A GEF special study on stakeholder participation and social issues, including science and technology, was conducted for 30 GEF-financed biodiversity conservation and sustainable use projects which have been completed or are near completion. Excluding enabling activities, these projects represent 14 percent of the number of projects, and about 30 percent of total GEF allocation, as of FY00.

The findings indicate that the degree of stakeholder participation varies by country and project, but the most effective approaches were those designed at local or community levels. Based on available project documentation, stakeholder participation was comprehensive in 30 percent of projects reviewed, satisfactory in 25 percent, and partial in 20 percent. As shown in the first chart on page 2, more than half (19) of the projects were executed by government agencies. Nine projects were implemented by UN or international agencies, four by the UN Office of Project Services (UNOPS), and two by UNEP. One project each in the Philippines and Indonesia was executed by local NGOs and in-country scientific institutions, respectively. Stakeholder participation in project activities is shown in the second chart on page 2. Local and international NGOs and scientific institutions are engaged in over 75 percent of projects. Local communities and village groups participate in more than 60 percent, and only about 25 percent involve the private sector.

Learning Through Doing

One of the important lessons from the review is how projects have applied a learning-through-doing approach: first, by adjusting the project’s design to re-
spond to changing realities in the field and second, by applying what are sometimes called adaptive management, learning and innovation, or process dynamics. Examples from the projects reviewed indicate that mistakes can be constructive.

- **Stakeholder participation, especially by affected communities, is essential if behavioral change is expected** ... In Madagascar Environment Program Support, the project team proposed to change existing unsustainable farming practices, but instead of getting feedback from farmers, six technical units and forest teams were used to disseminate a new agroforestry technology. Within a year, an insignificant proportion of the population was reached, prompting the project to revise its approach and instead organize smallholders into mini-project teams and provide funding to small agroforestry-based businesses that employed sustainable harvesting techniques.

- **To reduce conflicts, participatory appraisals were important in the design of activities addressing local needs** ... When the Panama Biodiversity Conservation in the Darien Region project was first implemented in 1996, it experienced difficulties, forcing it to restructure its operations in 1998. A key problem was overlapping boundaries of the national park and indigenous territories. The project contracted five local NGOs to conduct participatory appraisals focusing on the needs of the Embera and Wounaan tribal communities. The results of the appraisals helped the project in designing a co-management plan within disputed lands, setting up micro credit schemes, and identifying the tribal leaders as representatives to the project’s steering committee.

- **Risk assessments are critical in areas under political and socioeconomic instability** ... The Congo Wildlands Protection and Management project’s risk assessment did not anticipate the difficulties of implementing the project under conditions of social and political unrest. In less than two years, the project was forced to suspend some of its operations, canceling a trust fund that was to be set up for park management and closing down some sites. The project team then shifted its focus to two sites, and with the help of international and local NGOs, adopted a community-based conservation approach with decentralized project funding and disbursements. Because of these adjustments, the project team in the Nouabale-Ndoki and Conkouati and Lake Tele/Likhouala-aux-Herbes sites were able to continue their village outreach programs.

### Expanding Science and Technology Inputs in Projects

There is evidence of successful north-south and south-south cooperation among scientific institutions involved in the projects reviewed, but the participation of in-country scientists needs to be expanded on a more systematic basis. Local scientific inputs were critical to the success of two projects. One is Indonesia Biodiversity Collections project which features *ex situ* conservation programs. The other is the Ghana Coastal Wetlands Management project, in which the
results of the University of Ghana-Legon studies became the basis for formulating the community outreach strategy. The university and Birdlife International also provided baseline information on migratory birds.

A key lesson in the Philippines Conservation of Priority Protected Areas project was the importance of including local scientists, especially provincial universities and colleges, as members of the park committees. Having recognized local scientists’ contributions and advantages due to their local knowledge and proximity to the parks, the project team found that they relied more on local inputs in formulating the Biodiversity Monitoring System (BMS) than on scientists in Manila-based institutions. In the Yemen Socotra Archipelago project, more than 30 local scientists were active in the collection and analysis of specimens, although most of the final documentation was done outside of the country. Such partnerships should not only facilitate species inventory and analysis, but also enhance the hands-on training of local staff.

Sustaining Built-In Participatory Mechanisms

It is often stated in many project evaluations that, once a project ends, there are no mechanisms to sustain biodiversity conservation activities. Seven projects in this review resolved this problem by building into the implementation structure community-based stakeholder participation systems. Some of these systems are legally recognized, but more importantly, all of them are socially sanctioned.

• User Groups. Community Forest User Groups (CFUG) and Grazing User Groups (GUG) were established in the Nepal Biodiversity Conservation project using existing village systems of cooperation and co-management. The CFUGs and GUGs were then legalized so that they had the authority to enforce their own rules and manage their own funds. As a result, there was more than a 40 percent increase in forest area under community management. CFUGs also increased the participation of women in forest management by training over 400 women in tree planting and maintenance and sustainable agroforestry livelihoods.

• Village-Based Project Committees. By giving local leaders the authority to design and implement their own biodiversity conservation and sustainable use programs, dependence on the government is reduced, as shown in the Argentina Patagonia project. Coastal and inter-coastal committees were formed—and initially funded by the project—but later became self-sufficient through income earned from small livelihood projects. In the Ghana Coastal Wetlands Management project, village site management committees were established by project-hired community organizers. Because the organizers worked with village elders and local government officials, the committees were effective in generating consensus and mobilizing support for coastal resource conservation.

• Legislation for Decentralized Management. The Philippines Conservation of Priority Protected Areas project builds upon the National Integrated Protected Areas Law, which legally recognizes the formation of Protected Area Management Boards (or PAMBs). Under this decentralized set-up, the project ensured that local communities, especially indigenous groups, were represented in the PAMBs. Although the effectiveness of PAMBs varied by site (there are 10 sites in the project), this approach of “mainstreaming” a multi-stakeholder structure into park management seems to provide a long-term and sustainable mechanism since, by law, the government’s national budget must allocate operating funds for PAMB operations.

• Bureaucratic Reform and Devolution of Authority. The Dominican Republic Biodiversity Conservation and Management in the Coastal Zone project reconstituted its staff in the Wildlife Department by changing the hiring policies of civil servants. The government hired its first full-time community development specialists to work together with government extension agents. In the Samana area and Jaragua National Park, about 80 village organizations were mobilized by the specialists to participate in the project’s environmental education and outreach activities. Since the salaries of the specialists come from the department’s regular budget, they will continue to work in these sites even after the project ends. A similar approach is being tried in the Yemen Socotra Archipelago project within the Environment
Protection Council (EPC), the main agency in charge of national biodiversity conservation. The project hired village extension agents from the villages and is working with the EPC in the Socotra archipelago to absorb these agents so that village conservation and environmental awareness activities can continue beyond the project’s lifetime.

**Putting Study Results to Work: Three Recommendations**

**Incorporate results from social analysis into the design of project activities.** It makes practical sense that, before project activities are designed, project teams look first at how different stakeholder groups “behave”—or how they use the resource. Tried and tested techniques include social profiles of affected communities, socioeconomic surveys and analysis, participatory appraisal, risk assessment, and beneficiary and needs assessment. There are numerous materials describing the concepts and methods, but few resources demonstrate how to incorporate the findings and translate them into project activities.

**Use participatory techniques to address the root causes of biodiversity loss.** Because human influences on ecosystems are pervasive—e.g., unsustainable logging, intensified agriculture, over-fishing, excessive grazing—dealing with affected populations’ needs and motivations is a critical factor in reducing biodiversity loss. At the same time, there are existing and traditional regimes of regulating access to resources, such as common property resource management, which have worked for many years in controlling resource degradation. It is important to engage communities of users, including the private sector and the scientific community, in the design of approaches to biodiversity conservation and sustainable use.

**Recognize the difficult livelihood choices of communities and their trade-offs.** Communities in and around protected areas often make difficult decisions regarding use of natural resources. In some areas, the choices are apparent in their culture of protection where, for example, religion and belief systems support conservation (e.g., burial and sacred grounds). In others, changing environments, sometimes complicated by encroachments, encourage more intensive and unsustainable resource uses. In these cases, projects offer so-called alternative livelihoods or mobilize some co-financing to complement conservation with development programs. But this is a partial view and a much deeper analysis of what may constitute sustainable alternative livelihoods may be needed. In this instance, it may be helpful to understand how communities define what is meant by culturally and economically acceptable livelihoods by engaging in meaningful consultations and joint assessments by the project team and affected communities.

The full Biodiversity Program Study is available on the GEF website ([www.gefweb.org](http://www.gefweb.org)) or may be requested from the GEF Monitoring and Evaluation team. Earlier issues of *GEF Lessons Notes* can also be obtained from the website or by writing to us.

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