Sustainability

Conservation of natural resources over the long term will not succeed unless resource users have the social, technical, political, and economic capacity to regulate access to and disposition of these resources.

In discussing sustainability of biodiversity conservation projects, this document is concerned primarily with sustainability of the natural resources that projects are seeking to protect, as well as the ability to maintain activities initiated when such projects come to an end. This would imply financial, institutional, and political sustainability, all of which could be embodied in the single term, social sustainability. Social sustainability has been defined in several ways, including the following (Borrini-Feyerabend 1997):

- The maintenance or improvement of people's well-being over time, based on an equitable distribution of costs and benefits of production systems,
- The presence of resource management systems that allow for the regeneration or replenishment of the resource base over time, which will depend, in turn, on the resilience of a particular ecosystem, and
- The intergenerational compromise by which present resource users can guarantee future generations the right to a similar resource base and lifestyle.

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When communities and natural resources interact in sustainable ways, the well-being of both people and environment is improved.

Observations from the Field

Most of the BIOME projects had as their ultimate aim the sustainability of natural resources. Approaches to attain this goal ranged from restricting access to wildlife resources in protected areas (e.g., **DZANGA-SANGHA** and **LAKE MBURO**); to encouraging wise use of the resource, including nonconsumptive uses (e.g., **CAMPFIRE** and **LIFE**; to providing alternative sources of livelihood to reduce pressures on natural resources (e.g., **VIE ET FORÊT**) and encouraging diversification and increased production of resources (e.g., **KENGO**).

The interlinkages between people and sustainability of natural resources have been emphasized by many authors. Conway and Barbier (1988) and Chambers (1988), for example, argue that the sustainability of the resource base makes little sense if it is separated from the human agents who manage the environment. This concept runs through many of the activities undertaken in BIOME projects; many of these projects are making conscious efforts to put structures in place to ensure that the activities initiated are sustained. The **DZANGA-SANGHA** project facilitated the establishment of the Committee for the Development of Bayanga with the aim of building an indigenous NGO, with representation of all interested local groups, that is able to influence decision making. In an area where community groups were not part of the culture and where there was little social cohesion (the bulk of the resident population were recent immigrants), this action was necessary and provided a strong entry point for community involvement and action in conservation. Several projects (**CAMPFIRE, LIFE,** and **NATURAMA**) initiated training programs and other activities aimed at building local capacity to enable communities to play an effective role in the management of their natural resources.

Perhaps one aspect of sustainability that all of the BIOME projects grappled with is financial sustainability. Most of the projects depended on external donor funding, and most donors are prepared to fund projects for specific periods, the duration of which tends to be much shorter than what project implementers consider adequate. A number of BIOME projects provide useful lessons on the effects that lack of financial sustainability can have on biodiversity conservation projects. The **LAKE MBURO** project was started in 1991 with three-year financial assistance from SIDA and a plan for a further three-year extension. The donors pulled out at about the time the project was due for extension. The reason was supposedly because of restructuring and new focus within SIDA. Between the time that SIDA pulled out and July 1995, when United States Agency for International Development (USAID) funds were secured, the project ran on a "shoe-string" budget for two years and then became virtually dormant.

The **AMCFE** project in Mali was a five-month research project whose ultimate goal was to conserve useful plant species. This goal was to be achieved through identification, documentation, scientific validation, and community mobilization for the production, management, and sustainable utilization of useful plants. Funding was provided by BSP for the five-month research phase, but no provision was made for the dissemination and use of the research findings to promote the community initiatives envisaged. Thus, the project ended when the funds ran out.

Conclusions

These examples provide a number of lessons.

Donor agencies should be prepared to make longer-term funding commitments at appropriate levels. African governments have limited capacity to fund biodiversity conservation in their countries as a result of financial resource limitations and the ever-increasing socioeconomic and other competing demands on national income. Thus, conservation of the continent's rich biodiversity cannot succeed and, in some cases, would be virtually impossible without external financial support. If biodiversity is a global asset, then the cost of its conservation must be borne by the global community and not by the biodiversity rich nations alone.

Project implementers should explore more than one source of funding to meet project needs. Funding agencies often prefer to support specific components of project activities for which they can take credit. Thus, if project activities are spread out among several agencies, even if one pulls out, some aspects of the project can continue. Eight of the BIOME projects raised funds from two or more sources, and three raised funds from only one source.

Projects should mobilize local sources of funding. It is true that raising funds for conservation in Africa is not as rewarding (in terms of the efforts one has to expend and the returns reaped) as it is in Europe and the United States. However, it is possible to raise some local funding, although this may be small, and it is up to conservation NGOs to develop ingenious and innovative ways of accessing the little funding that may be available. The story of one of the leaders of the Wildlife Clubs of Ghana (the junior wing of the Ghana Wildlife Society) provides an excellent example of the level of innovation required. As a sign of commitment, each Wildlife Club member is required to pay a token annual dues of ¢200, equivalent to about U.S. $0.10. This leader, a schoolteacher in a remote village, said, "The children in my club are extremely enthusiastic but in the village they simply could not afford the ¢200 cash." At

one club meeting, he raised the issue of payment of dues, and they started discussing how to find the money. His first suggestion was that each child should bring some foodstuffs which could be sold to raise money. The children's response was that their parents would not allow that. Suddenly one child said, "We can bring brooms; we can just go to the bushes, cut some palm fronds, and make brooms." The next day, they brought plenty of brooms. The leader took them to the nearest town to sell. After three such trips, the children raised enough money not only to pay their dues but also to purchase a Club T-shirt for each member.

Project implementers should attempt to raise or generate revenue from the conservation activities themselves. This is an area that is better developed in eastern and southern African countries than in western and central Africa. However, the stories of Burkina Faso's Nazinga Game Ranch and Ghana's Kakum National Park demonstrate that, even in areas where wild animal populations are low, nonconsumptive uses of wildlife can generate some income. It should be pointed out, however, that in such cases, continuous, long-term external support is still needed before these projects can become self-sustaining.