



Protected areas for the twenty-first century: Working to provide benefits for society

J.A. McNeely

Jeffrey A. McNeely is Chief Biodiversity Officer, World Conservation Union (IUCN), Gland, Switzerland. He was Secretary-General of the IVth World Congress on National Parks and Protected Areas, held in Caracas, Venezuela, from 10 to 21 February 1992.

Virtually all countries have seen the wisdom of protecting areas of outstanding importance to society and such sites now cover more than 5 percent of the earth's land surface. However, many of these protected areas exist only on paper, not on the ground. In a period of growing demands on resources and shrinking government budgets, new approaches are required to ensure that protected areas can continue to make their contributions to society. This will involve integrating protected areas into larger planning frameworks, expanding support for protected areas, strengthening capacities to manage protected areas and expanding international cooperation.

Modern protected areas were born on the frontier of the North American West more than 100 years ago, a time when the indigenous population was being displaced by immigrants (often with considerable violence). The West had been thoroughly occupied for thousands of years by a rich diversity of different ethnic groups but, to the European immigrants, it was a "wilderness" that needed to be "conquered". To maintain at least a sample of this "pristine" wilderness with a minimum of disturbance, Yellowstone National Park was established in 1872 in an area which was formerly occupied by Shoshone, Crow and Blackfoot Indians. A key concept behind the new national park was that people - except for park staff - were not allowed to live permanently in the area. The North American model of the pristine national park grew slowly at first but, beginning in the late 1960s, many more countries established national parks that excluded people following the 1969 World Conservation Union's definition of "national park" as a relatively large area that is not materially altered by human exploitation or occupation and where the highest competent authority of the country has taken steps to prevent or eliminate exploitation or occupation in the whole area.

Experience quickly showed, however, that most parts of the world already had people living in these areas, or at least had people with legitimate historical claims to the land. Recognizing that conserving nature required more flexible efforts in which local people were not excluded a priori, many countries began to develop alternative or complementary approaches to the strictly protected national parks, including game reserves, watershed protection forests, indigenous reserves, recreation forests and many others. Over 20000 protected areas have now been established, covering more than 5 percent of the globe (an area roughly equivalent to twice the size of India). Only 1470 of these are national parks of the Yellowstone model, while the rest have been given a wide variety of other designations (IUCN, 1990); Australia,

alone, has at least 45 kinds of protected areas. To bring some order to this chaos of terms, the IUCN (1978) established ten categories of protected areas based on management objectives. These were subsequently reduced to eight (1984) and then to six (1993).

The different terms are far more than just names. While there is continuing support for the idea that some areas are so important for national objectives that the highest degree of protection from human influence is required, it is now recognized that the ideal of national parks being places without significant human influence is often not reflected in practice and also is often inappropriate. In South America, for example, a recent IUCN study found that about 86 percent of national parks had permanent resident human populations (Amend and Amend, 1992) [*Ed. note: see also article by Burkart*].

Furthermore, both governments and international conservation organizations recognize that new management approaches are needed to build a more positive relationship with the people who live in and around protected areas. This new perspective was first given full legitimacy in the World Conservation Strategy (IUCN, 1980) and was converted into practical advice at the IIIrd World National Parks Congress, held in Bali, Indonesia, in October 1982. The title of the congress proceedings, *National parks, conservation and development: the role of protected areas in sustaining society* (McNeely and Miller, 1984), gives a clear indication of the new directions being advocated.

After a decade of experience with the new approach, several important lessons have been learned. Many of these were brought together at the IVth World Congress on National Parks and Protected Areas, which was held in Caracas, Venezuela, in February 1992. A number of publications have already resulted from the congress (McNeely, 1993; Barzetti, 1993; Thorsell, 1992; Harmon, 1992) and many more are in preparation. The Caracas congress provided an opportunity to reassess the current status and trends of protected areas and to synthesize the lessons learned to date.

While the details are beyond the scope of the current article (see McNeely, 1993), the following paragraphs indicate the general shape of the new paradigm for protected areas at the end of the twentieth century.

People and protected areas

Protected areas cannot coexist in the long term with communities that are hostile to them. However, when placed in the proper context, protected areas can make significant contributions to human welfare. Many protected areas face pressure from increasing populations whose economic well-being has suffered from a cumulative neglect of land and other resources. For protected area managers, detailed knowledge of the people whose lives are affected by the establishment and management of parks is as important as information about the plant and animal species to be conserved. The cultural and socio-economic characteristics of local people form the basis for measures to promote the sustainable use of natural resources, alleviate poverty, raise the quality of human life and create positive support for protected areas.

Because of conflicts between different uses for lands that are important for conservation, or between different economic interests with different objectives, protected area managers must give considerable attention to new ways of resolving conflicts. A key step is to get all parties in a conflict to sit down and try to recognize the validity of the opposing views and search for common ground. It is also important to identify the various "stakeholders" involved in the conflict, as well as to identify their interests.

Human communities living in and around protected zones often have important and longstanding relationships with these areas. These relationships embrace cultural identity,

spirituality and subsistence practices which are essential to the continued existence of the community and frequently contribute to the maintenance of biological diversity. Protected areas should thus be seen as making an important contribution to conserving both cultural and biological diversity.

The relationships between people and land have too often been ignored and even destroyed by well-intentioned but insensitive resource conservation and management initiatives. Community participation and equity are necessary components in decision-making processes, together with mutual respect among cultures [*Ed. note*: see article by Tchamie].

Customary tenure systems, traditional knowledge and practices and the differential role of men and women in communities must be respected and built on in designing and implementing conservation plans.

At the same time, community involvement does not mean opening the national parks to all comers, any more than a banker would seek customers by opening the vault. Rather, a wise protected area manager, like a wise banker, uses the park's assets as a base on which to build customer satisfaction, investment and interest.

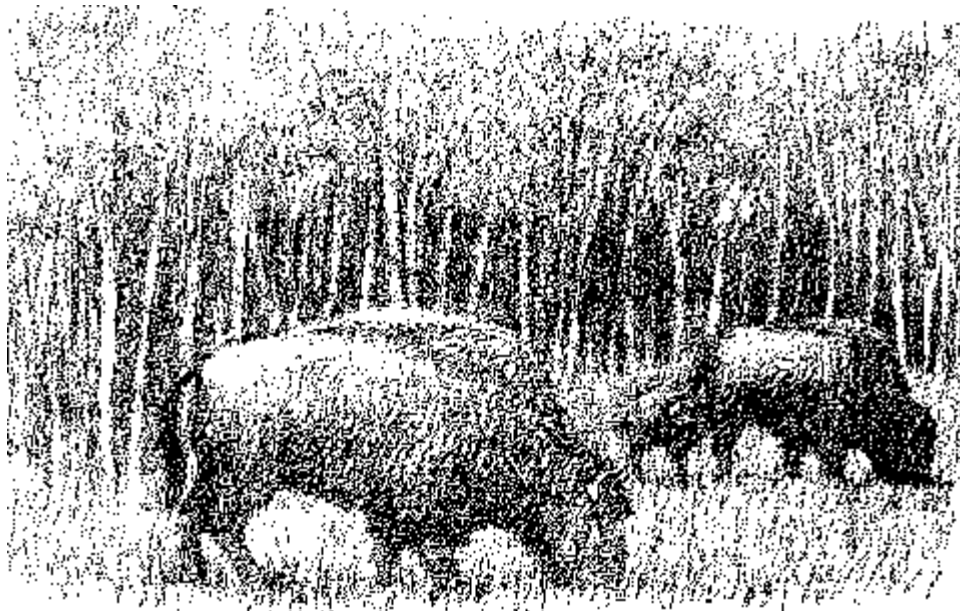
Conserving biodiversity

It may seem obvious that protected areas contribute to conserving biodiversity. But, as pointed out in the Global Biodiversity Strategy (WRI/IUCN/UNEP, 1992), relatively few protected areas have yet given full attention to the biodiversity issue. Therefore, all countries should review their protected area systems and identify additional sites of critical importance for conserving biological diversity.

In the new Convention on Biological Diversity, signed by more than 150 countries at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June 1992, it was recognized that countries are sovereign, and therefore have control over the use of their own genetic resources, and that they need to act to protect their interests in the growing market for biological resources. Improving the management of protected areas is an essential element in doing so. The Convention on Biological Diversity includes strong support for protected areas but it needs to be supported by the creation of an international forum that would establish conservation norms and facilitate long-term planning and coordination.

Approaches developed for conserving biodiversity on land may not always be appropriate for the sea, so a major effort is required to create well-managed protected areas here. This may require new concepts or the broader application of concepts such as zoning, where strictly protected core zones are surrounded by much larger areas of varying intensity of human use. Marine protected areas encompassing complete large marine ecosystems, including strictly protected areas, should be based on administrative arrangements that coordinate the different jurisdictions of adjacent land and sea areas. Strictly protected core areas need to be buffered by well-managed zones of regulated use, with an outer area of cooperation - a large marine ecosystem that all agencies and interested parties have agreed to manage and protect jointly.

Bison in Yellowstone National Park, United States - the first national park In the world



Conservation on a regional scale

Protected areas have sometimes been seen as islands of nature and tranquillity surrounded by incompatible land uses. Yet such an "island" mentality is fatal in the long term because protected areas will not be able to conserve biodiversity if they are surrounded by degraded habitats that limit geneflow, alter nutrient and water cycles and cause regional and global climate change which may ultimately lead to the disappearance of these "island parks". Protected areas therefore need to be part of broader regional approaches to land management. The term "bioregion" has been used to describe extensive areas of land and water that include protected areas and surrounding lands, preferably including complete watersheds.

Water is a major unifying component of a bioregion, and a drainage basin provides a natural unit for land and water management. Since protected areas can make an important contribution to the management of water in natural ecosystems through maintaining hydrological processes, close cooperation is needed among diverse disciplines and interest groups, beginning with a definition of the roles played by protected areas in managing catchments and the impact of changes in quantity and quality of freshwater on the diversity and productivity of natural ecosystems.

Drainage basins and many international boundaries are marked by mountains, many of which have protected area status. Bioregions often include major mountain ranges, therefore, and greater attention needs to be given to the challenges of mountain protected areas and their status within bioregions. Protected areas that are situated along national boundaries require international cooperation for which the bioregion approach also provides a framework.

The importance of the bioregional approach is emphasized by the threat of climate change, a critical and immediate hazard to all ecosystems and species, including those in coastal and marine environments. Protected areas are not immune to these threats and most are too small for the continued survival of existing ecosystems and species in a changing world. Governments should involve protected area managers in programmes to determine which habitats and species are at risk on a regional scale, develop networks of protected areas actively involved in monitoring global change and take active measures to extend the coverage of systems and species threatened by global climate change. Special attention needs to be given to establishing large areas, areas with a wide altitudinal range and corridors between protected areas - all elements of the bioregional approach.

Funding for protected areas

Many governments expect protected areas to "pay their own way". Some protected areas are in fact highly profitable, earning considerable revenues (especially from tourism). More broadly speaking, protected areas make important economic contributions through helping to maintain clean air, pure water, a green earth and a balance of creatures; these functions enable humans to obtain the food, fibre, energy and other material needs for their survival. Many benefits are unquantifiable, however, and rather like schools, police forces or hospitals, relatively few protected areas are able to capture the "profits" from the benefits they provide for society.

There are three major economic challenges facing protected areas. First, the full benefits of protected areas are seldom recognized, so an appropriate balance between benefits and costs is not easily apparent to decision-makers and it is seldom made clear how increased investments will result in increased benefits, either to local populations or to the general public. Second, many of these benefits are outside current economic concepts; the question of the distribution of benefits is especially important and is insufficiently addressed by existing economic models [*Ed note*: see book review of Dixon and]. Third, greatly increased investments for protected areas will be helpful only if they are part of an overall development package. Pumping money into a protected area in an unbalanced way can do more harm than good; a lack of money may be a less important constraint than excessive expenditures in sectors that threaten or undermine protected areas.

New responses to insufficient or unbalanced investment in protected areas include innovative funding mechanisms (such as trust funds, dedicated funding of receipts from tourism, debt-for-nature swaps) and giving more responsibility for protected areas to non-governmental organizations, the private sector, local communities and landowners. Yet, in view of their key role as national assets and the generalized benefits these sites provide to society, governments have the prime responsibility for protected area management. As legitimate public investments, conservation investments are as essential to the welfare of society as those directed towards defence, communications, justice, health and education. Protected areas benefit the nation, which is why some of the best ones are called "national parks", and the world - which is why outstanding sites are recognized under the World Heritage Convention.

Making protected areas part of regional development plans can help ensure an appropriate balance between costs and benefits. The Global Environmental Facility (GEF) is providing hundreds of millions of dollars for conservation and some of this money will be spent on protected areas. A grant scheme for park management should be implemented using GEF funds while the GEF could also be encouraged to establish trust funds and other long-term funding mechanisms for protected area systems.

Building stronger support for conservation

To build stronger support for conservation, contributions are required from all parts of society - young and old, rich and poor, male and female, private and public. Many current institutions are far too weak to carry the conservation message effectively to the public - the message being a call for a vigorous international programme in support of protected areas.

Such a programme should be built from the bottom up and be organized in the first instance through regional cooperation among countries. An essential element of regional programmes to support protected areas is building the capacity to conserve. Training of protected area managers is required at all levels, emphasizing the concepts, methods and techniques necessary for staff to be fully aware of and effective in exercising their responsibility in the

conservation of nature and the human communities in and around protected areas.

As the shortcomings of government policies on protected area conservation become more apparent, increased support from non-governmental sources is required. Local communities, private landowners, NGOs and government agencies must all play a part in evolving new partnerships for the management of land and natural resources. Private landowners and land users need to be encouraged to take conservation actions on behalf of the broader community. All countries should adopt partnership initiatives that encourage and reward private landowners and land users - be they communities or individuals - for their conservation management actions. Such initiatives can identify appropriate roles for private and community interests in protected area strategies and incorporate partnership approaches in regional planning, sectoral policies and legal frameworks.

In a time of changing national security needs, the military could also play an important role in conservation. With adequate retraining and motivation, military personnel could be deployed for protecting critical sites, regenerating deforested areas, aiding scientific research, managing the defence of lands (many of which are in remote areas and are important for conservation) and monitoring pollution. However, great care would need to be taken to avoid conflictual relationships with local people, many of whom have already had unhappy experiences with military-style forest guards.

Conclusion

Protected area managers must have no illusions about the severity of the problems they will be facing in coming years. Tomorrow's challenges will be even more difficult than today's, as resource scarcity, economic imbalance and the continuing use of inappropriate technology form a witch's brew of challenges facing protected areas and the sustainable use of the environment as a whole. But such challenges mean that protected areas have an even more important part to play in securing a productive future for humanity.

Bibliography

Amend, S. & Amend, T., eds. 1992. *¿Espacios sin habitantes? Parques nacionales de América del Sur*. Caracas, Editorias Nueva Sociedad-Gland, Switzerland, IUCN.

Barzetti, V., ed. 1993. *Parks and progress: protected areas and economic development in Latin America and the Caribbean*. Cambridge, UK, IUCN/IADB.

Folke, K., Hammer, M. & Mansson, A.-M. 1991. Life-support value of ecosystems: a case study of the Baltic Sea region. *Ecol. Econ.*, 3: 123-137.

Harmon, D., ed. 1992. Research in protected areas: results from the IVth World Congress on National Parks and Protected Areas. *George Wright Forum*, 9(3-4): 17-168.

IUCN. 1978. *Categories, criteria and objectives for protected areas*. Morges, Switzerland, IUCN.

IUCN. 1980. *The World Conservation Strategy: living resource conservation for sustainable development* Gland, Switzerland, IUCN/UNEP/WWF.

IUCN. 1990. *1990 United Nations list of national parks and protected areas*. Gland, Switzerland, IUCN.

McNeely, J.A., ed. 1993. *Parks for life: Report of the IVth World Congress on National Parks and Protected Areas*. Gland, Switzerland, IUCN.

McNeely, J.A. & Miller, K.R., eds. 1984. *National parks, conservation and development: the role of protected areas in sustaining society*. Washington, DC, IUCN/Smithsonian Institution Press.

Thorsell, J. 1992. *World heritage twenty years later*. Gland, Switzerland, IUCN.

WRI/IUCN/UNEP. 1992. *Global biodiversity strategy*. Washington, DC, WRI.

