions effectively, credibly, and on a continuing basis, as well as in collaboration with others.

Institutions and people must be able to perform a variety of important functions effectively and credibly. These include influencing and making policy, conducting policy analyses and scientific research and learning, managing resources and people, governance, assuring the transparency and accountability of public and private transactions, providing appropriate checks and balances, engendering commitment and mobilizing support for conservation, and resolving conflicts.

Institutions can have great impacts by helping enforce the rule of law, establishing partnerships with diverse groups, and creating political space for multisectoral and multilevel fora in which biodiversity conservation strategies can be debated (IUCN, 1999; Mayers and Bass, 1999). Strong institutional structures give an effective voice to those who directly depend on biodiversity resources for their livelihood and to conservation communities at the local, national, and international levels. Further, they nurture a culture of conservation and provide support for legal and cultural incentives and sanctions.

Organizations are more effective when they have local constituencies and provide the type and quality of services that people are willing to support. A feature of a positive institutional environment is the ability to create novel alliances among sectors of society. This happens best when responsibilities are balanced between different levels—local and national (Brandon, Redford and Sanderson, 1998, p. 453). This requires private and non-profit institutions that can work ef-

fectively with government agencies, and governments willing to delegate to and partner with private organizations and local governments. It is also important for institutions to practice adaptive management approaches, and have the flexibility to respond to changing situations.

Reliable institutions are essential to translate conservation and sustainable use into tangible benefits for local beneficiaries. They are also needed to channel resources from the private sector for conservation. In addition, groups being asked to give up traditional resource uses must have confidence that there will be an equitable distribution of the sacrifices and benefits inherent in conservation. The flow of timely, reliable information is important to hold actors accountable and promote trust building and transparency.

Outside donor organizations often have expectations that may not be met by local capacity. Programs and projects need to be tailored to local abilities and time horizons. Channeling large amounts of resources to places with limited capacity and infrastructure may affect existing social structures and planning in unanticipated ways.

Policy and legal framework and incentives. Several components contribute to creating the enabling environment for biodiversity conservation and sustainable use: policies and regulations (at all levels), the degree and credibility with which they are enforced, and who influences them and how. Policies can reinforce or alleviate root causes of biodiversity loss, and they provide incentives to use biological resources sustainably or unsustainably. Macroeconomic, transportation, tourism, and agricultural policies often have stronger effects on biodiversity than environmental policies. Thus, for conservation and uses of biodiversity to be sustainable, it is essential they be integrated and fully reflected in overall national—and international—development plans and policies.

To be effective and respected, policies need to be perceived as legitimate, equitable, and consistently applied. They need to encourage and/or be based on proper valuation of resources and sound scientific data. Promoting regular review of policy effectiveness and policy consistency allows for rapid attention to changing conditions. Decentralizing policy making and enforcement is one means of increasing stakeholder accountability (Lutz and Caldecott, 1996).

While clear property rights and land tenure are essential to increase resource users' sense of ownership, secure tenure is not the equivalent of conservation. The incentives provided by economic and other sectoral policies can exert forces that can be much more appealing than conserving biodiversity.

A recent paper prepared by IIED on policy processes that have worked in the forestry sector observes that "policy inflation and capacity collapse syndromes are paralyzing the world of forests" (Mayers and Bass, 1999, p. 7). The authors advocate simpler policies and processes that leave room for dissent. This perspective can easily be transferred to the biodiversity discussion more generally. In their view, good policy will:

- Highlight and reinforce forest interest groups' objectives.
- Provide shared vision, but avoid over complexity.
- Clarify how to integrate or choose between different objectives.
- Help determine how costs and benefits should be shared between groups, levels (local to global) and generations.
- Provide signals to all those involved on how they will be held accountable.
- Define how to deal with change and risk, when information is incomplete and resources are limited.
- Increase the capacity to practice effective policy.
- Produce forests that people want, and are prepared to manage and pay for.

A key characteristic of the policy environment is the incentives and disincentives it provides for conservation, primarily by private businesses and individuals (McNeely, 1988; McNeely, Rojas and Vorhies, 1997). Devising appropriate incentives can be very complex, however, and needs to be tailored to specific target groups and their socioeconomic contexts. In practice, incentives have often focused on local people and livelihood concerns, whereas many of the threats to biodiversity come from large-scale external resource users. Experience has been discouraging in developing a strong linkage between incentives and conservation objectives in many situations, especially in integrated conservation and development programs (Brandon, 1997; Wells et al. 1998).

Resource uses. Use of biological resources is the foundation for livelihoods in most parts of the world. However, for biodiversity to be sustained, the exploi-

tation of the resources and services needed to conserve biodiversity must not exceed their ability to be renewed or replaced. At a more general level, conservation of biodiversity will be sustainable when national and local economies are able to generate sufficient employment to avoid marginalizing large numbers of people and forcing them to rely on unsustainable resource uses for their food, water and waste. Likewise, economies cannot depend on extractive, unsustainable resource "mining" (e.g., extensive timber harvesting, or overfishing) of ecosystems important for biodiversity conservation.

This factor is especially relevant for those elements of biodiversity that are, and will remain, in the production landscape outside protected areas. It is important to integrate biodiversity conservation with other forms of land use. In the production landscape, biodiversity will be conserved only to the extent it is perceived as valuable and used sustainably. Thus, it is essential to recognize the important role private businesses and individuals play, and the influence of economic incentives in shaping private sector actions. The threat to sustainable conservation of biological diversity and the habitats that nurture it comes largely from policies and practices that undervalue these resources or allow those who exploit them to avoid a significant share of the costs of that exploitation. The economic benefits and costs of biodiversity conservation are frequently unequally distributed between different groups (Emerton, 1999). Currently, most uses of biodiversity are not properly valued. Pricing of biological resources needs to reflect their full economic value, including the value of ecosystem services. This requires targeting urban consumption patterns and incorporating externalities into the costs of production and resource use.

On the positive side of the ledger, sustainable uses of biological resources can be important contributors to local and national income and encouraged as alternatives to extractive uses. Ecosystems which provide habitats for biodiversity often provide a range of irreplaceable services, such as protecting water quality for downstream irrigation or municipal water systems. Identifying conservation-friendly income generating activities that are compatible with customary practices is also important (CIFOR, 1999; IUCN, 1999). There is a lively debate in the literature, however, regarding the success of efforts to identify uses of biodiversity that are indeed sustainable (cf. Brandon, 1997; Adams and Binder, 1996; Freese, 1997).

Finding predictable markets, eliminating marketing barriers and bottlenecks, and establishing management control are essential issues to address for alternative products to gain in importance. And these uses will require close monitoring to assure that they are sustainable over time.

Recognizing that certain sites and species are socially and spiritually valuable beyond economic terms is also important. The existence value of biodiversity is often of particular importance to international “consumers,” and ways need to be found to convert this into market values.

It is important that the economic benefits derived from using biodiversity be, and be perceived by all key stakeholders to be, shared equitably and balanced with the costs that individuals or groups are expected to bear in order to conserve and sustainably use biodiversity. This argues for consciously identifying local benefits—and recognizing and offsetting benefits from uses foregone—from conservation activities.

Financial resources. Even with good policies and proper valuation of biological resources and services, there will be some costs associated with conservation. They include establishing and managing protected areas, foregoing short term benefits from resource exploitation, financing incentives, and promoting sustainable uses of biodiversity, as well as bearing the costs of monitoring alternative uses to determine that they are sustainable and to learn from experience.

Clearly, these and related investment and recurrent costs cannot be sustained without adequate sources of funding. The majority of resources needed to provide the foundation for sustainable financing for conservation will come from national and local sources, including the private sector for economically sound commercial activities. This, in turn, will be a function of political will, awareness that the benefits of conservation justify an adequate level of expenditure, appropriate policies and incentives, and the ability of institutions to channel resources to the field and use them effectively.

Conservation financing is more likely to be sustainable to the extent it draws on a diversified base of many sources of funding—from governments, user and service fees, private donations, and the international community. Cost sharing and other ways of encouraging financial participation by government

and other key stakeholders can maintain everyone’s interest and ownership. Indeed, while it is important to guarantee a certain degree of financial security that recurrent costs will be covered, the need to regularly raise funds for specific priority activities can serve as a vehicle for mobilizing greater awareness and commitment to biodiversity conservation. And experimenting with user fees of various kinds can help identify the kinds of benefits from biodiversity that people are willing to pay for.

Successful fee-based sources depend on a high level of public-private sector collaboration, on institutional arrangements that allow fees to be earmarked and used for specific resource management priorities, and flexible fund-raising strategies that include ways to weather slow periods and economic downturns (Hooten and Hatzios, 1995). A key to this is for governments to allow non-governmental organizations, including local communities where appropriate, to play a significant role in collecting, receiving and using funds generated for conservation activities.

It is neither necessary nor realistic to expect conservation of globally important biological diversity to be fully funded from developing countries’ own resources for the foreseeable future. Within a diverse set of funding sources, it is quite feasible to count on continued, focused external support from industrialized nations, multilateral agencies, and international NGOs because of special interests in particular species or ecosystems and the extreme poverty of many nations that harbor significant biodiversity.

The international context. The previous six factors largely stress national and local actions. But the international context is an extremely important influence on national and local abilities to conserve biodiversity sustainably. It sets many of the rules of the game, e.g., the predominant “development” model, and trade and other policies that determine the effects of global markets domestically. The current global development model has a major impact on local conservation prospects and national policy environments (WWF, 1999; IUCN, 1999).

How international organizations use their resources and influence to help bring conservation issues to national agendas and support the negotiating capacity of local institutions is an important determinant of success. International political support needs to be continuously mobilized to press international finan-

cial organizations to move closer to policy coordination among environment, infrastructure, energy, and macroeconomic sectors.

The international community can play a significant role in sustaining biodiversity conservation beyond the provision of financial resources. By sharing information and promoting learning from experience, raising awareness, building partnerships with national counterparts, and providing technical and moral support in other ways, international organizations and NGOs can enhance advocacy for conservation, reinforce political will, and strengthen the conservation community's hand in debates over priorities and resource allocation.

The international context today is also characterized by a web of conventions and agreements, including the Convention on Biological Diversity (CBD), that shape national responses and provide fora for sharing experiences and building political will at the national and international level. They often provide financial and other resources to strengthen the ability of interested countries to meet their obligations. Other players on the international stage can do much to reinforce, or weaken, commitment to these agreements.

How international agencies interact with national counterparts and each other is important. Organizations working with biodiversity conservation issues can be more effective by coordinating with other donors (Ellsworth, 1998; WWF, 1999). By showing a willingness to strengthen local capacity, to work at a pace and in a style appropriate to local circumstances, to empower local groups, to build lasting relationships, and to adapt procurement and other procedures to reinforce partnerships and minimize the burden on counterparts, international agencies can significantly enhance their long-term contributions to sustainability.

Science and information. A sound scientific understanding of ecosystem processes, functions, and interactions, as well as of the socioeconomic and political root causes of biodiversity loss; high-quality, understandable, and accessible scientific information; regular measurement of key indicators on the status of biodiversity, the habitats that support it, and the impact of programs; use of traditional/indigenous knowledge; and simple approaches to data collection and dissemination are necessary for successful biodiversity conservation. They support all of the other factors that influence sustainability.

Scientific knowledge and data, however, cannot be ends in themselves. They must be related to the key problems faced by policy makers and the conservation community, and clearly linked with policy and practice (Olsen and Tobey, 1997). If the inevitable trade-offs that will be required are based on good science, conservation strategies will more effectively target interventions (Freese, 1998). A key purpose of science is to prioritize actions, help guide monitoring exercises used in adaptive management and group learning, and increase understanding of ecosystems and socio-economic dynamics (Mayers and Bass, 1999; WWF, 1999). It is important not to let pursuit of perfect science be the enemy of good science. Many things can be done without waiting for a complete scientific understanding (CIFOR, 1999, p.52).

Recognition, use, and equitable compensation of indigenous knowledge can make a major contribution to sustainable biodiversity conservation and help reverse the erosion of this important intellectual asset. When possible, it is important to build on local knowledge for information collection and dissemination, and in return, make scientific information more accessible to non-scientists.

3 Project Approaches That Can Foster Sustainability

It is essential, of course, to move from the conceptual level of these eight factors to more specific actions that can be taken by countries and donors to promote the sustainability of biodiversity conservation. Based on our brief review of project experience in light of the ingredients to sustainability highlighted above, this section identifies seven “tactics” that illustrate how projects might foster sustainability. Many are being pursued in GEF and other projects. Each could beneficially be the topic of a more in-depth review, and here we have only been able to scratch the surface to identify promising approaches. We caution that on the basis of the information we were able to review, none of them are actually “proven” in the sense of having passed the test of time and been shown to be sustainable or credibly demonstrate linkages to long-term sustainability of biodiversity conservation. They should be regarded as ongoing experiments. Continued monitoring of their contributions to sustainability, as well as better understanding of how and why they are working, is needed.

Strengthen local negotiating capacity. Projects can strengthen the capacity and position of the conservation community and important but marginalized stakeholders. This provides opportunities to increase awareness of the importance of biodiversity conservation and influence the policy process or debates over resource allocation. Local negotiating capacity can be strengthened by providing greater access to information, establishing or reinforcing legal instruments that conservation interests can use, and funding

for education and policy studies and staff (Mayers and Bass, 1999, pp. 6-7).

Two examples from the GEF portfolio illustrate different dimensions of this approach. In Jordan, the Conservation of the Dana Wildlands and Azraq Oasis project strengthened the capacity of the Royal Society for the Conservation of Nature (RSCN) and provided resources for it to increase awareness about the value of conserving these two important areas, mobilize public support for conservation, and contribute to government policy and regulations affecting these sites and conservation generally. As a result, RSCN, which was already an important actor within the Jordanian conservation community, was able to expand its influence and that of local communities on the policy process. The Mexican Nature Conservation Fund (FMCN) has used its role as the funding mechanism for GEF support to ten protected areas to insist on greater community involvement in park management and operating plans. This has given increased voice to local stakeholders. While the results so far are uneven across the ten areas, there are indications that increased involvement is producing greater ownership of conservation and improved management of the areas’ biological diversity.

Create or reinforce multisectoral and multilevel mechanisms. Multisectoral fora play an important role in mainstreaming biodiversity considerations into national policies and priorities. Multilevel mechanisms are important to integrate and balance

national and local control over conservation and resource use. Finding or reinforcing ways to link the scientific community with policy makers, and the private sector with others involved in conservation activities, can be particularly important for building political will, focusing policy and resources on key conservation priorities, encouraging sustainable resource uses, and generating funds for conservation.

The GEF-supported Sabana-Camaguey project in Cuba brought together scientists, government officials, and developers to create greater awareness of the adverse effects of public works (road construction) and tourism infrastructure (hotel design). This led to changes in both that reinforced biodiversity conservation in this area. The project also led to improved understanding between the scientific community and developers (Olsen et al., 1997). In Belize and the Patagonia region of Argentina, GEF projects led to the formation of multisectoral mechanisms for integrated planning and managing coastal areas with important biodiversity (Olsen and Ngoile, 1998; Olsen and Tobey, 1997). And several of the conservation trust funds supported by GEF bring together a wide variety of sectors—public, private, NGO, academic, communities—through their governing bodies and the programs they support. In Uganda, this helped empower local communities and appears to have strengthened their commitment to conservation. In Brazil, it is leading to increased private sector involvement in and funding for conservation activities (GEF 1999b).

Improve learning. A key element of an effective policy process is the ability to link directly to experiments with new ways of making things work on the ground. Local projects that allow stakeholders to investigate new alliances and roles can be vital learning grounds—but they only become useful on a significant scale if they capture the attention of senior policy makers. In Ghana, a unit was set up with a mandate to develop understanding of local capabilities for forest management, and experiment with modified roles for foresters in relation to other local stakeholders. The innovations in the experiments undertaken and the communications skills of the unit staff attracted the interest and support of senior ministerial and department officials. They associated themselves with the experiments, and this catalyzed considerable learning among other high-level staff. The results have led to a

broader process of institutional and policy change in favor of local forest management capabilities (Mayers and Bass, 1999, p. 5).

Integrate project activities and national action plans. The Environment Program in Madagascar offers an example of how specific project activities can be integrated with a national plan, and by doing so serve as a vehicle for greater collaboration and coordination among donor agencies supporting implementation of the plan. The program is based on Madagascar's National Environmental Action Plan (NEAP), and is being carried out in three five-year phases. The NEAP provides a comprehensive framework for addressing the major threats to biodiversity conservation, a structure for sequencing specific activities, and a mechanism for coordinating resources provided by national and local governments and outside donors. GEF's support for the current, second phase of the program is made up of both World Bank and UNDP activities that complement other contributions by these agencies, as well as a wide range of other organizations. Project implementation experience to date shows, however, that this comprehensive approach is not easy or guaranteed to succeed.

Give value to biodiversity and equitably balance costs and benefits. A growing number of projects aim to give local stakeholders value from conserving and sustainably using resources, and thus motivate conservation of biodiversity. One approach is to explicitly recognize the value of biological diversity or the services provided by robust, biodiverse ecosystems and reflect these services in fees charged for their use. For example, in Quito, Ecuador, the municipal water authority plans to add a small charge to monthly water bills to cover the costs of managing and conserving the watershed that provides the city's water (The Nature Conservancy, 1999). Important features of successful activities are a more equitable balancing of the benefits from and costs of conservation at the local level, and empowering communities that directly impact on biodiversity to reach and carry out their own decisions regarding resource use. The CAMPFIRE program in Zimbabwe, which gives rural communities a stake in the management of their wildlife and other natural resources, is one well-known example (Metcalf, 1993). The recently approved GEF Mountain Areas Conservancy project in Pakistan is another.

Pakistan Mountain Areas Conservancy

The Pakistan Mountain Areas Conservancy project seeks to increase the capacity of local communities to conserve biodiversity, enhance the relative values of wild resources as an incentive for conservation, and create a conducive policy and financial framework for community-based conservation. It is based on a successful pilot project that developed a participatory process building on two decades of community empowerment work. The pilot project showed that communities are receptive to conservation activities if given greater responsibility for managing wild resources. The project will carry out demonstrations aimed at establishing the biological and economic viability of sustainable use of these resources, in particular through sports hunting and wild plant management.

A key challenge for projects that focus on sustainable uses that give value to biodiversity has proven to be understanding the markets for these products and the process for reaching those markets. The experience of the 20 small enterprise projects funded by the Biodiversity Conservation Network (BCN) illustrates that a lack of understanding can be a major impediment to giving tangible value to biological resources (BCN, 1999). More generally, projects need to critically assess the assumptions that are often made about the compatibility of livelihood and conservation objectives. Despite more than a decade's experience with integrated conservation and development projects, there is little evidence that improved incomes or living standards are resulting in increased or more sustainable conservation. (Wells and Brandon, 1992; Wells et al., 1998). Indeed, some have cautioned that the emphasis of communities and project managers might tip too far toward income-generating activities, to the detriment of long-term conservation (GEF, 1999a, p.10).

Explore innovative financial arrangements. Reliable long-term funding is essential for sustainable biodiversity conservation. While this ultimately is a product of broad national political will and commit-

ment, many projects are gathering considerable experience with identifying, designing, and putting into place diverse and often innovative arrangements for financing biodiversity conservation. These include park entrance fees and other user fees, tourist taxes, licensing fees, concession arrangements, incentives for local charitable contributions to conservation NGOs, bioprospecting, channeling proceeds from small community enterprises into conservation activities, and credit and investment finance for biodiversity-friendly small and medium private enterprises (see box on page 19). Identifying and stimulating economically viable opportunities for private sector activities that conserve and sustainably use biodiversity are important. Approaches that increase local influence over the use of resources and provide a secure financial foundation for ongoing activities so resource managers can devote quality time to building partnerships and locating funding for priority investments are especially promising.

An increasing number of GEF projects support the capitalization of conservation trust funds. They have been successful under certain circumstances (GEF, 1999b), but are only one component of the set of mechanisms required to finance conservation. The proposed Ecomarkets project in Costa Rica, recently approved by GEF, is an example of another innovative approach to conservation financing.

Costa Rica Ecomarkets

The Costa Rica Ecomarkets project seeks to develop markets, attract financing and investment, and consolidate the institutional framework for marketing environmental services. It focuses on the mitigation of greenhouse gases, conservation of biodiversity in privately-owned buffer zones surrounding protected areas, and marketing environmental services related to hydrological services. It would also establish a financial instrument to support conservation easements on privately owned lands within the Mesoamerican Biological Corridor.

Innovative Financial Instruments and Approaches

STRATEGY	TOOLS
Tax Incentives for Conservation	<ul style="list-style-type: none"> —Income tax deductions for conservation contributions —Tax deductions for certain kinds of land use —Tax exemptions for conservation activities or properties devoted to conservation (such as land used for private nature reserves)
Economic Incentives	<ul style="list-style-type: none"> —Allocation of tax revenue in a way that rewards conservation (e.g., to jurisdictions that have significant land in protected areas) —Fees to support conservation (e.g., fees for the use or extraction of natural resources like minerals, timber, and water) —Controlled access to shared resources (e.g., government could use a combination of regulation and limited ownership rights to provide incentives for conservation of shared resources such as fisheries) —Trading of development permits (e.g., government can create tradable permits for development of a given area that can be used in conjunction with “credits” for conservation activities) —Performance bonds (e.g., for development projects with a high risk of environmental damage, governments could require advance payment of a “bond” to pay for environmental mitigation if it is later needed) —Eco-labeling (e.g., consumers and governments can promote “green” products through the use of a system of labeling that allows purchasers of a given product to evaluate its impact on the environment) —Biodiversity prospecting and other benefit-sharing mechanisms (e.g., incentives for biodiversity conservation can be created by resource use agreements, such as in the pharmaceutical industry, that provide a portion of revenues generated to be returned to the country, region, or community where that resource is found) —Elimination of perverse incentives (e.g., subsidies or other incentives that encourage the overexploitation of resources) —Identification and support of economic alternatives to unsustainable resource use, especially in areas of growing environmental scarcity —Sustainable use of resources for local and national income generation. This can help biodiversity projects become economically viable and sustainable for local populations —Ecotourism
Environmental Trust Funds	<ul style="list-style-type: none"> —Environmental trust funds or revolving funds from locally generated revenues (e.g., tourism revenues, tourism taxes, and licensing fees)
Private Sector Partnerships	<ul style="list-style-type: none"> —Eco-enterprises, concessional or contingent loans (to help start biodiversity projects), micro-credit systems, bankable commercial projects, and venture capital funds in the biodiversity area
Legal Tools to Promote Private Conservation	<ul style="list-style-type: none"> —Promoting/facilitating donations of land, money, or other assets to conservation organizations —Promoting conservation easements (whereby landowners retain ownership of land, but use it for limited purposes while permanently removing their right to use it for non-conservation purposes) —Promoting/facilitating conservation agreements (whereby landowners enter a legal agreement to manage property according to specific conservation terms, often in exchange for payment) —Promoting/facilitating land exchanges (whereby property owners can exchange property that is significant for conservation reasons with a different property of equal value, but lesser conservation significance)

Source: IUCN, 1999

Simplify design and streamline processes. Finally, GEF and other donors can foster sustainability by scaling project activities to local capacities, gradually increasing their size and complexity as capabilities expand. This requires simple designs and clear benchmarks, and probably smaller projects in many places. It also argues for efforts to streamline design and implementation processes, so more time and re-

sources are available for local project managers and donor agency staff to devote to substantive support, learning from experience, and adaptive management, rather than to administrative procedures. Beyond these project “fixes,” greater consideration should be given to moving to non-project approaches that require less of the typical “management” activities.

Conclusions from the Review

Advantages, Challenges, and Realistic Expectations for GEF

GEF brings a number of advantages to the challenge of sustaining biodiversity conservation. As perhaps the largest provider of assistance for biodiversity and as the financial mechanism of the CBD, GEF has considerable influence. Its relationship with the CBD, its reliance on implementing agencies that are major development organizations with extensive relationships in recipient countries, its network of national and NGO focal points, and its governance structure provide GEF unique access to policy makers and civil society leaders; opportunities to link governments, international organizations, and NGOs; and a facility to serve as a catalyst for increased coordination on issues related to biodiversity conservation. GEF's emphasis on country ownership reinforces the integration of the "global" question of biodiversity into national policies and priorities. Similarly, GEF's principle of stakeholder involvement, history of reaching out to NGOs, and involvement of the scientific and technical community increase chances of stimulating the multilevel and multisectoral partnerships needed to sustain biodiversity conservation. Finally, GEF's Operational Programs stress the importance of taking a holistic approach and addressing the root causes of biodiversity loss. These are all strengths that GEF should exploit strategically as it seeks to foster sustainable conservation of biological diversity.

The review identified a few features of the GEF on the other side of the ledger, however. Not surpris-

ingly, the main one relates to the application of the incremental cost principle. While this principle and GEF's unique niche of focusing on global environmental issues will remain, for GEF to maximize its contributions to sustainability it is important to look for ways to *decrease* the distinction between local benefits and global benefits. The application of the incremental cost requirement has also made the process of accessing GEF funding more cumbersome, and therefore has worked against country ownership and mainstreaming biodiversity considerations in national policies and in implementing agency programs. GEF's project focus and "approval culture" appear to emphasize quality-at-entry over achieving results in the field, large and complex projects over simple activities scaled to local capacity, and access to grant resources over policy dialogue and nurturing partnerships.

What, then, is reasonable to expect from GEF projects in terms of sustainability? It should be clear from this report, especially Section 1, that there can be no one answer to this question. But it should also be clear that it is not realistic to expect that sustainability of biodiversity conservation can be achieved through one relatively short (4-6 years) project. In many places, achieving sustainability will require GEF and other external involvement and funding for substantial periods of time, i.e., ten years or more. In these places, a phased approach involving both project and non-project activities, informed by an understanding of the factors that influence sustainability in that particular context, is indicated.

Such programs should:

- seek to leverage and coordinate closely with other donor agencies (including GEF's implementing agencies),
- be based on results-oriented milestones and monitoring and evaluation systems that measure progress toward the broader changes being sought, and
- emphasize adaptive management that allows feedback from experience to be taken into account.

Where commitments of this nature are envisioned, they should be identified upfront and set out in a long-term GEF and country strategy.

GEF will need to be strategic in selecting these places—it is doubtful that its resources will allow it to address biodiversity conservation this way everywhere. Therefore, GEF should also support more limited activities that seek to overcome a specific constraint or barrier without a long-term commitment. Sustainability of these activities will need to be based on the removal of the bottleneck and/or upfront, realistic prospects to assume continuing responsibilities for ongoing activities by the recipient country, other donor agencies, or long-term financing mechanisms (e.g., conservation trust funds, where appropriate).

Suggestions for Priority Attention

The subject of achieving sustainability of biodiversity conservation is very complex. Recognizing this, and the fact that ours was only an initial review based on secondary data, we offer the following five suggestions for attention by GEF and others charged with addressing the problems of biodiversity loss. In making these suggestions, our intent is not to recommend or prescribe, but to stimulate discussion, experimentation, and learning within GEF and among its partners.

Increase political will. More explicit attention should be given to ways to increase political will for biodiversity conservation locally, nationally, and internationally, as well as to integrate biodiversity considerations into national development policies and priorities. Political will and the policy environment are mentioned most often as the primary constraints to sustainability in the literature, by other donors, and by project managers and NGOs (cf., Brandon, Redford and Sanderson, 1998; Mayers and Bass, 1999; IUCN, 1999). Political will is central to policy change, re-

source allocation, and institutional strengthening. It is essential in order to change economic and social incentives that affect biodiversity use. Those who support long-term biodiversity conservation should engage more actively in the politics of the policy process—not through externally imposed conditionality, but by seeking opportunities to increase understanding of policy options, involve development officials and the private sector in analysis and debate about the contributions biodiversity makes to sustainable development, make space for experimentation with new approaches, open avenues for increased and more equitable participation in policy fora by those with a stake in conservation, and strengthen the hand of the local conservation community *vis-à-vis* other sectors in the debate over resources and priorities. GEF has considerable assets at its disposal to address the factors that influence sustainability (see Section 4.A. above), including its enabling activities, project portfolio, and non-project activities (e.g., Country Dialogue Workshops, publications, participation in international meetings). It should use them more actively and more strategically to this end. While the following quotation relates specifically to forestry, it also speaks to the challenges of biodiversity conservation:

There is a common perception amongst foresters that the fate of forests is determined by forces beyond their control. In the face of these extra-sectoral influences, foresters are inclined to declaim a 'lack of political will', retreat into their shells, and encourage the illusion of stability: if the determining forces are beyond control, it is appropriate to ignore them. Yet foresters do often have considerable powers, and these confer responsibilities. Foresters *can* make progress which engages and tackles some extra-sectoral influences. (Mayers and Bass, 1999, p. 10, emphasis in original)

Promote partnerships. More should be done to promote multilevel and multisectoral partnerships within countries, and multinational partnerships and networks internationally. This will allow a more comprehensive, programmatic approach to addressing the threats to sustainable biodiversity conservation, and promote increased political will for conservation both nationally and internationally. It should also increase the leveraging of GEF financial and other resources. GEF's institutional location at a nexus of international, national, donor, NGO, and academic organizations places it in a unique position to play such a role. This would

have a wide range of implications, from selection of project activities, to how project managers view their relationship with counterparts, to contracting procedures with NGOs, to how GEF's implementing agencies maintain contact and exchange information with partners following project completion.

Articulate the benefits of biodiversity. More should be done to articulate the values of biodiversity and the benefits of its conservation and sustainable use, to restructure these values and benefits in ways that are compelling to decision-makers, and work to see that they are accurately reflected in markets and decisions at all levels. To attract the attention of government officials, it is necessary to demonstrate in economic terms the value of biodiversity to the country's social and economic development (McNeely, Rojas and Vorhies 1997). In many cases, the valuation of biological resources and services has already been made; what remains is to disseminate and apply it to policies and markets. This should be reflected in awareness, education, and policy dialogue activities in GEF-supported and other projects, a subject for dialogue among partner agencies and the conservation community, and a topic for targeted research, if needed.

Encourage innovative financing. Continued experimentation with innovative conservation financing mechanisms should be encouraged. This includes support for conservation trust funds, when appropriate (see GEF, 1999b), and increased communication among countries, donor agencies, the private sector, and international NGOs on promising approaches. It also would entail working creatively with national and local governments and NGOs to identify new funding sources, identify opportunities to engage the private sector in sustainable and profitable production and management activities, reduce administrative bottlenecks that impede delivery of resources to the field, and empower communities and local resource managers to collect and use funding for conservation activities.

Foster availability of flexible project instruments. Finally, more should be done to expand adoption of more flexible project instruments, such as the World Bank's Learning and Innovation Loan (LIL) and Adaptable Program Lending (APL), and more programmatic approaches that are consciously experimental and/or provide a basis for comprehensive, longer term support for biodiversity conservation in the context of clear performance milestones. Just as impor-

tantly, GEF and others should move away from a project approval culture, to one based on achieving results in the field (see also GEF, 1999a). This will require putting in place new incentives and support systems for adaptive management, as well as appropriate checks and balances. It will also require maintaining management leadership and attention following project approval, throughout the implementation process (World Bank, 1998a), as well as greater attention to how to support project activities with non-project actions.

Next Steps

We believe that additional work is needed to analyze further and improve the understanding of GEF and its partners of the factors that influence sustainability of biodiversity conservation and approaches that are successful in addressing them. There is a potentially broad and long agenda of analysis and evaluation on this topic. We have identified three possible next steps for consideration by GEF:

- More detailed examination of some of the approaches highlighted in Section 3, and identification of more examples (GEF-supported and others) that illustrate experience with these approaches, could be very beneficial. We were unable to go beyond the existing literature and reports to understand better what has worked, why, and the context in which these activities were carried out. Nor were we able to pursue in any depth the likely impact they will have on long-term sustainability. We suggest selecting a subset of these approaches and examples for further analysis, including field visits and evaluations. Our candidates for areas on which to focus first are strengthening multisectoral and multilevel fora and partnerships (since these can be good vehicles for increasing awareness and political will), and sustainable uses of biodiversity that give value and equitably balance costs and benefits.
- As suggested in Section 4.B., we believe more should be done to articulate the value of biodiversity and the benefits of its conservation and sustainable use. A stocktaking of current valuation methodologies and results, together with an examination of promising ways to spread their application, would be an important next step. On the basis of this stocktaking, additional research and examination of experience might be identified that could be carried out through the UNEP-GEF Secretariat partnership

or in collaboration with STAP.

- A workshop to bring together practitioners, country officials, academics, NGOs, donor agency representatives, and others to discuss sustainability and

current understandings of best practice in this area would be useful. It could be a good way to encourage dialogue on, and continue sharing experiences related to, the issues identified in this review, including with the broader development community.

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