Biodiversity Program Study

GEF

Biodiversity Program Study

Prepared by:

Shekhar Singh
Claudio Volonte

Global Environment Facility
Monitoring and Evaluation Unit

Biodiversity Program Study Team Members and Their Roles

GEF Secretariat
Monitoring and Evaluation Unit:
    Jarle Harstad (Senior Monitoring and Evaluation Coordinator)
    Claudio Volonte (Task Manager; co-author of final report, project reviews, field visits, quantitative analysis)
Biodiversity Program:
    Colin Rees (biodiversity team leader)
    Mario Ramos (project reviews and field visits: protected areas)
    Chona Cruz (project reviews, field visit and special study: stakeholders participation)

Implementing Agencies
UNDP:
    Eduardo Fuentes (project reviews and field visit: production landscape)
    John Hough (project reviews and field visit: protected areas)
    Miguel Perez-Torralba (project reviews, field visit, special study: capacity development)
UNEP:
    Mark Zimsky (project reviews, field visit, special study: capacity development)
World Bank:
    Kathy MacKinnon (projects reviews and field visit: protected areas)
    Gunars Platais (project reviews and field visit: production landscape)
    Gonzalo Castro

STAP
    Madhav Gadgil (special study and field visit: science and technology/stakeholder participation)
    Christine Padoch (project reviews: production landscape)
    Setijati Didin Sastrapradja (project reviews: production landscape)

International Consultants
    Shekhar Singh (lead consultant, projects reviews, field visit, co-author of final report, qualitative assessment)
    Pekka Alhojarvi (quantitative analysis)
    William Faries (review of Cohort 2 projects)
    Elissa Oh (project reviews special study on: stakeholder participation)

Local Consultants
    Philippines: Maria Managhas and Porfirio Alino (science and technology and stakeholders participation special study and field visit)
    Yemen: Samra Shaibani (project review and support for field visit)
    Central Africa region: Leonard Ntonga (project review and support for field visit)

This report has been written by Shekhar Singh and Claudio Volonte, who drew upon the various project reviews and background papers prepared by the Program Study Team. All members of the Study Team participated at the design stage and commented on the various drafts of the report. The views, opinions and conclusions expressed in this report are those of Shekhar Singh and Claudio Volonte and not necessarily of all the members of the Study Team or the institutions they represent.

List of Acronyms and Abbreviations

CARE	Cooperative for American Relief Everywhere
CBD	Convention on Biological Diversity
CCD	Convention to Combat Desertification
CDI	Capacity Development Initiative
CFUG	community forestry user group
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of Parties
GBA	Global Biodiversity Assessment
GEF	Global Environment Facility
GEFSEC	Global Environment Facility secretariat
IA	implementing agency
ICD	integrated conservation development
ICR	Implementation Completion Report
INFOTERRA	The Global Environmental Information Exchange Network (UNEP)
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature and Natural Resources/ World Conservation Union
GUG	grazing user group
JMC	Joint Management Committee
MAB Reserves	Man and the Biosphere
MSP	medium-size projects
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental Organization
OP	operational program
OPS2	Second Overall Performance Study
PA	protected area
PAMB	Protected Area Management Board
PIR	Project Implementation Review
PL	production landscapes
REIMP	Regional Environmental and Information Management Project
STAP	Scientific and Technical Advisory Panel
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNOPS	United Nations Office of Project Services
VSMC	Village Site Management Committee
WCMC	World Conservation Monitoring Center
WWF	World Wide Fund for Nature/World Wildlife Fund

Foreword

The GEF Council, at its meetings in December 1999 and May 2000, requested a review of GEF opera-
tions prior to the next replenishment, which begins in 2001.[1] This review, the Second Study of GEF's
Overall Performance (OPS2) is being carried out by a fully independent team that is expected to
complete its work by the end of 2001. The OPS2 is the third major GEF-wide review to take place since
the Facility was created.[2] Among the broad topics the OPS2 team will assess are:

- Program Results and Initial Impacts
- GEF Overall Strategies and Programmatic Impacts
- Achievements of the Objectives of GEF's Operational Policies and Programs
- Review of Modalities of GEF Support
- Follow-up of OPS1

To facilitate the work of the OPS2 team, GEF's Monitoring and Evaluation team, in cooperation with the
GEF implementing agencies, decided to undertake program studies in the focal areas of biodiversity,
climate change, and international waters. The role of these program studies is to provide portfolio infor-
mation and input for the OPS2 team's consideration.

The Biodiversity Program Study was done by a team comprised of staff from the GEF secretariat, the
three GEF implementing agencies, the GEF Scientific and Technical Advisory Panel (STAP), and inde-
pendent consultants.

Jarle Harstad
Senior Monitoring and Evaluation Coordinator

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[1] Joint Summary of the Chairs, GEF Council Meeting, December 8-9, 1999, and GEF/C.15/11.

[2] The first two studies, respectively, were *Global Environment Facility: Independent Evaluation of the Pilot Phase*, UNDP,
UNEP, and World Bank (1994) and Porter, G., R. Clemençon, W. Ofosu-Amaah, and Michael Phillips, *Study of GEF's
Overall Performance*, Global Environment Facility (1998).

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Executive Summary

Introduction

1. The Biodiversity Program Study, which was sponsored by the Global Environment Facility (GEF) secretariat, was conducted between September 2000 and March 2001 in collaboration with the three GEF implementing agencies (UNEP, UNDP, and the World Bank), and the GEF Scientific and Technical Advisory Panel (STAP). The main objective of the study was to assist the team assigned to implement the GEF's Second Overall Performance Study (OPS2) by analyzing the achievements and impacts of, and lessons emerging from, biodiversity projects funded by the GEF since 1992. Specifically, the Biodiversity Program Study had three main objectives:

- Highlight and assess achievements, initial impacts, and lessons learned from the GEF biodiversity portfolio

- Conduct an analysis of the area covered by GEF-assisted projects, including a comparison with lists of globally important ecosystems ("coverage")

- Assess mechanisms for incorporating lessons learned into more recently approved projects.

2. In pursuing these objectives, the study tried to answer the following questions: What were the major achievements and impacts of the GEF biodiversity portfolio (and projects) in terms of conservation and sustainable use of biodiversity resources[3], capacity development, stakeholder participation, and project sustainability? How far

and how well did the projects achieve their specific objectives? What were the outstanding lessons or examples of best practices? What were the major implementation issues, risks, or assumptions that may have jeopardized the achievement of objectives? How significant, diverse, and comprehensive was the "coverage" of the portfolio?

3. Projects were assessed for achievement of their main objectives, keeping in mind the constraints that arose during project implementation and taking into consideration the GEF guidelines that were operative at the time of project approval.

4. The report has seven sections. Section 1 presents the background to the total GEF biodiversity portfolio as of June 2000. Section 2 introduces the various methodologies used, describes the terms of reference for the study, and lists the projects reviewed and visited. The analysis and findings are divided in two categories: those related to the coverage of the GEF portfolio (Section 3) and those related to achievements, impacts, and lessons learned (Sections 4, 5, and 6). The final section contains the conclusions and recommendations. A series of technical and background annexes also are attached to the report.

Methodology

5. According to the objectives of the program study, the GEF biodiversity portfolio (excluding projects supporting biodiversity enabling activities), as of June 30, 2000, was divided into two cohorts: Cohort 1—all full and medium-size

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[3] The conservation and sustainable use of biodiversity are the overall objectives of all GEF biodiversity projects.

projects under implementation as of June 30, 1998, plus all completed projects ("mature portfolio," 82 projects, $500 million) and Cohort 2 - all full and medium-size projects that were initiated or entered into the GEF Work Program between July 1, 1998, and June 30, 2000 ("new portfolio," 128 projects, $630 million).

6. The study used two distinct but interrelated approaches:

• Quantitative analysis focusing on the coverage of the portfolio

• Qualitative assessment of the achievements and initial impacts of, and lessons learned from, GEF biodiversity projects.

7. In addition, the study evaluated the available mechanisms for learning from past lessons and assessed how far new projects had benefited from lessons learned during past projects. The qualitative analysis of projects from Cohort 1 included eight projects that were visited by members of the Biodiversity Program Study team in the following nine countries: Argentina, Gabon and Central African Republic (one project), Indonesia, Mauritius, Peru, Philippines, Sri Lanka, and Yemen. A selected group of forestry projects (OP 3) in Cohort 2 were analyzed to determine the benefits they had derived from the lessons learned during earlier projects, to determine whether they were establishing baselines against which project achievements could be measured, and to assess how well they were addressing the issue of sustainability. The study also reviewed the mechanisms used in the three implementing agencies and the GEF secretariat to feed lessons learned from past projects into the design and implementation of new projects.

GEF Biodiversity Portfolio

8. Over the last nine years, from 1991 through June 2000, GEF has allocated approximately $1.18 billion to cover the incremental costs for conservation and sustainable use of biodiversity resources around the world and has leveraged about $2 billion in co-financing. This funding is distributed among an impressive 395 full, medium-size, and enabling activity projects in 123 developing countries and economies in transition, and in four types of ecosystems: arid and semi-arid, coastal and freshwater, forests, and mountains. The projects support diverse activities to promote conservation, encourage sustainable use of resources, and enhance the sharing of benefits at the local, national and global levels. In addition, these projects have provided support to the Convention on Biological Diversity, particularly to activities related to alien and invasive species, migratory species, taxonomy, World Heritage sites and indigenous communities.

Where Are the GEF Projects Located? What Are They Doing?

9. The quantitative analysis was based on a study of Cohort 1 projects and used various indicators including coverage in terms of the number and hectares of protected areas and the number and area of sites from special lists of globally significant ecosystems. A major focus of the GEF biodiversity portfolio has been support for new or existing protected areas. Most projects dealing with protected areas include establishing new areas, developing management plans, setting up sustainable financing of protected areas, addressing sustainable use related to protected areas, and encouraging the participation of stakeholders and local beneficiaries. The study estimated that about 49 projects in Cohort 1 (62 percent) included these types of activities as a part of their objectives. These 49 projects affected about 320 protected areas covering a total of about 60 million hectares and involved about $350 million in funding. About 60 percent of the protected areas covered were located in forest ecosystems.

10. It is clear that the GEF has also covered, through its projects, many of the globally important sites and species such as those covered within the World Heritage Program, WWF's Global 200 (Earth's Distinctive Ecoregions), Ramsar, UNESCO's MAB Reserves, the migra-

tory species convention, and IUCN lists of threatened and endangered species. More than half of the projects in Cohort 1 included some type of capacity development activities, through dissemination of information, training, and education, addressing both individual and institutional aspects. Similarly, more than half of the projects included research as an objective, mostly applied research, such as the providing information, developing databases and information systems, monitoring and evaluation, and researching protected areas. Policies, laws, and regulations were tackled in about half of the projects in Cohort 1, including proposals for implementing plans and strategies; strengthening, supporting, and establishing policies and laws;and focusing on regional collaboration. Furthermore, the study estimated that about one-third of the projects in Cohort 1 dealt directly with the management of protected areas, another third with the implementation of sustainable use programs, and the remaining third with the participation of stakeholders in biodiversity conservation and sustainable use.

What Have Been the Major Achievements and Impacts?

11. Given below are the main findings of the qualitative assessment done as a part of the Study. In looking at these findings, it must be kept in mind that projects aiming to conserve biodiversity are among the more difficult types of projects to implement. In addressing biodiversity conservation issues, projects attempt to achieve objectives that, while having significant long-term and global benefits, often imply loss of access to natural resources, especially for rural communities. These projects work with governments for which biodiversity conservation is usually not a priority and incorporate scientific principles that are new, evolving, often counter-intuitive, and difficult to fully explain to stakeholders. It must also be noted that there are no standards by which the achievements of GEF projects can be assessed objectively. Consequently, the achievements of the GEF biodiversity portfolio must be looked at in this context and along with the quantitative achievements described above.

12. *Stakeholder participation* was comprehensive in around 30 percent of the projects reviewed and partial in more than 20 percent. For another nearly 25 percent it was planned but the information available did not indicate whether or not it took place and, if it did, to what extent. For the remaining, it was either poor (9 percent), absent (12 percent), or not known (4 percent). While documentation did not allow the full evaluation of participation effectiveness, some lessons, notably the need to increase involvement of the private sector and strengthen use of traditional and indigenous knowledge, have been identified. Nevertheless, it must be noted that most of these projects were working with institutions without much previous experience of stakeholder participation.

13. A significant number of the projects assessed were *capacity development* projects. These addressed a variety of capacity needs at the individual, institutional, and systemic levels. Furthermore, it was found that some of the most successful components of even non capacity-development projects were their capacity development aspects. Overall, the projects were able to develop individual capacities, but institutional and systemic capacities proved harder to develop. The various training programs were appropriate to the socioeconomic, political, and cultural reality of the country. There was no evidence that institutional capacities would be sustained after GEF funding ended, partly because it was too early to assess this for many of the ongoing projects.

14. A very large portion of the projects assessed had *protected areas* as their major focus. More than half of such projects were assessed to have fully or mostly met their objectives, even though they are invariably the most difficult and complicated types of projects to implement. Furthermore, more than half of the protected areas projects were assessed to have had comprehensive or partial stakeholder participation, some benefit-sharing activities, and some measures for ensuring sustainability. Nearly half of the projects working to establish biodiversity conservation and sustainable regimes in *production landscapes* outside protected areas had mostly

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achieved their objectives, while the other half had only partly achieved their objectives.[4]

15. About 60 percent of the projects had substantially addressed *science and technology* issues, with the level going up to 80 percent in completed projects. Nevertheless, the recognition of traditional knowledge and the appropriate involvement of social scientists are two issues that need further attention.

16. The GEF has also been focusing on issues related to *land degradation*. Of the projects reviewed, nearly 50 percent had substantially addressed land degradation issues and another 10 percent partially addressed them.

17. Overall, almost half the projects reviewed had mostly achieved their objectives (including eight percent that had fully achieved them). However, nearly 50 percent had achieved their objectives only partly or minimally. There was not much difference between completed and ongoing projects (see footnote 3). In understanding these findings, it must be recognized that it is unrealistic to expect that all the projects would fully achieve all their objectives. There were many reasons that prevented the full achievement of objectives, including lack of implementation capacity, unrealistic and overambitious objectives, and shortage of time and funds.

18. For a large proportion of the GEF projects reviewed, it was not possible to directly answer the question: *What impact did this project have on biodiversity?* This was mainly because most projects did not systematically collect the required information. Also, for most projects, there was no baseline data against which the current status could be compared. About 20 percent of the projects seem to have collected relevant baseline data, and another 20 percent had planned to collect them (although it could not be confirmed whether they actually did so). In the absence of baseline data, it was only possible

to partly assess the impact that projects were having on biodiversity. Consequently, information regarding their impact on biodiversity was available for only 17 of the projects assessed. Of these, three (two completed) reported substantial impact while the remaining 14 (eight completed) reported some or little impact. For the remaining projects, there was either no information or the question was not relevant. In some cases, the review concluded that it was too early to judge impacts.

19. However, it seems that GEF projects have begun to address this gap. A review of a group of newer forestry projects in Cohort 2 reveals that almost all of them have carried out, or propose to carry out, biological and socioeconomic baseline studies. In many cases, these baseline studies were conducted during project preparation or are expected to be one of the first things carried out after project initiation. Of course, it is too early to determine the projects' impact, as most of them have just been initiated.

20. Only about 10 percent of the projects reviewed had substantially addressed the issue of project sustainability, another of the cross-cutting issues in the Study. Another 24 percent had partially addressed this issue, and in 34 percent of the projects it was either not addressed or very poorly addressed. For the rest (30 percent), some planned to deal with the issue but available information did not specify whether they had managed to do so, while others offered no information. However, even for completed projects, there was no system of conducting a post-completion assessment to see whether project activities, institutions, and gains continued after the project was completed. Consequently, it was not possible to determine how many of the completed reviewed projects to have addressed this issue had done so effectively. A review of the forestry projects in Cohort 2 shows that most projects now address the issue of sustainability in their design, though this assessment is based on project proposals and not on actual project implementation.

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[4] It should be noted here that ongoing projects were assessed on the basis of their achievements relative to the stage of implementation they were in. However, whereas for completed projects there was no scope for improving their performance, for ongoing projects there is always the possibility that they will achieve their objectives before completion.

Are Projects Learning from Past Lessons?

21. About half the projects assessed reportedly incorporated some lessons from past projects into their design; a third had not. However, as the findings of the study demonstrated little difference between the achievements and levels of impact of completed (older) projects and the ongoing (newer) projects, there appears to have been little impact of the lessons learned. Therefore, the mechanisms for ensuring that lessons learned are incorporated in new and ongoing projects need attention and change. The newer projects among those assessed and new forestry projects in Cohort 2 seem to be performing better in this regard.

Recommendations

22. Recommendations primarily relate to the four issues that the report has highlighted as needing attention: achievement of objectives, project impacts on biodiversity, sustainability of project activities and gains, and learning from past lessons.

Achievement of Objectives

23. Limited implementation capacity has been cited as a major cause for inadequate project achievements. Though some skills, admittedly, are best learned by "doing," there must be enough initial skills to ensure that individuals and institutions can start doing and, therefore, learning. *Each project should conduct a capacity assessment exercise prior to project initiation.* The development of the requisite individual, institutional, and systemic capacities must be given central priority during GEF project implementation. Capacity benchmarks should be established, respecting the peculiarities of each situation. Achievement of these benchmarks during project implementation at agreed times should be a precondition for the subsequent phases of project activities.

24. Part of the problem with project achievements might be due to the somewhat less attention being paid in project design and implementation to livelihood and tenure issues and to underlying causes. *All projects in protected areas should include related production landscapes.* Basic requirements of local communities for income and natural resources, if they are to be disallowed or restricted from protected areas, should be provided through investment in and development of production landscapes linked to protected areas. Issues relating to tenure, property rights, and access must also be addressed as a part of each initiative.

25. *Project preparation should, where appropriate, include a project design workshop involving critical stakeholders in the country or region to get initial ideas about project design.* Once the project has been designed in association with local experts and in collaboration with other stakeholders, another consultation with a wide and diverse group of stakeholders and experts needs to be organized. In this consultation, participants should be asked to focus on circumstances under which, or reasons why, the proposed project would be difficult to implement or its objectives difficult to achieve. Such "devils advocate" feedback would contribute to a realistic assessment of project feasibility and optimality.

Impacts on Biodiversity

26. If project implementation is to be improved, *projects should break away from a time-bound schedule and adopt a new way of functioning—* in which a phase or a project is considered complete when the objective is properly achieved. Whereas the ultimate goals must be clearly defined and not ordinarily changed, the strategies, emphases, and tasks must evolve dynamically with initial budgets that are flexible and indicative.

27. To determine a project's impact on biodiversity and other related issues, *a far more effective and ongoing monitoring system, based on a pre-initiation baseline study, is needed.* The baseline study should record the status, trends, and rates of change of the existing biodiversity resources;

available individual, institutional, and systemic capacities; and relevant socioeconomic and political parameters. Impact indicators and standards must be formulated prior to, and used for, the baseline study. Priorities for action, project foci, and strategies must be determined on the basis of the baseline study results.

28. Where the available data are not adequate, *establishing a requisite database (on the various aspects mentioned above) should be among the first project activities* so monitoring of project impact can begin right from the start. Where required, control samples must also be identified to separate the impact of the project from other unrelated changes.

Sustainability

29. The study indicated a need to focus on securing the sustainability of project gains and activities. The study recommends several ways to improve this aspect of project design and implementation.

30. *Funding patterns during the project must be compatible with the economic realities of the host country.* The GEF Operational Strategy stresses the need to "finance actions that are cost effective." Therefore, an objective for all projects should be demonstrating and operationalizing ways to meet conservation objectives within the levels of financial resources likely to be available on a sustainable basis. There must be a continued movement away from "big budget," time-bound projects to long-term activities involving the same or lesser amounts of money, distributed over a longer time period and according to agreed qualitative benchmarks of progress.

31. For most governments to have the political will to conserve biodiversity, conservation must be seen to contribute to economic growth and security, or at least not detract from it. Therefore, to demonstrate this and provide a scientific basis for the type and extent of conservation required, the study recommends two targeted research activities. The first activity is the review of existing methods by which biodiversity can be economically valued. Based on this review, and

as necessary, additional methods and techniques may be developed, applied, and disseminated. Second, existing or newly developed credible answers should be disseminated on the extent of biodiversity that needs to be conserved and the extent of human use compatible with biodiversity conservation.

32. The issue of root causes, mainly proximate and immediate, of biodiversity degradation must be addressed, as required by the GEF Operational Strategy. *The first step in any project planning or design process must be identifying root causes that have led to biodiversity degradation or loss* and have inhibited remedial or preventive measures from being applied or being successful. Barring exceptional cases, the only projects taken up should be those with a realistic chance of tackling at least the immediate and proximate underlying causes. In some cases, such causes might be addressed with the help of national governments and through other initiatives and policies of implementing agencies.

33. Involvement of all stakeholders, especially NGOs and local communities, from planning to implementation and post-completion assessment, is essential. The involvement of the private sector may also have many advantages, especially in terms of financial and political sustainability. Such involvement could result in conservation initiatives being linked to commercial interests, often by demonstrating the commercial potential in conservation, either through direct benefits or as a result of expressed market preferences by the public for "green" products and companies. *Projects should appropriately seek the involvement and support of the private sector.*

34. To enhance the sustainability of conservation activities and to increase the positive impacts of projects, *GEF should strengthen its involvement with all government sectors.* Special efforts should be made to involve government sectors other than the forest and environment groups. Similarly, *GEF implementing agencies should also continue mainstreaming biodiversity issues* within their own organizations.

35. *GEF and its partner institutions should have a system of independent post-completion assessments*, where completed projects are assessed some time after completion to judge their impacts and whether the various gains and activities have endured.

Learning from Lessons

36. Anyone designing or implementing a project rarely needs a whole set of rigid dos and don'ts, or a list of what has worked or not worked somewhere else. What is perhaps needed is a range of ideas and experiences that can be considered, probed, analyzed, modified, and then used appropriately. To have easy and workable access to such ideas and experiences, people need access to the those who have worked with these ideas and had these experiences. They also need the time to connect with these ideas and experiences.

37. To allow effective learning from past experience, *GEF should set up a network of biodiversity practitioners and other experts* that is linked with ongoing and completed conservation initiatives, so that those involved in designing and implementing projects have access to a wide variety of ideas and experiences. The network should provide the opportunity to probe and discuss experiences and ideas as well as determine their relevance and applicability to current and future work.

Introduction

Objectives

1. This report contains the findings and recommendations of a Global Environment Facility (GEF) secretariat-sponsored study of the GEF Biodiversity Program. The Biodiversity Program (BDP) Study was conducted between September 2000 and March 2001 in collaboration with the three GEF implementing agencies (UNEP, UNDP, and the World Bank), and the GEF Scientific and Technical Advisory Panel (STAP). In addition, many representatives of governments and the civil society from around the world provided substantial inputs for the study. Annex 1 provides a copy of the Initiating Memorandum that guided the initial steps of the program study while the Foreword contains a list of members of the Biodiversity Program Study team and their roles.

2. The main objective of the study was to feed into the GEF's Second Overall Performance Study (OPS2)[5] by providing an analysis of the achievements, impacts, and lessons emerging from the implementation of GEF-financed biodiversity projects. Specifically, the Study had three main objectives:

- Highlight and assess achievements, initial impacts, and lessons learned from the GEF biodiversity portfolio

- Conduct an analysis of the area covered by GEF-assisted projects, including a comparison with lists of global important ecosystems ("coverage")

- Assess mechanisms for incorporating lessons learned into more recently approved projects.

3. The study attempted to answer the following questions with regards to GEF biodiversity projects:

What, if any, have been the major achievements and impacts (intended and unintended) in terms of conservation and sustainable use of biodiversity resources, capacity development, stakeholder participation, and project sustainability?

- How far and how well did the projects achieve their objectives?

- What were the outstanding lessons and examples of best practices?

- What were the major implementation issues, risks, and assumptions that might jeopardize the achievement of objectives?

- What has been "covered" by GEF projects?

The Study analyzed projects on the basis of their main objectives, within constraints that arose during project implementation and taking into consideration the GEF guidelines at the time of project approval. The Study reports on how the GEF, through the implementation of its portfolio, has been able to promote the conservation and sustainable use of biodiversity.

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[5] The second Study of GEF's Overall Performance (OPS2) will assess GEF's operational and programmatic results to date, and on that basis, discuss GEF's overall role in initiating and supporting actions to halt and/or mitigate the degradation of the global environment within the areas of its responsibility. The study will be carried out from September 2000 to January 2002.

GEF Biodiversity Portfolio

5. Over the last 9 years, from 1991 through June 2000, the GEF has allocated approximately $1.1 billion to cover the incremental costs for conservation and sustainable use of biodiversity resources around the world. The biodiversity portfolio of the GEF includes an impressive 395 full, medium-size, and enabling activity projects in 123 developing countries and economies in transition (Table 1). These projects support diverse activities to promote conservation, encourage sustainable use of resources, and enhance the sharing of benefits at local, national, and global levels. Of these projects, 185 are enabling activities and clearing house mechanism (CHM) projects, providing $46.6 million to help countries develop their biodiversity conservation strategies and action plans and build national capacity to address biodiversity issues. About $332 million was approved during the Pilot Phase (1991-94) while $845 million was approved during GEF's operational phases (up to June 2000).

Background

6. During the Pilot Phase, activities in the GEF biodiversity focal area were guided by general guidelines not necessarily specific to biodiversity. The 1994 Independent Evaluation of the Pilot Phase pointed out that during that period the GEF lacked a good operational definition of biodiversity, a strategic framework to guide GEF investments in biodiversity and effective criteria for the selection of biodiversity projects. Meanwhile, STAP presented an "Analytical Framework on Protection of Biodiversity" in 1993. This framework was considered useful at that stage of GEF's development. Three criteria were identified to guide portfolio development: (a) biodiversity of global significance, (b) innovation, and (c) replication. However, the application of the first criterion proved contentious. It was difficult to identify the biodiversity that was of global significance versus national interest and its location. The other two criteria were more easily operationalized. In the case of replication, this was used in a limited way, and in fact, not many of Pilot Phase projects proved to be replicable. On the other hand, innovation was more widely applied, and it is one of the project selection criteria.

7. In late 1995, the GEF Council approved the Operational Strategy[7] "to guide the GEF in the preparation of country-driven initiatives in the four focal areas." In the particular case of biodiversity, the strategy states that the GEF's objec-

Table 1. GEF Biodiversity Portfolio (FY92 – FY00)

Type of Project	FY1992-FY1994		FY1995-FY2000		Total	
	Number	($ million)	Number	($ million)	Number	($million)
Full	56	322.27	97	765.95	153	1,088.22
Medium-Size	n/a	n/a	57	43.11	57	43.11
Enabling Activities/CHM	n/a[6]	n/a	185	46.62	185	46.62
Total	56	322.27	339	844.93	395	1,177.95

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[6] GEF guidelines for funding enabling activities, *Operational Criteria for Enabling Activities in Biodiversity*, did not become effective until April 1996.

[7] *GEF Operational Strategy*, Global Environment Facility (1996).

tives in biological diversity derive from the objectives of the Convention of Biological Diversity (CBD): "the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding."

8. The main strategic considerations guiding GEF-financed activities to secure global biodiversity benefits are:

- Integrating the conservation and sustainable use of biodiversity within national and, as appropriate, subregional and regional sustainable development plans and policies

- Helping to protect and sustainably manage ecosystems through targeted and cost-effective interventions;

- Integrating efforts to achieve global benefits in other focal areas, where feasible, and in the cross-sectoral area of land degradation, primarily desertification and deforestation

- Developing a portfolio that encompasses representative ecosystems of global biodiversity significance

- Targeting and designing activities to help recipient countries achieve agreed biodiversity objectives in strategic and cost-effective ways.

9. In addition, the Operational Strategy sets out four operational programs in the biodiversity focal area. Guided by the COP of the CDB, the

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GEF Biodiversity Program Responses to CBD Guidance

Ecosystems: Bearing in mind that projects may be implemented in two or more ecosystems, the largest number of projects and most significant GEF allocations are in forests, with a total of 80 projects and an allocation of $505.92 million. This is followed by projects in coastal, marine, and freshwater areas, with 59 projects and an allocation of $227.86 million. An increasing number of projects deal with arid and semi-arid lands, including the cross-cutting issues of land degradation and desertification. GEF's 14 mountain projects account for some $81.21 million.

Alien and Invasive Species: There is $4.5 million in direct funding to seven projects and $35.5 million in co-financing focusing on the control and eradication of alien and invasive species.

Migratory Species: Direct support to 32 GEF projects on migratory species accounts for $119.5 million with co-financing of $157.4 million for projects ranging from enhancing conservation of the whole network of wetlands required by migratory waterbirds to protecting the natural habitats of migratory fish.

Taxonomy: The direct funding to four projects whose major objectives focus on taxonomy is $29.6 million. Co-financing of $21.4 million supports the Global Taxonomy Initiative (to reduce taxonomic impediments and assists in building capacities within countries).

World Heritage Sites: Projects containing World Heritage Sites with natural or a mix of natural and cultural significance are directly funded at $274.2 million with an additional $475.8 million in co-financing.

Indigenous Communities: Direct funding of nearly $203 million and $397 million in co-financing supports 25 projects in which indigenous communities (over 100 ethnic and tribal populations) are actively involved in designing and implementing biodiversity.

four operational programs follow an ecosystem approach as the primary framework of action while emphasizing the need to identify the driving forces that determine the status and trends of components of biological diversity. The operational programs were then further developed and, in 1997, guidelines were published to provide guidance on the objective, scope, expected outcomes, and outputs for each program to achieve.[8] The four biodiversity operational programs are: Arid and Semi-Arid Zone Ecosystems (OP 1); Coastal, Marine, and Freshwater Ecosystems (OP 2); Forest Ecosystems (OP 3); and Mountain Ecosystems (OP 4). In addition to providing guidance on the type of ecosystems eligible for GEF support, the operational programs also delineate concretely the types of activities GEF can support in conservation and sustainable use of biodiversity.

10. Since issuing the operational programs, the GEF secretariat has received further guidance from the CBD, mainly from the fourth and fifth Conferences of the Parties (COP).[9] These new sets of guidance led to the addition of new operational programs such as OP 12 on Integrated Ecosystem Management and OP 13 on Agrobiodiversity; and to new initiatives such as the Capacity Development Initiative (CDI). These new initiatives will not be reviewed in this program study. It further permitted the GEF secretariat to fine-tune the necessary operational procedures for use by the GEF implementing agencies on other issues such as taxonomy;

forest biological diversity; Clearing House Mechanisms; monitoring programs and suitable indicators; issues related to Article 8(j) and its provisions; education, public awareness, and communication; and alien invasive species. COP5 provided guidance to develop an initial strategy for assisting countries to prepare for the entry into force of the Cartagena Protocol on Biosafety.

11. These strategic considerations provided the background and context for the Study in assessing the results and initial impacts of the GEF biodiversity portfolio as well as the coverage.

The Report

12. The report is organized into seven sections. Section 1 presents the background to the total GEF biodiversity portfolio as of June 2000. Section 2 introduces the various methodologies used, terms of reference for the study, and lists of projects reviewed and visited. The analysis and findings are divided into two categories: those related to the coverage of the GEF portfolio (Section 3) and those related to achievements, impacts, and lessons learned from a qualitative point of view (Sections 4, 5 and 6). The report also includes a section on conclusions and recommendations (Section 7). Finally, attached to the report is a series of technical and background annexes.

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[8] *GEF Operational Programs*, Global Environment Facility (1997).

[9] Decision IV/13, Additional Guidance to the Financial Mechanism in *A Program for Change: Decisions of the Fourth Meeting of the Conference of the Parties to the Convention on Biological Diversity, Bratislava, Slovakia, 4-15 May, 1998*, pages 86-88. Decision V/1, Guidance to the Global Environment Facility in *From Policy to Implementation: Decisions of the Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity, Nairobi, Kenya, 15-26 May, 2000*, pages 60-61.

Methodology

Biodiversity Program Study Cohorts

13. According to the objectives of the program study, the GEF biodiversity portfolio (excluding projects supporting biodiversity enabling activities[10]), as of June 30, 2000, was divided in two cohorts.

Cohort 1: All full and medium-size projects under implementation as of June 30, 1998, plus all completed projects ("mature portfolio," 82 projects, $500 million) (see Annex 2)

Cohort 2: All full and medium-size projects that were implemented or entered into the GEF Work Program between July 1, 1998, and June 30, 2000 ("new portfolio," 128 projects, $630 million)[11]

Methodology

14. The Study used two distinct but interrelated methodologies: (a) quantitative analysis focusing on the coverage of the portfolio and (b) qualitative assessment of the achievements, initial impacts, and lessons learned of the GEF biodiversity projects. In addition, the study evaluated how new projects have benefited from lessons learned from past projects. The qualitative and quantitative analyses covered projects from the mature portfolio (Cohort 1) while the evaluation of the lessons learned from feedback mechanisms mainly used the new portfolio (Cohort 2). The following sections present the results of the study according to these three types of assessments.

15. Projects were considered the unit of information and analysis of the study and are used as the building blocks for the review. As presented in the Initiating Memorandum, projects were analyzed on the basis of their main objectives, taking into consideration the constraints of project implementation and the GEF guidelines at the time of project approval. The purpose of this study is not to present individual project evaluations but instead to use these evaluations to build aggregate results. Individual projects are only mentioned whenever necessary as examples or illustrations of particular points.

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[10] Projects supporting Biodiversity Enabling Activity were not included because they were evaluated in 1999 (see *Interim Assessment of Biodiversity Enabling Activities*, GEF Evaluation Report #2-99).

[11] A list of projects in the Cohort 2 is available upon request.

Table 2. Distribution of Projects in Two Cohorts

	Cohort 1		Cohort 2	
	#	$ million	#	$ million
By Region				
Africa	25	138	38	152
Asia & Pacific	19	149	26	127
Arab States	5	28	7	28
Europe & Central Asia	9	42	10	52
Latin America & Caribbean	20	134	45	262
Global	4	11	2	8
TOTAL	82	501	128	630
By Implementing Agency				
UNEP	6	12	6	11
UNDP	35	140	49	234
World Bank	39	320	68	340
Joint	2	29	5	45
TOTAL	82	501	128	630
Phase				
Pilot	55	317	1[12]	4.8
GEF	27	183	127	626
TOTAL	82	501	128	630
By Operational Programs				
1	7	30	26	125
2	19	80	40	148
3	33	221	47	285
4	7	35	7	46
Short Term	16	134	4	25
MOP	0	0	4	3
TOTAL	82	501	128	630
Status				
Completed	36	164	0	0
Active	46	337	128	630
TOTAL	82	501	128	630

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[12] This project, *Biodiversity Conservation in Southeast Zimbabwe*, did not become effective until June 1998 so it was not included in Cohort 1 although it is a Pilot Phase project.

Quantitative Analysis

16. The quantitative analysis used indicators[13] to measure and assess the extent of coverage (hectares, number of projects, and funding) of GEF projects in Cohort 1 according to ecosystems, special lists of globally important ecosystems, and selected biodiversity activities, including enabling environment indicators.[14] A list of indicators and their definitions is included in Section 6. This analysis was undertaken as a desk review and was based on information available in project documents at project approval. A database was created on a project-by-project basis with information on these indicators. Section 3 presents the results of the quantitative assessment.

Qualitative Assessment

17. The qualitative assessment, also based on an analysis of Cohort 1 projects, highlighted and assessed project achievements, initial impacts, and lessons as well as mechanisms for incorporating lessons learned within the implementing agencies. Three steps were taken to facilitate the qualitative analysis: First, Cohort 1 projects were classified in three groups based on a preliminary review of project objectives; second, terms of reference were developed to analyze the three types of projects and selected cross-cutting issues; and, third, an assessment was conducted of the aggregated results of individual project reviews.

18. A review of primary objectives of Cohort 1 projects concluded that there were primarily three types of projects: (a) those that concentrated on the conservation and sustainable use of biodiversity resources within protected areas and buffer zones (for example, by setting up and developing new protected areas, planning and managing existing protected areas, setting up mechanisms for sustainable financing of protected areas, and addressing sustainable use related to protected areas); (b) those that promoted the conservation and sustainable use of biodiversity resources in production landscapes (for example, preparing sustainable management approaches such as protected areas, implementing management plans, integrating biodiversity concerns into national development plans, optimizing productivity of resources, or conserving crops in forest, coastal, game ranching, agriculture, and wetlands ecosystems); and (c) those that promoted capacity development for conservation and sustainable use of biodiversity at all levels (human, institutional, and systematic) within local, national, regional, and global scales (for example, capacity development activities in research, inventory, evaluation, monitoring, information systems, networks, and databases).[15] These groups were not necessarily exclusive, although to the extent possible the assumption was that each project would be placed into only one of the categories. Annex 2 provides the classification of Cohort 1 projects into the three categories.[16] The distribution is as follows: (a) 41, (b) 22, and (c) 18 (one project could not be classified). About half of the category (b) projects also incorporated protected areas as part of their sustainable use strategies.

19. In addition to identifying the three classes of project objectives, the study also identified two main cross-cutting issues relevant to most GEF biodiversity projects: (i) stakeholders participation and social issues and (ii) project sustainability.

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[13] Jenkins, M. and V. Kapos, *Biodiversity Indicators for Monitoring GEF Program Implementation and Impacts*, draft final report, World Conservation Monitoring Center (UNEP-WCMC), (2000).

[14] Biodiversity activities included are: taxonomy; conservation trust funds; intellectual property rights; transboundary cooperation and exchange of expertise; policies, laws and regulations; research; training; education and awareness; national biodiversity action plans.

[15] Most of the multicountry projects in Cohort 1 are in category (c) so the terms of reference of the in-depth review for this category should make special consideration and attention to this fact.

[16] The three implementing agencies reviewed the classification and suggested changes that were incorporated.

Project Selection and Review

20. Projects in Cohort 1 were grouped in three categories according to the type of review. The first category comprised eight projects (about 10 percent) that were visited by members of the Biodiversity Program Study team. The countries visited were Argentina, Gabon and Central African Republic (one project), Indonesia, Mauritius, Peru, Philippines, Sri Lanka, and Yemen (see Table 3). The second category comprised 22 projects (about 25 percent) that were studied in-depth on the basis of existing documentation. The 30 projects included in the first two categories were selected based on a stratified and randomized sampling methodology used to maintain the representative distribution of projects in Cohort 1 according to implementing agencies, regions, categories of project objectives, phase (Pilot Phase and operational GEF), status (completed vs. active), and size (full vs. medium-size). Annex 3 presents the methodology utilized for the random selection. The remaining 52 projects (about 65 percent) were reviewed in less detail (brief desk reviews) based on available documentation.

21. However, while looking at the available documentation on projects, it became evident that projects would have to be categorized further in terms of the objectivity and comprehensiveness of the information available. Currently, final data sets have been disaggregated as follows (see Table 4).

22. Such classification allowed for a good understanding of the strength of evidence in support of the various findings. Therefore, the core data on which the qualitative assessment was based came from field visits to the seven projects and in-depth reviews prepared by the Study team on 21 others.[18] Variation in the objectivity and comprehensiveness of available data made it difficult sometimes to bring out interproject and, consequently, interagency and interregional differences and trends, if any. At the next level, there were eight completed projects subjected to a brief desk

review but for which detailed independent evaluations were available. As will be seen from the presentations in the following sections, there were many more questions asked of the seven field-visited projects, the 21 with in-depth reviews, and the eight completed projects with independent evaluations than of the remaining 42 in Cohort 1. The remaining 42 projects comprised those projects that were either completed and had brief independent evaluations, no independent evaluations, or were ongoing. *There was a certain amount of subjectivity involved in culling from these various reports the answers to the specific questions which with the qualitative assessment was concerned. Therefore, it is important to understand the data presented in later chapters within this context.*

23. Ideally and in retrospect, the qualitative assessment should have focused on only completed projects where the project achievements and initial impacts were clear. It also should have concentrated on field visits for those projects for which no detailed independent evaluations were available. However, it was felt that as most of the finished projects were older projects, being part of the Pilot Phase, it would not be fair to assess the complete portfolio on the basis of their performance.

Special Terms of References

24. Special terms of references were developed for the reviews of the three types of projects and one on the cross-cutting issue: participation and social issues (Annex 4). These four special reviews highlighted trends in achievements, initial impacts, and lessons learned.

Lessons Learned

25. A selected group of projects in Cohort 2 (new portfolio) classified under OP 3 (Forests), were used to evaluate how new projects have benefited from lessons learned and best practices from past projects. In addition, the study reviewed the mechanisms used by the three implementing

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[18] Unfortunately, there were significant variations in the level of detail contained in the various in-depth reviews and field visit reports. Also, despite efforts to agree upon a common format, the report format used differed from review to review, sometimes drastically and, consequently, the issues and questions addressed varied.

Table 3. Projects Visited by Study Team

Countries	Project/Implementing Agency	Date of Field Visit
Argentina	Patagonia Coastal Zone Management Plan (UNDP)	February 26, 2001
Gabon and Central African Republic	Central Africa Region: Regional Environmental and Information Management Project (REIMP)/World Bank	January 22, 2001
Indonesia	Emergency Response Measure to Combat Fires in	January 22, 2001
Mauritius	Indonesia and to Prevent Regional Haze in Southeast Asia/UNEP Restoration of Highly Degraded and Threatened Native Forests/UNDP	January 29, 2001
Peru	National Trust Fund for Protected Areas/World Bank	January 8, 2001
Philippines	Conservation of Priority Protected Areas/World Bank	January 29, 2001
Sri Lanka	Conservation and Sustainable Use of Medicinal Plants/World Bank	January 15, 2001
Yemen	Conservation and Sustainable Use of the Biodiversity of Socotra Archipelago	January 10, 2001

Table 4. Data Sets for Qualitative Assessments

Category	Number of Projects		Pilot Phase	GEF
1. Projects that were visited	7	Completed	2	0
		Active	1	4
2. Projects for which in-depth studies were conducted (completed and ongoing)	21	Completed	11	0
		Active	4	6
3. *Completed* projects for which brief desk reviews were conducted and where *detailed* independent evaluations were available (UNDP projects)	8		8	0
4. *Completed* projects for which brief desk reviews were conducted and where *brief* independent evaluations were available (World Bank projects)	8		8	0
5. *Completed* projects for which brief desk reviews were conducted and had *no* independent evaluations	6		6	0
6. Ongoing projects for which brief desk reviews were conducted and which had no independent evaluations	28		11	17
Total	78[17]		51	27

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[17] The documents for one project [26 Côte d'Ivoire] were in French and could not be translated in time to include in this draft. Another project [4 East Africa] was wrongly included in the in-depth review projects and could not be reclassified in time to be included in this draft. Two projects, *Argentina Patagonia* and *Colombia Choco Region*, are not included at this point because their review were received late.

agencies and the GEF secretariat to feed lessons learned from past projects into the design and implementation of new ones. Further to this selected group of projects, each of the implementing agencies selected projects with best practices of lessons-learned feedback. Because they were under implementation for less than one year, these projects from Cohort 2 were not assessed for achievements, but were assessed for design.

Sources of Data

26. The qualitative and quantitative assessments were based, primarily, on desk reviews of available documentation, including project documents, mid-term and final evaluations, reports of field visits, and implementing agencies' review missions and annual Project Implementation Reviews (PIRs). In addition to document reviews, the study team conducted interviews with staff at the GEF implementing and executing agencies, participating countries and NGOs. In particular, the NGO community was contacted through Internet networks. Field visits provided the richest and most comprehensive information and therefore enabled the best analysis.

27. Documentation was found to be uneven in quality, objectivity, and comprehensiveness and

for the most part not readily available at the GEF secretariat or the implementing agencies. Most of the information relevant to project implementation resides at the project sites. While some projects were evaluated internally and externally, others were only reviewed once a year (the PRIs) as required by the GEF M&E procedures. UNDP, for example, consistently evaluates all projects at two points: mid-life and completion. An independent team of consultants conducts these evaluations, although the quality of the evaluation documents varies from project to project. GEF/World Bank projects are extensively reviewed at different stages of the project cycle but mainly by internal groups—peer reviews and external—STAP, Quality Assurance Group, and Operations Evaluation Department. Most of the documents produced by these reviews are confidential and for internal use only, although those relevant to the Biodiversity Program Study were made available. UNEP conducts independent mid-term (where planned) and terminal evaluations (mandatory for all GEF-funded projects). Although independent project evaluations are available for UNEP Cohort 1 projects, due to miscommunication among the Study team, they were not made available in time to be used during the review process.

Quantitative Assessment

Introduction

28. The quantitative analysis focused on the coverage of the portfolio, using preliminary work completed for the GEF secretariat by the World Conservation Monitoring Center.[19] A list of indicators and their definitions are presented in Table 5 below. The quantitative analysis of indicators was applied to the GEF biodiversity portfolio Cohort 1[20] in relation to the number and hectares of protected areas, number and areas covered by special lists, ecosystems represented in the project sites, and special thematic issues. Annex 5 provides the numerical information used in the analysis.

Table 5. Quantitative Indicators and Their Definitions

Variable	Definition
Protected Area (number)	Number of protected areas as proposed in the project document; may vary from one to several; presented by the exact number or by minimum/maximum
Protected Area (hectares)	Hectares of protected areas proposed in the project document; may vary from one to several; presented by the exact number or by minimum/maximum
Special list (number)	Number of protected areas included in any of the following special areas: Centers for Plant Diversity, Endemic Bird Areas, Critical Ecosystems, Vavilov Centers, WWF Global 200 ecoregions, World Heritage Sites, Ramsar sites, biosphere reserves, Udvardy's biogeoreference, and IUCN MPAs.
Special list (hectares)	Hectares of protected areas included in any of the following special areas: Centers for Plant Diversity, Endemic Bird Areas, Critical Ecosystems, Vavilov Centers; WWF Global 200 ecoregions, World Heritage Sites, Ramsar sites, biosphere reserves, Udvardy's biogeoreference, and IUCN MPAs.
Ecosystem coverage	F = forest; RF = rainforest; DF = dry forest; W= freshwater and riparian wetlands; M= mountains; D = drylands and savannahs; C = coastal and marine ecosystems; CR = coral reefs; CM = coastal mangroves; A = agroecosystems on farms and production landscapes.
Enabling Environment indicators and activities support of biodiversity conservation and sustainable use	Indigenous and local knowledge; participation of indigenous peoples (as defined in CBD); alien and invasive species; research and taxonomy; conservation trust funds and in other long-term financing mechanisms; biosafety; intellectual property rights; and transboundary cooperation and exchange of expertise; policies, laws and regulations; research; training; education and awareness; land tenure; and NBSAPs.

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[19] Jenkings, M. and V. Kapos, *Biodiversity Indicators for Monitoring GEF Program Implementation and Impacts*, World Conservation Monitoring Center (2000).

[20] Only 81 projects were included in this review. The *Belarus Biodiversity* project was wrongly omitted.

Financing by Operational Programs

29. The total sum of GEF financing in the selected projects (Cohort 1) was just above $500 million, about half of total GEF allocation for this focal area up to June 2000. Forest-related projects covered under OP 3 represented about half of the funding of Cohort 1 projects, $221 million (44 percent). OP 3 also has a substantial number of the projects in this group (33 projects). The second largest program in terms of financing was the "short-term measures" category ($134 million and 16 projects). The implementing agencies explained that 10 of these projects were from GEF's Pilot Phase and thus were approved before the operational programs were developed. Some of the Pilot Phase projects were retrofitted into

the operational programs but these 10 projects did not fit the category. This, and the fact that most projects dealt with multiple ecosystems, made the discussion from the point of view of operational programs somewhat artificial.

30. The third largest operational program was OP 2, which deals with coastal, marine, and freshwater ecosystems ($80 million). The other two operational programs (arid and semi-arid ecosystems and mountain ecosystems) accounted for about $65 million. The breakdown according to the operational programs of Cohort 1 projects followed the breakdown of the GEF biodiversity portfolio. Table 6 presents the information on GEF funding and co-financing by operational programs.

Table 6. Distribution of Projects and Funding in Cohort 1 by Operational Programs

Operational Program	GEF Financing		Co-financing	
	US$ million	Percent of GEF funding	US$ million	Percent
OP 1	30	6	16	3
OP 2	80	16	68	11
OP 3	220	44	434	68
OP 4	35	7	22	3
Short Term	134	27	98	15
TOTAL	500	100	638	100

31. Co-financing is defined as the funding additional to GEF funding that has been mobilized from bilateral donors and/or governments to cover the entire cost of the project. The figures presented in this section were obtained from project documents at project approval and thus did not claim that co-financing actually materialized during project implementation (this information was not collected for this study but it should be in later reviews). The 81 projects considered in this review reported about $640 million in co-financing. Most projects (about 80 percent) claimed some leverage of co-financing at project approval, while 63 projects had co-financing of less than $10 million: most of the co-financing (78 percent) came from just a few projects (11,

all of which were implemented by the World Bank (Table 7) and was usually associated with World Bank loans or credits to the countries. Furthermore, on average, the World Bank reported about $10 million of co-financing per project, while UNDP and UNEP reported about $1.5 million.

32. Another way of defining co-financing is to determine the ratio of GEF financial support to the total cost of the project. According to the data provided at project approval for projects in Cohort 1 (no information was collected on co-financing mobilization during project implementation), about a quarter of the projects were able to leverage more than 50 percent of the total cost

Table 7. Projects with Co-Financing Greater than $10 Million (as reported in project document at project approval) (in US$ millions)

FY	Country/Implementing Agency	Project	GEF	Co-financing
1991	Brazil/World Bank National	Biodiversity Project	$10.00	$10.00
1997	Africa/World Bank	Regional Environment and Information Management Project (REIMP)	$4.35	$11.32
1991	Lao PDR/World Bank	Wildlife and Protected Areas Conservation	$5.00	$15.30
1991	Mexico/World Bank	Protected Areas Program	$25.00	$17.20
1997	Sri Lanka/World Bank	Conservation and Sustainable Use of Medicinal Plants	$5.42	$20.40
1995	Indonesia/World Bank	Kerinci Seblat Integrated Conservation and Development	$14.40	$25.50
1997	Argentina/World Bank	Biodiversity Conservation Project	$10.39	$37.50
1997	Honduras/World Bank-UNDP	Honduras Biodiversity Project	$7.30	$41.70
1997	Indonesia/World Bank	Coral Reef Rehabilitation and Management Project	$12.28	$48.00
1995	India/World Bank	India Ecodevelopment	$20.21	$54.00
1998	South Africa/World Bank	Cape Peninsula Biodiversity Conservation Project	$12.40	$80.80
1997	Madagascar/World Bank—UNDP	Environment Program Support	$21.30	$135.20

of the project from sources other than GEF (Table 8). The two joint projects in this cohort were able to leverage more than 85 percent of the total cost of the projects. More than half of the projects leveraged some co-financing to cover the total cost of the project (the entire amount of the project was covered by GEF in only 22 percent of the projects in Cohort 1).

Protected Areas

33. For the present review, we assume that all the projects that have reported working with and in protected areas have followed the definition of protected areas as internationally accepted. The numbers used in this analysis were taken directly from the project document and other relevant

materials found in the project files at the GEF secretariat. Most of the documentation reviewed was prepared at project approval. As a first observation, the quality of the data provided in project documents regarding specific information on protected areas was limited, with some exceptions. There are data gaps in project documents so the information on protected areas had to be estimated, based on rough figures. In many instances, although the GEF project included protected areas, no information on the number of hectares was provided.

Analysis According to Operational Programs

34. The study estimated that about 49 projects (62 percent) involve protected areas as part of

Table 8. Percentage of GEF Funding Compared to Total Project Cost by Implementing Agency

Percentage of GEF funding from total project cost	UNDP	UNEP	World Bank	Joint	Total projects	Percentage of total projects
Less than 25%	0	1	5	2	8	10%
25% - 50%	6	1	5	0	12	15%
50% - 75%	9	2	13	0	24	30%
75% - less than 100%	3	1	15	0	19	23%
100%	17[21]	1	0	0	18	22%
Total Projects	35	6	38	2	81	0%

their objectives, either establishing new areas or working within existing ones. Most of the projects (30) dealt with less than five protected areas. Madagascar and the Russian Federation were two countries where projects included the most protected areas, 39 and 42, respectively. The 49 projects included about 320 protected areas covering a total of about 60 million hectares. Closely following the GEF operational programs breakdown, about 60 percent of the protected areas were part of projects working primarily in forest ecosystems. Furthermore, all protected areas in Latin America were financed in forest ecosystems (OP 3). However, since a large number of projects deal with several ecosystems, the analysis of the relationship between protected areas and the operation programs was not appropriate.

Analysis According to Regions

35. The distribution of GEF financial assistance for protected areas has been rather even between three regions: for Asia and Pacific, Africa, and Latin America and the Caribbean; about $135 million. Furthermore, these three regions have received about 84 percent of all funding for protected areas. The breakdown regarding financing protected areas per region is as follows:

36. The 320 protected areas included in the projects reviewed were evenly distributed among

four regions: Asia and Pacific, Africa, Latin America and the Caribbean, and Europe and Central Asia. Regarding hectares, the distribution is somewhat less accurate given that information on protected area hectares was missing in several of the project documents. Neverthe-less, more than a third of the hectares protected by the GEF were located in Latin America, while less of 20 percent were located in Africa, Europe and Central Asia, and Asia and Pacific. Two extremely large areas (10 million hectares each) were covered by two projects: *Brazil Biodiversity Conservation* and the *Russian Federation Biodiversity Projects*. Both projects covered globally crucial forests not only from the point of view of biodiversity but also carbon sequestration.

Special Lists

37. The special lists analyzed in this review included: Centers for Plant Diversity, Endemic Bird Areas, Critical Ecosystems, Vavilov Centers, WWF Global 200 ecoregions,World Heritage Sites, Ramsar sites, biosphere reserves, Udvardy's biogeoreference, and IUCN MBAs, and a list of endangered and threatened species. This list was based on work completed by Jenkings and Kapos (2000) for the GEF secretariat.

38. Several problems arose when analyzing the projects and areas covered under these special

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[21] All of these projects belong to the Pilot Phase when there was no requirement of co-financing at time of project approval.

Table 9. Distribution of Protected Areas by Region

Region	GEF funding (million)	Number of protected areas	Hectares in protected areas (million)
Africa	$94	84	13.6
Asia and Pacific	$120	77	10.1 *
Arab States	$9	4	4.5
Europe & Central Asia	$35	72	11.2
Latin America and Caribbean	$84	68	20.8
Global	$6	15	Not available
Total	$350	320	60.2

Notes: * Four protected areas did not have hectare information.

lists. First, new lists of globally significant ecosystems have been prepared since most of the projects in Cohort 1 were designed and approved. Second, seldom was the project area identified as belonging to one of the special lists. In most cases, the project document explained that the country was a signatory of a certain convention or international agreement, but the document never explained whether the project areas belonged to a particular convention or agreement, and if so, to which. There has not been a systematic requirement or follow-up by the GEF on this issue, which made the task of identifying the areas under a particular list more difficult.

39. Of the 81 projects reviewed, 19 included specific information on 34 project areas that were included in one of the lists presented above. The most common special lists found in the selected projects are CITES, Ramsar, and the IUCN list of threatened and endangered species. The MAB program of UNESCO, World Heritage Sites, and the Convention on Migratory Birds are often cited to explain the global significance of an area.

Special Studies

40. The GEF secretariat conducted a special review of two of the operational programs (OP 2 and OP 4) for all projects approved by the GEF up to June 30, 2000. (This group combined projects from Cohorts 1 and 2.)[22] Of the 59 projects in OP 2, 52 of them (worth $211 million) covered sites of global biological significance. All projects in the Latin America and the Caribbean and Europe and Central Asia regions were within areas of global biodiversity significance. More than half of the projects were included in the WWF Global 200 list and Ramsar sites and about a third covered World Heritage Sites of natural value and areas of significance to migratory species.

41. Similarly, the analysis conducted of mountain ecosystems (OP 4) included projects from Cohorts 1 and 2.[23] Although since 1992, only 14 projects have been approved under this OP, the analysis revealed that an additional 55 GEF projects in other operational programs involved mountain ecosystems, which are defined as project areas above 1,000 meters. From these 69 projects that addressed the conservation of mountain ecosystems, 59 covered sites in WWF's Global 200 list of Earth's Distinctive Ecoregions. In addition, 19 of the 38 sites of natural value included in the framework of the World Heritage Convention were supported by GEF financing. Also, 16 of the GEF-funded projects of relevance to mountain ecosystems covered World Heritage Sites of natural value, and four projects covered

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[22] "Program Status Review of Biodiversity," GEF internal document, 2000.

[23] "Program Status Review of Biodiversity."

World Heritage Sites of natural and cultural value. Currently, seven of the World Heritage Sites of natural/natural and cultural value classified as mountain areas are listed as World Heritage Sites in Danger, and GEF has supported actions at five of these sites, especially in Africa.

Analysis by Ecosystems

42. As mentioned earlier, the classification of biodiversity projects into the four operational programs did not accurately reflect the type of ecosystems in which projects were operating.[24]

There are several observations that can be made when reviewing the projects from the in the context of the ecosystem in which the projects were operating.

- Most of the projects dealt with more than one ecosystem, directly or indirectly (factors affecting a particular ecosystem). The relevant ecosystem was included not only in the objective of the project, but also in the design of the project. Furthermore, project outcomes may affect other ecosystems not included in the design of the project.

Table 10. Regional Coverage by GEF-Funded Projects of Areas of International Biological Importance in Coastal and Freshwater Ecosystems (OP 2)

	Number of Projects								
	Region							Percentage of all projects	GEF $ millions
	AFR	AP	ASME	ECA	LAC	GLO	Total	All regions	
Total projects in respective region	12	14	7	5	20	1	59	100%	228
Special lists	9	11	7	5	20	0	52	92%	211
Ramsar	3	6	4	5	11	0	29	64%	147
Montreaux	5	4	3	0	6	0	18	28%	63
Global 200	5	8	4	3	17	0	37	70%	159
World Heritage	3	2	3	1	6	0	15	31%	70
Migratory Species	0	0	4	3	10	0	17	35%	80

- In many instances, the projects dealt with broadly defined ecosystems. For example, forest ecosystem projects had direct linkages with agricultural or coastal area ecosystems. In the case of Laos, the project could have been defined and launched under a more integrated ecosystem management approach. The same is true for most of the wetlands and coastal ecosystems projects.

- None of the project documentation reviewed contained a complete description of the ecosystems in which the projects were operating. This has happened even in projects that

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[24] The World Bank has already started to develop a systematic approach to review all projects according to ecosystems. Their first draft shows that most of the forest projects under OP 3 also support activities in mountain (OP 4) and coastal/freshwater areas (OP 2). In addition, all projects approved under OP 4 also deal with forest ecosystems (OP 3). The analysis presents a few examples of GEF/World Bank projects from the Pilot Phase that work in all four operational programs: *Bolivia Biodiversity Conservation, Indonesia Biodiversity Collection, Peru National Trust Fund for Protected Areas, Brazil National Biodiversity, and Mexico Protected Areas Program.*

**Table 11. Regional Coverage by GEF-Funded Projects of Areas
of International Biological Importance in Mountain Ecosystems (OP 4)**

	Number of Projects						GEF $ millions
	Region						
	AFR	AP	ASME	ECA	LAC	All regions	
World Heritage Sites[1] (natural)	5	1	0	1	9	16	125
World Heritage Sites (natural and cultural)[2]	1	1	0	0	2	4	39
UNESCO MAB Reserves[3]	1	0	0	2	11	14	132
WWF Global 200[4]	11	16	3	7	22	59	424
Major Watersheds of the World[5]	9	9	1	7	13	39	303
Total projects relevant to mountain ecosystems in respective region	14	17	6	9	23	69	481

(1) World Heritage List for natural values, current as of December 1999; (2) World Heritage list for cultural values, current as of December 1999; (3) UNESCO MAB Reserves, current as of January 2000; (4) WWF's Global 200: a representative approach to conserving the Earth's Distinctive Ecoregions, March 1998; (5) as defined in Watersheds of the World, a joint publication by the World Resources Institute and Worldwatch Institute, 1998.

were designed after extensive inventory and assessment. In addition, very seldom do project documents describe the interrelations between ecosystems at the project site level, although in many instances policies derived from the project may affect this precise interrelationship.

Analysis of Enabling Environment Indicators and Activities in Support of Biodiversity Conservation and Sustainable Use

43. The objectives and implementation plans (components) of all projects in Cohort 1 were reviewed to estimate the extent to which projects had reported on the enabling environment indicators.[25] In addition, the same projects were reviewed from the point of view of their inter-

ventions within a list of activities that support biodiversity conservation and sustainable use.

44. Enabling environment indicators are presented in Table 12. More than half of the projects in Cohort 1 dealt with some type of capacity development activities, including human and institutional, through dissemination of information, training, and education. This indicator was the most common objective among the projects reviewed. Nevertheless, none of the projects presented an assessment of training needs or gaps in skills or knowledge in order to determine the educational objectives of a project. Similarly, more than half of projects included research activities among their objectives (mostly applied, such as providing information, developing databases and information systems, monitoring and

[25] These indicators of enabling environment are based on the work conducted by UNEP-WCMC. It was not possible to consider all indicators at this point.

**Table 12. Number of Projects Including Enabling Environment Indicators
and Selected Activities in Support of Biodiversity Conservation and Sustainable Use**

Enabling Environment Indicators	OP1	OP2	OP3	OP4	Short Term	Pilot Phase	Percent of Pilot Phase	GEF	Percent of GEF	Total	Percent Total
Capacity development (individual and institutional)	4	12	22	4	5	31	56	16	59	47	57
Policies, laws, and regulations	2	11	17	3	6	25	45	14	52	39	48
Research	2	11	20	4	9	30	55	16	59	46	56
Land tenure	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total in Cohort 1	7	19	33	7	16	55		27		82	

NA: no information was collected for this indicator

Activities in Support of Biodiversity Conservation and Sustainable Use	OP1	OP2	OP3	OP4	Short Term	Pilot Phase	Percent of Pilot Phase	GEF	Percent of GEF	Total	Percent Total
Management of PAs	2	4	13	4	3	15	27	11	41	26	32
Participation of stakeholders	2	4	11	2	6	17	31	8	30	25	30
Implementation of sustainable use programs	2	7	10	1	4	14	25	10	37	24	29
Databases and information	1	5	10	1	3	10	18	10	37	20	24
Financing mechanisms	0	3	8	2	5	14	25	4	15	18	22
Demonstration character	1	1	3	1	2	4	7	4	15	8	10
Social impacts analysis/traditional knowledge	0	2	3	1	0	1	2	5	19	6	7
Private sector involvement	0	1	1	0	2	3	5	1	4	4	5
Total in Cohort 1	7	19	33	7	16	55		27		82	

evaluation, researching protected areas, determining priority sites, and setting conservation priorities). Promoting improved policies, laws, and regulations were tackled in about half of the projects in Cohort 1. These activities included proposals for implementing plans and strategies, strengthening support, and establishing policies and laws, as well as policies involving regional collaboration. There does not seem to be a difference in the percentage of projects classified under each of these three indicators between Pilot Phase and GEF projects.

45. About a third of the projects in Cohort 1 dealt with the direct management of protected areas.[26] Another third considered implementation of sustainable use programs. Yet another third considered participation of stakeholders in the project design and implementation (projects can be allocated to one or more categories). There seems to have been a slight increase in the percentage of projects dealing with the direct management of protected areas and sustainable use from the Pilot Phase to the GEF phase. About a quarter of the projects had objectives and components dealing with databases and information systems and financing mechanisms. A more substantial percentage of projects in the GEF phase were working with databases and information systems than in the Pilot Phase. Very few projects (less than 10 percent of Cohort 1) had project objectives or components that involved the private sector, demonstration sites, and social impact analysis or the use of traditional knowledge.

Conclusions

46. The documents available for review for most of these projects did not include the type of information necessary to analyze the proposed indicators for coverage as presented in Table 5. Trying to collect this information a posteriori could

involve a major undertaking. In addition, most of the information provided in this section was not checked against actual project implementation but instead represented project proposals at the time of GEF Council approval.

47. Even if the information provided in this section is not complete, it is evident that the GEF biodiversity portfolio has covered a lot of ground. Furthermore, it is also evident that GEF has provided and leveraged a substantial amount of funding for biodiversity conservation and sustainable use around the world. Supporting capacity development activities, research initiatives, development of policies and laws, protected area establishment and management, and sustainable use programs has been the major focus of the GEF biodiversity portfolio. It is also clear that the GEF has become a major supporter of some globally important and defined lists such as World Heritage Sites, CITES, Ramsar, and the IUCN list of threatened and endangered species.

48. The system of presenting the GEF biodiversity portfolio according to the operational programs is misleading when one is trying to estimate the ecosystem coverage based on where the projects were operating. In fact, taking this one step further, it should be recognized that GEF projects rarely focus on a single ecosystem, but they do act on and affect broader landscapes, including the production landscape. This has been recognized as a problem in previous reviews of biodiversity projects.

49. It is therefore clear that, if the indicators suggested in Table 5 (or any others) will be used in the future to describe and analyze the GEF biodiversity portfolio, the required project documentation should include the presentation of the selected indicators.

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[26] The classification of Cohort 1 projects for the qualitative assessment, described previously, into three categories included one category for projects dealing with conservation and sustainable use of biodiversity resources within protected areas and buffer zones. The classification of projects in this part of the study is more restrictive and included only projects directly involved in the management of protected areas.

Achievements

Introduction

50. In this section, project achievements were measured against project objectives. In the next section, the achievements regarding cross-cutting issues relevant to the GEF biodiversity focal area were measured. Some of the relevant cross-cutting issues were stakeholder participation, sustainability, benefit sharing, addressing some underlying causes and sensitivity to social and economic factors.

51. In looking at the explicitly stated, project-specific objectives, the study attempted to answer the following questions:

a. How far have project objectives been achieved?

b. Were the stated objectives realistic? If not, why not?

c. Were the objectives changed subsequent to project approval?

52. In addition, the study sought to look at the achievement of capacity development, protected area, production landscape, and regional and global projects. Annex 7 provides the numerical information used for the analysis. The findings are given below.

Findings

General Achievement of Project Objectives

53. Of the 78[27] projects assessed, eight percent were assessed to have fully achieved their objectives, about 40 percent to have mostly achieved their objectives, and another 40 percent to have only partly achieved their objectives.[28] Less than 10 percent were assessed to have either not achieved their objectives (one project) or minimally achieved them.

54. Of the 78 projects reviewed, 33 were completed projects. Of these, about 10 percent only minimally achieved their objectives, nearly 10 percent mostly achieved their objectives, and the remaining 80 percent were in the mostly or partly category. However, among completed projects, a greater percentage mostly achieved their objectives (17 out of 29) while 12 out of 29 partly achieved their objectives. It should be noted here that ongoing projects were assessed on the basis of their achievements relative to the stage of implementation they were in. For completed projects, there was no scope for improving their performance; whereas for ongoing projects, there is always the possibility that they will achieve their objectives before completion.

55. In understanding these findings, it must be

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[27] In Sections 4, 5, 6, and 7 of this report, some issues are assessed for all the 78 projects while others are assessed for a subset of 36 projects. Annex 7 indicates the sources of information used for specific issues. The rationale for using two different data sets is the availability of information, as described in Table 2 of Section 2.

[28] Projects were assessed as follows: fully (project has or is expected to achieve or exceed all of its main objectives); mostly (project is expected to achieve most of its major objectives or mostly achieve all objectives); partly (project is not expected to achieve most of its major objectives); and minimally (project is not expected to achieve any of its major objectives).

recognized that it is unrealistic to expect all projects to fully achieve all their objectives. In fact, such a situation might well lead to the criticism that perhaps projects were being under designed or were not ambitious enough.

56. Also, it must be recognized that projects whose goal is to conserve biodiversity are perhaps the most difficult types of projects to implement. In addressing biodiversity conservation issues, such projects aim to achieve objectives that, while having significant long-term and global benefits, often imply loss of access to natural resources, especially for rural communities. They work with governments for whom biodiversity conservation is usually not a priority and incorporate scientific principles that are new, evolving, often counter-intuitive, and difficult to explain to the various stakeholders. To honestly achieve their objectives, these projects often need to curb the harvesting and use of natural resources and divert land away from more commercially productive uses to conservation and "sustainable" use, consequently inhibiting or significantly changing patterns of short-term commercial and economic growth in societies struggling to catch up economically to the North. In return, they promise a small amount of "incremental" funds, nebulous option value in the distant future, and relatively modest alternate commercial opportunities. This is very often, though fortunately not always, the ground truth.

57. It must also be noted that there are no standards by which the achievement of GEF projects can be objectively assessed. Perhaps it would have been useful to compare their achievements against those of other agencies implementing similar projects. However, this was outside the Study's terms of reference.

58. Consequently, the achievement of the GEF biodiversity portfolio must be looked at in this context. Nevertheless, it is important to analyze those immediate factors that might inhibit improvements in the levels of achievement.

59. There are many reasons why objectives are not fully achieved. Perhaps the most important reason given was the lack of implementation

capacity. A study of the documents and discussions with experts, in the implementing agencies and elsewhere, suggest that the lack of a capacity assessment exercise (individual, institutional, or systemic) prior to project implementation was perhaps one of the major reasons why projects experienced major implementation problems. Projects were often started without a clear understanding of existing capacities. There was, consequently, no realistic plan to develop the capacities required to implement any phase of the project *before* that phase was formally initiated. Projects often did not have the time required to develop capacities. The existence of requisite capacities was not a precondition for project implementation, nor was each phase sanctioned only after the required capacities were demonstrably in position. However there was pressure to get on with the project even if the wherewithal to do so was lacking.

60. Another important reason why project objectives were not being fully achieved was that they were very often unrealistic and overly ambitious. Can one realistically expect a GEF project to achieve, in three to five years, what countries have not been able to achieve in 50? An effort was made to extract information about how realistic project objectives were. More than three-fourths of the projects assessed seemed to have had unrealistic or over ambitious objectives. The proportion was similar in completed and ongoing projects.

61. In many cases the team members conducting field or desk reviews also reported that the project objectives were over ambitious. (Three out of five examples below are from the Pilot Phase.):

• The project had too many objectives, apparently trying to please too many actors. [*Wildlands Protection and Management*, Congo/Pilot Phase].

• The project was over ambitious and unrealistic. [*Socotra Archipelago*, Yemen/GEF]

• The project design seems to include too many

activities within limited capacity for implementing them. [*Integrated Biodiversity Protection in the Sarstun-Motagua Region*, Guatemala/GEF].

- The project tried to do too much in too short a time period. [*Nepal Biodiversity Conservation* Nepal/Pilot Phase].

- The original objective of preparing a "comprehensive Biodiversity Map and Management Plan for Lake Malawi/Nyasa" was clearly too optimistic given the constraints of the project design (emphasis on one country and inattention to intersectoral policy and institutional issues) and was sensibly reduced in scope during project implementation. [*Lake Malawi/Nyasa Conservation*, Malawi/Pilot Phase].

62. This has also been observed earlier about GEF projects. Michael Wells, commenting on Pilot Phase projects, made a similar point in 1994[29], suggesting that in order to secure project approval, claims of effectiveness were inflated, risks were ignored, and complexities oversimplified. Six years later, a draft report titled "Bank Performance in Biodiversity Conservation and Sustainable Use[30]," makes a similar point.

63. A possible solution to being saddled with impossible objectives is to have the flexibility to review and change them as the project progresses. This flexibility was exercised in many of the projects under review. In nearly half of the projects reviewed, objectives were changed after project initiation. Most of the changes were in the form of the objectives being scaled down. In some cases they were made more appropriate or clearer.

64. Another important factor that reportedly constrained project implementation was the difficulty in coordinating with stakeholders, especially with local and national governments and local communities. Though, in general, the proj-

ects reviewed were successful in involving stakeholders, there were instances where the inability to address proximate and immediate causes of biodiversity loss, especially in terms of providing alternative livelihoods, created a problem. There was also sometimes the challenge of motivating the local people to participate in project activities.

65. Other major factors that seemed to have inhibited full achievement of project objectives included shortage of time (more than three-fourths of the projects assessed) and the shortage of funds (more than half the projects assessed).

66. Some of the factors that were occasionally quoted in the various reviews as being responsible for inhibiting project achievements included poor action plans and inappropriate sequencing of activities; a lack of flexibility in project design; poor initial assessment of the social, political, and economic situation; confusion caused by differing agendas of multiple donors; poor technical supervision; and time-consuming and tedious administrative processes. (For a more exhaustive list, see "Compilation of Lessons Learned from Projects Under Review" in Section 6).

67. Another problem some projects had was that neither the objectives, nor the indicators of success, were clear. There were objectives that sought to "develop capacity," "strengthen," "improve," "optimize," "foster," etc. However, there were no standards or levels indicated. How did one decide if enough "development," "improvement," "strengthening," etc., had taken place?

68. Political instability and just plain bad luck have also disrupted project progress. In a few cases, factors beyond the control or foresight of project planners, like wars or natural calamities, have inhibited project progress.

Capacity Development Projects

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[29] Wells, Michael, "The Global Environment Facility and Prospects for Biodiversity Conservation," *International Environmental Affairs*, 6(1): 69 –97 (1994), p 78.

[30] World Bank, OED (July 2000).

in some cases exceeded target indicators)."

69. A significant number of the projects assessed were capacity development projects. They addressed a variety of capacity needs at the individual, institutional, and systemic levels. Of the 18 capacity development projects assessed, two were judged to have fully achieved their objectives and two to have minimally achieved them. Of the remaining 14, about half had achieved most of the objectives while the remainder had achieved only part of the objectives (see Annex 6 for a further breakdown).

70. Some of the most successful components of even non-capacity development projects were the capacity development aspects of these projects. Writing about the *Patagonian Coastal Zone* project in Argentina, a team member said that the project successfully advanced scientific knowledge, especially about a group of marine animals important to the region. Other successful components of the project included advances in environmental education and capacity building. Similarly, for the Guatemala *Integrated Biodiversity Protection in the Sarstun-Motagua Region* project, it was said that major achievements were reported in elementary education by introducing environmental education, biodiversity protection, and sustainable development concepts in the schools' curricula. In addition, the project prepared and distributed educational material. The success of this component was attributed in part to the active participation of the Ministry of Education.

71. While reviewing the *Indonesia Biodiversity Collections* project, a team member suggested that the botany and zoology collections, developed as a part of the project, together with their qualified staff, should now be recognized as significant centers for taxonomy and biodiversity research. Similarly, for the *Sri Lanka Wildlife Conservation and Protected Area Management* project, the review states that "without fail, the project fully achieved the project objectives (and

72. For another project (*Biodiversity Protection*, Slovak Republic), it was reported that the project appears to have been most successful in building capacity for the manipulation of geographically based biodiversity information through the acquisition of GIS equipment and the provision of associated training.

73. A study of a sample of seven capacity development projects (from among those field visited and looked at in depth) suggested that the greatest achievements were at the individual level, followed by the institutional and systemic levels. This sample study also suggested that capacity development projects successfully motivated individuals to participate in associated activities, developed training programs appropriate to the socioeconomic, political, and cultural reality of the country, and supported the other objectives of biodiversity conservation.

74. There also seemed to be no problem in ensuring that trained personnel found suitable employment, especially as a large majority of trained personnel were already government employees. Unfortunately, information available in documents did not indicate whether or not these government employees were already, or continued to be, in positions where they could use their newly acquired skills.[31] Furthermore, it was uncertain whether resources would be available to continue to upgrade the newly acquired skills.

75. Regarding institutional capacity development, the sample study revealed that reorienting the goals and mandates of institutions, or introducing new management structures to facilitate achieving an institution's mandate, was not easy and success often depended on the personalities of those in senior management positions. However, the development of new management/strategic plans for specific institutions was an example of capacity development at

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[31] In at least one of the field-visited projects, the training imparted was assessed to be inappropriate, given the level of officers attending the training program (*UNEP Forest Fires*).

the institutional level, even though they may remain "on the shelf" until there is the political will to implement the proposed changes. On the other hand, capacity constraints to the effective achievement of the institutional goals and objectives were properly identified and the process to begin removing those constraints had been set in place. Improved performance was evident within the institutions in most cases. However, it was too early to measure true long-term performance for projects that have only recently terminated. In many cases, because the baseline was minimal at project start-up, the simple introduction of increased computing capacities, application of GIS in protected area planning, etc., resulted in a marked improvement in performance.

76. In the few instances where new institutions were established or substantial funding was provided for institutional functioning, sustainability was an issue that was considered very seriously by project proponents. Various strategies were designed to ensure institutional sustainability. However, it was thought to be too early to assess either the feasibility or efficacy of these strategies.

77. The results regarding systems were mixed, as very often systemic constrain were difficult to overcome by targeted conservation interventions and often involved actors outside the realm of the project itself. In all cases, the system was strengthened to deal with conservation and sustainable use of biodiversity but again the degree of strengthening varied widely from project to project, as did the impact each project had on the "developed capacity in terms of its endurance and evolution."

78. Sustaining capacity after project termination, through continuing training, education, etc., was not an issue that many projects examined, and most project designs failed to take this into account while considering project sustainability. Invariably, this would have required an ongoing source of support, either from the government or another a donor, or through some form of income generation. But none of these approaches was fully assessed, discussed, or agreed to in the projects evaluated. Capacity development appeared

to work best with those beneficiaries who had identified the need to improve their own individual and institutional capacities as a prerequisite to improving their ability to do their job, increase their incomes, and improve their quality of life, regardless of whether they were part of the government, NGOs, community groups, or academia. These beneficiaries were the most enthusiastic participants.

79. Similarly, there was the issue of sustainability of the skills developed. Would the skills developed in individuals be used, maintained, upgraded, and further disseminated? For, after all, very few skills are like riding a bicycle, which once learned is never forgotten. Most skills are lost if not regularly used. Besides, bicycles have hardly changed in the last 50 years and the skill to ride them does not need to be updated, while most other methods and technologies are constantly evolving and changing. If not upgraded, most newly learned skills soon become useless. But, is it reasonable to expect a GEF project to be responsible for this? The factors that motivate individuals to upgrade skills (for example, personal factors, economic incentives, interest in learning, etc.) are usually outside the scope of a GEF project. However, without creating the institutional and systemic capacities for replicating, upgrading, and optimally using the other capacities developed, the sustainability of capacity development inputs over even the medium term would be questionable.

80. A related issue is whether GEF-sponsored institutional capacity development activities have influenced similar developments in other institutions. The data suggest that this did not happen. However, is this a fair expectation? Can this kind of spontaneous uptake happen unless a donor is available to support the institutional strengthening activities required? And, if this is so, then we have already admitted that capacity development initiatives at the institutional level are not sustainable. Unless project funds can be used to develop models that are appropriate to the social, political, and economic reality of the host country or region, and unless the government and other stakeholders can be made to feel a sense of ownership towards such a model, there seems

little point in persisting with it. Besides, the replication of models developed in GEF projects is the best indicator that they are locally appropriate and owned (imitation being the highest form of flattery). This is also in keeping with the GEF Operational Strategy, which states that "A diverse portfolio will … finance actions that …catalyze complementary actions and have a multiplier effect."

Protected Area Projects

81. A large proportion of the projects assessed (40 of 78) were protected area projects. Some of the protected area projects were assessed to be very successful, even though they are invariably the most difficult and complicated types of projects. Resistance to capacity development and production landscape projects is rare especially because the former seek to enhance skills and abilities and the latter aim at enhancing the production of natural resources and their availability to local populations and other stakeholders. However, protected area projects often become the objects of hostility from a variety of stakeholders, including local communities, for such projects more often than not restrict access to natural resources. Therefore, the challenges associated with protected area projects are perhaps the greatest.

82. Nevertheless, current strategies of in-situ biodiversity conservation are heavily biased in favor of protected areas, as is obvious from the proportion of protected area projects among the projects being reviewed. If well-designed and managed, protected areas have perhaps a greater likelihood of being repositories of biodiversity (especially of large mammals and ecosystems) than almost any other type of conservation strategy.

83. The fact that the last remaining patches of wilderness are found only within protected areas in many of the countries where the GEF is active makes their protection very critical and difficult.

Growing numbers of humans, and rising economic aspirations and political awareness, have made the task of establishing and sustaining protected areas almost an impossible one. It is in this context that achievements of protected area projects must be assessed.

84. More than half the protected area projects were assessed to have fully or mostly met their objectives. Similarly, more than half were assessed to have had comprehensive or partial stakeholder participation, some benefit-sharing activities, and some measures for ensuring sustainability. However, only one-fifth of the protected area projects were assessed to have been "owned" by stakeholders.

85. The *Philippines Conservation of Priority Protected Areas* project presents a good example of impressive achievements at the local level within a complex environment (see following page).

Production Landscape Projects

86. The establishment of biodiversity conservation and sustainable use regimes in production landscapes outside protected areas is clearly a strategy for the future. It is only when production of natural resources can be enhanced and sustainably managed outside protected areas that pressures on protected areas can be reduced and political and economic space created for their continuation. Recent thinking in the GEF also stresses this shift in strategy and highlights the advantages such a strategy would have in achieving a wider and more varied coverage of biodiversity and would offer for various other pragmatic, scientific, and technical reasons.[32] Also, if local communities, urban consumers, and industry are to be provided the natural resources they need and if national economies are to grow equitably and in a sustainable manner, the productivity of land and water resources must be enhanced and these resources managed sustainably.

87. Most countries of the South do not have the

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[32] Please see *Achieving Sustainability of Biodiversity Conservation*, GEF (2000), for elaboration of this point.

Supporting Local Management of Biodiversity in the Philippines

Overlooking agricultural fields flush with ripening sugar cane, the sloping forests of Mt. Kanla-on, the highest peak in the central Philippines, stand as a promising reminder of society's dependence on natural systems and the services they provide. Considered a sacred mountain by local indigenous groups, the Mt. Kanla-on volcano and Natural Park is one of the few remaining forested areas of Negros Island, home to the headwaters of three major rivers—the Bago, Nahalin and Binalbagan—and serves as the watershed for nearly 160,000 hectares of land. Its forests provide habitat for an impressive diversity of flora and fauna, including large numbers of species found nowhere else on earth, such as the Negros fruit dove and the Visayan hornbill. But just as important as its role in providing clean water and sheltering unusual life, Mt. Kanla-on is also serving as a case study in the benefits and challenges of ensuring effective local management of natural resources.

Through the *Conservation of Priority Protected Areas System Project (CPPAP)*, Mt. Kanla-on is one of 10 sites included in a $20 million GEF effort to manage natural resources. Begun in 1994, the project is implemented by the World Bank in partnership with the Philippine government and a consortium of non-governmental organizations (NIPA). The project's objective is to promote partnerships between NGOs and government agencies for the management of protected areas through the establishment of Protected Area Management Boards (PAMBs). PAMBs are relatively new management arrangements and thus the CPPAP project was, in essence, an experiment in participatory management of protected areas.

The PAMB for Mt. Kanla-on has been effective in reducing threats to the park and in finding cooperative solutions to unexpected problems. PAMB members typically hold senior positions in their agencies or organizations, allowing them to speak credibly on issues of concern to the park. In addition, GEF funding helped provide training to fill in the knowledge gaps PAMB members had about the park and its management, allowing everyone to function on an equal footing. Since its creation, the Mt. Kanla-on PAMB has negotiated agreements with local governments to broaden its financial base and implement community development activities, supported sustainable ecotourism activities focused primarily on Filipino nationals, and undertaken regeneration efforts on degraded land within the natural park boundaries. Local communities have formed "green brigades" which have had a direct impact in reducing the number of illegal activities within park boundaries and reinvigorating restoration efforts.

The importance of protecting the natural park and the services it provides has not been lost on local authorities. "The integration of Mount Kanla-on Natural Park into the land-use and short and long-term development plans of local government units highlights the appreciation and support these institutions have for the initiatives we are undertaking," says Errol Gatumbato, Protected Area Superintendent of GEF's efforts in Mt. Kanla-on. Effective, cooperative local management, however, is no panacea to the threats facing Mt. Kanla-on and other parks. Oftentimes, threats arise which are beyond the scope of a PAMB or other agency to easily address. Ongoing debates over the proposed siting of a new geothermal power plant, for instance, have challenged the structure and authority of the Mt. Kanla-on PAMB and the protected area system as a whole. On the other hand, concerns about the impact of mountaineering on the volcano led park managers to strike a balance between the wishes of commercial users and local spiritual leaders, both of which stand to lose from further degradation.

These events highlight the challenges facing natural parks like Mt. Kanla-on, but they also reveal that support for local governance, by ensuring a voice for those most affected by and dependent on natural resources, can be a powerful force for effective management. "While it is not easy to bring together sometimes conflicting interests," Mr. Gatumbato continues, "it is important that the PAMB be guided by basic principles of biodiversity conservation and sustainable development, and that it establish its own guidelines of operations to effectively carry out its mandate."

luxury of putting adequate representative ecosys-
tems and habitats of all endangered species
within the protected area system. Furthermore,
isolated protected areas cannot always harbor
genetically viable populations of species and, in
most countries of the South, information on the
status and distribution of species is patchy. Even
if protected areas could be set up to protect all the
known species, many other unrecorded species
might exist only in unprotected areas.

88. To manage a production landscape so that
biodiversity is conserved and its components
sustainably used is not an easy task, neither in its
science, nor in its economic, social, or adminis-
trative parameters. According to the CBD,
"Sustainable use means the use of components of
biological diversity in a way and at a rate that
does not lead to the long-term decline of biolog-
ical diversity, thereby inhibiting its potential to
meet the needs and aspirations of present and
future generations" (p 5, CBD). Despite this, the
term "sustainable use" is often understood by
those not involved in biodiversity conservation to
mean the perpetual availability of a species or a
resource that is required for consumption or sale.
However, even the sustainable harvesting of such
species and resources might have adverse
impacts on other elements of biodiversity that are
not "resources" and, therefore, are not noticed.

89. It also is not always easy to determine what
levels of extraction and human use are compat-
ible with biodiversity conservation. Whereas in
protected areas, especially in the core zones, all
human use can be prohibited because of the
precautionary principle, this is not feasible in
production landscapes. Therefore, carrying
capacity studies need to be carried out for
different species and ecosystems. However, these
are expensive, time-consuming and technically
challenging, and the findings have to be shared
with, and accepted by, the various stakeholders if
they are to respect them.

90. Policy and legal support for the conservation
of production landscapes is usually much weaker
than that for protected areas. Consequently,
substantial efforts have to be made to establish-
stakeholder participation, a sense of ownership,

and a benefit-sharing regime, if conservation is to
be effective.

91. Of the 20 production landscape projects
assessed, about half had mostly, and the other
half, partly, achieved their objectives. None
had been assessed to have fully achieved its
objectives and only one had minimally achieved
the objectives (see Annex 6 for further break-
down analysis).

92. There were many notable successes. For
example, the *Argentina Patagonian Coastal
Zone* project was assessed to be outstanding in
its support of a local NGO specific to the periph-
eral area where the project operated, efficient use
of budget for training and environmental educa-
tion, and management plan based on high-
quality technical and scientific work (though not
on social science or policy-related work)
Similarly, the *Ghana Coastal Wetlands
Management* project generally promoted aware-
ness among the stakeholders that the five coastal
wetland ecosystems should be managed for
global, national, and local needs. The
Madagascar Environment Program has had a
major impact in the areas of policy formulation
and institution building to address, construct,
and implement conservation agendas. Some
government institutions were also strengthened.

93. In the *Sri Lanka Medicinal Plants* project, the
finding was that awareness about medicinal
plants had increased in all the sites. Awareness
was increasing about their uses, their cultivation,
their decline, and the need to conserve them.
Villagers mentioned that they were learning
about some medicinal plants they had not
known about before. Women repeatedly
mentioned their interest in knowing more about
medicinal plants. They also mentioned that the
project was allowing them to get more involved
in resource management.

Regional Projects

94. Biodiversity does not respect national bound-
aries, nor do the consequences of its loss. Factors
that degrade biodiversity can also emanate from
across national borders. Demand for endangered

species and their parts from markets across the world can deplete and decimate populations in countries far removed from such markets. Consumption of natural resources in one set of countries can fuel the conversion of wilderness areas into plantations and wastelands in another. Air and water pollutants can travel across national boundaries and destroy biological resources in neighboring and far-off lands. Consequently, regional and global projects perhaps have greater relevance in the environmental sector than in many other sectors.

95. However, the vast geographical range over which biodiversity must sometimes be conserved makes the task of managing regional projects very difficult. Added to that is the need to coordinate with different national governments; deal with different ecological, political, cultural, and economic systems; and even operate in different languages. Sometimes competing national agendas have to be reconciled and cooperation sought between countries that might have many existing and deep-rooted political and economic differences. It is within these constraints that the performance of regional (and global) projects needs to be assessed.

96. Of the 78 projects reviewed, 14 were regional or global projects. Of these, two were field visited and three were studied in depth. In both the field-visited projects, it was thought that the objective of regional cooperation was well achieved, though the African project was still in its early phase. Similarly, in two of the three projects studied in depth, the experience of regional cooperation and the efficacy as a regional project was assessed to be satisfactory. For the third, there was inadequate information.

97. Some other projects that were not classified as regional projects but where activities covered more than one country included the Lake Malawi project, the Romania and Ukraine Danube Delta projects, and the *Slovak Republic Biodiversity Protection* project. All of these were studied in depth. For the Danube Delta projects, which were run as separate country projects, the perception was that they would have been better off as one combined project.

Initial Impacts

Introduction

98. The fundamental questions that must be asked of the GEF biodiversity portfolio are: How much biodiversity did it conserve, how important was this biodiversity, how well and sustainably was it conserved, and what were the social and financial costs and benefits? We propose, in this chapter, to try to answer some of these questions.

99. To find answers to these broad questions, we set about trying to answer the following more specific questions.

- How successful were projects in conserving biodiversity and ensuring its sustainable use?

- How successful were the projects in involving various stakeholders in the planning, implementation, and evaluation of the project?

- How effectively were science and technology issues incorporated into project design and implementation?

- How extensively and effectively were the underlying causes of biodiversity loss addressed?

- How far and in what ways are the activities/benefits of the project sustainable?

- Have the projects addressed land degradation issues?

100. Our findings are given below. Annex 6 provides the numerical information used for the analysis.

Findings

Impacts on Biodiversity[33]

101. For a large proportion of the GEF projects, it was not possible to directly answer the question "what impact did they have on biodiversity?"[34] mainly because the information required to answer this question was not available. The absence of this information was partly due to the fact that project assessments focused, as they should have, on determining how far project objectives had been achieved. However, in the projects assessed, objectives were mostly output- or task-oriented rather than impact-oriented. The fact that GEF projects, by and large, did not systematically collect data on their impact on biodiversity was one of the surprising findings of this study.

102. Efforts to assess project achievements in terms of the actual biodiversity impacts were further frustrated because, for most of the projects, there were no baseline data against which the current status could be compared. About half the projects reviewed did not collect baseline data. Only about 20 percent had collected varying degrees of baseline information, and another 20 percent had planned to do so but it is not known whether they had or not. There were also no clear field indicators on how a project's

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[33] GEF projects obviously have impacts other than those on biodiversity. However, for the purpose of this study, we have restricted ourselves to assessing impacts on the conservation and sustainable use of biodiversity, as this is the mandate of the GEF.

[34] By "impact of the project," we mean the effect the project has had on the conservation and sustainable use of biodiversity.

impact should be measured or how that can be separated from the impact of factors and activities unrelated to the project.

103. However, it seems that the GEF has begun to address the need for baseline studies. The review of a group of new OP 3, Cohort 2, projects revealed that almost all the projects proposed to carry out baseline studies—biological, sociological, and socioeconomic. Oftentimes, these baselines were to be carried out during project preparation (PDF-stage) or as one of the first tasks that the approved project would undertake. The socioeconomic studies, moreover, frequently sought to examine a broad range of issues, from land ownership patterns to logging levels and differentiation in responsibilities between genders, to cite just a few examples. Of course, it is not yet possible to determine the impacts of these Cohort 2 projects, because most of them have only recently started.

104. Despite the scarcity of baseline information and of impact indicators in the reviewed Cohort 1 projects, the study team made an effort, based on information collected from project documents and through field visits, to assess what impacts projects had had on biodiversity. Of the 17[35] projects that had information on their impacts on biodiversity, only three were considered to have had a substantial impact. Of these, two were completed projects and one was ongoing. The remaining 14 were assessed to have had some or little impact.[36] Of these, eight were completed projects and the remaining six were ongoing. For the remaining projects, there was either no information or the question was not relevant. In some cases, the reviewers had indicated that it was too early to judge the impact.

105. Further analysis of the data shows that of the seven field-visited projects, one (ongoing) was assessed to have had a substantial impact on biodiversity, five (three ongoing) were assessed to have had some or little impact, and one (ongoing) was thought to be too early in its implementation to assess impacts. Similarly, of the 21 projects for which in-depth reviews were done, one (completed) was assessed to have had a substantial impact, five (two completed) were thought to have had some or little impact on biodiversity, and 15 (eight completed) did not have enough information to enable a judgment.[37]

106. It must again be mentioned that these findings should be understood in the larger context, described in detail in Section IV, regarding the difficulties in implementing biodiversity projects and our inability to compare GEF project performance against the performance of other agencies.

107. There was also the question of whether a project's impact on biodiversity could be assessed in the three to five years of project life. In some cases, such an assessment might indeed not be possible; for all the other projects, some impacts should have become obvious well before project completion.

108. The impact of capacity development projects might appear, at first sight, to be difficult to assess, especially in the short term. However, the objectives of even capacity development projects can be far more impact-oriented, as can their indicators of success. For example, if individuals are being trained and institutions and systems strengthened in order to perform certain functions, then the performance of those functions

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[35] These 17 projects are from the 36 sub-cohort that include projects that had in-depth reviews, field visits, or independent evaluations. See Annex 7 for a further breakdown.

[36] Impacts were classified into substantial and some or little. This terminology was extracted by the authors from the open-ended responses to the questions in the in-depth reviews.

[37] Percentages provided in this chapter are based on the number of actual responses and do not include those projects for which there was no information; unless otherwise specified.

must be the test of project success. Project objectives and, consequently, indicators of success, must not focus only on the holding of training programs or the provision of equipment and resources. Changes in attitudes could be another indicator of success, where it was a part of project objectives. In some cases, proxy indicators might have to be used to capture some of these changes.

109. Among the projects that reported direct benefits to biodiversity were the *Ghana Coastal Wetlands Management* project. The impacts on biodiversity included "the increase of population of migratory birds in three locations which will benefit global community" and "reduction of mangrove destruction for fuelwood, as well as reduction of encroachment on the sites." For the *Integrated Biodiversity Protection* project in Guatemala, it was reported that "anecdotal information from local residents seems to indicate that the rate of loss in forestry coverage has been reduced in areas under protection."

110. The lack of information related to impact appears to be an indicator of the preoccupation of GEF projects reviewed with activities and tasks. The fact that the projects reviewed almost always had task-oriented and not impact-oriented objectives and, consequently, had no impact-oriented indicators and no time-bound benchmarks for monitoring their progress throughout the project life is an issue that needs to be addressed.

111. Given the mandate of the GEF, it would appear more desirable to replace general objectives like "strengthen capacity," "develop ability," etc., with very specific, impact-oriented, objectives such as "raise the population of x species," "increase the density of y forest," "regenerate z area," "reduce harvesting of a resource," "increase productivity of b resource," "reduce grazing," etc. Further, for each of these objectives, targets could be specified "increase by how much in what time frame," "regenerate to what level in what time frame," "reduce to what number in what time frame," or "increase productivity to what level in what time frame." Then the output or task-oriented objectives could be seen as the means for having such impacts.

112. The need to have impact-oriented objectives and indicators is obvious when one looks at some of the projects reviewed. For example, the *Sri Lanka Wildlife Conservation and Protection* project was assessed to be very successful in terms of achieving its objectives. It was one of the few projects where objectives were reportedly not only fully achieved but "in some cases, exceeded target indicators." However, for the same project, the report goes on to say that

> in spite of the illustrious achievements of the project listed above the project has not yet had the full desired impact. That is, the capacity of Department of Wildlife Conservation to manage protected areas and wildlife has been greatly improved and strengthened as a result of the project but management of protected areas has not significantly improved as a result. Many of the most important problems pertaining to protected area management still exist and although a strategy has been formulated by the project and adopted by the government of Sri Lanka to conserve elephants, management of wild elephant populations and the resolution of conflicts between elephants and people has not significantly improved.

113. Similarly, the report on *Congo Wildlands Protection and Management* project states: "The bottom line is that biodiversity in one of the biologically richest countries in the planet is very much under substantive threat and project achievements did little to advance its conservation." The final evaluation report for the *Sustainable Development and Management of Biologically Diverse Coastal Resources* project in Belize (1993-98) states: "The threats to the unusually high quality and rich biodiversity of the Belize coastal ecosystems were already clear in 1993 and have increased in the subsequent five years" (p 7). It must be noted, however, that the impact that projects might have had in inhibiting the rate of deterioration could not be captured from the available information.

114. Since July 1997, the GEF implementing agencies have been using a log frame (logistic framework) approach for designing and moni-

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Why Global Biodiversity Impact Is Difficult To Define: The Case of Yemen

The World Conservation Monitoring Center (WCMC) defines biodiversity as the "number, variety, and variability of living organisms that comprise the hierarchy of biological organization." In ecosystem diversity, "the relative abundance and variety of species is measured by size, trophic levels, and taxonomic groups." According to the CBD, countries can measure biodiversity in terms of "number of endemic species and number of species near-extinction" but recognizes that "different weights may be applied to assessing ecosystem diversity and there is no single index used for ranking area diversity."

In the case of the *Conservation and Sustainable Use of Biodiversity of Socotra Archipelago* project in Yemen, the project completed an inventory of 90 percent of the area within two years. About 30 percent of plants are endemic (out of 900 plant species, 300 are endemic) compared to 17 percent endemism throughout the Arabian region. Of these, 7 species are listed in the IUCN's Red Data Book, including globally unique species such as the Dragon Blood Tree (*Dracaena cinnabari*) and Cucumber Tree (*Denfrosicyos socotrana*), two taxonomically isolated Paleo-African and Paleo-Indo-Malesian plant relics dating back to the Pleistocene era. The Cucumber Tree is the only known living species in the cucumber family in a semi-arid environment. Another species, the *Punica protopunica*, is a wild relative of the commercial crop pomegranate and is believed to be significant progenitor species. Some 80 percent of corals have been inventoried, representing 30 genera representative of the Indian Ocean species, including massive foliose corals (e.g., *Porites spp*, *Montipora spp*, *Favites spp*, *Platygyra spp*, *Goniopora spp*, etc). Three of the four types of sea turtles breed in the archipelago. Dolphins (*Delphinus delphis*) and other cetaceans migrate and inhabit nearby waters, including the sperm whale (*Physeter macrocephalus*). Overall, the project has achieved 200 percent of its target inventory of previously known species, all of which are contained in over 400 written reports submitted by the project's various scientific teams.

Yet, in the end, the final evaluation for the project concluded that "the project was over-designed and had too many detailed activities." The evaluation continued: "Provided that it (Zoning Plan) will be strictly implemented, the objective of the project will have been achieved fully and its impact will have been extremely positive. The chances that this will happen are considered substantial" (p. 5). This is based on actual outcomes: over 10,000 people, 29 schools, and 171 teachers trained in conservation management; more than 31 national experts now involved in scientific studies; tree plant nurseries established in three sites; and an ecotourism strategy and zoning plan completed and endorsed by the President of Yemen.

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toring projects. It was claimed that this approach would improve the capacity to assess impacts. However, while the reviewed sample of the PIR 2000 reports contained a question about impacts, it was clarified that by impacts what was meant was "progress towards achievement of development objectives." As most of the projects reviewed had "development" objectives that were output and task-oriented, the review did not yield any significant information about actual project impacts.

115. In their PIR Performance Report 2000, the UNDP/GEF mentioned that projects were retro-fitting indicators that would enable assessment of impacts. Also, some of the newer projects were already using satellite imagery to monitor vegetation changes. This is a welcome development and should be noted by other implementing agencies.

Stakeholder Participation

116. The importance of involving stakeholders at all stages of the project cannot be overstated. Stakeholder involvement, especially the involvement of local communities where relevant, is a precondition for achieving many of the project objectives. In planning and designing projects, stakeholder participation can help ensure that the sites selected are optimal from both the view-

point of biodiversity and in terms of feasibility of management, conservation, and protection and can help foster a sense of ownership towards the project. Indigenous and local knowledge can be incorporated in project design, making it richer and more appropriate. Furthermore, the GEF Operational Strategy states: "Participation of affected stakeholders, including indigenous peoples, is of central importance, especially in the case of communities that reside inside protected areas and their immediate surroundings."

117. Of the 78 projects assessed, stakeholder participation was comprehensive in about 30 percent and partial in 20 percent. In about one-fourth of the projects, it had been planned but it was not confirmed whether it actually occurred. In about 20 percent of the projects, stakeholder participation was assessed to be poor or missing; for the remaining five percent, there was no information.

118. If one looks at only completed projects, over one-third had comprehensive stakeholder participation and less than a third had partial participation. In addition, about 10 percent had planned for participation but whether or not it actually occurred was not known. The remaining 20 to 25 percent had either poor or no participation.

119. Some of the issues found to require further attention included the involvement of the private sector, repositories of traditional and indigenous knowledge, social scientists, and universities and institutions in projects where their involvement was appropriate. Another weakness that was pointed out was the relatively poor involvement of stakeholders, other than the government, in the planning and design phase of the project. 120. Nevertheless, one must note that most of these projects were working with institutions without much previous experience in stakeholder participation. Whereas participatory models of planning and implementation are relatively more prevalent in sectors like health, education, and agriculture, in the area of biodiversity conservation, they have been rare.

121. Also, many of the strategies that the GEF is increasingly adopting, especially those linking conservation with development, fall between two traditional standpoints. At one extreme are the so-called "pure conservationists" who believe that the scarce resources available for conservation should be used solely to control those who have been "illegally" using the forests and other wilderness areas and not to support income-generation activities or to provide alternatives for affected people. At the other extreme are supporters of tribal and indigenous people and of rural agricultural and pastoral communities. They are against the exclusion of people from protected areas and view local users as the real "owners" and "protectors" of these areas and oppose any efforts to restrict their access or find alternatives for them. Projects that seek to link conservation with social and economic development often get attacked from both extremes, especially as support for the middle path is still weak.

Special Studies

122. Two special studies were commissioned as part of the present study to look at stakeholder participation in more detail. The first looked at 30 of the projects being assessed.[38] The study identified four major issues relevant to project design and implementation:

- Importance of understanding the behavior of stakeholders in relation to the ecosystem

- Recognition of the values of indigenous knowledge in designing project activities

- Expansion of inputs from the science and technology communities, especially in-country resources

- Application of good practices in "learning through doing" approaches.

The other study looked at 37 forest ecosystem projects from Cohort 2 in relationship to the issue of stakeholder participation.

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[38] "Special Study on Participation and Social Issues," *Biodiversity Program Study*, GEF (2001).

123. In general, the 30 projects in Cohort 1, which had been subjected to an in-depth review, made use of one or more forms of information dissemination and stakeholder consultation and were, consequently, consistent with the GEF's Public Involvement Policy. Multiple stakeholders were involved, although the participation of the private sector was very limited. Similarly, there was a need to get more inputs from academic and research institutions, especially on a more systematic basis.

124. Participation of civil society, especially at the local level, was described in some projects but documentation was inconsistent. Although the projects studied were relatively mature compared to the rest of the portfolio, there was insufficient evidence to assess how, and to what extent, stakeholder participation had improved project effectiveness. However, there were numerous examples of good practices and approaches that had been learned from the earlier GEF phase and also from other projects and programs.

125. There was also insufficient documentation to assess the effectiveness of stakeholder participation, particularly with respect to achieving the projects' objectives. Further, the nature of stakeholder participation varied by project and by country, and even by site within a project. The one global project and three regional projects, by their very nature, required less participation at the local level. All four projects were engaged in information dissemination and consultations.

126. The impact of project interventions on stakeholder behavior varied by the type of stakeholders and by their role in the project. For example, the NGO executing agencies in the *Philippines Protected Areas* and in the *Argentina Patagonia* projects encouraged more broad-based participation of local groups, as compared to projects that were nationally executed by a government agency. However, there was insufficient documentation to assess whether one modality of project execution was more effective than the other in promoting stakeholder participa-

tion. In fact, as in the case of Yemen, it was not clear whether there was any advantage in strengthening stakeholder participation if the project was being managed by a professional international agency, such as the United Nation's Office of Project Services (UNOPS).

127. The other study looked at 37 new forest ecosystem projects from Cohort 2. Among these, the vast majority of projects included components that addressed stakeholder participation. These usually included community workshops that preceded final project design (in the PDF-B stage, for instance), a role for local stakeholders on management boards or oversight committees, and disbursement of project funds through on-the-ground NGOs or communities.

128. However, the term "stakeholder" was used in these projects as a catch-all phrase, and stakeholder participation in general was difficult to gauge based on reviews of project documents. In the Congo project, for example, there was mention of consultation with local stakeholders, but no clear sense of whether a significant number of the country's 360 different ethnic groups had been engaged or empowered in the process, or even informed about its existence. Available documentation did not provide information on who might have been spoken to or what their role might have been. Further, desk reviews proved to be poor instruments for assessing the effectiveness of stakeholder participation in terms of their contribution to achieving the project's objectives.

Science and Technology

129. Of the projects reviewed, about 60 percent had substantially addressed science and technology issues, about 15 percent had partially addressed them, another 15 percent had minimally done so, and for the rest, there was no information. For completed projects, nearly 80 percent had substantially addressed these issues while the remaining 20 percent had either partially or minimally addressed them. Some of the weaknesses that emerged from project reviews included poor recognition of traditional

Table 13. Factors Affecting Stakeholder Behavior

Stakeholder Group	Role in Project	Factors Affecting Stakeholder Behavior	Examples
Donors	Co-financing; technical and advisory	Level of funding; M&E requirements; type of agency (e.g., philanthropic foundations tend to require less M&E compared to bilaterals	Donors represeented in project steering or advisory committees
Other UN and international agencies	Execution or co-execution; technical and advisory	Type of agency (e.g., services such as UNOPS or research such as IPGRI); interest in project (whether project is integrated into agency's main programs)	UNOPS execution in Yemen project; WCMC mandate to monitor biodiversity consistent with global project
National government	National coordination/GEF focal point; execution or co-execution; policy and decision making; technical and advisory	Political system/government set-up for coordination; degree of government commitment to project (whether project integrated into agency main programs); agency capacity in terms of technical expertise/staffing	Environment Protection Council in Yemen coordinates and endorses all GEF-funded projects; protected areas legislation based on Philippines project; institution-building components (Mozambique, Sri Lanka, Nepal, Ghana)
Local government	Execution or co-execution; outreach; policy and decision making; technical and advisory	Degree of decentralization and devolution of authority; size/area/coverage; diversity of communities; capacity in terms of technical expertise/staffing	Interprovincial coastal committees formed in Argentina Patagonia; PAMBs (Philippines); CFUGs and GUGs (Nepal); VSMCs (Ghana); JMCs (Mozambique)[39]
Science and technology (S&T) institutions and experts	Technical and advisory	Nature and degree of scientific requirements of project; availability of local experts; budget allocated to S&T; extent of difficulty of S&T issues/problems to be investigated	Global GBA required full-scale S&T inputs; Yemen started with almost zero S&T information; Central Africa information oriented S&T; Sri Lanka medicinal plants required S&T integrated with indigenous knowledge
International NGOs	Execution or co-execution; technical and advisory	Budget allocated for contracts; vested interests of NGOs; advocacy roles; extent of partnerships with local groups; NGO project experiences	CARE and other NGOs tend to focus on community social services; IUCN integrates policy reforms into activities (e.g., Panama); WWF has special interest in trust funds (e.g., Bhutan)
National NGOs	Execution or co-execution;	Budget allocated for contracts; vested interests of NGOs; advocacy roles; sizes of NGOs (membership); relationships with government; community organizing experience; presence of partnerships with international groups	Consortium of national NGOs executing Philippines project; advocacy for legislative reforms (Argentina, Philippines, Yemen); expertise in organizing communities (Ghana, Sri Lanka); partnerships (Cong Nepal, Mauritius)
Private Sector	Co-financing; technical and advisory	Level of co-financing; vested interests; relationship with the government	Ghana and Egypt projects; private sector cooperation with government to reduce coastal pollution
Local groups	Co-management; outreach; beneficiary	Budget allocated for community-basedactivities; population size and composition; nature of livelihood dependency on resource; extent of population diversity; presence of indigenous groups; tenural arrangements	Local decision-making mechanisms in Argentina, Colombia, Nepal, Sri Lanka; more complex arrangements in Ghana and Philippines due to larger and more diverse populations

[39] PAMBs = protected area management boards; CFUGs and GUGs = community forestry user groups and grazing user groups; VSMC = village site management committees; JMC = joint management committees

knowledge and inadequate involvement of social scientists.

Special Study

130. A special study was undertaken to look at how projects effectively involved science and technology institutions. The case studies of the Philippines[40] and Yemen specifically addressed this issue and concluded that while there were sufficient scientific inputs, especially from international scientists, expanding the number of local scientists remained one of the more challenging aspects of project execution. In both the projects, there was evidence of successful North-South cooperation among scientific institutions.

131. There were extensive environmental education and awareness components in both the projects (see box for further description regarding Yemen). The reviews described the involvement of scientific institutions. The nature of involvement varied by project. For example, some regional projects made use of international NGO contracts for scientific analysis (e.g., IUCN in the regional *Africa REIMP* project). The *East Africa* project contracted the Missouri Botanical Gardens, but also ensured North-South cooperation by involving the University of Dar Es Salaam and Makerere University.

32 The regional project in the Amazon had counterpart national universities doing the technical surveys and analyses. The *Argentina Patagonia* project contracted over 10 academic institutions to do various technical studies, and the Argentina Biodiversity project contracted another eight universities. On the other hand, the projects in Congo (University of Kyoto), Nepal (Johns Hopkins University), Romania (Universities of Massachusetts and Georgia), and Yemen (Royal Botanical Gardens, Birdlife International, Seckenberg Research Institute) made use of international research institutions. The reviews were unable to compare the quality and effectiveness

of local versus international science and technology inputs.

133. There are some examples of how traditional ecological knowledge has been integrated into project activities, but this is limited to consulting and documentation. There is little evidence of such knowledge being used in project execution or in-situ conservation or sustainable use programs. The Global Biodiversity Assessment (GBA) project produced a separate report titled *Cultural and Spiritual Values of Biodiversity*. This report contains over 50 statements provided by indigenous community leaders and organizations. However, to date, there is scant evidence that such knowledge is being applied in projects.

134. Even for projects working with indigenous populations, the reviews noted the lack of documentation of traditional knowledge and practices. The exception was the Yemen project where the Royal Botanical Gardens (RBG) was contracted to produce a report on the ethnobotany of globally significant species.

135. A description of indigenous practices contained in the village development reports of the Ghana project were also based on the findings of the socioeconomic surveys done by social scientists from the University of Ghana-Legon. The World Bank published a summary of the results of the social assessment of the Ghana, India, and Ecuador projects.[41] The findings indicated the significance of indigenously managing biological resources and the high correlation between indigenous management and land-tenure security. However, the social assessment fell short of documenting ethnobotanical and indigenous resource-management practices.

136. A somewhat indirect way of making use of indigenous knowledge was by including indigenous groups' representatives in project management structures. For example, the Embera

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[40] Managhas, Maria, Porfirio Alino, and Madhav Gadgil, "STAP Selective Review of Philippines: Conservation of Priority Protected Areas Project."

[41] The India and Ecuador projects are not included in the sample of 30 projects in the study.

Wounaan, Agro Dariens, and Embera Indians were represented in the Panama project's Steering Committee and Technical Unit. In the Mozambique project, integration was achieved through the formulation of Community Action Plans, which included pilot community activities. In the Philippines Conservation of Priority Protected Areas project, the indigenous groups were represented in the Protected Areas Management Boards. The use of the small subprojects (grants) mechanisms that were given to local groups in the Slovak project, led to the development of indigenous cooperative arrangements (e.g., collectivization of sheep keeping to reduce grassland degradation).

Underlying, Proximate, and Intermediate Causes of Biodiversity Loss

137. The GEF Operational Strategy[42] states:

"Addressing all underlying causes of biodiversity loss is beyond the GEF's mandate and ability...Within the context of operational programs, GEF-financed activities will include:

- Identification and analysis of major causes (proximate, intermediate, and ultimate) of biodiversity loss, activities to build awareness of these causes, and assessment of feasible actions to address them.

- Introduction of innovative measures including economic incentives, for the conservation and sustainable use of biodiversity."

138. It goes on to say:
"A diverse portfolio will finance programs and projects that address the underlying causes of global environmental deterioration, such as economic policy, legal and social issues, institutional weaknesses and information barriers."

139. Therefore, it seems important that projects identify and assess underlying causes of biodiversity loss and appropriately address them. Also, to ensure that the cost of conservation is not disproportionately and unfairly imposed upon the weakest and poorest segments of the society (who also are often those most dependent on wilderness areas for their survival), it is important to develop a system by which substantial benefits of conservation can flow to them. Such benefits might be direct, in the form of increased tourist revenues, returns for valuable and sustainably harvested plants and animals or royalties for commercially useful indigenous knowledge. Indirectly, improved water regimes, higher productivity of fish and other essential natural resources or the general improvement of the environment could also benefit the local people.

140. It is also essential to ensure that government and commercial and industrial sectors see some advantage in conservation. Apart from being a boost to social and economic well-being at the local level, the option value of biodiversity and the economic benefits of conservation might also be factors that could sometimes win over support for the project.

141. For the projects reviewed, information was gathered on whether benefit-sharing issues were addressed, project ownership was established, and social and cultural issues were addressed. These could give an indication of how successful the projects were in tackling some of the more proximate underlying causes of biodiversity loss. The other underlying causes that were not so proximate, like weak or inappropriate institutions, poor or ineffective policies and laws, poor investments, etc., were considered as part of the institutional and systemic capacity building efforts.

142. About 20 percent of the projects for which this issue was relevant and information was available had substantially addressed benefit-sharing issues. About 20 percent had partially addressed them. The remaining projects had either poorly addressed them (less than 10 percent), planned to address them but it could not be confirmed whether they had managed to do so

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[42] The Operational Strategy was published in 1996, after the Pilot Phase was over, although most of Pilot Phase projects started implementation after that date.

(less than 10 percent) or had not addressed them at all (about 40 percent). The proportion was a little better if one looked at only the completed projects.

143. Over 30 percent of the projects reviewed (and for which there was information) were assessed to have been substantially "owned" by stakeholders, and a little over 20 percent to have been partly "owned." Of the remaining, 25 percent were assessed to have had a poor owner-ship record and less than 20 percent to have had none. The performance of completed projects was marginally better.

144. A little under 30 percent of the projects for which information was available were assessed to have substantially addressed social and cultural issues. Another nearly 25 percent had partially addressed them, another 25 percent had poorly addressed them, and the remaining 20 percent had not addressed them at all. There were no significant differences between completed and ongoing projects, except that all the projects assessed to have poorly addressed the issues were completed projects.

Sustainability

145. The GEF Operational Strategy states:

> "The focus of GEF activities will concern long-term measures. Such measures, if they are to be part of a long-term solution, will have to be environmentally and socially sustainable and not merely benign forms of current, but unsustainable, activities. Further-more, the measures will need to be financially sustainable. Individual projects are financially sustainable if their design includes a means of ensuring a stable long-term source of funding for recurrent costs. Programs are financially

sustainable if the initial GEF support reduces financial risk, overcomes transaction barriers, or builds markets to an extent that lowers future costs for measures of the same type."

146. A little over 10 percent of the projects reviewed seemed to have taken substantial steps to ensure sustainability, another 24 percent had partially provided for it, and about 15 to 20 percent had planned to provide for it, but it was not clear whether they had actually done so. Nearly 30 percent seemed not to have addressed sustainability issues at all, and there was no information for about 10 percent.

147. For completed projects, about 15 percent had taken substantial steps, about 30 percent had partially provided for it, and about 50 percent had not addressed sustainability at all. However, as there were no post facto assessments done (two or three years after project completion), it could not be assessed whether the 45 percent of completed projects that had taken substantial or partial steps to ensure sustainability had actually succeeded.

Special Study

148. It must be noted that a special study done to look at the more recently initiated Cohort 2 forestry projects reported that the vast majority of projects reviewed had incorporated in their project design measures to promote the sustain-ability of project gains once GEF support ended . Projects often proposed to use conservation trust funds or other similar vehicles. In other cases, partner organizations—usually NGOs—with a longer term commitment to the project and/or to the region were expected to ensure stability and sustainability. Again, the assessment of Cohort 2 projects was based on project proposals and not on actual project implementation.

Land Degradation

149. The GEF has also been focusing on issues related to land degradation.[43] The GEF Operational Strategy says

"The GEF will fund activities addressing land degradation issues as they relate to biodiversity issues that

- Protect biodiversity and promote sustainable use in arid, semi-arid and Mediterranean type ecosystems.

- Prevent deforestation and promote sustainable use and sustainable management of forest areas in order to conserve their biodiversity."

Consequently, an effort was made to see how many of the projects under review addressed land degradation issues.

150. Of the projects reviewed, nearly half had substantially addressed land degradation issues and another nearly 20 percent had partially or minimally addressed them. Ten percent had not addressed the issue and for the remaining the issue was either not relevant or no information was available. The proportions were similar among completed projects.

151. A recent Land Degradation Linkage Study[44] basically agreed with these findings. It reported that 56 percent of the biodiversity projects reviewed had "strong" land degradation components (p 8). However, it also pointed out that as most of the biodiversity projects in the land degradation portfolio were located in and around protected areas, they were by design not located in areas with severe land degradation problems. It concluded that almost all biodiversity projects have some indirect link with land degradation issues.

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[43] Land degradation is defined by the Convention to Combat Desertification (CCD) as "reduction or loss, in arid, semi-arid and dry sub-humid areas, of biological or economic productivity and complexity of rainfed cropland; irrigated cropland; or range, pasture, forest, and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns such as: soil erosion caused by wind and/or water; deterioration of physical, chemical, and biological or economic properties of soil; and long-term loss of natural vegetation." Given this definition, it is unlikely that there would be many biodiversity projects that do not directly or indirectly contribute to the combating of land degradation.

[44] Berry, Leonard and Jennifer Olson, *GEF Land Degradation Linkage Study* (2000), Mimeo.

Mechanisms for Learning Lessons from Earlier Experiences

Introduction

152. The Study assessed the mechanisms available for incorporating lessons learned from earlier projects into newer projects. In order to do this, the study:

- Requested the three implementing agencies to describe the formal and informal mechanisms that existed in the implementing agency for ensuring that lessons learned from past projects were incorporated into the design and implementation of new/other projects

- Requested the three implementing agencies to assess some of the new projects they thought illustrated "best practice"[3] in this regard

- Highlighted lessons learned from projects under review

- Assessed the extent to which lessons learned from other projectshad been incorporated in the design and implementation of the projects under review

- Assessed the extent to which lessons learned from other projects had been incorporated in the design and implementation of a selected group of projects from Cohort 2.

Findings

Mechanisms Existing in Implementing Agencies

153. The three implementing agencies were asked to provide information on the formal and informal processes in the implementing agencies for ensuring that lessons learned from past or ongoing projects were incorporated into the design and implementation of new/other projects. Their responses are given below and are applicable not only to the biodiversity focal area but to all GEF projects.

UNDP

154. GEF projects incorporate lessons learned at two stages: during project preparation and during project implementation. During project preparation, the project design team incorporates lessons distilled from GEF projects from independent mid-term and terminal evaluations; corporate M&E studies and "Lessons Notes;" PIRs; task force meetings; electronic and personal networks;[45] non-GEF projects through meetings with stakeholders; Logical Framework Approach workshops; and literature reviews. The mechanisms for incorporating lessons learned include Project Review Criteria used by GEFSEC to

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[45] UNDP has set up electronic discussion networks where participants can ask questions and exchange experiences, lessons, and best practices

approve project proposals (these require a description of how lessons learned have been incorporated in project design), presentations made by project managers to project developers and regional managers, and task force meetings. A considerable amount of information is generated from different sources on lessons learned. However, the challenge is to make this information available to final users when they need it. UNDP has already developed a "reference unit," where information on lessons learned and best practices is stored, updated regularly, and made available on the UNDP-GEF website. At the moment, UNDP is working towards making all the information easily available to users.

155. During project implementation, the sources of lessons are basically the same as during project preparation. As far as mechanisms for incorporation of lessons learned are concerned, the most important ones are the Tripartite Review Meetings (annual meetings at the highest policy level between government, UNDP, and project management staff) to review implementation, discuss progress and make strategic recommendations for improvement; mid-term independent evaluations; and project steering committees.

UNEP

156. From a corporate standpoint, the annual PIR provides the framework to incorporate lessons learned into ongoing or new projects. The independent mid-term (where planned) and terminal evaluation (compulsory for all UNEP projects) of each GEF project is followed by an agreed management plan for the implementation of the recommendations of the evaluation including those, if any, related to future project design.

157. Before projects are submitted to the GEF for review, an internal UNEP review is carried out to incorporate institution-wide experience in project design and implementation. To cite one example, the Communications and Public Information office might suggest changes in an information dissemination strategy within a GEF project.

Such incorporation of experiences occurs with UNEP's divisions and its regional offices as well. All UNEP GEF projects are sent for internal review to all UNEP divisional heads to ensure synergy and complementarity with the work of the various divisions within UNEP.[46] Such reviews draw on experiences of each division in implementing projects in particular countries and/or regions and in particular fields of technical assistance. Because many UNEP projects are multicountry projects, the experiences of programs such as the Regional Seas Program and networks such as INFOTERRA are drawn on extensively in designing institutional and administrative arrangements for project execution at the national and regional level.

158. UNEP task managers are assigned supervision responsibilities for projects of a similar nature. This allows task managers to develop expertise in the design and implementation of certain types of projects. They are then able to ensure that project design and implementation takes into account experiences from similar past and ongoing activities. In the case of larger projects (or whole portfolio areas such as land degradation), a technical team composed of expertise drawn from throughout UNEP is mobilized by the Coordination Office to support the design and implementation of projects. Examples of such an arrangement are the UNEP/GEF biosafety project, and the PLEC and Mauritania and Senegal Land Degradation projects.

World Bank

159. The World Bank has a formal review process which includes several steps for quality control, including peer review. The process requires that each project be formally reviewed by two or more specialists (from within or outside the institution). In addition, there are regional quality assurance groups that provide clearance to projects before they can enter into the pipeline ("PCD" stage) or be cleared for appraisal ("PAD" stage). Every project document is also required to include a section on lessons

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[46] These are the divisions of Early Warning and Assessment, Environmental Conventions, Policy Development and Law, Regional Cooperation, Industry, and Environment.

learned, and the staff can tap into a World Bank database of Implementation Completion Reports (ICRs) to access relevant information. Sector managers, GEF coordinators, and GEF thematic specialists review and comment on all documents in order to add to the knowledge base, particularly about the more current lessons learned. Bank managers provide formal clearance for project preparation only after all reviewers are satisfied that lessons learned have been properly taken into account in the initial design of new operations.

Incorporating Lessons Learned Into Project Design: Best Practices

UNDP

160. UNDP provided details of seven recent projects that they considered to be the best examples of integrating lessons learned into project design. Some of the elements that were incorporated in to the design of these new projects, reportedly as a result of lessons learned from past projects, included:

- Conducting a household survey to identify and document traditional knowledge relevant to project design (Egypt)

- Discussing the proposed project design with communities and other stakeholders before finalization (Egypt, Vietnam, Belize)

- Incorporating empowerment/advocacy-related activities for local communities as a part of the project (Philippines)

- Addressing issues relating to security of tenure for populations living in and around protected areas (Philippines)

- Extending the project period in order to accommodate community-based conservation activities/capacity development activities (Philippines, Pakistan, Venezuela)

- Clarifying project objectives and strategies to implementing agencies and stakeholders (Philippines, Vietnam, Venezuela)

- Making the passing of a critical bill by the government a prerequisite to Phase 2 (Philippines)

- Focusing on root causes and benefit sharing/provision of alternate livelihoods (Vietnam)

- Investigating long-term funding options (Vietnam, Belize)

- Considering existing social, economic, and ecological conditions while designing project activities (Pakistan)

- Involving communities in the monitoring and evaluation of project activities (Pakistan, Belize, Venezuela).

UNEP

161. UNEP provided three examples of projects whose design benefited from lessons learned. A rich portfolio of medium-size projects dealing with best practices for biodiversity conservation[47] had assisted UNEP to better design a new MSP: *Promoting Best Practices for Conservation and Sustainable Use of Biodiversity in Arid and Semi-Arid Zones*. The lesson here was that strengthening regional and national organizations, known as centers of excellence, in the thematic focus of the project both builds the capacity of the centers and catalyzes dissemination and application of the best practices. During the process of preparing the *Millennium Ecosystem Assessment* project, UNEP drew on past project design experiences of similar initiatives (for example, the *Global Biodiversity Assessment* and *Global International Waters Assessment*—both GEF supported—and the IPCC process). The formula for success in the design of the MEA project revolved around three key themes: leadership (i.e., chief executives of

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47 Development of Best Practices and Dissemination of Lessons Learned for Dealing with the Global Problem of Alien Species that Threaten Biological Diversity; Review of Experiences in Ecotourism and Development of Guidelines and Best Practices Through Analysis of Lessons Learned, among others.

UNDP, UNEP, World Bank, and World Resources Institute), participation, and demonstration (steering committee with broad representation, convention secretariats, regional consultations, and consensus-based decision making). Finally, based on past experiences with the design of targeted research projects, the following issues received special attention during the project design phase of the *Indicator Model for Dryland Ecosystems* project: site selection (agreement was reached during PDF-A on project sites) and the application, outreach, and dissemination of results (national decision makers will be involved at all stages of the project).

World Bank

162. The World Bank provided information on a few cases where GEF-funded projects generated lessons for other projects in the same or other countries. For example, the new World Bank *China Natural Forest Protection* project benefited from the lessons and best practices (restructuring of forest industries) of the GEF *China Nature Reserves*. The experience of the Lake Victoria project on eradicating water hyacinth (an invasive alien species) through biocontrol was applicable to the World Bank irrigation and HEP projects in Africa, currently worth $6.1 billion. The lessons learned from the IDA-funded project, *India Joint Forest Management*, were incorporated in the *India Ecodevelopment Project* (IEP).

Compilation of Lessons Learned From Projects Under Review

Project Design Lessons

163. The most commonly cited lesson emerging from reviews of Cohort 1 and 2 projects was that objectives and budgets should be realistic. Another common lesson was that project duration was usually too short to effectively involve stakeholders, properly develop capacity, or generally achieve many of the important project objectives. Many projects seem to have suffered because project activities were not properly sequenced, strategies and action plans were unclear or inadequate, and projects were too rigid in their design, without adequate flexibility to respond to field

realities. Lack of clarity about long-term (post-project) objectives, an unwillingness to learn from past experience, and uncertainty about continued funding after project termination were other constraints that were cited.

Institutional Coordination

164. An important lesson was that if the project office and staff is not integrated physically and administratively with the national implementing agency, there can be serious coordination and ownership problems. Some very sensible advice that came out of one of the project reviews was: "Never design a project that removes accountability and responsibility of ownership from the institutions that need to carry on the project activities/initiatives on their own after external financial support is over."

165. In some cases, the administrative processes of the donors, the implementing agency or the national counterpart were seen as inappropriate for project implementation. It was thought that these processes should have been understood and analyzed during the planning phase so that they could have been taken into consideration while designing the project and determining its time frame.

Stakeholder Participation

166. Many projects cited the effective involvement of stakeholders as a positive feature. Some lessons learned from projects included the need for adequate involvement of key stakeholders at the planning and monitoring stage. The absence of such involvement was seen as one of the major weaknesses in project design and implementation. There was also a perception that the heterogeneous nature of communities and societies must be recognized and used to strengthen project design and implementation. Improved integration of local and indigenous knowledge and involvement of the private sector in project design and implementation were some of the other lessons learned.

167. Lessons on sustaining stakeholders' interest in the project included translating and presenting

project benefits in a manner that was understood and appreciated by local communities, thereby motivating them to support the project. This could be done by raising awareness about the benefits of biodiversity conservation, improving the sharing and dissemination of information, and ensuring that local people's needs were addressed, especially in relation to land tenure. Some projects highlighted the importance of addressing gender issues and the advantage that small projects have in encouraging local participation.

Technical Issues

168. Designing and implementing effective sustainable use practices in fragile habitats was a key challenge for all field projects, especially production landscape projects. A lesson learned was that it is often critical to develop income generation and livelihood activities that are not based on land or natural resources. An added warning from a project was that unrealistic strategies for sustainability can actually compromise sustainability!

169. An interesting lesson that emerged from at least three projects was the value and cost effectiveness of allowing and enabling ecosystems to regenerate on their own by protecting them, rather than trying to restore them. A revealing back-of-the-envelope calculation regarding the costs of one of these projects suggested that GEF had spent between $35,000 (6 ha) and $350,000 (0.6 ha) per hectare on conservation efforts focusing on restoration, compared to between $5-15/hectare for most protected area projects of non-degraded habitats.

170. Another lesson was that strong linkages were needed between the project and national scientific and technical institutions. Research should be issue based and the findings should be capable of being translated into action quickly. Also, there was a mention of the dangers in not balancing social and natural science inputs. It was especially pointed out that monitoring relevant socioeconomic parameters is as essential as monitoring biological ones.

171. A fundamental lesson from Pilot Phase and

Cohort 1 projects was that project implementation and ownership were seriously compromised when the stakeholders did not properly understand what biodiversity conservation implied, especially in relation to production and commercial forestry. There was also the sound advice that high-technology solutions are not always the most effective or appropriate.

Regional Projects

172. For projects that attempted to address ecosystems that spread across the boundaries of two or more nations, experience showed that it would have been better to have had a system of integrated management that cut across political boundaries. It was also thought that the success of such projects required that responsibility be equitably shared between participating countries. However, each country should be allowed to progress at its own pace.

Emergency Response Projects

173. Findings from the single emergency response project reviewed in Cohort 1 (*Indonesia Emergency Forest Fires*) suggested that the process of approving and monitoring emergency response projects was not appropriate. Before such a project was approved, it should have been determined whether the project could be initiated in time to respond to the emergency. Also, as such, projects are usually approved at very short notice with little or no scrutiny of the project document, a special monitoring and evaluation process would be required to make "midstream" corrections and, once the emergency is over, to review the future status of the project. There was also the question whether GEF as an institution was in a position to respond to environmental emergencies.

Incorporation of Lessons Learned in Projects Under Review

174. The incorporation of lessons learned from earlier projects in the design and implementation of the 78 projects reviewed was also assessed. In making such an assessment, an effort was made to determine whether the project document

implied or explicitly stated that a particular element of the project design was an outcome of a specific lesson learned or was an effort to replicate successes achieved, or overcome problems noted, in other projects. Lessons learned were understood to include examples of failed strategies that were avoided in subsequent project design and implementation, or that were used but with critical changes that promised success. They also included the replication of successful strategies and elements. The summary of our findings is given in Annex 7. Of the projects assessed, less than 30 percent indicated that they had fully, and a similar number that they had partially, incorporated earlier lessons. Over 40 percent had not incorporated them at all. The performance of completed projects was relatively poorer.

Incorporation of Lessons in Cohort 2 Projects

175. Project documents were reviewed for 37 Cohort 2 projects, all of which were forest ecosystem (OP 3) projects. For the most part, project documents did refer to "lessons learned," from previous GEF or implementing agencies' projects, or from other projects. Positive cross-institutional learning appeared to have taken place in this respect. In both Peru and Guatemala, for instance, biodiversity projects were based on Conservation International's previous experiences in the region, and not limited to any one specific GEF project. Many of these OP 3 projects, furthermore, specifically mentioned what lessons were learned, such as the need for multi-stakeholder management boards overseeing protected areas (Paraguay), or the best means of developing participatory processes with indigenous communities (Peru). In some projects, the list of projects from which lessons were learned was quite extensive.

176. In addition to specific project lessons, a number of project documents referred to reports or reviews published by the GEF, World Bank, or others as evidence of lessons learned. The GEF *Review of Conservation Trust Funds* was one common example.

177. However, in a number of cases the "lessons learned" section was vague; in a few, it was missing completely. Some documents (*Côte d'Ivoire National Protected Areas Management and Philippines Sustainable Management of Mt. Isarog Territories*) stated that the project was based on previous GEF efforts, but listed few, if any, of the details. In other cases, the specific examples listed were generally too vague to be of relevance. In the *Georgia Conservation of Forest Ecosystems* project, for example, the documents stated that "projects should be initiated by a preparatory phase that focuses on certain capacity building activities" but failed to give more detail. In the *Panama Atlantic Biological Corridor* project, the documents said, among other general statements, that projects should "involve local populations in design."

178. It should be noted, however, that lessons learned in a few projects may not have been relevant. There probably were, for example, few precedents for re-starting projects in the Congo following a lull in hostilities. Or, for re-entering Belarus following the collapse of communism and Soviet rule.

179. As highlighted by a large number of projects, coordination with similar, ongoing efforts might provide as much value as lessons learned from previous efforts. For example there was no reason why those implementing the *Uganda Kibale Wild Coffee* project should not have mentioned similar efforts currently taking place in Central America.

Conclusions and Recommendations

Summary of Findings

180. The GEF has provided and leveraged a substantial amount of funding for biodiversity conservation and sustainable use around the world ($1.18 billion of direct financing and about $2 billion in leveraged co-financing). Supporting protected areas, either new or existing, has been a major focus of the GEF biodiversity portfolio. It is also clear that the GEF has also covered, through its projects, some of the globally important and defined sites and species such as those focused on by the World Heritage Sites program, CITES, Ramsar, and the IUCN list of threatened and endangered species.

181. Nearly 30 percent of the projects reviewed were assessed to have had comprehensive stakeholder participation and more than 20 percent, partial participation. Another nearly 25 percent had planned for it but, because of lack of information, it could not be confirmed whether they had managed to achieve it or not. The findings for the completed projects were similar.

182. Overall, the projects were able to develop individual capacities. Institutional and systemic capacities proved harder to develop. The various training programs were appropriate to the socioeconomic, political, and cultural reality of the

country. There was no evidence that institutional capacities would be sustained, partly because it was too early to assess this.

183. Nearly two-thirds of the projects reviewed were assessed to have substantially integrated science and technology concerns into project design and implementation. The proportion of completed projects that were so assessed were similar (15 out of 22). However, there were weak social science and traditional and indigenous knowledge inputs.

184. Nearly half of the projects substantially addressed land degradation issues and another 10 percent partially addressed them.

185. Almost half the projects reviewed mostly achieved their objectives (including eight percent that fully achieved them). However, nearly 50 percent achieved their objectives only partly or minimally.[48] There was not much difference between completed and ongoing projects (completed projects: 20 of 35 mostly or fully; 15 of 35 partly or minimally). Some of the factors that inhibited better project achievements included the lack of implementation capacity, unrealistic and over ambitious objectives, and shortage of time and funds.[49]

186. The impact of projects on biodiversity could

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[48] These findings should be understood in the larger context, described in detail in Section 4, regarding the difficulties in implementing biodiversity projects and the inability to compare GEF project performance against the performance of other agencies.

[49] It should be noted here that ongoing projects were assessed on the basis of their achievements in relation to the stage of implementation they were in. However, whereas for completed projects there was no scope for improving their performance, for ongoing projects, there is always the possibility that they will achieve their objectives before completion.

not be assessed for most of the projects. This was partly because these projects were not monitoring their impact on biodiversity and partly because they were not collecting data required to measure impact. Less than 20 percent of the projects seemed to be collecting baseline data. Another 20 percent had planned to collect them, but whether they actually managed to do so could not be confirmed. In the absence of baseline data, it was impossible to assess the impacts that projects were having on biodiversity. For only 17 of the projects being assessed were data available on impacts. Of these, three (two completed) reported substantial impact while the remaining 14 (eight completed) reported some or little impact.

187. However, almost all the newer forestry projects in Cohort 2 that were reviewed as a part of a special study were proposing to undertake baseline studies.

188. Only about 10 percent of the projects reviewed had substantially addressed the issue of sustainability. Another nearly 25 percent had partly addressed this issue. In nearly 30 percent of the projects, this issue was either not addressed or very poorly addressed. However, there was no system of doing a post-completion assessment to see whether the project activities, institutions, and gains had survived the project. Consequently, it was not possible to determine how many of the completed projects that were assessed to have addressed this issue had done so effectively. However, a review of the forestry projects in Cohort 2 showed that most of these newer projects had been designed to address the issue of sustainability. Only time and a post-completion assessment will tell how successful they were in doing so.

189. About half the projects assessed reported incorporating some lessons from past projects into their design. A third had not. However, given the finding that there was hardly any difference between the achievements and impacts of completed (older) projects and the ongoing

(newer) projects, there appeared to be little beneficial impact of the lessons learned. The mechanisms for ensuring that the lessons learned from completed and ongoing projects are effectively incorporated in the design and implementation of new and ongoing projects need attention and change. However, the newer projects among those assessed and new forestry projects in Cohort 2 seem to be performing better in this regard.

Analysis and Recommendations[50]

190. Analysis and recommendations primarily relate to the four issues that the report has highlighted as needing attention. These are achievement of objectives, impacts of projects on biodiversity, sustainability of project activities and gains, and learning from past lessons. Specific recommendations are highlighted below.

Achievement of Objectives

191. Limited implementation capacities have been cited as a major cause for inadequate project achievements. Though some skills are admittedly best learned by "doing," at the same time, it must be ensured that there are enough skills to get to the point where individuals and institutions can actually start doing and therefore learning from this. This is not a new recommendation and has been made before in various reports related to GEF.

> Each project should conduct a capacity assessment exercise prior to project initiation. The development of the requisite individual, institutional and systemic capacities must be given a central priority during GEF project implementation. Capacity benchmarks should be established, respecting the peculiarities of each situation, and achievement of these benchmarks during project implementation at agreed times should be seen as a precondition for the subsequent phase of project activities.

192. One of the reasons why project objectives

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[50] Our analysis and recommendations do not highlight or isolate the role of any particular agency, the GEF secretariat, or national governments. They should be understood to refer to all of these, as appropriate.

were not better achieved may be that inadequate attention was paid to problems of livelihood and tenure, and to their underlying causes. It was important for projects to have the capacity to both conserve and, at the same time, to ensure the availability of basic resources to local communities.

> All protected area projects should include related production landscapes. Basic require-ments of local communities, for income and natural resources, if these are to be disallowed or restricted from protected areas, should be provided for by investing in and developing production landscapes linked to protected areas. Issues relating to tenure, property rights, and access must also be addressed as a part of each initiative.

193. The GEF Operational Strategy also stresses this point, directly that "Activities will seek to incorporate protected areas into larger landscapes and seascapes."

194. Though the involvement of stakeholders was reported from many of the projects in this review, it would have been desirable to involve all the various stakeholders, especially women and indigenous communities, in all aspects of project design.

> Project preparation should, where appropriate, include a project design workshop, involving critical stakeholders from the country or region, to get initial ideas about project design.[51] Once the project has been designed with the association of local experts and in collaboration with other stakeholders, another consultation with a wider and diverse group of stakeholders and experts needs to be organized. In this con-sultation, participants should be requested to focus on circumstances under which, or on

reasons why, the proposed project and its objectives are difficult to achieve. Such "devils advocate" feedback would contribute to a realistic assessment of project feasibility and optimality.

195. Stakeholder participation can be made even stronger by:

- Ensuring that social and cultural factors are studied and concerns reflected in project design

- Creating the sorts of institutional structures that facilitate, promote, and document stake-holder participation in project implementation

- Focusing on science and technology inputs, especially indigenous knowledge and social sciences

- Formulating clear and effective indicators for assessing nature, level and effectiveness of stakeholder participation.

Impacts on Biodiversity

196. Though lack of time was cited, and with justification, as a major constraint to achieving discernible impacts on the ground, the problem was not just the amount of time available but the stress on meeting quantitative, temporal targets rather than qualitative standards. The GEF Operations Strategy says "The GEF will maintain sufficient flexibility to respond to changing circumstances...." For the GEF to do this, its projects must also have such flexibility. Project design flexibility is essential if projects are to achieve their objectives in complex and ever-changing conditions. On the face of it, this might seem impractical, but realistic models of project planning and monitoring can be developed that use only impact indicators.[52]

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[51] The Cohort 2 study referred to earlier suggests that this is increasingly happening in the newer projects.

[52] A good beginning to designing impact indicators for biodiversity has been made by UNEP-WCMC in the draft final report (nd) titled "Biodiversity Indicators for Monitoring GEF Program Implementation and Impacts." A similar exercise needs to be done for socioeconomic and capacity indicators.

A project (perhaps renamed an initiative) should not be described as being half done because three of six years have elapsed, but because half the qualitative objectives have been achieved (or all have been half-achieved). This inherent flexibility is essential if the GEF is to have a significant impact on biodiversity.[53]

If project implementation is to be improved, projects should break away from a time-bound schedule and develop a new way of functioning where a phase or a project is completed when the objective is properly achieved. Whereas the ultimate goals must be clearly defined and must not ordinarily be changed, the strategies, stresses, and tasks must evolve dynamically. Initial budgets must certainly be flexible and indicative.

In order to determine the impact of the project on biodiversity and other related aspects, there has to be a far more effective and ongoing monitoring system, invariably based on a pre-initiation baseline study. This baseline study should record the status, trends, and rates of change of the existing biodiversity resources; the available individual, institutional, and systemic capacities; and the relevant socioeconomic and political parameters. Impact indicators and standards must be formulated prior to, and used for, the baseline study. Priorities for action, project focus, and strategies must be determined on the basis of the results of this baseline study.

Where the available data are not adequate, the establishment of a requisite database (on the various aspects mentioned above) should be among the first activities of a project, so that monitoring of impacts can be initiated. Where required, control samples must also be identified to separate the impacts of the project from impacts of other activities and factors.

Sustainability

197. The study indicated a need to focus more on

securing the sustainability of project gains and activities. Of course, if there were a shift from time-bound projects to more flexible initiatives, the ability of the conservation initiative to sustain itself and move forward on its own would become a necessary condition for the withdrawal of external support. Where it was considered unlikely that an initiative would reach this stage, either continued external support would have to be arranged (perhaps through trust funds if justified by what was at stake), or the initiative would have to be abandoned. But even with time-bound projects, much more can and needs to be done to secure greater sustainability.

198. In many of the projects reviewed, sustainability was said to have been achieved if a second phase of the project had been approved or if some post-project funding had been secured from some other donor. However, this was only postponing the question until the additional support ran out. In some other cases, it was thought that sustainability was the responsibility of national governments and GEF should not be saddled with it. This would be like agreeing to push someone's stalled car for a specified distance and then walking away, even if the car still had not started. Of course, one could justify this by saying that finally it was the driver's responsibility but, at the end of the day, we would not have helped the driver to get moving and would have wasted our own effort. It would have made much more sense to push the car until it finally started (was internally propelled!) or until it became clear to all concerned that it was not going to start. Then one could abandon it or call a tow truck (depending on the value of the car).

Financial Sustainability

199. While projects are operational, the amount of funds that flow in are so great that the ability to achieve objectives frugally is either lost or never developed. Once project funding is over, the funds available from internal sources are usually much less and, given the style of functioning that the project has established, seem grossly inadequate. It is, therefore, preferable to

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[53] A similar but somewhat limited recommendation is made in the *GEF Project Performance Report 1999*, GEF (2000), p vii.

establish a frugal financial culture, even if it means that everything that should be done cannot be done, than to set up a system that can only work if vast amounts of money are available.

> Funding patterns during the project must be compatible with the economic realities of the host country. The GEF operational strategy stresses the need to "finance actions that are cost effective." It must therefore be a project objective, perhaps even a project obligation, to demonstrate and operationalize ways to meet conservation objectives within the levels of financial resources likely to be available on a sustained basis.

> There must be a continued movement away from big-budget, time-bound projects to long-term activities involving the same or lesser amounts of money, distributed over a longer time period and in accordance with agreed qualitative benchmarks .

Political Sustainability

200. Continued support of the "system," especially the government and local communities, can be ensured only if project objectives and strategies have been internalized and "owned." This is a common recommendation in many assessments. Various factors have been identified as being essential for achieving this sense of ownership. These include political will, awareness and understanding, individual and institutional capacity, adequate policy and legal framework, patterns of resource use, adequacy and diversity of financial resources, the international context, and the availability of sound science and reliable information.[54]

201. These are all important. However, perhaps for most governments to have the political will to conserve biodiversity, its conservation must be seen as contributing to their major preoccupation, which is usually economic growth and security. At the very least, it must not seem to detract from it. Unfortunately, most often the community of

conservationists is not able to respond to this critical requirement. The immediate or even medium-term economic benefits of biodiversity conservation are not well established and the opportunity cost of its conservation is usually high. The GEF Operational Strategy specifies that "A diverse portfolio will finance programs and projects that address the underlying causes of global deterioration, such as economic policy, legal and social issues, institutional weaknesses, and information barriers." It goes on to say that "Few useful quantifiable norms of cost effectiveness exist for biodiversity activities; in their absence, information will be provided to assess the nature and significance of the costs involved in relation to the expected biodiversity benefits."

> The effort to review existing work and, where necessary, to develop, apply, and disseminate additional methodologies through which biodiversity can be economically valued must, therefore, be a priority for "targeted research."

202. Even if governments can be shown the value of conserving biodiversity, the next set of critical questions they need answers to are:

• How much biodiversity needs to be conserved?

• How much and what type of human use is compatible with biodiversity conservation?

• How much area needs to be reserved for biodiversity conservation?

Finding and disseminating (existing or new) credible answers to these questions must also be a priority for targeted research.

Root Causes

203. Without the support of stakeholders (especially the local communities), sustainability is impossible. For local communities, the issues that are usually important are those of survival, of livelihoods, and of meeting their social and economic aspirations. To address these, biodiver-

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[54] *GEF Project Performance Report 1999*, p 30-31; Smith, Scott and Alejandra Martin, *Achieving Sustainability of Biodiversity Conservation: Report of a GEF Thematic Review*, Global Environment Facility (2000), p 5-11.

sity conservation initiatives, especially those focused on protected areas and production landscapes, have to address the issues of benefit sharing and livelihood security. The GEF Operational Strategy also requires that activities include "developing demonstration projects linked to alternative livelihoods for local and indigenous communities."

204. In fact, the larger issues relating to proximate and immediate root causes of biodiversity loss must also be considered appropriately by projects and initiatives. A very small percentage of the projects reviewed had actually attempted to address root causes. There appeared to be a perception that this was not part of the GEF mandate. However, the GEF Operational Strategy says that "A diverse portfolio will….. finance programs and projects that address the underlying causes of global environmental deterioration…" There appears little point in investing time, effort, and money on regenerating biodiversity resources if the factors that led to their degradation in the first place are all in position waiting to strike at the first opportunity.

205. But how far must projects seek root causes? If the ultimate root cause for biodiversity degradation is the poverty of a nation, the unchecked growth of human population, rampant corruption, or anarchy and war, can the GEF solve these problems? Obviously not. Thus, where it is evident that biodiversity cannot be conserved unless these fundamental national issues are first addressed, is it wise to persist with a GEF project?

206. Sometimes, the root cause is local dependence on the natural resources. An effective benefit-sharing system, along with the development of livelihood alternatives, can go a long way to solving the problem. In other cases, the problem is related to issues of ownership, control, and access. These can also very often be tackled locally. As an acknowledgement of this fact, the integrated conservation and development (ICD) or ecodevelopment approach, was adopted

some years back by various NGOs and donors in order to promote conservation of protected areas and other wilderness sites. The GEF Operational Strategy, in more than one place, focuses attention on ICD projects.

207. All problems can't, of course, be tackled locally. Each site is linked to the larger world. But these links are often weak and, at least in a short to medium time frame, much can be achieved through a time-bound, site-specific project.

> The issues of root causes must be addressed, as required by the GEF Operational Strategy. The first step in any project planning or design process must be the identification of causes that have led to the degradation or decline of biodiversity in the first place and have prevented remedial or preventive measures from being applied or being successful. Barring exceptional cases, only those projects should be taken up where there is a realistic chance of tackling at least the immediate and proximate underlying causes, either through or concurrent to the project, through national government initiatives or through additional initiatives of implementing agencies or other external agencies.

Involvement of the Private Sector

208. Involvement of the private sector can have many advantages, especially in terms of financial and political sustainability. The GEF Operational Strategy states that "The GEF will leverage additional financing through collaboration with the private sector." Conservation initiatives can be linked to commercial interests, often by demonstrating the commercial potential in conservation, either through direct benefits or as a result of expressed market preference by the public for "green" products and processes.[55] Once commercial interests recognize this, they can become effective and powerful political allies to the conservation movement.

> Projects should appropriately involve the private sector in project activities and support.

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[55] For a listing of innovative financial instruments and approaches, see Smith and Martin, p 16.

Mainstreaming Biodiversity Concerns

The impacts on biodiversity come from various sources. Apart from protecting areas from destruction or degradation, by working within these areas and with departments of the government responsible for biodiversity conservation, there is also a need to reach out to other sectors of the government. Most often, pressures on biodiversity are a result of activities (or inactivity) of one or more of the departments of energy, agriculture, water resources and irrigation, rural development, animal husbandry, fisheries, planning, or finance. They also are usually staffed by those least aware of biodiversity issues. Much greater systemic value could be achieved "greening" these departments rather than by focusing totally on the forest, wildlife, and environment departments.

> To enhance the sustainability of conservation activities and to increase the impacts of projects, GEF should strengthen its involvement with departments other than the forest and environment departments. Similarly, GEF implementing agencies should also consider further mainstreaming biodiversity issues within their own organizations.

Post-Completion Assessments

210. The findings of the study indicated that though some projects had planned to create conditions where the activities and gains of the project continued after project completion, no information was available to indicate whether they actually succeeded in doing this. Also, even where baseline data had been collected, there was no information in many cases to determine what project impacts were. This was because there was no system of collecting data about the impact of projects after completion.

> GEF and its partner institutions should have a system of independent post-completion assessments, where projects are assessed some time after completion to judge their impacts and evaluate whether various gains and activities have endured.

Learning from Lessons

211. The task of learning from past lessons is a complex one. It is not always clear what one should learn, from what, and in what way. In a general sense, each project and each site within a project is unique. Therefore, what might have worked well in one place may not necessarily work well in another. Of course, if one knew all the relevant factors for both the situations, then perhaps one could make a reasonable judgment about whether or not a lesson was relevant. But, most often, it is difficult to have such complete information from secondary sources.

212. Too much emphasis on "learning from past lessons" can also divert attention from the need to treat each situation and location as unique and plan accordingly. In field-based biodiversity conservation projects the stress should be much more on site-specific, micro-level planning, rather than on the replicating generalized models and strategies.

213. The lessons, then, that need to be learned from past experience are the general principles that over time have proven to be widely, though not necessarily universally, applicable and relevant. Such principles evolve over time and are not usually evident on the basis of a single experience or from multiple experiences in a short period of time. The belief that it is ordinarily difficult to design, plan implement, monitor, evaluate, and sustain projects unless there is meaningful, comprehensive and appropriate stakeholder participation is one such principle. Another such principle is that unless people have the option to both conserve biodiversity and meet their economic needs and aspirations, their choice would usually not be in favor of conservation. The need to link biodiversity conservation with economic growth and security—usually the predominant preoccupations of governments and societies of countries of the South—and to ensure that conservation values become internalized and "owned" by societies and individuals rather than promoted as imperatives from outside

are two other such principles. But these are lessons that have been learned over years, and gradually. They are lessons valid for today, though there have been times and there still might be others, when they become irrelevant.

214. The past can also inform us about very local and specific experiences of things that work and things that don't. It can highlight experiences that, while context-specific, may be universally applicable because they emanate from the funda-mental characteristics shared by all societies and individuals. They need to be interpreted for each context, but in essence remain the same. These are lessons that are difficult to include in manuals and databases, and yet they are important to capture and communicate. And, over time, if they surface and are captured often enough, they evolve into those general principles that have been validated often and in diverse settings.

215. Someone who is designing or implementing a project rarely needs a whole set of rigid dos and don'ts, or a list of what has worked or not

worked somewhere else. What they perhaps need is a range of ideas and experiences that can be considered, probed, analyzed, modified, and then used appropriately. For people to have easy and workable access to those, they need to have access to the people who have worked with these ideas and had these experiences. They also need to have the time to link up with these ideas and experiences.

> To allow effective learning from past experi-
> ence, the GEF should set up a network of
> biodiversity practitioners and other experts that
> is linked to ongoing and completed conserva-
> tion initiatives, so that those designing and
> implementing projects can access a wide
> variety of ideas and experiences. The network
> should provide GEF project designers and
> implementers the opportunity to evaluate and
> discuss these experiences and ideas and deter-
> mine their relevance and applicability to their
> own work. Existing institutions and rosters
> should be reviewed and strengthened, where
> required, to contribute to this objective.

GEF

Global Environment Facility
1818 H Street, NW
Washington, DC 20433 USA
Telephone: 1(202)473-0508
Fax: 1(202)522-3240
Internet: www.gefweb.org

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