

Conservation: Synopsis

APPROACHES TO CONSERVATION

Protected areas have historically been established to conserve sites of scenic beauty or habitats of high-profile species. Their boundaries have often not taken into consideration biodiversity values or concerns that surrounding communities may have relating to their livelihoods. The **conservation concept** has, however, changed over time and the human element is now recognised an integral part of conservation, whereby communities take part in protected area planning, management and benefit sharing. Conservation targets have evolved over time from a focus on scenic beauty or species—either to protect useful species from over-harvesting or to conserve species for their own intrinsic value—to a focus on ecosystems—for their importance both for species conservation and the ecosystem services they provide.

IUCN's definition of a protected area is "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means".

In practice, a protected area may be established and managed for different purposes including, according to the IUCN: scientific research, wilderness protection, preservation of species and genetic diversity, maintenance of environmental services, protection of specific natural and cultural features, tourism and recreation, education, sustainable use of resources from natural ecosystems, and maintenance of cultural and traditional attributes. The IUCN proposes a system of six different **categories of protected areas** depending on their management objectives, from strict nature reserve to managed resource protected area. Different countries, however, adopt different systems in their legislation; in South Africa, for example, five different categories are defined in the Protected Area Act.

CONSERVATION POLICIES AND TOOLS

A range of **international conventions or treaties and regional agreements** are in place that have a bearing on the conservation of natural and cultural values, such as the Convention on Biological Diversity, the Ramsar Convention, the World Heritage Convention and the NEPAD's African Protected Areas Initiative. Together with these international guidelines when applicable, **national policies and laws** provide the framework for conservation planning and management. In South Africa, relevant laws include the Biodiversity Act and the Protected Areas Act.

In **conservation planning**, criteria and methods for protected area site selection should consider both ecological factors (such as species richness, vulnerability, level of threats, endemism, irreplaceability and evolutionary processes) and socio-economic factors. Site selection can focus on particular species, such as birds, specific ecosystems such as wetlands or the world's remaining large tracts of relatively pristine natural habitats. Protected areas may attempt to protect "hotspots" or areas with high levels of endemism that have lost much of their original natural habitat and are vulnerable to massive extinctions.

A protected area should be large enough to ensure the accomplishment of its objectives, and may be sub-divided into different zones with differing conservation objectives and levels of protection. It is important to consider not only habitats and species-related aspects, but also conservation of biodiversity at the ecosystem, landscape or regional scale. Protected areas should not be seen as isolated units, as they are linked to the areas around them in ecological, economic, political and cultural terms. The establishment of corridors, connectivity and ecological networks helps maintain or strengthen ecological coherence. Protected area planning must furthermore be incorporated within regional planning and supported by wider policies, and seek a balance between biocentric and anthropocentric criteria.

Protected area management relies on good planning, trained staff, and financial resources to meet the protected area objectives both in terms of biological elements (species and habitats) and social aspects (recreational use, sustainable livelihoods, local participation and integration with regional and local planning instruments). Indicators are crucial for **monitoring** performance with regard to the management of protected areas and the conservation objectives in those areas. Protected areas increasingly relate to the needs of rural development, particularly through nature-based tourism, with the development of appropriate mechanisms for benefit sharing.

Many protected areas are established in, or adjacent to areas where local and **indigenous communities** live. Issues such as poverty, land tenure and equity thus become crucial in conservation planning and management. Communities should be seen not as incompatible with conservation or as a liability, but as an asset to conservation. Protected area governance types are becoming more diverse, with new forms emerging that include local government units, local and indigenous communities, and private landowners and companies, in addition to the traditional national government management.

Transfrontier conservation areas straddle across political borders. Examples along the BCLME countries are the Ai-Ais-Richtersveld TFCA between Namibia and South Africa, as well as the emerging Skeleton Coast-Iona National Park between Namibia and Angola.

CONSERVATION IN PRACTICE

According to data from the World Database on Protected Areas, there are more than 100,000 **protected areas worldwide** covering 3% of the planet's surface and almost 12% of the terrestrial surface. However, the existing network does not adequately cover all important ecosystems, habitats and species. Less than 1% of the world's marine ecosystems is protected and other biomes, including major freshwater systems and grasslands are poorly represented.

In terms of management effectiveness, many protected areas are currently threatened or already undergoing degradation. Direct **threats** include those resulting from any disturbance to the elements and the ecology of a protected area, for example through poaching, pollution and encroachment, conversion, degradation and isolation. Indirect threats, in turn, include inappropriate land use planning; "open access" situations resulting from unclear legal status of lands and waters; weak enforcement of laws; poverty; and revenue needs of central or local governments. The effects of climate change compound these threats. Many problems facing protected areas are closely linked to socio-economic factors affecting communities that live in and around these areas, including poverty, land tenure and equity

The **coastal areas of the western coast of Southern Africa** present a series of contiguous protected and recreational areas that stretch from Southern Angola into Namaqualand in South Africa, covering two biodiversity hotspots, the Cape Floristic Region and the Succulent Karoo. In Namibia, virtually the entire coastline is under protection, including the Skeleton Coast National Park, the National West Coast Recreation Area, the Namib-Naukluft National Park and the recently proposed Sperrgebiet National Park. South Africa is the third most biologically diverse country in the world. Along or near the west coast of South Africa a number of protected areas also exist, such as the Cape Peninsula National Park, Elands Bay Nature Reserve, SAS Saldanha Nature Reserve, West Coast National Park, and Richtersveld National Park and Community Conservancy.

The coastal areas of Angola, Namibia and South Africa are influenced by the Benguela Current, sharing the rich living marine resources of what is called the Benguela Current Large Marine Ecosystem (BCLME). There are fifteen nearshore islands or rocks along the Namibian coast to the north and south of Lüderitz that provide breeding habitat for seabirds. South Africa has currently the most sophisticated network of marine protected areas in Africa, with 18% of the country's coastline under formal protection. A number of wetlands of international importance or Ramsar sites provide feeding and breeding grounds to a large number of species—the Orange River Mouth between South Africa and Namibia, and Walvis Bay Lagoon and Sandwich Harbour in Namibia.

The coastal communities of the three countries have for millennia relied on coastal and marine resources for their livelihoods, and shared conservation and sustainable use of the BCLME coastal and marine areas is increasingly being recognised as crucial. Unbridled coastal development of housing estates and mining of various minerals in the coastal zone present the biggest threats to wetlands and coastal biodiversity.