

CONVENTION ON BIOLOGICAL DIVERSITY:CASE STUDY ON INCENTIVE MEASURES

THE SOUTH AFRICAN NATURAL HERITAGE PROGRAMME (SANHP)

1. Overview

The SANHP is a national project providing an incentive for the private landowner to protect his land. Special efforts are made to extend this project to those areas and ecosystems not covered by other projects such as provincial or national parks. A major objective of the project is to inform landowners of the conservation value of their land and to foster a culture of conservation.

Human activities have been changing South African ecosystems for thousands of years, the pace and extent of change increasing rapidly with agricultural and industrial development. Natural habitat has been transformed - largely by agriculture, urban developments, afforestation, mining and dams. In addition, habitat loss, degradation and the over exploitation of certain species, have had major effects on South Africa's terrestrial, freshwater and marine biodiversity. Other important effects are the introduction of exotic species, the pollution or toxification of the soil as well as rapid population growth and, more recently, the uncontrolled influx of illegal immigrants.

The South African Natural Heritage Programme (SANHP) provides the opportunity for individual and corporate landowners to participate actively in the protection of biodiversity and natural areas. The programme aims to encourage the protection of important natural sites, large or small, in private and public ownership. Not only private land, but also state land managed by different spheres of government, can be registered under the programme. By informing landowners of the special attributes of a particular site, registration as a Heritage Site reduces the possibility that significant natural features and the associated biodiversity may be unwittingly degraded or destroyed. Participants are full partners and are contributing to creating a better environment for all citizens of South Africa.

Since the inception of the SANHP, sponsorship and stakeholder participation has been crucial. The SANHP forms a solid base on which to build a suite of conservation projects, owned and managed by the private sector, and which is an important element of the protected area strategy. Private sector participation is further facilitated by

sponsorships, sponsors being encouraged to join in the programme as full partners or to be involved in the programme through special projects.

Only the most significant natural areas of the country qualify for registration with the programme and one or more pre-set criteria must be met before an area will be considered for registration. These criteria include plant communities of special conservation significance, good examples of aquatic habitats, sensitive catchment areas, habitats of threatened or endangered species, as well as outstanding natural landscape features.

The South African Natural Heritage Programme (SANHP) was launched on November 7th, 1984 as a cooperative tripartite venture between the government sector, private sector sponsorship by industry and environmental NGO's, and private landowners as participant conservationists. The national Department of Environmental Affairs and Tourism fulfills the role of administrative lead agent, the regional nature conservation bodies acting as implementing agencies, and sponsorship by Schneider Electric and WWF South Africa. The sponsors have also jointly established a fund to offset administrative costs and to provide some financial support to management objectives in the form of an annual "Grant-in-Aid". The most important participant in the programme is the private land owner who dedicates a tract of his land to nature conservation.

Extensive coverage by the public media has been an important aspect of creating public awareness during and subsequent to the launch of SANHP. The press, as well as national and regional radio and television participated to provide extensive media coverage to the programme. Various popular journals, teenage magazines and a wide spectrum of educational and environmental periodicals have all contributed to creating public awareness of the programme. During 1989, the then Department of Environment Affairs linked a broad spectrum environmental education project to SANHP. Heritage 100 was launched to celebrate the registration of the 100 th South African Natural Heritage Site. As part of this project the SANHP produced and distributed 18000 copies of a booklet, "100 Things to do for Heritage 100". Heritage 100 was an important awareness project to maintain the public awareness and interest in SANHP.

Process of implementation: The programme has a number of special features. It is a voluntary programme and participation is at the discretion of the land owner. In return for registering a site and undertaking to protect the area, the owner of a site receives a certificate of appreciation signed by the President of South Africa, who is patron of the programme, and a bronze plaque which indicates that the site is considered of

national importance. Upon registration, each site owner receives management advice essential for the maintenance or enhancement of the site. The owner of a site maintains full rights over the property and can withdraw from the programme by giving 60 days notice to the Department of Environmental Affairs and Tourism. Should the owner degrade or destroy the site, the Department will withdraw the site from registration. It rarely occurs, however, that the need for either action arises, and only five sites have been de-registered since the inception of the programme.

Main outcome: The achievements of the programme are not only in the elements of value that are being protected, but also in the public relations aspects of the programme. Through the programme communication links on a one to one basis is established with a growing segment of the population as owners and guardians of biodiversity. Here we do not only include registered site owners, but also members of the general public who are interested in the programme.

A number of sites have changed ownership since the inception of the programme. When a site changes ownership, the registration automatically expires. The fact that new property owners usually contact the Department for more information about SANHP with a view to re-register, before the Department is even aware of the sale of the property, led to the fact that the majority of these sites are re-registered soon after the new owner takes possession of the property.

2. Status of the ecosystem and identification of the causes of pressure on biological diversity

South Africa's land- and seascapes have changed dramatically over the past few centuries, largely through human settlement and associated activities. Often these activities have resulted in the degradation or loss of ecosystems, and in some instances in the extinction of species. Previous policies also encouraged unsustainable land-use practices by providing subsidies to farmers occupying marginal lands.

Over the years there have been various private and public sector efforts to rehabilitate degraded areas, primarily to restore the productivity of agriculturally degraded lands on large commercial farms, but also to rehabilitate previously mined areas. Within protected areas, efforts to reintroduce threatened species and promote their recovery have been considerable, with off-site conservation approaches such as captive breeding and plant propagation being successfully used to increase populations of threatened species. Many conservation worthy areas outside officially protected areas exist. The SANHP protect, and to some extent contribute to rehabilitation of these

areas. Annual grants made available by the sponsors are utilized mainly in projects aimed at rehabilitation and eradication of alien invasives.

Terrestrial Biodiversity in South Africa

The transformation of South Africa's terrestrial areas is perhaps the most visibly dramatic evidence of the loss of biodiversity in the country. At least 25% of the land has been transformed for purposes of cultivation or afforestation, for urban or industrial development, or to enable roads, railways and dams to be built. In the past this often occurred due to a lack of knowledge of conservation and ecological value of land on the part of the developers. Whenever a new SANHP-site is registered, the Department of Transport and the Department of Water Affairs is notified. These departments are then aware of important natural features in an area before they plan a new project. Not only does this procedure contribute to the greater awareness amongst planners and developers, but conservation authorities are also in a better position to negotiate the route of a new road or the position of a proposed dam that threaten an existing SANHP-site.

SANHP registered sites represent all biomes and most vegetation types, and often is the only form of protection a specific vegetation type has. The grassland biome for example, the mainstay of dairy, beef, and wool production and of many croplands such as maize, is also poorly represented in protected areas. Similarly, much of the Renosterveld which is part of the fynbos biome, has been ploughed for agriculture, and is also not represented adequately in protected areas. Several SANHP sites have, however, been registered in these biomes, which represent the two most threatened biomes in South Africa.

Freshwater Systems & Estuaries in South Africa

Wetlands such as marshes, bogs and floodplains have undergone considerable alteration and degradation. This resulted from activities such as drainage for crop and timber cultivation, infilling for urban and industrial development and waste disposal, borrow-pit mining for the extraction of sand, clay and peat, as well as through a range of other activities. The SANHP is often the only practical form of protection available to these areas as they are most often in private ownership.

Although there is a lack of information concerning wetland losses in South Africa, the existing evidence suggest clearly that the loss of wetlands has been high, with loss

appearing to be greatest in the coastal and inland margin zones of the country. In the Mfolozi catchment in Kwazulu-Natal for example, some 58% of the original wetland area is estimated to have been lost. Small, but reasonably untouched natural areas that still exist inside a bigger degraded or developed area can be effectively protected by SANHP while proclamation and management as national or provincial protected areas would not be feasible due to high capital and management costs.

Estuarine areas, as the interface between rivers and the sea, include some of the most productive and threatened ecosystems in South Africa. Sustaining a rich abundance of fish, bird, and invertebrate species, and habitats such as mangroves, seagrass beds, and saltmarshes, estuaries provide important nursery grounds for marine fish, sustain several fisheries, control flood events, provide a rich feeding ground for birds, and are a necessary component for the life-cycle of many invertebrate species.

The ecological functioning of estuarine ecosystems is critically dependent upon the complex and dynamic interplay between rivers and the sea. This is a factor which increases the vulnerability of such environments to changes both within catchments and in the sea. Activities having far-reaching effects on estuarine ecosystems include excessive water abstraction, resulting in a reduction of freshwater to estuaries; agricultural practices that lead to increased soil erosion and thus silt deposition in estuaries. Other activities are urban or industrial development adjacent to estuaries; modifications to river and tidal flows through floodplain development and the construction of bridges, harbours, and dams; and pollution resulting from the diversity of activities occurring in catchments.

(a) Sectoral activities causing pressures on biodiversity:

Agriculture:

Agricultural practices are responsible for extensive modification of terrestrial areas through transformation for the purpose of cultivation or the impacts of over-grazing. The SANHP plays an important conservation role in many intensive farming areas. Islands of natural areas occur on crop- and rangelands as remnants of the original vegetation types. Many of these areas are afforded protection under the SANHP.

Forestry:

As in the case of intensive agriculture areas, island of natural areas occur as remnants of the original vegetation types in commercial plantations. In terms of South African afforestation permits, a minimum of 25% of the area subject to the permit has to be

maintained in the natural state. Commercial forestry concerns, when the site lends itself thereto, register these areas with the SANHP programme and presently are the owners of more SANHP sites than any other group of land-users.

Urbanisation and Industry:

Urbanisation and industry has a profound impact on biodiversity through the clearing of land for development and disturbance of marine and coastal habitats for prospecting and mining activities. The abstraction of water impact on wetland systems. Activities related to the mining industry result in water, air and soil pollution. Up to 80% of total solid waste generated in the country arises from the mining industry.

Tourism:

Tourism development , through the construction of tourist-related facilities and practicing unsustainable tourism by exceeding the carrying capacity in certain areas, contribute to long-term negative impacts on ecosystems and the species they maintain. The impacts of off-road vehicles, over exploitation of recreational fishing and collectable curios of biological origin all contribute to adverse impacts on biodiversity.

Trade:

Over exploitation of species in demand for medicinal or wildlife trade purposes and the pet trade, collection of species in the wild for export purposes, commercial fisheries and other commercial activities impacts on the biodiversity either directly through exploitation of the resource base, or through the potential impact of invasive species imported from elsewhere.

(b) Underlying causes impacting on biodiversity:

Customary practices to maintain or enhance biodiversity have become lost due to policies discouraging traditional resource use, and increased demand resources such as medicinal and edible plants, thatching grass, and hunting and grazing grounds as a result of unchecked population growth.

A major constraint to the implementation of South Africa's biodiversity policy is the acute shortage of trained South Africans to carry out the tasks required, and a lack of available career opportunities in biodiversity management. A strong cadre of natural scientists exists in South Africa, but few researchers are exposed to the practical problems of management, or have the breadth of knowledge required to address biodiversity conservation problems. There is also a dire shortage of taxonomists in the country. The lack of capacity to implement conservation measures is particularly stark

at the local level, where many of the actions to remedy biodiversity loss will be required.

4. Incentive measure(s) introduced

Adding Economic Value to South Africa's Biodiversity

Examining the economic aspects of biodiversity is becoming increasingly important within the South African context. As the custodian of a national asset, the State has a responsibility to increase the financial investments required to conserve biodiversity. Innovative ways must therefore be found to add to and reinforce the fundamental economic value of biodiversity, and to promote and develop economic activities that are compatible with and which complement the conservation and sustainable use of biodiversity.

Several economically viable alternative land-use options such as hiking trails and other sustainable practises, both consumptive and non-consumptive, are promoted as part of the SANHP programme. The benefits and management aspects are highlighted in pamphlets and information booklets which are made available to site owners at no cost. Site owners also have free access to management advice.

Many of the activities and land-use options recommended to site owners as income generating activities, require development funds. A further incentive is provided in the form of a Grant-in-Aid that is made available to site owners on an annual basis. All site owners may apply for financial assistance by the Grant-in-Aid. All applications are evaluated by a panel that decides on the merits of the most deserving cases and allocates the available funds accordingly. Although the amounts are relatively small, it has not only direct financial value to the landowner, but also holds some prestige value and is regarded as an important incentive.

One of the services the programme provides to site owners is a brochure listing "Sites open to the Public". The brochure is printed and distributed free of charge to site owners and travel agencies. Sites with accommodation or other facilities eg. hiking trails are listed in this brochure which is updated and reprinted on regular basis.

5 & 6. Requirements and Process of Implementation

Although the process to register a prospective natural heritage site is a lengthy and extensive process and involves an administrative function, it is a very good example of

cooperation between the private landowner and different tiers of government. It is important that the correct procedure must be followed at all times to ensure that the registration process is done to the satisfaction of all parties involved.

The first step is to ensure that the owner of the land is in favour of registration because this is not possible without his written approval. Prospective Natural Heritage Sites are usually identified by nature conservation authorities, the landowner or other interested persons who realise the importance of a specific site. Application for registration can be submitted to provincial nature conservation authority or by contacting the national coordinator of the programme.

The application is processed by the Department of Environmental Affairs & Tourism (central government) only if the land owner and provincial authority are both in favour of registration. Before a site can be recommended for registration, an official from the nature conservation authority has to conduct an on-site inspection and evaluation in order to complete a standard questionnaire. A recommendation is then made by the head office of the provincial nature conservation authority to central government (Department of Environmental Affairs and Tourism). If the recommendation is favourable, the Department will investigate the matter further by contacting other central government departments such as Water Affairs and Transport to ensure that the registration is not in conflict with existing long term planning activities e.g. dams or roads.

Finally, the landowner is required to enter into an agreement not to degrade or allow to degrade the site, whereafter his land (or a portion thereof) is formally registered. The President of South Africa, being patron of the project, personally signs the registration certificate issued to the owner. The certificates and bronze plaques are formally presented to the owners of newly registered sites at an annual function, usually by the Minister or his deputy. The Department of Environment Affairs & Tourism maintains contact with the owner by way of regular newsletters and other information brochures.

7. Effect of measures

(a) Achievements of the Objectives

At present, the SANHP has a total of 290 registered sites comprising a total surface

area of 365 000ha. As could be expected, registration of sites, after an initial surge, occurs at a more or less constant rate of approximately twenty sites per annum. The initial objective of 500 registered sites would still seem to be attainable.

(b) Effects on Other Sectors

The most significant effect of the program is probably the greater awareness of the importance and value of the natural biodiversity raised amongst several other sectors. Due to the extensive registration process and the wide consultation it entails, many other government sectors are now aware of environmentally sensitive areas. Since the inception of the programme, more and more enquiries by the planning sections of numerous government departments and development agencies are referred to the coordinators of SANHP. Some major development projects had already been replanned or even indefinitely postponed as a result of its potential threats to registered natural heritage sites. These cases contributed significantly to raising greater awareness amongst developers.

(c) Other Unanticipated Effects

One of the most unexpected consequences of the SANHP was the healthy competition that developed between some commercial concerns to register the greatest number of sites each year, as well as having the most registered sites. Due to the status of a SANHP site, large commercial concerns sometimes actively pursue a policy of registering sites and maintaining site registration. Many site owners request permission to use the SANHP logo on their letterheads, which benefits not only the site owner but also the programme through creating further awareness.

8. Lessons learned

Assessment of the achievements

The South African Natural Heritage Programme is can be regarded as a very successful public relations exercise as well as an effective conservation programme. Its contribution to biodiversity conservation and creating awareness of the importance of conservation values is without question, and after more than a decade is still in a growing phase lasting through different political and governmental dispensations.

Most important factors contributing to the success

The success of the programme is based on three factors; benefit by landowners,

political support at all levels and broad participation by all stakeholders. Firstly, landowners are accorded full ownership of, and responsibility for, the biological diversity occurring on their land and are encouraged to benefit from the sustainable use of their biodiversity. Secondly, the programme has political support at all levels of government, with the President of South Africa as patron. Thirdly, the programme requires active participation and is actively promoted by all stakeholders in the private, public and business sectors.

Transferability of the experience:

This programme, with the necessary modifications depending on political and institutional arrangements elsewhere, has the potential to be implemented anywhere in the world where government commitment and institutional capacity can be ensured. Although very little institutional involvement is required, total and sustained commitment from the sponsors and administrative roleplayers are essential prerequisites to ensure continued interest and involvement of the landowners.