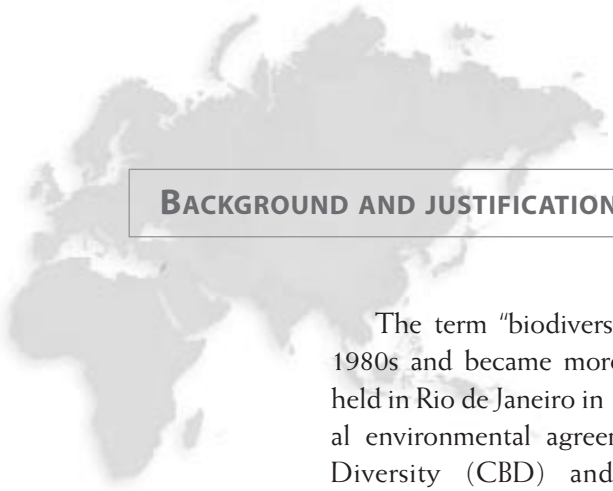
Biodiversity conservation priorities: Lebanon



Background and justification

The term "biodiversity conservation" first emerged in the 1980s and became more widely used after the Earth Summit held in Rio de Janeiro in 1992, which generated two international environmental agreements: the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC). CBD is financed through the Global Environment Facility (GEF), and, for the past decade, international agencies have been trying to support the implementation of CDB in developing countries. However, progress has been slow, success has been qualified and project sustainability has been a recurrent issue. A recent review in South Africa, for example, shows that biodiversity has declined over the past 10 years even despite a decrease in cultivation and grazing and an expansion of protected areas. This poor performance has triggered the crucial question: how can biodiversity conservation be made sustainable?

Before this question can be answered, it is necessary to identify the value of biodiversity, the best ways of conserving biodiversity, the individuals and institutions involved in conservation projects, and the ways in which the benefits of such projects are (or could be) shared.

It is generally agreed that biodiversity is of significant social, aesthetic, cultural and economic value to human societies. In economic analyses, these goods and services are generally divided into use and non-use values. Use values are subdivided into direct and indirect values. Direct values take into account the physical goods that people can use (such as food, fuel, timber and herbal medicines) and the aesthetic or recreational benefits that can be obtained. Indirect use values are the ecological functions that maintain the stability and productivity of the local and global environments. Although this valuing system is comprehensive, it offers very little room for manoeuvre in decision-making, as it is extremely difficult to measure and categorize the different values of biodiversity. In general, direct use values are most important at the local level, while indirect use values become decisive at the regional level. At the global level, concerns over the non-use values predominate. This diversity of values is not necessarily negative, as it represents what each of the stakeholders involved may stand to gain from biodiversity conservation. The proviso is, of course, that access to these values must be evenly distributed among all stakeholders.

In its early days, biodiversity conservation was seen as being driven mainly by international organizations and other (usually developed-country) agents from outside the areas concerned. This view is being revised and people now realize that many local populations in vulnerable environments have devised their own efficient natural-resource management systems. One example is the Hema system that is applied to manage the Bedouins' communal rangelands in Lebanon. By protecting large areas of steppe, it prevents overgrazing and allows the increase of floral populations and diversity.

Early conservation activities, including game reserves, tended to follow the "fortress" approach of keeping local people away from protected areas without any concern for the traditional dependence of rural populations on natural resources. The approach to biodiversity management now emerging asserts that there can be no environmental conservation without social, economic and political development.

Biodiversity conservation experts have been trying to address the social needs of the people who live near reserve areas. Ways of achieving this include:

- identifying and developing alternative resources to replace the existing livelihood strategies of local populations;
- providing compensation for the extra costs incurred by conservation activities; and
- deriving benefits from conservation as a motor for development. This can be achieved, for example, by generating revenue from tourism or by adapting existing management strategies in ways that are compatible with the conservation of valuable resources, e.g., through the adoption of

improved industrial practices or the enhancement of local livelihoods.

Biodiversity conservation needs to be viewed as a team challenge in which the various players agree on a unified agenda and then work together to attain a collective goal. During this process, the participants must show mutual support, trust and understanding of their own and one another's different roles as links in a chain, the weakest link of which could cause the whole system to crash. Among the main players in biodiversity conservation are:

- the developed North (governments, institutions and multinational corporations);
- international development agencies and donor organizations;
- the governments of the South;
- academics and their institutions;
- local nongovernmental organizations (NGOs) and other civil-society organizations; and
- local communities.

Each of these players requires something different from biodiversity conservation. The agents from the developed North are focused primarily on the non-use value of biodiversity conservation as a way of protecting the planet's ecosystem and their own privileged position. Development-agency and donor-organization agendas closely mirror those of the developed North, but most of these entities also have great confidence in local development, placing them in the unenviable situation of using local actors to implement a global agenda. Southern governments are often overwhelmed by short-term micro-economic realities and suffer from the effects of underfunded institutions, a lack of political will and poor regulatory frameworks, making them unable to commit to global or local biodiversity programmes. Academics are concerned with both local and global aspects of biodiversity, but they are often out of touch with grass-roots realities. Local NGOs have learned to become malleable in order to accommodate the agendas of the donors that fund them, but these resources have often stayed with elite networks that are reluctant to share them with the poor. Finally, farmers, rural people and local communities are at the receiving end of all biodiversity conservation efforts, their driving force is survival and their continued existence hinges on the sustainable use of natural resources—as they have always known.

In fact, local people are the real stewards of bio-resources and are the best-placed players in the conservation challenge. However, biodiversity conservation efforts have rarely included them as team members or have done so in ways that have generally been to their detriment. Local people's livelihoods have been threatened, and in many cases destroyed, by well-meaning conservation plans. Examples abound of nature reserves and protected areas established on land that was inhabited and used by indigenous people, resulting in resettle-

ment, displacement and restricted access to resources. Recent projects have made timid attempts to identify alternative livelihoods for local communities, but such alternatives are few and far between in rural areas. Even where such options as ecotourism and associated activities have been implemented, many of the benefits have gone to outsiders rather than to the local community.

In the Middle East, and in Lebanon in particular, one of the main obstacles to the full participation of local people is the fact that rural societies can be excessively stratified. In order to get round this challenge, projects often rely on local NGOs, which are presumed to represent the local people and to work for the public good. However, this approach is often flawed because local NGOs serve, at best, only as entry points, and more than one entry point is needed in a complex society. In the absence of multiple entry points, projects quickly become hostage to the good will of one local group and reflect this group's priorities rather than the priorities of the whole community.

It therefore appears that the current framework of action for biodiversity conservation provides something for all players except for those local communities whose survival and livelihood depend on the use of natural resources. A new approach, based on converging environmental and development goals, must be adopted to guarantee that the basic needs of rural people are satisfied. The sustainable rural livelihoods (SRL) framework, popularized in the late 1990s, provides a good, integrative framework that can be built on and adapted for achieving more harmony among all stakeholders.

A generally accepted definition of SRL is: "A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets, both now and in the future, while not undermining the natural resource base." (Diana Carney, ed., *Sustainable rural livelihoods: what contributions can we make?* United Kingdom, Department for International Development (DFID), 1998, 213 pp.).

While the SRL approach starts with people, it does not neglect the environment. Indeed, one of the strengths of the livelihood approach is that it includes the environment within a holistic framework. At its heart lies an analysis of the five different types of capital assets on which individuals draw to build their livelihoods: natural capital, human capital, financial capital, physical capital and social capital. The approach also includes an analysis of the vulnerability context in which assets exist (the trends, shocks and local cultural practices that affect livelihoods) and aims to develop an understanding of the structures and organizations—both governmental and private—and processes (policies, laws and incentives) that define people's livelihood options. The livelihood approach, therefore, is a more long-term commitment to target groups and areas.

Biodiversity is part of the natural capital from which people derive livelihoods. Thus, in the SRL context, biodiversity is seen as a means of contributing to sustainable livelihoods rather than as an end in itself.

Effective biodiversity conservation can be achieved only by maximizing the social and economic benefits that arise out of the protection or sustainable use of biodiversity. By seeking the fair and equitable distribution of those benefits, SRL proposes a set of strategic options that support the contribution of biodiversity conservation to poverty reduction. These involve trade-offs between total protection and total exploitation and are viable only when the link between maintaining biodiversity and supporting local livelihoods can be demonstrated. One example is the establishment of protected spots within a productive landscape, which serve to protect the habitat of local breeding stocks, for example.

Description

The Levantine Uplands, which comprise Lebanon, the western part of the Syrian Arab Republic, small parts of Jordan and the northern part of the occupied Palestinian territory as well as the associated Mediterranean coasts and valleys, are considered one of the major centres of plant diversity and endemism in the world. Seven genera of vascular plants are endemic to this region. Moreover, the indigenous flora is known for its medicinal properties and resistance to disease and abiotic stresses, making it a valuable source of genetic material of global importance. The area is also one of the main passage corridors for birds migrating between Africa and northern Europe.

Owing to its location by the shore of the eastern Mediterranean and its mountainous landscape, Lebanon is composed of many diverse ecosystems that are home to a unique biodiversity and exceptional natural wealth. Unfortunately, having come through two decades of civil war and its associated destructive effects, the country now suffers from problems linked to the rapid urbanization of the Mediterranean coast.

Against this background, the largest biodiversity conservation project in Lebanon, the Protected Areas Project, began in November 1996 with a grant of US$2.5 million from the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). The project's aim is to strengthen both national capacity and grass-roots in situ conservation for sustainable development. A main objective is to establish three protected areas—Al-Chouf Cedar Nature Reserve, Horsh Ehden Nature Reserve and Palm Island Nature Reserve—in order to safeguard endangered fauna and flora, underscore the potential role of biodiversity conservation in sustainable development, raise the awareness of local communities and policy-makers, and promote national reconciliation through joint activities relating to nature conservation.

Each of the nature reserves represents one or more of Lebanon's ecological zones. Al-Shouf Cedar Nature Reserve (500 square kilometres) represents the mountain ecosystem of the central Mount Lebanon chain and the southern limit of the cedar of Lebanon (*Cedrus libani*). Horsh Ehden Nature Reserve represents the mountain ecosystem of the northern Mount Lebanon chain and harbours thousands of cedars, pines, oaks and junipers. Palm Island Nature Reserve represents the eastern Mediterranean marine island ecosystem and is a winter nesting site for a large number of bird species, including Audouin's gull (*Larus adouinii*) and the Dalmatian pelican (*Pelecanus crispus*). It is also used as a nesting site by turtles.

The Ministry of the Environment (MoE) currently implements the project in active partnership with local NGOs and scientific institutions and under the technical guidance of the World Conservation Union (IUCN), with administrative support from UNDP. Since its inception, the project has attempted to link biodiversity conservation to sustainable development. It has also attempted to include a broad range of stakeholders and was successful in mobilizing both the MoE and a number of local NGOs, which were involved in the management of the reserves as well as in the scientific monitoring efforts.

The main accomplishment of the project has been the production of a framework for the creation and management of nature reserves in Lebanon. The strength of the framework is that it includes both the MoE and local NGOs in the decision-making and implementation processes.

However, an analysis of the four dimensions of sustainability, namely, socio-economic, environmental, political and institutional, revealed that affected communities were not involved in the inception of the project. In other words, local NGOs were not true representatives of local communities, which include many different socio-economic groups with different needs for which the protected areas offer different use and non-use values.

Moreover, the economic sustainability of the project is weak. The Government of Lebanon, via the IUCN project, currently provides US$25,000 per annum for each managing NGO to cover costs (and has allocated its own funds for when the IUCN grant runs out). The project has been extended twice (for one year each time), mainly because the NGOs were unable to develop a management plan for the reserves that is capable of covering these costs. The main source of income for the reserves was seen to be ecotourism coupled with some cottage industries, but the local ecotourism market remains underdeveloped and the international market still perceives Lebanon as a hazardous place to visit, owing to the history of instability in the Middle East region.

The lack of integration of the project with local needs has led to a situation in which the nature reserves now need to be sustained through external funds. The

MoE has the political will to provide these, but it remains to be seen whether it will be able to do so.

There is no doubt that the project has contributed to the protection of biodiversity inside the nature reserves. However, there have been some difficulties in implementing the surveying and monitoring activities, as the NGO in charge of these tasks had no previous experience in these areas. Moreover, encroachment and poaching on the part of affected local communities continue to pose a threat to conservation efforts.

While the MoE has since designated additional protected areas and put forward a generic law for nature reserves in Lebanon, other ministries remain uninvolved and uninterested. Sustainable biodiversity conservation, however, requires strong political will and the coordinated efforts of all the government institutions concerned in order to respond to the needs of affected communities.

The managing NGOs consist of environmentally aware citizens who are committed to the project and who are cognizant of the funding possibilities associated with the global biodiversity agenda. While some work on a voluntary basis, the project provides employment and funds to others. Because of this, the affected communities perceive the NGOs as monopolizing the project and its employment potential. There have also been strong disagreements between the reserve management teams and the NGOs. These were due primarily to internal conflicts within the local community and have reflected badly on the running of the reserves.

In the final analysis, the Protected Areas Project of Lebanon has achieved good protection of endangered ecosystems. It has also brought different partners together around the issue of biodiversity conservation, but it has tended to exclude local communities. By failing to acknowledge the basic needs of all the stakeholders in the conservation areas and by excluding the traditional land users, the project may have conserved biodiversity at the expense of rural livelihoods. At this stage and in the absence of a social impact evaluation, it is not possible to provide more than speculation based on oral reports and inferences. However, if the analytical framework is valid, the Protected Areas Project and all of its achievements and gains risk becoming another white elephant: rare, precious and expensive to maintain.

Lessons learned

The "fortress" approach to nature conservation is unsustainable, especially when it curtails the livelihoods of local natural-resource users. Often, it must be imposed through a strong regulatory framework, which requires major funding and commitment to implement. While this may be an option in the North, in Lebanon and most of the Middle East, where tribalism dominates and central laws do not reach remote areas, this alternative is not viable.

In these regions, rural communities largely remain dependent on biodiversity for both on-farm and off-farm livelihood activities. Recent approval of traditional management arrangements demonstrates that local people have the knowledge and the awareness of viable biodiversity conservation. The problem is not, therefore, a lack of knowledge or awareness but rather a lack of options.

In order to achieve better biodiversity conservation, a sincere effort must be made to acknowledge the basic needs of local people and to design solutions that respond to specific local conditions. All over the world, poverty is driving rural communities to use unsustainable practices. Thus, the starting point for biodiversity conservation should be poverty reduction. Only when local communities are relieved from the crushing weight of poverty will they engage in biodiversity conservation efforts.

The focus on poverty rather than biodiversity conservation may appear blasphemous to many environmentalists and activists, but the very notion of biodiversity conservation must be open to challenge. It also seems absurd to attempt to convince people of the importance of a particular insect species, say, when they are surviving on less than US$1 a day and have no access to health services, education or freedom.

The SRL framework represents an acknowledgment that the people who live in biodiversity-rich environments have short-term priorities that reflect their basic needs and that conservation programmes should start by addressing these priorities. However, SRL is not a definitive solution but rather a step forward from the existing conceptual framework. As it addresses only local conditions, it cannot provide a comprehensive solution to the problems imposed by globalization, such as the macroeconomic environment, unfair terms of trade and Northern agricultural subsidies. At best, it can entice a community in the mountains of the eastern Mediterranean to adopt biodiversity-friendly practices. The links with the rest of the world remain to be established.

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