

THE BAVIAANSKLOOF

MEGA-RESERVE

André Boshoff



AN ENVIRONMENTALLY, SOCIALLY AND ECONOMICALLY SUSTAINABLE CONSERVATION AND DEVELOPMENT INITIATIVE



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THE
BAVIAANSKLOOF
MEGA-RESERVE

An environmentally, socially and economically sustainable conservation and development initiative

by
André Boshoff

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1 EXECUTIVE SUMMARY

English

The Baviaanskloof - “Valley of Baboons” - lies between the parallel east-west running Baviaanskloof and Kouga mountain ranges in the western region of South Africa’s Eastern Cape Province. The eastern-most point of the valley is some 95 km NW of the coastal city of Port Elizabeth. The Baviaanskloof area includes a cluster of formal protected areas managed by the Eastern Cape Parks Board, of which the most well-known is the 184 385 ha Baviaanskloof Nature Reserve - the third largest protected area in South Africa, and land that is used almost exclusively for stock farming. Irrigated crops are produced alongside some of the major rivers, most notably the Gamtoos River.

The Baviaanskloof area is one of outstanding natural beauty, owing to its spectacular land forms, clad in a diverse array of plants and inhabited by a large variety of animals. This rich biodiversity, which has been internationally recognised by the awarding of prestigious World Heritage Site status to the Baviaanskloof Nature Reserve in 2004, along with seven other reserves in the Cape Floristic Region, provides a number of opportunities for local and regional economic development through activities such as nature-based tourism and game ranching. The area, which also contains a remarkable variety of pre-historical and historical sites and artefacts, fulfils a critically important role as a water catchment, to supplement the growing water needs of the agricultural sector and urban growth in downstream areas to the east and south-east.

There are, however, a number of pressures that need to be addressed if the full potential of the area to achieve biodiversity conservation, maximum provision of water, and improvement of rural livelihoods is to be realised. These pressures derive from a range of environmental, institutional and socio-economic issues.

As a means of fulfilling the potential of the area, institutional arrangements, mainly in the form of a Baviaanskloof Mega-reserve Project Management Unit (contracted to the Department of Economic Affairs, Environment & Tourism [Eastern Cape]), have been put in place for the progressive planning and implementation of a Baviaanskloof Mega-reserve. Briefly, the envisaged mega-reserve will comprise the cluster of state-owned protected areas within a network of private and communal land, with an eventual size of around 500 000 ha. Private landowners who volunteer to become part of the mega-reserve will align their land-use activities with the principles and practices of biodiversity conservation. To guide this initiative, a Conservation Strategy, based on a set of principles and underpinned by a vision and specific set of objectives, has been compiled.

The mega-reserve project is planned to operate in a collaborative and co-ordinated manner with all stakeholders, and to achieve full integration with other local and regional planning and development initiatives. An extensive Stakeholder Engagement Programme has already achieved a high level of support for the project. For the project’s vision and objectives to be achieved, an individual and collective sense of pride in and “ownership” of the area, and a strong commitment by all stakeholders to act in its best interests, are required and good progress has been made in this regard.

Increased awareness about the Baviaanskloof Nature Reserve, in particular, has catalysed the growth of nature-based tourism activities on private land and in nearby towns. Since 2002, 5 000 ha of land has been purchased for the formal protected area estate and over 50 000 ha, represented by 10 private initiatives, is being considered for inclusion under a variety of agreements and contracts. A feasibility study on a switch from stock farming to sustainable wildlife utilization and nature-based tourism, using a local conservancy as a model, has been initiated. Major success has been achieved in the removal of invasive alien plants from a large part of the mega-reserve area, thereby promoting water catchment functioning. An innovative subtropical thicket restoration pilot project, which includes a component dealing with storage of atmospheric carbon and its role in mitigating the impact of global warming, is underway. Progress is being made with implementation actions related to reserve management and tourism development.

To date, the Baviaanskloof Mega-reserve Project has been successful in attracting R35.6 million to the area and has facilitated the employment of 200 people, a figure set to increase in the future. Other conservation-related projects have also attracted substantial funding - for example, the Working for Water project (R43 million over 10 years; 600 people employed annually) and the Working for Woodlands project (R3.6 million over three years; 55 people employed annually). In addition, the Baviaanskloof Reserve Cluster (annual management budget of R4.7 million), and special development projects with associated job creation (R10 million over five years), are making noteworthy contributions to the mega-reserve initiative.

Notwithstanding good progress in the establishment of the Baviaanskloof Mega-reserve, much work and many challenges lie ahead. An overarching requirement is the need to secure large-scale funding to expand and maintain fully resourced provincial conservation agencies that can manage, monitor and evaluate the project, on both formal protected areas and on adjacent private or communal land. This will also contribute significantly to maintaining the integrity of the Baviaanskloof World Heritage Site in the future. It is now imperative that government, at the national and provincial levels, gives expression to its prioritisation and institutionalisation of support for the mega-reserve project. In this regard, it is encouraging that the Premier of the Eastern Cape and the responsible Member of the Executive Council have both endorsed the project as a flagship conservation and development initiative in the province.

The Baviaanskloof Mega-reserve Project offers a unique and exciting opportunity to make a significant and lasting contribution to the conservation of globally important biodiversity, and to local economic development, with accompanying social upliftment.



Ibaviaanskloof okanye “iNgingwa yeemfene”, iphakathi kweentaba iBaviaanskloof ne Kouga ezikwicala elingasentshona laseMpuma Koloni. Eyona ndawo ingasempuma yalengxingwa ikumgama omalunga ne 95 km ukusuka eBhayi. Ummandla we Baviaanskloof uquka iindawo ezikhuselwe ngokusemthethweni ezilawulwa yiEastern Cape Parks Board, enye yazo yedumileyo iBaviaanskloof Nature Reserve emhlaba uzihektare ezi 184 385 eyeyesithathu kwezona ndawo zikhuselekileyo eMzantsi Afrika nomhlaba osetyenziselwa imfuyo. Izityalo ezinkcenkceshelwayo zityalwa ngakwimilambo omnye obalulekileyo yiGamtoos River.

Ingingqi yeBaviaanskloof yenye yeendawo ezinobuhle bendalo, ngenxa yemimango emihle enezityalo ezahlukahlukeneyo nezilwanyana ezininzi ezahlukahlukeneyo. Obubutyebi beyantlukantlukano yendalo buqatshelwe ehlabathini liphela ngokude iBaviaanskloof Nature Reserve inikwe inqanaba lokuba yiWorld Heritage Site ngo 2004, le mbasa iyifumene kunye nezinye iindawo zolondolozo lwendalo ezisixhenxe ezikwizingqi ye Cape Floristic Region, ivula amathuba ophuhliso axhomekeke kwezokhenketho nasekufuyeni iinyamakazi kulenginqi. Le ngingqi, eneentlobontlobo zezinto ezazisetyenziswa kwimbali yamandulo neendawo zeloxesha, izalisekisa ibango elibalulekileyo akuqokeleleni amanzi ukuze izidingo ezikhulayo zamanzi zifizekise iimfuno zezolimo nokukhula kweedolophu empuman nasemazantsi mpuma.

Kukho kodwa uninzi loxinzelelo ekufuneka lwenziwe ukuba amathuba apheleleyo olondolozo lwendalo, uziso olupheleleyo lwamanzi, nempuculo yempilo yasemaphandleni zizakuqapheleka. Oluninzi loxinzelelo luphuma kwezendalo, namaziko angezokuhlala nezophuhliso.

Ngeendlela zokuzalisekisa ukubanakho kwalenginqi, ulungiselelo lwamaziko ubukhulu becala iBaviaanskloof Mega-reserve Project Management Unit (ephantsi kweSebe leZophuhliso, Indalo neZokhoketho [eMpuma Koloni]), sezikhona ukuze kubekho amalungiselelo aqhubekekayo nokuze indawo eyandisiweyo yokhuseleko iBaviaanskloof ibekhona. Ngokufutshane, lendawo yandisiweyo yokhuseleko icingeleka ukuba iyakudibanisa umhlaba karhulumente ophantsi kokhuselo mhlaba lowo ophakathi kwemihlaba yabantu neyamadlelo okuhlala, eyakuthi xa se iyonke ibenomhlaba onganje 500 000 yee hektare. Abantu abanomhlaba abazinikeleyo ukuba babeyinxalenye yale ndawo yandisiweyo yokhuseleko bazakungqamanisa iindlela abasebenzisa ngazo umhlaba nemiqathango kunye nezenzo zokhuseleko lwendalo. Njengesikhokhelo kweli phulo, indlela yokhuseleko, esekelezwe kuluhlu lemiqathango ebangelwa ngumbono neenjongo ezikhethekileyo iqulunqiwe.

Le projekti ilungiselelwe ukusebenzisana nabahlali ukuze kufezekiswe umdibaniso opheleleyo wophuhliso lwenginqi. Abantu abachaphazekayo sele kudityenwe nabo yaye lo mdibaniso sele uphumeze inxaso enkulu yale projekti. Ukuze umbono nenjongo yale projekti izalisekiseke, kufuneka kubekho ibango ngomntu ngamnye noluntu lulonke nokuzinikela okuliqilima labahlali. Inkqubekela phambili eninzi sele yenziwe kulo mba.

Ulwazi oluphangaleleyo ngeBaviaanskloof Nature Reserve, izalise ukukhula kwezokhenketho ezisekelezwe kwindalo kwimihlaba yabantu nakwiidolophu ezikufutshane. Ukusukela ngo 2002, umhlaba onganje 5 000 yeehektare uthengelwe ilifa lokhuseleko. Omnye umhlaba oyi 50 000 yeehektare, omelwe ngamafama alishumi, ujonge ukudityaniswa kwiintlobontlobo zezivumelwano. Uphando lwempumelelo yokutshintsha imfuyo kutshintshelwa kwiinyamakazi nokhenketho olusekelezwe kwindalo kusetyenziswa izivumelwano zokhuseleko lwenginqi sele luqaliwe. Kubekho impumelelo enkulu ekususeni izityalo ezingaphumi kule ngingqi, ngokwenjalo kukhuliswa ubuyiselo lwentsebenziseko yeendawo eziqokelela amanzi. Iprojekti ekhethekileyo yokubuyisela ihlathi lendalo lalenginqi, edibanisa ukugcinwa komoya ongcolisekileyo ukuze kuthomalale amaqondo obushushu sele senziwa. Inkqubekela phambili sele ikho ekwenziweni kwemigomo ebichaziwe ebhekisele ekulawuleni indawo yokhuseleko nasekuphuhliseni ukhenketho.

Kude kubengoku i Baviaanskloof Mega-reserve Project iphumelele ekutsaleleni iR35.6 yezigidi seerhandi kule ngingqi yaye incedise equqasheni abantu aba 200 people, nani elo elingenyuka kwilixa elizayo. Ezinye iiprojekti ezingqamene nokhuseleko zitsalele inkxaso yemali eliqela kule ngingqi - umzekelo, iWorking for Water projekti (R43 yezigidi ngephezu kweminyaka eli 10; abantu abangama 600 baqashiwe nyaka nonyaka) ne Working for Woodlands projekti (R3.6 yezigidi ngaphezu kweminyaka emithatu; abantu abangamashumi 55 baqashwe nyaka nonyaka). Ngaphezulu, imali elungiselelwe ukulawula iBaviaanskloof Reserve Cluster (R4.7 yezigidi), neprojekti ezikhethekileyo ezingqamene nodalo lwemisebenzi (R10 yezigidi ngaphezu kweminyaka emihlanu), zenza ingeniso eqaphelekayo ekwenziweni kwale ndawo yandisiweyo yokhuseleko lwendalo.

Hayi ngokujongela phantsi inkqubela phambili eyenzeke ekuyilweni kwe Baviaanskloof Mega-reserve, mninzi umsebenzi nemiceli mngeni esahleliyo ngaphambili. Esona sidingo sengaphezu kwazo zonke kukufunana imali eninzi yokwandisa nokugcina amaziko olondolozo lwendalo yephondo, maziko lawo anokubanakho ukulawula, nokujonga nokuxabisa iiprojekti le kwiindawo ezikhuseleke ngokusemthethweni nemihlaba yabantu neyabahlali. Le nto iyakubanongenisu oluqaphelekayo ekugcineni iBaviaanskloof World Heritage Site ihloniphekile kwilixa elizayo. Kunyanzelekile ngoko ukuba urhulumente welizwe nowephondo babonakalalise inkxaso yale projekti yendawo eyandisiweyo yokhuseleko. Kulo mba iyakhuthaza into yokuba iNkulumbuso yephondo laseMpuma Koloni nomntu wesigqeba solawulo bayixhasile le projekti njenge bhanile yolondolozo lwendalo nophuhliso lwephondo.

Iprojekti ye Baviaanskloof Mega-reserve izisa amathuba akhethekileyo nachwayitisayo ukwenza inkxaso ebalulekileyo neqhubekekayo kukhuseleko lwendalo ebalulekileyo emhlabeni uphela, nasekuphakamiseni uphuhliso lwenginqi kuhamba nempakamiso kwezentsalalakahle.



1 SAMEVATTING

Afrikaans

Die Baviaanskloof (Vallei van Bobbejane) is geleë tussen Baviaanskloof- en Kougabergreekse, wat van oos na wes parallel aan mekaar loop in die westelike streek van die Oos-Kaap in Suid-Afrika. Die oostelike ingang tot hierdie kloof is ongeveer 95 km wes van die hawestad Port Elizabeth. Die Baviaanskloof sluit 'n groep beskermde gebiede in, wat amptelik deur die Oos-Kaapse Parkeraad bestuur word. Die bekendste hiervan is die 184 385 ha Baviaanskloof-natuurreservaat. Dit is op twee na die grootste beskermde gebied in Suid-Afrika en word oorwegend vir veeboerdery gebruik. Langs die groter riviere, waarvan die Gamtoosrivier die bekendste is, word besproeiingsgewasse verbou.

'n Buitengewone en eiesoortige natuurlike skoonheid kenmerk die Baviaanskloof. Skouspelagtige rotsformasies, 'n groot verskeidenheid plantsoorte, en talle inheemse diersoorte dra tot die gebied se ongerepte karakter by. Hierdie ryk biodiversiteit het in 2004 internasionale erkenning gekry as 'n prestige Wêreld-erfenisgebied, saam met sewe ander in die Kaapse flora-gebied. Dit bied verskeie geleenthede vir ekonomiese ontwikkeling op plaaslike en streeklvlak, veral deur bedrywighede soos natuurgebaseerde toerisme en wildboerdery. Dié gebied, wat ook beskik oor 'n merkwaardige verskeidenheid pre-historiese en historiese terreine en artefakte, vervul 'n uiters belangrike rol as 'n wateropvanggebied om in die steeds toenemende waterbehoefte van die landbousektor en die oostelike stedelike gebiede te voorsien.

Daar is egter 'n aantal knelpunte wat eers dringend aandag moet kry voor die volle potensiaal van biodiversiteitsbewaring, optimale watervoorsiening, en 'n verbetering in landelike lewensbestaan verwezenlik kan word. Hierdie knelpunte is 'n uitvloeisel van 'n reeks omgewings-, institusionele- en sosio-ekonomiese kwessies.

'n Manier om die potensiaal van die gebied ten volle te verwezenlik, is onder andere met formele ooreenkomste. In hierdie gebied geskied dit hoofsaaklik in die vorm van die Baviaanskloof-megareservaatprojek bestuurseenheid wat die beplanning en uitvoering van die megareservaat hanteer. Hierdie eenheid is deur die Departement van Ekonomiese Sake, Omgewingsake en Toerisme (Oos-Kaap) gekontrakteer om hierdie taak uit te voer. Die beoogde megareservaat sal bestaan uit 'n groep staatsbeheerde beskermde gebiede, binne 'n raamwerk van private en gemeenskaplike grond met 'n uiteindelijke omvang van omtrent 500 000 ha. Privaat-grondeienaars wat vrywillig onderneem om deel te word van die megareservaat, sal dan hul grondgebruikpatroon en bestuurspraktyk moet aanpas vir die bewaring van bioversiteit. Om hierdie inisiatief te bestuur, is 'n bewaringsplan, wat gegrond is op 'n stel beginsels en ondersteun word deur 'n visie en spesifieke doelwitte, saamgestel.

Die megareservaat-projek is beplan en word geloods in samewerking met alle betrokkenes. Die doelwit is volle integrasie met ander plaaslike en streekbepannings-en-ontwikkelingsinisiatiewe. 'n Omvattende deelnemers-verhoudingsprogram geniet reeds geesdriftige ondersteuning vir die projek. Om die projek se visie en doelwitte te bereik, is 'n individuele en gemeenskaplike gevoel van trots en "eienaarskap" van die gebied, asook 'n sterk verbintenis van alle grondeienaars en belanghebbendes,

nodig. Hierdie samehorigheidsgevoel tree reeds sterk na vore by die meeste betrokkenes in die gebied. As gevolg van die groeiende bewuswording van veral die Baviaanskloof-natuurreservaat, is daar 'n toename in natuurgebaseerde toerisme-aktiwiteite op privateiendom en in dorpe waarneembaar.

Sedert 2002 is 5 000 ha tot die bestaande bewaringsgebied gevoeg. Ongeveer 50 000 ha, wat 10 privaat-inisiatiewe verteenwoordig, is tans onder bespreking vir insluiting ingevolge 'n verskeidenheid ooreenkomste en kontrakte. 'n Haalbaarheidsondersoek, met 'n plaaslike bewaringsgebied wat dien as 'n model om van vee- na wildboerdery en natuurgebaseerde toerisme oor te skakel, is van stapel gestuur. Op 'n groot deel van die megareservaat-gebied is reeds sukses behaal met die verwydering van indringerplante, wat die wateropvangsgebied meer doeltreffend sal maak. 'n Loodsprojek om subtropiese valleibos te herstel, is onderweg. Dit sluit 'n komponent oor die berging van atmosferiese koolstof in, asook die rol daarvan in die vermindering van aardverwarming. Vordering word gemaak met die toepassing van reservaatbestuur en toerisme-ontwikkeling.

Tot nou toe was die Baviaanskloof-megareservaatprojek suksesvol met die verkryging van R35.6 miljoen vir die gebied, asook met die skep van 200 werkgeleenthede. Dit kan in die toekoms meer word. Ander bewaringsverwante projekte het ook aansienlike fondse na die gebied gelok. So byvoorbeeld het die Werk vir Waterprojek (R43 miljoen oor 10 jaar; 600 werkgeleenthede jaarliks) en die Werk vir Boomveld-projek (R3.6 miljoen oor 3 jaar; 55 werkgeleenthede jaarliks) geld gekry. Bykomende geld vir die Baviaanskloof-reservategroep (R4.7 miljoen) en die spesiale ontwikkelingsprojekte wat aan werkskepping gekoppel is (R10 miljoen oor 5 jaar), het 'n beduidende bydrae tot die stigting van die megareservaat gelewer.

Ondanks goeie vordering met die stigting van 'n Baviaanskloof-megareservaat, lê daar nog baie werk en talle uitdagings voor. Die grootste behoefte is om groot geldelike bydraes te bekom vir die uitbreiding en onderhoud van ten volle toegeruste provinsiale bewaringsagentskappe. Die taak van laasgenoemde is die bestuur, beheer en evaluering van die projek in amptelike bewaringsgebiede, asook op privaat- en gemeenskaplike grond. Hierdie instansies sal vorentoe 'n betekenisvolle bydrae lewer om die integriteit van die Baviaanskloof Wêrelderfenisgebied te behou. Dit is nou gebiedend noodsaaklik dat die regering op nasionale en provinsiale vlak gestalte gee aan hulle voornemens deur die verwezenliking van die megareservaatprojek onvoorwaardelik te steun. In hierdie opsig is dit verblydend dat die Premier van die Oos-Kaap en die verantwoordelike Lid van die Uitvoerende Raad hierdie projek as 'n vlagskip van bewaring en ontwikkeling in die provinsie onderskryf.

Die Baviaanskloof-megareservaatprojek bied 'n unieke en opwindende geleentheid om 'n betekenisvolle en volhoubare bydrae te lewer tot die bewaring van belangrike biodiversiteit wêreldwyd, asook tot plaaslike ekonomiese ontwikkeling met gepaardgaande maatskaplike opheffing.

2 INTRODUCTION



The Baviaanskloof, or “Valley of Baboons”, is a 75 km long valley, of varying width and depth, that lies between the parallel east-west running Baviaanskloof and Kouga mountain ranges in the western region of South Africa’s Eastern Cape Province. The eastern-most point of the valley is some 95 kms north-west of the coastal city of Port Elizabeth, and its most southerly point is 50 kms from the Indian Ocean (Map 1).

The broader Baviaanskloof area is one of outstanding natural beauty and biodiversity, a fact illustrated by the representation there of seven of South Africa’s eight biomes (see Chapter 4). This natural treasure has led to part of the area being declared a World Heritage Site – a prestigious honour indeed. These natural assets have also created exciting opportunities for sustainable economic growth, in an economically depressed region, focused on tourism and other nature-based commercial ventures.



Map 1. The location of the Baviaanskloof, in relation to the Baviaanskloof Reserve Cluster (see Chapter 3), and to other formal protected areas in the region. NR = Nature Reserve, NP = National Park.

This booklet does not provide a comprehensive synthesis of all the information on the Baviaanskloof area. It rather highlights (a) the natural and potential economic value of the area, (b) the steps taken to compile an appropriate, and widely accepted, conservation strategy, (c) some of the planning and implementation actions that are underway, and (d) the opportunities for stakeholders at large to become involved in this initiative.

GLOSSARY 1

Biodiversity (= biological diversity): The variety of indigenous plants and animals, the habitats where they exist, and the ecological processes that shape and sustain them.

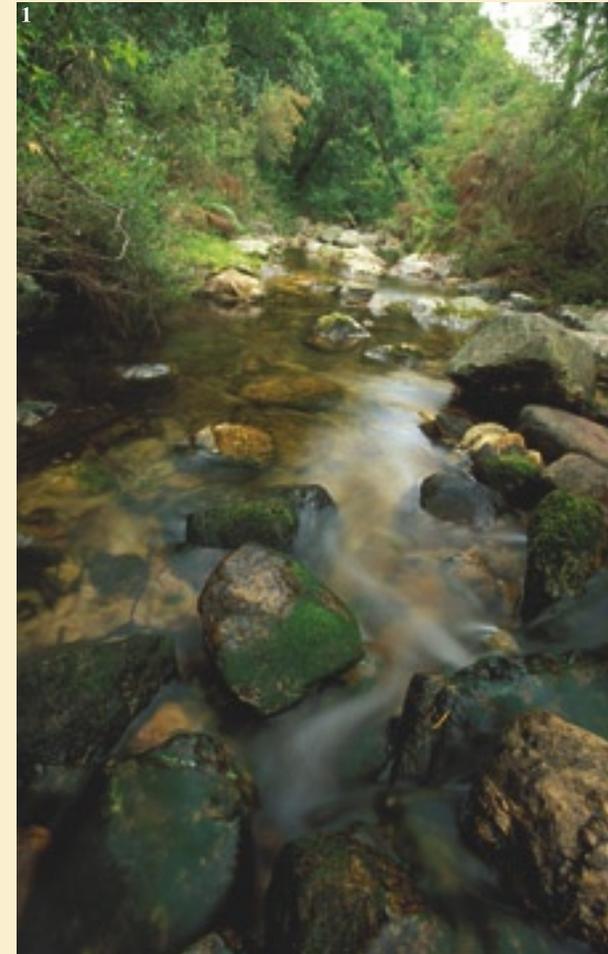
Biomes: Regional-scale areas, or ecosystems, with similar climate and vegetation.

Ecosystem services: Products of biodiversity and associated ecological processes, e.g. clean air, clean water, soil cover, natural vegetation, carbon storage.

Ecological processes: Physical processes essential for the evolution and maintenance of biodiversity. For example, fire, predation and pollination.

Formal protected area: State-owned land managed for conservation, i.e. national parks, provincial nature reserves or forestry reserves. Supported by strong legal and institutional structures.

(Rural) conservancy: An arrangement among neighbouring landowners based on voluntary co-operative environmental management of an area by its surrounding community and users. The aim is more effective conservation and management of the biodiversity of the area.



1. One of the ecosystem services provided by the Baviaanskloof – a sustained supply of good quality water – is of critical importance for one of South Africa’s most significant agricultural areas and for its fourth largest metropole. Institutional arrangements have been initiated to protect the natural assets of the area, to develop and use them in a responsible manner, and to invite the participation of all who have a stake in the area and beyond (Photo: D. Rogers).

The Baviaanskloof - a conservation history

The development of a Baviaanskloof mega conservation area (Box 1) reflects progress from the proclamation of the state-owned land in the area as a water catchment zone, to the consolidation of a provincial nature reserve system through the acquisition of key properties. This led to the identification of an expanded system that can ensure the protection of the unique biodiversity that occurs there, as well as provide essential ecosystem services (especially water) and opportunities for sustainable economic development.

Box 1: Mega conservation areas

Mega conservation areas comprise areas of largely pristine habitat that are sufficiently large (250 000–1 000 000 ha) to support all of the ecological processes necessary to conserve biodiversity in the long term. Specifically, they should:

- include a variety of ecological gradients (e.g. upland-lowland linkages), and associated habitats,
- incorporate areas of transition between biomes,
- include major migratory corridors,
- enable ongoing diversification of plant and animal lineages,
- support natural fire events,
- facilitate seasonal migration of animals, and
- maintain plant-herbivore, and predator-prey, relationships.

Ideally, mega conservation areas should be linked to other conservation areas to create mega corridor reserves.



In formal conservation terms, the focal point of the Baviaanskloof area - the 184 385 ha Baviaanskloof Nature Reserve - is an important protected area. Most of this reserve has never been privately owned and has always been under some form of conservation management (Table 1).

Table 1: Management history of the Baviaanskloof Nature Reserve

Period	Status	Managing authority	Type of management
Pre-1923	Crown land	State	Undefined
1923	Baviaanskloof Forest Reserve	Department of Forestry	Mountain Catchment Area. Aims: a) to maintain the vegetation cover, b) to minimize soil erosion, and c) to provide a sustained yield of high quality water.
1970	Forestry reserve	Department of Forestry	Mountain Catchment Area. Mountain Catchment Areas Act expanded to include “nature conservation” and “public recreation” and a prescribed burning programme.
1977	Forestry reserve	Department of Forestry	Parcels of land along the Kouga River purchased and transferred to the Department of Forestry, to be managed as mountain catchment.
1987-1993	Baviaanskloof Nature Reserve	Cape Provincial Administration	Nature reserve. Sections managed according to wilderness principles.
1994-2004	Baviaanskloof Nature Reserve	Department of Economic Affairs, Environment & Tourism, Eastern Cape Provincial Government.	Nature reserve. Sections managed according to wilderness principles.
2004 to present	Baviaanskloof Nature Reserve	Eastern Cape Parks Board	Nature reserve. Sections managed according to wilderness principles.

Since 1987 a total of 15 332 ha of land has been purchased with the aid of private funds and added to the reserve. This, together with some 4338 ha of land purchased by the State during this period, and the land purchased by the State for the Kouga Dam, enabled the consolidation of the eastern sector of the reserve. Recent (late 1990s and early 2000s) land purchases have increased the size of the reserve to its current level.

During the 1980s, the particular importance of the Baviaanskloof Nature Reserve for the conservation of the region's unique biodiversity began to be better realized. Around the same time, conservationists began to appreciate that the future of the reserve as a viable conservation area had to take into account human communities and land-use on properties adjacent to the reserve.

From awareness to action

Progress towards the establishment of a Baviaanskloof Mega-reserve can be summarized according to seven milestones.

A **first milestone** in the development of the Baviaanskloof Nature Reserve as a viable conservation area was the holding of a symposium at the then University of Port Elizabeth, in 1989, with the theme *The Kouga-Baviaanskloof Complex - Conservation Status and Management problems*. Contributions dealt with geological, biological, ecological, agricultural, cultural and social aspects.

A **second milestone** was a visionary proposal developed by Reserve Manager Derek Clark in 1997. This motivated for the consolidation of the 56 000 ha western sector of the reserve, and for the establishment of a 20 000 ha sustainable game utilization-based zone on the plains area to the north of the Baviaanskloof Mountains (Map 2). This proposal was effectively the very first step towards the creation of a Baviaanskloof Mega-reserve.

A **third milestone** was the identification, by the C.A.P.E. Project (Box 2), of the Baviaanskloof Nature Reserve and adjacent areas as having the potential to create a mega conservation area that includes linkages to other conservation areas, both existing and proposed. A Baviaanskloof mega conservation area would (a) span the gradient from the arid Nama-karoo to moist fynbos and forest, (b) include much of the Groot-Baviaanskloof-Kouga riverine (migratory) corridor, and (c) encompass habitats such as grassland and moist subtropical thicket that are restricted to the eastern sector of the Cape Floristic Region.

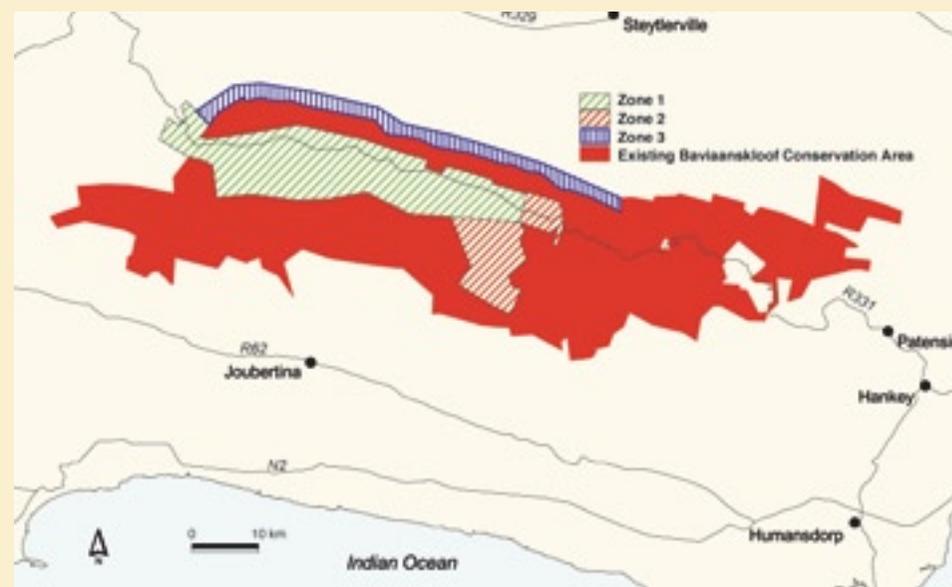
Box 2: The C.A.P.E. Project (www.capeaction.org.za)

The Cape Action for People and the Environment (C.A.P.E.) Project is a multi-stakeholder research, planning and implementation initiative between government, civil society and the private sector to co-ordinate and maximize efforts to conserve the highly threatened 87 892 km² Cape Floristic Region, one of only six floral kingdoms on earth and the only one that falls entirely within the borders of a single country.

Box 2 (continued)



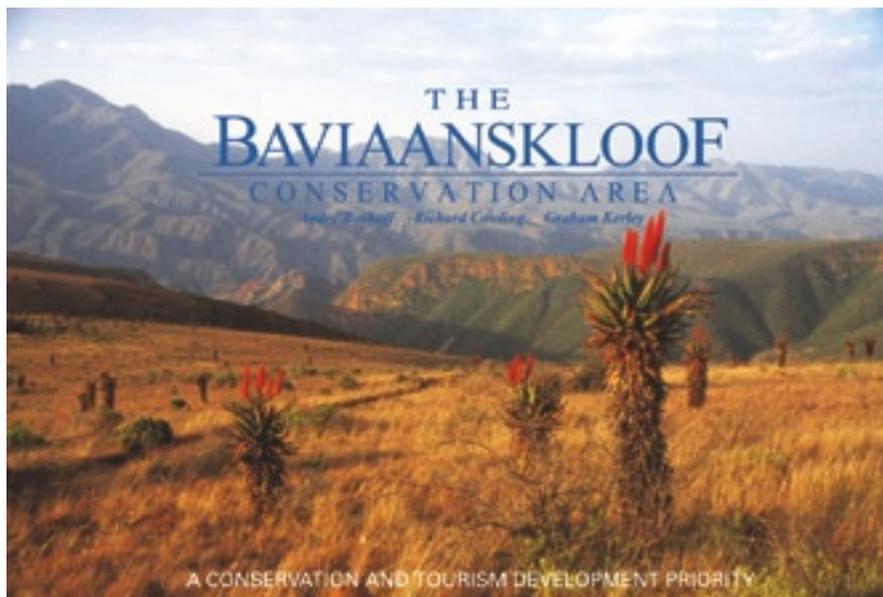
The Project identified the Baviaanskloof Nature Reserve and surrounding areas as one of three options for the establishment of mega conservation areas in the Cape Floristic Region, the others being the Cederberg and the Gouritz River areas to the west. In the latter two areas the Greater Cederberg Biodiversity Corridor and the Gouritz Initiative projects, respectively, have been established.



Map 2: The 1997 proposal by Reserve Manager Derek Clark for the consolidation and expansion of the western sector of the Baviaanskloof Nature Reserve, representing the first step towards the establishment of a Baviaanskloof Mega-reserve.

A **fourth milestone** was the publication in 2000 of the booklet *The Baviaanskloof Conservation Area: A conservation and tourism development opportunity* by the Terrestrial Ecology Research Unit, at the then University of Port Elizabeth. This document highlighted the significance of the area for biodiversity conservation, assessed it in regional context, and evaluated the conservation and socio-economic development potential of the area based on the tourism industry. It also highlighted

the cultural significance of the area, emphasised its vital role in water provision, identified gaps in the knowledge base and listed some of the major pressures facing the area.



(available at www.baviaanskloofmegareserve.co.za)

The physical, biological and cultural diversity of the Baviaanskloof Nature Reserve and environs is highlighted in Chapter 4.

The document also noted that, owing to a general decline in the agricultural industry, the general area surrounding the Baviaanskloof Nature Reserve is facing growing socio-economic problems and that new economic initiatives are urgently required. Conservation and nature-based commercial ventures were identified as alternative and sustainable forms of land-use that have the potential to contribute to the economy of the area, and the region as a whole, with accompanying social upliftment.

Most importantly, the document provided a motivation for attracting the interest of national and international governmental and non-governmental conservation funding agencies.

A **fifth milestone** was the identification by the STEP Project (Box 3) of the Baviaanskloof Mega-conservancy Network (Box 4), which incorporates a large part of the Baviaanskloof Nature Reserve (see Map 4).

Box 3: The STEP Project: Keeping people on the land in living landscapes
(www.cpu.uwc.ac.za)

The Subtropical Thicket Ecosystem Planning (STEP) Project was a four-year, Global Environment Facility-supported, initiative that was completed in June 2004. This project:

- a) created an awareness of the unique biodiversity and significant economic value of the Subtropical Thicket Biome,
- b) conducted a conservation assessment to identify priority areas for ensuring the long-term conservation of thicket plants, animals and ecological processes, and
- c) promoted the inclusion of the spatial conservation plan, derived from the assessment, into the policies and practices of public and private sector organizations responsible for land-use planning and the management of natural resources in this biome.



Whereas the focus of the C.A.P.E. Project was fynbos vegetation, that of the STEP Project was subtropical thicket vegetation, and hence the outcomes of the two initiatives are somewhat different.

Box 4: Mega-conservancy networks

Mega-conservancy networks, as identified by the STEP Project, are large corridors of land, the conservation of which is essential for the long-term conservation of biodiversity and ecological processes in subtropical thicket, and also for providing opportunities for sustainable nature-based economic development.

These networks represent a model of ecologically sustainable land management that offers landowners opportunities to work together to preserve landscapes essential for ensuring the sustainability of natural and social river catchment systems. They comprise groups of adjacent properties of various tenures and land-uses, whose owners share a common vision and who participate voluntarily, manage their land in a co-ordinated, co-operative and integrated way, and are committed to halting the degradation and loss of indigenous plant and animal communities, and to improving their own livelihoods.

The Baviaanskloof Mega-reserve Project

Owing largely to the impact and outcomes of the milestones described above, a critical **sixth milestone** was reached when the Baviaanskloof Mega-reserve Project came into being in 2002 – its overall goal being the creation of a Baviaanskloof Mega-reserve. A vision for the project was created following 18 months of collaboration and consultation between public agencies, landowners around the Baviaanskloof Nature Reserve, and the broader public. A Baviaanskloof Steering Committee, on which a wide range of stakeholders is represented, formed part of this process.

The Baviaanskloof Mega-reserve Project seeks to (a) conserve the area’s spectacular biodiversity, (b) protect its critically important role as a provider of water, and (c) promote sustainable economic development opportunities based on the natural assets of the area, principally by:

- securing a large consolidated core formal protected area, the primary management objective of which is the conservation of biodiversity,
- establishing a multi-owner contractual reserve network around the core area in which different land-use patterns and forms of conservation status are reconciled and aligned with biodiversity conservation initiatives,
- managing the mega-reserve network through a partnership between government, the private sector and civil society,
- realising prospects for improving the livelihoods of people living in the rural parts of the region, and
- exposing people to sustainable ways of using the area’s natural resources, and incentivising their adoption.

The Baviaanskloof Mega-reserve will therefore comprise both formal protected areas and privately-owned land – the key elements of a mega-conservancy network.



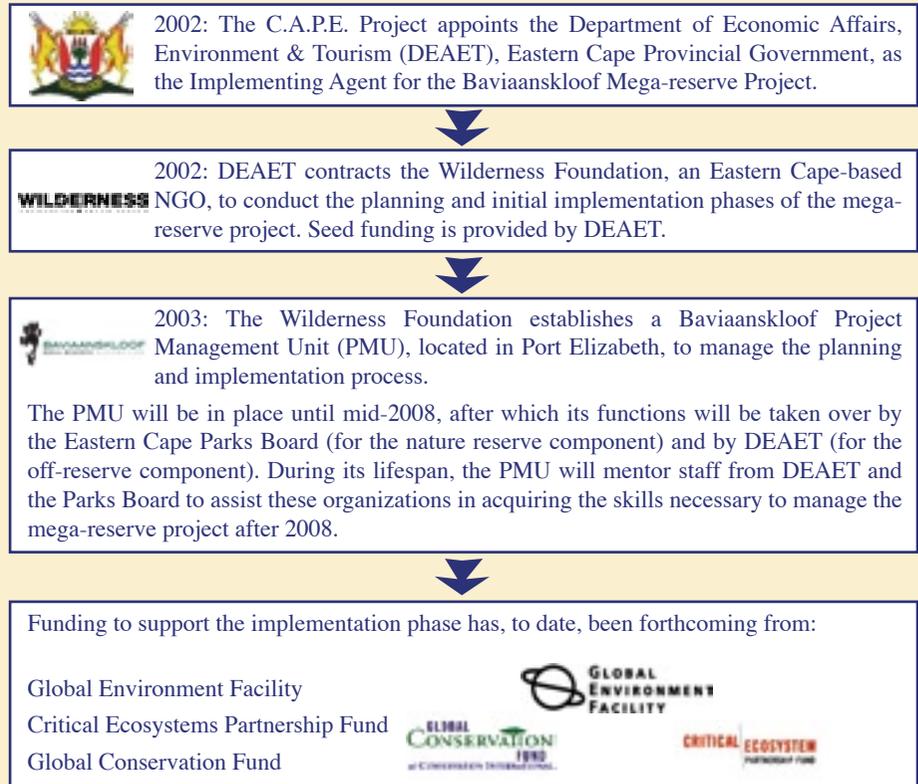
The area envisaged for a mega-reserve includes not only the Baviaanskloof Nature Reserve, but also three separate small nature reserves to its west, namely Misgund (622 ha), Skilpadbeen (1 108 ha) and Welbedacht (1 816 ha), and three to its east, namely Stinkhoutberg (10 557 ha), Mierhoopplaat (1 062 ha) and Groendal (27 914 ha) (Map 1). These seven reserves, collectively known as the Baviaanskloof Reserve Cluster, form the protected area core of the mega-reserve. A critical component of the mega-reserve is the link between this inland sector and the coast, to create a reserve that includes both east-west and north-south gradients, as well as a marked altitudinal gradient. See Chapter 8 for further information on the spatial planning process for the Baviaanskloof Mega-reserve.

The “Baviaanskloof Wilderness Area”

The Baviaanskloof Nature Reserve has become widely known as the “Baviaanskloof Wilderness Area”. However, despite the management of parts of the reserve as a wilderness area, it has not been formally proclaimed as a “wilderness area”.

Institutional arrangements

The institutional arrangements that have been put in place to plan and implement the Baviaanskloof Mega-reserve are summarised below.



International recognition

A momentous **seventh milestone** was reached in 2004 when the Baviaanskloof Nature Reserve was proclaimed, along with seven other reserves in the Cape Floristic Region, as a World Heritage Site. The reserves were nominated under two criteria – significant ecological processes, and biodiversity and threatened species (Box 5). The site's exceptional natural beauty and its culturally important sites and artefacts were used to support the successful nomination. The people of South Africa, and especially those living in the area, can take enormous pride in the proclamation, which places the reserve alongside other well-known World Heritage sites, e.g. Australia's Great Barrier Reef, East Africa's Serengeti Plains and Canada's Rocky Mountain Parks.



2. *The proclamation of the Baviaanskloof World Heritage Site, which was made by UNESCO (United Nations Educational, Scientific and Cultural Organisation) following a rigorous evaluation process, is a prestigious honour. It has provided a significant boost for the reserve - by giving it both national and international exposure and recognition, and by catalyzing initiatives to plan and support priority development opportunities. The onus now rests with the national and Eastern Cape provincial governments to ensure that sufficient resources are made available to manage the site in a manner that befits its international conservation status (Photo: D. Rogers).*

Whilst the proclamation creates many opportunities (conservation of biodiversity, provision of water for environmental, agricultural and human consumption, nature-based economic development), it also confers a rigorous set of obligations on the site's guardians and users. Its management must conform to a plan approved by UNESCO, which will monitor the integrity of the site through an annual review process.

Box 5: World Heritage Sites



World Heritage Sites are special places on earth that are considered to be of outstanding universal significance to humanity. They are sites of exceptional beauty, contain the most important habitats, represent major stages of the earth's history, or contain significant ongoing ecological processes. The integrity of such sites, which belong to all the people of the world, must be assured into the future.

Implementation of the Baviaanskloof Mega-reserve - a challenge to be met

Given the complex backdrop of land ownership, land-use, cultural diversity, and multiple stakeholders, all with differing capacity, resources and expectations, in the area envisaged for the mega-reserve, the achievement of the vision and objectives of the mega-reserve project will be a challenge indeed. Notwithstanding this situation, an individual and collective sense of pride in and "ownership" of the area, and a strong commitment by all stakeholders to act in its best interests, will see its full potential being realized. Most importantly, the mega-reserve initiative offers exciting opportunities for people from all walks of life to participate in its ongoing development.

As a critical step in the planning and implementation process, the mega-reserve project has developed, in consultation with key stakeholders, a medium-term Conservation Strategy – this is briefly described in Chapter 7.

SKEP (www.skep.org)



The western section of the planning area for the mega-reserve includes parts of the Succulent Karoo Biome. SKEP (Succulent Karoo Ecosystem Programme) was initiated in 2001 to identify and generate broad consensus around a shared vision and set of conservation goals for this threatened biome. The one-year planning process combined a comprehensive scientific analysis with broad land-user participation. The implementation phase of SKEP is currently in progress.

4

THE NATURAL AND CULTURAL DIVERSITY OF THE AREA



3. The area is characterised by remarkable scenery, owing to the high geological, topographic and climatic diversity that occurs. The inland parts are dominated by east-west running folded and eroded ridges and peaks (over 1700 metres above sea level in places) of the Cape Folded Belt (as seen here), comprising shales and sandstones of the Table Mountain, Bokkeveld and Witteberg groups of the Cape Supergroup. Upheaval of geological formations, associated with the breakup

of the ancient continent of Gondwanaland, resulted in the formation of a number of basins and the creation of the courses of the present-day Baviaanskloof, Kouga and Gamtoos rivers. The latter river meanders across the relatively flat coastal plain in the southern part of the mega-reserve area, prior to draining into the Indian Ocean (Photo: D. Rogers).

The Baviaanskloof area is characterized by a spectacular variety of plant and animal life, and of land forms and natural processes that create and maintain this diversity. It also abounds with sites and artefacts that provide a fascinating reminder of the area's early and more recent human inhabitants.

Plant life

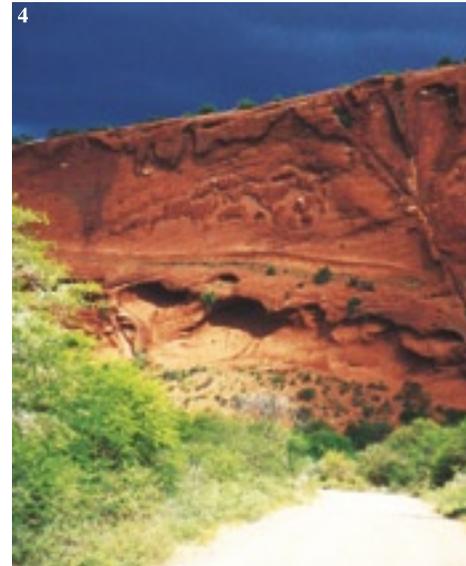
Biomes

No fewer than seven of the country's eight biomes – the highest level of ecosystem recognized by ecologists – are represented in the broader Baviaanskloof area – these are the Fynbos, Subtropical Thicket, Nama-karoo, Succulent Karoo, Grassland, Savanna and Forest biomes. This exceptional diversity is testament to the great physical and climatic diversity in this area of transition. The Fynbos Biome is found on the poor soils of the mountains, the Subtropical Thicket Biome on the more fertile soils in fire-protected valleys, the Nama-karoo and Succulent Karoo biomes on the semi-arid flats to the north and west, the Grassland Biome on the planed, gravelly surfaces in the foothills, the Savanna Biome on alluvial soils in the bottomlands, and the Forest Biome mainly in the sheltered, moist ravines. The fynbos represents the fabulous Cape Floristic Region and the subtropical thicket forms the south-western part of the Maputaland-Pondoland Region or biodiversity “hotspot”.

Vegetation types

The remarkable habitat diversity supports a high variety of vegetation types. No fewer than 53 types have been mapped by botanists in the mega-reserve area, with 27 occurring in the Baviaanskloof Reserve Cluster. They are dominated by fynbos and subtropical thicket elements. A large number of thicket mosaics have been mapped in the area; these occur when thicket forms clumps in a matrix of other vegetation, e.g. fynbos, succulent karoo. In fact, the area has the highest diversity of thicket mosaics for any part of the Subtropical Thicket Biome. Fynbos is dominated by three Mountain Fynbos types (Baviaanskloof, Kouga, Cockscomb) and thicket types are dominated by two forms – Gamtoos River Thicket and Groot River Thicket.

5. *Erosion that occurred after the Gondwanan era produced a series of plateaus, termed the African Land Surface, that are evident today throughout the mountainous parts of the area, at altitudes of 650-900 metres above sea level. These gently sloping surfaces are mostly underlain by the softer sediments of the Table Mountain Group, and they have deeper, finer-grained and more fertile soils than those derived from the harder sandstones of the adjacent peaks (Photo: D. Rogers).*



4. *During a warmer and wetter period, subsequent to the breakup of the ancient continent of Gondwanaland, extensive erosion of the mountains produced thick sediments in the fault basins, represented in the Baviaanskloof area by characteristic deposits of reddish Enon Conglomerate (Photo: R. Cowling).*



Fynbos, the shrubland that forms the distinctive vegetation of a large part of the mega-reserve area, extends from the mountain peaks down the slopes and across the coastal plain to the sea-shore. It holds most of the richness of the Cape Floristic Region and is dependent on fire as a critical ecological process, and is therefore adapted to a natural fire regime. Thicket and forest types, on the other hand, are not fire dependent. Herbivory (feeding by plant eating animals, called herbivores) is an important ecological process for subtropical thicket and this emphasizes the need to restore herbivore communities in thicket-dominated landscapes.

Examples of particularly noteworthy plant assemblages that occur are the unique communities of succulent plants on colluvial soils, gravel patches and river terraces associated with the Groot River Valley, south of Steytleville, and the moist fynbos on the north-western sides of the Langkloof.

An ecosystem treasure

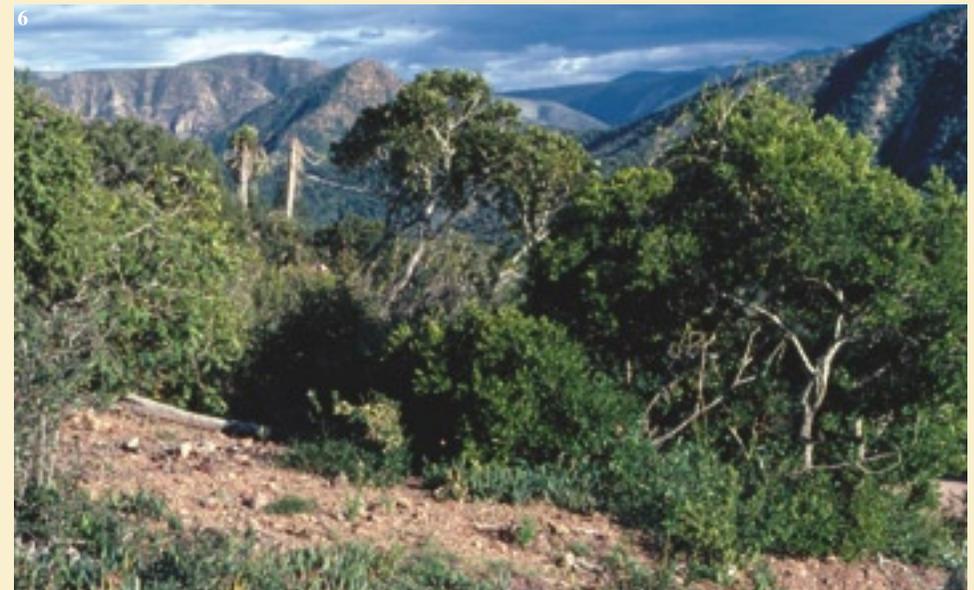
The meeting of so many different biomes and vegetation types in the mega-reserve area is extremely important. Within the boundaries of a single conservation area is included an almost complete spectrum of the biodiversity of the southern African region. Fire-prone fynbos shrublands exist side-by-side with bulk grazer-driven grasslands, megaherbivore-maintained thicket and browser-controlled savanna. Protected valleys support functionally distinct forest ecosystems while the karroid plains to the north support semi-arid shrublands where nomadic herds of grazing herbivores and periodic drought are the principle ecological forces. Nowhere else is it possible to find such an extraordinarily diverse array of functionally different vegetation types and associated ecosystems.

Plants

In terms of plant forms, the envisaged mega-reserve area is rich in species and genera. It lies at the eastern end of the Cape Floristic Region (predominantly fynbos) and, as such, falls within the smallest and most distinctive of the world's six plant kingdoms. This region includes 9 000 plant species (69% of which are endemic), 988 genera (16% endemic) and 173 families (seven of which are endemic or near-endemic). The Baviaanskloof Nature Reserve alone harbours some 138 Families, 570 genera and 1199 species; this is an incomplete list but nevertheless represents a truly remarkable richness, especially in terms of genera. Like fynbos, subtropical thicket is renowned for its high plant species richness and species endemism, with 1588 species being recorded in the planning region of the STEP Project (see Box 3), of which 322 (20%) are endemic. With regard to overall plant species richness, there are considered to be in excess of 2500 species in the envisaged mega-reserve area, with the incidence of listed rare and endemic species being exceptionally high by global standards. At least 52 species in the Baviaanskloof Nature Reserve alone are considered to be threatened with extinction, whereas 20 species are currently known to be endemic to the region. These figures will be considerably higher for the entire mega-reserve.

The fynbos plant forms of much of the mega-reserve area are fairly typical of those from throughout the Cape Floristic Region, as indicated by the importance of families such as the Ericaceae, Proteaceae, Iridaceae, Rutaceae and Aizoaceae. Large numbers of species of typical fynbos genera, such as *Agathosma*, *Aspalathus*, *Crassula*, *Erica* and *Pelargonium* are found there. The Gamtoos River Thicket contains eight endemic species, including the charismatic Gamtoos cabbage tree *Cussonia gamtoosensis*, whereas the Groot River Thicket contains 19 endemic species, including the aloe *Aloe pictifolia*, the tree *Atalaya capensis* and the tree/shrub *Smelloyphyllum capense*. The expanded conservation area will also include a number of Nama-karoo genera and species that are not normally found in fynbos and thicket-dominated landscapes. Of particular significance here are at least 70 succulent species, including many species of *Crassula*, *Haworthia*, *Euphorbia* and *Ruschia*.

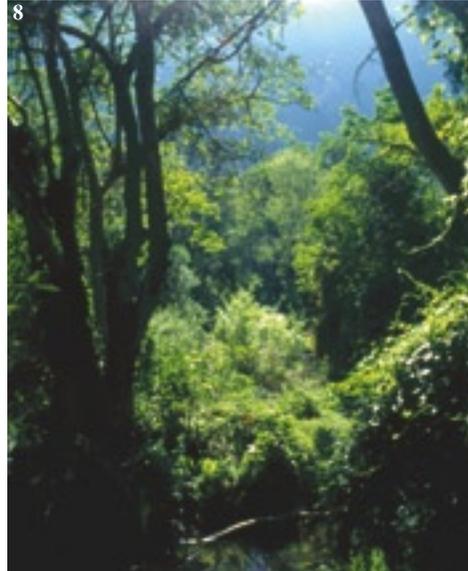
Examples of plants of particular interest that occur in the area are the prehistoric cycads (*Encephalartos* species) and the highly localised and threatened Willowmore cedar (*Widdringtonia schwarzii*).



6. Subtropical thicket growing in a fertile, fire-protected valley near Geelhoutbos. Note the diversity of plant forms – evergreen trees, stem succulents, vines, creeping leaf succulents and a variety of smaller shrubs (Photo: R. Cowling).



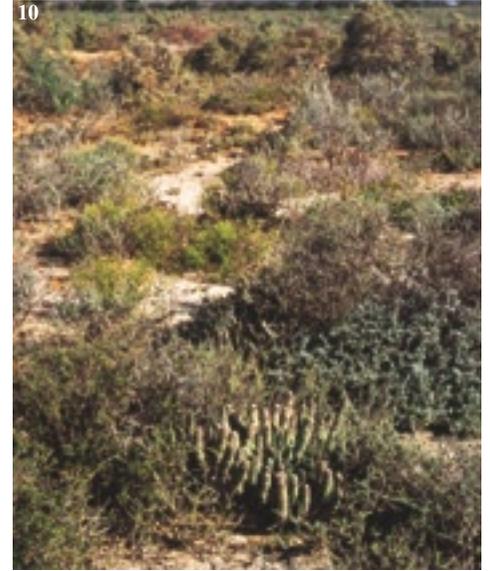
7. The typical components of fynbos, the characteristic vegetation of the Cape Floristic Region, are the proteas, ericas and restioids. All are evident in this view, with the broad-leaf sugarbush (*Protea eximia*) dominating (Photo: R. Cowling).



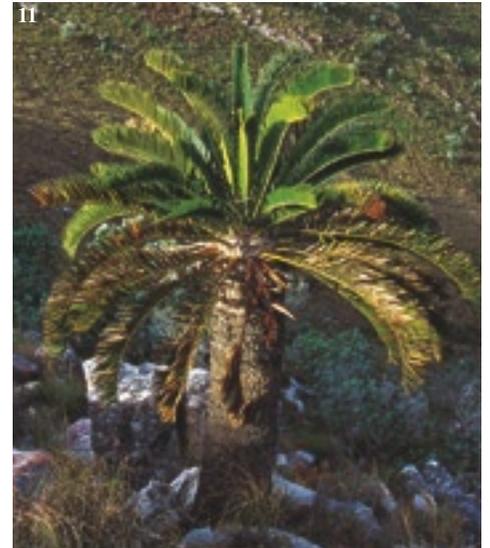
8. The forests that grow in shaded, protected kloofs in the Baviaanskloof Mega-reserve comprise an interesting mix of temperate and tropical species. Here the Outeniqua yellowwood (*Podocarpus falcatus*) co-exists with white stinkwood (*Celtis africana*) and the tropical Cape fig (*Ficus sur*) (Photo: R. Cowling).



9. *Leucospermum cuneiforme*, one of the pincushions, is a member of the Protea family that is widespread in grassy fynbos throughout the Baviaanskloof Mega-reserve. Unlike most other members of the *Leucospermum* genus, this species sprouts after fire and is therefore resilient to high frequency burns (Photo: R. Cowling).



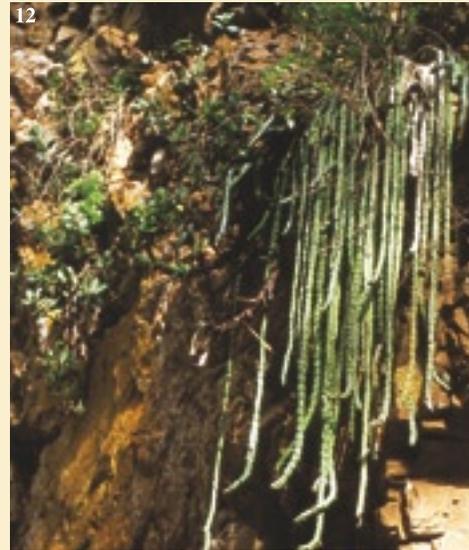
10. The flats to the north of the Baviaanskloof are occupied by karroid broken veld. This desert-like vegetation is home to many small succulent species, including *Euphorbia esculenta*, seen in the foreground (Photo: R. Cowling).



11. Two species of cycad – survivors from an ancient era – grow in the Baviaanskloof area. This species, *Encephalartos longifolius*, must have witnessed great changes in climate and vegetation during its long occupancy of this area (Photo: R. Cowling).

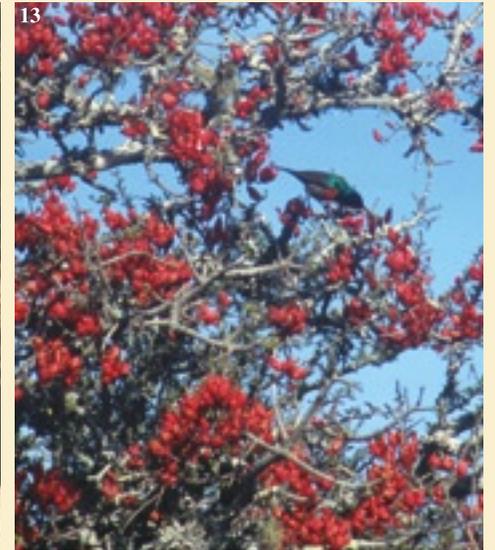


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12

12. The steeply incised kloofs or ravines in the Baviaanskloof area support a rich flora of cliff-loving species, some of which grow nowhere else. Included among these endemics is *Stapelia baylissii*, showing the “hanging garden” growth form typical of many plants specialized for cliff dwelling (Photo: R. Cowling).



13

13. The boerboon (*Schotia afra*) is a common canopy species in many forms of subtropical thicket in the Baviaanskloof area. This very ancient plant – an ancestor of many trees common in the rainforests of Africa and Madagascar – produces a showy display of flowers that are pollinated by sunbirds, like this greater double-collared sunbird (*Cinnyris afer*) (Photo: R. Cowling).

14. Grassy fynbos occurs on drier, lower slopes and on relatively wet plateaus, especially in the eastern reaches of the Baviaanskloof Nature Reserve. The reserve supports many forms of grassy fynbos, including this community of the grass *Pentaschistis eriostoma* (foreground) and *Erica pectinifolia* (background) on shallow sand derived from quartzite (Photo: R. Cowling).



15. *Crassula perfoliata* – a subtropical thicket species – produces in autumn a striking spray of red flowers that are pollinated by the butterfly *Aeropetes tulbaghia*, known as the Table Mountain beauty (Photo: R. Cowling).

16. *Nymania capensis* is a beautiful shrub that grows on the rocky ridges of the Steytlerville Karoo, north of the Baviaanskloof Mountains. This unusual plant is extremely ancient - its closest relatives grow in South America (Photo: R. Cowling).

17. *Erica diaphana*, a bird-pollinated denizen of the southern, lower slopes of the Kouga Mountains, is one of the 45 species of this huge Cape genus that grow in the fynbos of the Baviaanskloof area (Photo: R. Cowling).



Glossary 2

Ecosystem: The system of relationships and interactions between plants, animals and the non-living environment (e.g. soil, air).

Vegetation type: A vegetation community with a characteristic and unique species composition and structure, and specific distribution.

Vegetation mosaic: A patchwork comprising more than one vegetation type.

Genus and Species: A particular plant or animal that has been classified and given a scientific name. For example, the plant *Gasteria glomerata* – *Gasteria* is the genus and *glomerata* is the species. A single genus may contain more than one species.

Endemic species: One that occurs in a particular site, area or region and nowhere else on earth.

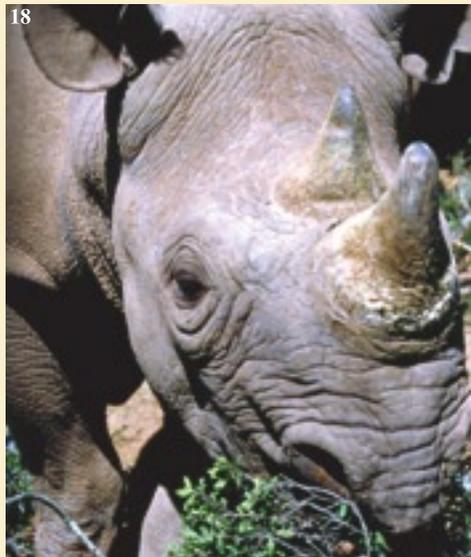
Herbivores and carnivores: Herbivores are plant-eating animals (e.g. antelope) and carnivores are flesh-eating animals (e.g. predators such as leopard, jackal).

Mega-herbivore: Very large plant-eating animal (over 1000 kg bodyweight – elephant and rhinoceros).

Animal life

The Baviaanskloof Mega-reserve area lies within a region noted for its high animal diversity and high endemism, and one that supports an old and little disturbed animal component of the ancient Gondwanan continent. Many species show disjunct distributions within this region, with populations recorded in the south-western Cape and in the eastern highlands, but not in between these two areas, despite the fact that suitable habitat appears to be present there. The mega-reserve lies within these distribution gaps. It is highly probable that the “missing” species do occur here, but have been overlooked due to poor sampling effort. Therefore, the animal diversity of the mega-reserve area is probably even richer and more interesting than has been documented to date.

Two major factors contribute to the area having an exceptionally rich and interesting animal life - these are the degree of habitat complexity provided by the combination of land forms, climate and plant cover, and the fact that the region has provided a relatively stable refuge for the persistence of ancient endemic species. This unique animal life has, however, been placed under severe pressure in recent years owing to human activities - primarily through direct exploitation, habitat transformation and the introduction of alien plant and animal species. Many animal species, particularly of large mammals, have become extinct in the region in recent times, but the potential for their re-establishment from other populations does exist.



Mammals

The mega-reserve area will provide habitat for at least 58 mammal species. This includes no fewer than 46 medium- and large-sized species - an extraordinary number for a single area, on a global scale, and for one as far south as 34° S on the African continent.

18. An important reason for the suitability of the Baviaanskloof area for the larger herbivores is the presence of grassy fynbos and subtropical thicket elements, the latter making possible the presence of the African elephant (*Loxodonta africana*) and the black rhinoceros (*Diceros bicornis*) (shown here) – both megaherbivores (Photo: S. Wilson).



19. Other herbivore species that occur, or can potentially occur, include medium to large species such as Cape mountain zebra (*Equus zebra zebra*) (above left), klipspringer (*Oreotragus oreotragus*) (top) and bushbuck (*Tragelaphus scriptus*), and small species such as steenbok (*Raphicerus campestris*) and the tiny blue duiker (*Philantomba monticola*) (above right). Black rhinoceros and Cape mountain zebra are highly threatened species and the mega-reserve will provide both with a secure refuge (Photos, clockwise from the top: ; M. Norval; S. Wilson; C. Urquhart.).



20. The mega-reserve will conserve an important population of the leopard (*Panthera pardus*), one of Africa's Big Five and a species in urgent need of protection throughout its range in South Africa (Photo: P. Norton).

Apart from the leopard (*Panthera pardus*), which is still present, all the large carnivores (lion *Panthera leo*, cheetah *Acinonyx jubatus*, spotted hyaena *Crocuta crocuta*, brown hyaena *Hyaena brunnea*, African wild dog *Lycaon pictus*) have become extinct in the area. The re-introduction of the locally extinct larger species will restore the natural large mammal community to the region, thereby providing all the elements for a naturally functioning ecosystem, and the southernmost location for the tourist-attracting African big game species.

Birds

With over 300 recorded species, which is more than a third of the total bird fauna in South Africa, the Baviaanskloof Nature Reserve is recognised as a Globally Important Bird Area on account of the high overall diversity of birds, the presence of Globally threatened species (blue crane *Anthropoides paradisea*, lesser kestrel *Falco naumanni*), Globally near-threatened species (black harrier *Circus maurus*, ground woodpecker *Geocolaptes olivaceus*, Cape rock-jumper *Chaetops frenatus*, Cape



21. All six of the Cape Floristic Region's endemic bird species occur. These include Victorin's warbler (*Cryptillas victorini*), Cape sugarbird (*Promerops cafer*) (shown here), orange-breasted sunbird (*Anthobaphes violacea*), Cape rock-jumper (*Chaetops frenatus*), Cape siskin (*Chrithagra totta*), and protea seedeater (*Chrithagra leucopterus*) (Photo: T. Wooldridge).



22. No fewer than 23 raptor (bird of prey) species occur in the mega-reserve area. This includes the majestic Verreaux's (black) eagle (*Aquila verreauxii*), one of four of South Africa's "Big Five" eagles that occur in the area (Photo: C. van Rooyen).

siskin *Chrithagra totta*, protea seedeater *Chrithagra leucopterus*), and Nationally threatened (African marsh-harrier *Circus ranivorus*, striped flufftail *Sarothrura affinis*, Denham's bustard *Neotis denhami*) and near-threatened species (black stork *Ciconia nigra*, peregrine falcon *Falco peregrinus*, lanner falcon *Falco biarmicus*).

Reptiles

Remarkably, almost half (24 species) of the 57 reptile species recorded in the Baviaanskloof Nature Reserve and close environs are endemic to South Africa. This degree of endemism is further highlighted by the fact that 10 of these species are recognised as Cape endemics, of which three species have only ever been recorded within this specific area. Being an area of high ecological diversity, the Baviaanskloof Mega-reserve may yet yield many new species and, in this regard, there is a need for further fieldwork.



23

23. The mega-reserve potentially has one of the highest diversities of chelonians (tortoises and turtles) in South Africa and anywhere else in the world. Four species occur in the Baviaanskloof Nature Reserve and habitat for a further two is encompassed by the mega-reserve's planning region. The large leopard tortoise (*Geochelone pardalis*) illustrated here is a prominent species in the area (Photo: G. Kerley).

Amphibians

The Baviaanskloof Nature Reserve amphibian (frog) community includes 17 species, including three Cape Floristic Region endemics and eight national endemics. This is high by global standards, and reflects the fact that South Africa has a particularly rich frog life. The southern part of the envisaged mega-reserve area, including the Gamtoos River Corridor, is classified as a "hotspot" for threatened and near-threatened species. To date 20 species have been recorded in this area, which is relatively rich in endemic and range-restricted species.



24

24. Of the amphibian species recorded in the area, four are recognized as fynbos endemics. Most notable are a number of ghost frog (*Heleophryne*) species, representing ancient forms, with at least one species being endemic to the area. Members of this South African endemic family of frogs have very specific habitat requirements of clear mountain streams (Photo: W. Branch).

The frog group is, however, generally recognised as being poorly studied, and more species are still being discovered. The Baviaanskloof Mega-reserve is not an exception in this regard and it is probable that more species do occur here.

Fish

At 15 species, the indigenous fresh-water fish diversity of the Baviaanskloof Nature Reserve is exceptionally high by South African standards. Three species are Cape Floristic Region endemics.



25. Two species of redfin minnow - *Pseudobarbus afer* (shown here) and *P. asper* - recorded in the Baviaanskloof Nature Reserve are threatened, and the area has been identified as a key one for their future conservation (Photo: J. Cambray).

Most of the species belong to the Southern Temperate group, possibly representing ancient Gondwanan endemic species. For example, the closest living relatives of the Cape galaxius (*Galaxias zebratus*) occur in southern Chile, another Gondwanan continent remnant.

Invertebrates

The invertebrates of the area have been generally poorly studied, but available information indicates a rich diversity and a very high degree of endemism. This reflects the fact that the area is rich in



26. Six of the nine cicada species that occur in the Baviaanskloof Nature Reserve are endemic to the Cape Floristic Region, and of the 59 butterfly species recorded, two are threatened. Shown here is *Papilio nireus*, a forest/thicket butterfly that reaches one of its western-most distribution points in the Baviaanskloof (Photo: S. Proches).



27. Recent research in the area revealed a strong positive relationship between plant and insect species richness, that thicket insect diversity is high across different land forms and that the thicket insect group is quite distinct from others. Fynbos and thicket in the area thus harbour important insect species and communities, illustrated here by a species of tiny weevil (within the genus *Hexatmetus*) that feeds on *Erica* flowers and is endemic to the Cape Floristic Region (Photo: S. Proches).

ancient forms, particularly in the fynbos and subtropical thicket biomes, with notable groups being the velvet worms, harvestmen and stagbeetles. It appears that many groups of invertebrates have persisted here since the break-up of the Gondwanaland supercontinent over 100 million years ago, and this has been attributed to the relative stability, both geologically and climatically, of this region over this period. Furthermore, the mountain habitats provided specialized refuges, allowing temperate species to survive climate change.

Ecological processes

A major goal for the Baviaanskloof Mega-reserve is to conserve not only the different plant and animal species that live there, but also the ecological processes that produce and maintain the habitats that they occupy. The intention is, therefore, to achieve a conservation area that will continue to function ecologically indefinitely, and that will allow both plants and animals to evolve naturally through time.

All of the processes that must be maintained to sustain the area's biodiversity must be identified, their occurrence on the landscape mapped, and the proportion of each one that must be conserved by means of an appropriate conservation system, estimated.

Some of the important ecological processes associated with the Baviaanskloof area are illustrated here.



*Plant pollination by insects, mammals and birds, such as the orange-breasted sunbird (*Anthobaphes violacea*) – a fynbos endemic (Photo: T. Wooldridge).*



*Herbivory, especially by the larger game species, such as the African buffalo (*Syncerus caffer*) (Photo: G. Kerley).*



Foraging by, and physical impacts of, the megaherbivores, namely African elephant and black rhinoceros (Photo: A. Boshoff).



*Seed dispersal by mammals and birds, a prominent example of the latter is the speckled mousebird (*Colius striatus*) (Photo: G. Kerley).*

ECOLOGICAL PROCESSES



Natural fire events, to maintain fire-dependent vegetation and large mammalian herbivore communities (Photo: D. Rogers).



*Predator-prey relationships, involving, for example, carnivorous predators such as the caracal (*Felis caracal*) (Photo: M. Norval).*



Altitudinal and seasonal and movements of animals, for example through ravines (kloofs) that dissect the high mountain ranges (Photo: D. Rogers).



Hydrological regimes, involving whole water catchments, small streams, large tributaries and major rivers (Photo: G. Spiby).

Human prehistory



28. There is much evidence of the former presence of the San and Khoekhoen in the Baviaanskloof area, this in the form of wood and bone artefacts, plant and animal remains and a wealth of rock art. To date, over 200 heritage sites have been located in the area and this is conservatively estimated to represent only about 10% of those in existence. A comprehensive survey is required (Photos: D. Rogers [left]; E. Richardson [right]).

The Eastern Cape has been inhabited by humans for many thousands of years, with archaeological evidence of human occupation dating back some 120 000 years. Artefacts from rock shelters in the Baviaanskloof indicate that prehistoric humans were living there from at least the Middle Stone Age (100 000 to 30 000 years ago). After a period of low population density between 60 000 and 20 000 years ago, stable Late Stone Age human populations became established in a series of phases. The hunter-gatherer San, who occupied the region until the Khoekhoen (= Khoikhoi) arrived about 2000 years ago, are considered to be the direct descendants of these early dwellers. The Khoekhoen, who were herders, migrated southwards from what is now Botswana with their sheep and cattle and later mixed with the San, to form a group known to archaeologists as the Khoisan. According to early European travellers, the Khoekhoen tended to live in the coastal areas, whereas the San were in the mountainous areas in the interior. The Khoekhoen were followed in turn, about 1700 years ago, by Bantu-speaking Iron Age agro-pastoralists who migrated southwards from central and eastern Africa with crops such as sorghum and millet, and domesticated sheep, goats and cattle. Further westward movement would have led to contact with the San and Khoekhoen, and later the European colonists, in the western part of the present Eastern Cape. The region in which the envisaged Baviaanskloof

Mega-reserve is located can therefore rightly be considered as an important meeting place of these diverse cultures, and a treasure-trove for Stone Age archaeology.

In 2003 an archaeologist from the Albany Museum in Grahamstown conducted a pilot survey of the cultural heritage of the Baviaanskloof Mega-reserve and provided guidelines for its protection and utilization by the public. The South African Heritage Resources Agency, the Department of Archaeology at the University of Cape Town and the Rock Art Research Institute at the University of the Witwatersrand have also been consulted regarding general heritage management issues.

History

European settlement in the Baviaanskloof region commenced in the mid to late 18th century. Although the San people living in the Baviaanskloof and environs came under pressure from the Khoekhoen, the event that was to seal their fate was the arrival of the Europeans. As the latter settled and impacted the land, so the San became increasingly unable to maintain their traditional way of life. The new settlers hunted most of the indigenous animals to extinction, replacing game with domestic stock, and the arable parts were put to cultivation. Many of the remaining San had little



29. Expertly constructed dry-stone walls (left) and old farm buildings (right), in various states of repair, provide fascinating reminders of pioneering farmers who settled in the area long ago (Photos: E. Richardson [left]; D. Rogers [right]).

30



30. *Current economic activity in the rural parts of the Baviaanskloof Mega-reserve is associated mainly with agriculture, in the form of small-stock ranching (left) and irrigated crop production (right). Conservation and tourism-related activities in formal protected areas and on private land are on the increase (Photos: G. Kerley [left]; D. Rogers [right]).*

option but to move permanently onto the farms as servants and labourers, intermarry outside their culture and so merge with the wider population of the region. Others tried to maintain their way of life and in doing so often resorted to stealing livestock from the European settlers. This inevitably led to confrontation and several accounts record the violent demise of the San in the area. By the end of the 19th century the San had ceased to exist as an independent people in the area.

The human population of the Baviaanskloof itself probably reached a maximum of about 2000 souls somewhere between the mid-19th and mid-20th centuries, whereafter it began a decline that continues to the present day. Apart from the farmers whose properties were bought out in the 1960s for the construction of the Kouga Dam, no people in the area of the existing Baviaanskloof Nature Reserve were removed from their land by the State. The rugged terrain and the isolation of the valley from the marketplace were major constraints and a challenge for the early farmers in the Baviaanskloof. People living in the area suffered periodic natural events, such as floods, droughts and outbreaks of disease.

A natural and cultural heritage to cherish

The mega-reserve area contains a veritable treasure trove of plant and animal life, of ecological processes that sustain this life, and of numerous signs and sites to remind us of the area's early human inhabitants. These represent a rich and fascinating heritage that all South Africans, and especially those who currently reside in or near the area, must cherish and protect, for the benefit of generations to come. The Baviaanskloof Mega-reserve Project provides a valuable opportunity to achieve this goal.



Photo: D. Rogers



31. The mega-reserve provides an outstanding opportunity to establish a variable land-use system that will conserve an extremely high diversity of species (including many endemics), habitats and ecosystems, and to ensure their persistence in the face of inevitable global change. In many parts, this diversity is encapsulated within a wilderness context, with visible human impacts being absent or of a localised nature (Photo: G. Spiby).

The Baviaanskloof Mega-reserve offers important opportunities in three key fields.

Biodiversity conservation

The mega-reserve will conserve biodiversity of local, regional and international significance. Its major contribution in this field has been recognized by the recent awarding of World Heritage Site status to the Baviaanskloof Nature Reserve (see Chapter 3). The mega-reserve will also incorporate large areas of relatively productive habitat, thereby providing the potential to support viable populations of indigenous medium- to large-sized mammals, including the charismatic and tourist-attracting Big Five.

Water provision

The Baviaanskloof Nature Reserve already plays a vital role in the provision of good quality water for downstream consumption by agriculture and human communities. The Kouga Dam, located upstream of the confluence of the Gamtoos and Groot rivers, is fed by the Baviaanskloof and Kouga rivers.



32. The mega-reserve offers a critical opportunity to enhance the supply of potable water to agriculture and human consumers. This will be achieved by increasing water security from the Kouga Dam to above the present level of 75%, by including as much as possible of the catchments of the Baviaanskloof and Kouga rivers. If the southern boundary of the existing Baviaanskloof Nature Reserve is extended to the Kouga River, around 75% of the Kouga-Baviaanskloof catchment will be under conservation management and this will permit the effective application of sound catchment management practices, thereby securing the supply of water (Photo: G. Spiby).

The Baviaanskloof River supplies about 35%, and the Kouga River supplies most, of the water for the Kouga Dam, which in turn delivers 100% of the water requirements of the Gamtoos River Valley irrigation area, and up to 30% of the requirements of the growing Nelson Mandela Metropole (incorporating the urban centres of Port Elizabeth, Uitenhage and Despatch). Almost the entire catchment of the Baviaanskloof River, and a substantial part of the catchment of the Kouga River, fall within the existing Baviaanskloof Nature Reserve. Similarly, the Groendal Nature Reserve and environs provides a significant part of the catchment of the Groendal Dam, which is fed by the Kwazungu River and is a critical source of water for the Nelson Mandela Metropole.

Of further importance is the fact that the water supplied by the mega-reserve is of the highest quality and this obviates the need for expensive treatment downstream to remove impurities.

From the above, the present and future importance of the Baviaanskloof area as a sustainable source of good quality water for human, agricultural, industrial and environmental consumption downstream is obvious.

Biodiversity and local and regional economic growth

The Baviaanskloof Mega-reserve provides excellent opportunities for commercial ventures, based on the sustainable utilization of the area's unique biodiversity, which can reverse the economic decline in the area.

Tourism

33



33. The Baviaanskloof Mega-reserve, which is malaria-free and enjoys good access to necessary infrastructure (e.g. roads, airports, shops), is ideal for nature-based tourism (e.g. enjoyment of scenery and climate, hiking, birding, plant- and game-viewing, wilderness experience), adventure tourism (e.g. mountaineering, mountain-biking, canoeing, horse trails, 4x4 trails) and sport tourism (e.g. sport hunting in zoned areas, fishing) (Photos: R. Cowling; G. Spiby [3]; D. Euston-Brown [1]).

Conservation

The development of the mega-reserve, and the appropriate development of its tourism potential, will undoubtedly provide a number of socio-economic benefits at the local, regional and national levels. Conservation linked economic development opportunities relate to initiatives on both formal protected areas (provincial nature reserves) and on privately owned land (e.g. private nature reserves). Where the latter about the former, good potential exists for public-private partnerships, for which successful models already exist elsewhere.



34

34. Permanent jobs will be created, particularly in the conservation management and hospitality sectors. Here the reserve manager introduces a visitor to the public recreation area at Groendal Nature Reserve (Photo: A. Skowno).



35. Casual jobs will be created, e.g. for labour intensive management projects, such as game capture, alien vegetation eradication and fencing (Photo: A. Tanner).

36. Jobs will be created in the service and peripheral industries, e.g. suppliers of services and materials, suppliers of skills such as builders, plumbers, caterers, tourist guides etc. This will be particularly important during the development phase of the formal protected areas within the mega-reserve, when local suppliers will be called upon to provide the materials for, and the erection or construction of, hundreds of kilometres of fencing and roads, and also tourist rest camps and other infrastructure (Photo: E. Richardson).

37. Opportunities for public-private sector partnerships, and for local economic development, e.g. lodge construction and operation, will be created. These luxury chalets in the western Baviaanskloof were constructed by a team of builders from the impoverished local town of Willowmore (Photo: S. v.d. Berg).

38. Training opportunities for local people will arise, especially in the fields of wildlife management and hospitality services (Photo: R. Cowling).

39. Opportunities for outlets for local produce will be presented (following page) (Photo: D. Rogers).



39

Conservation and tourism can pay

A recent (2004) study on the socio-economic profile of seven private game reserves in the Eastern Cape revealed that the switch from domestic stock ranching to conservation and tourism increased on-site employment opportunities by 3.5 times, the average wage bill by 20 times and average wages by 5.7 times. In addition, staff received additional employment benefits not typically available to farm labourers, including extensive skills training. No farm workers were laid off as a consequence of this switch.

Game ranching



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40. Parts of the Baviaanskloof Mega-reserve offer excellent potential for appropriately managed game-ranching enterprises. These could include ventures to breed game for the venison market, for hunting and for live game sales. Properties can run only game, or operate mixed stock-game ventures. There is also good potential to combine game ranching with a tourism/hospitality element, e.g. farm stays (Photo: G. Kerley).

Stock farming



41

41. Stock farming has been practised for many decades in large parts of the mega-reserve area and, notwithstanding its fluctuating fortunes, remains a core economic activity. It has the potential to make a significant contribution to the vision of the mega-reserve if ecologically sustainable land management principles are applied (Photo: J. Kirkman).

People and organizations engaging in any of the activities mentioned in this Chapter, and applying sound conservation principles and practices to harness the potential of the area's unique biodiversity, will have the satisfaction of making a significant contribution to the achievement of the vision and objectives of the Baviaanskloof Mega-reserve Project.

There are a number of pressures that are impacting on, or have the potential to impact on, the effective implementation of the Baviaanskloof Mega-reserve Project. To avoid or minimize the impacts of these pressures, the planning and implementation of the mega-reserve is being conducted in close collaboration with key stakeholders (see Chapter 8). Stakeholders that may be responsible for any of the pressures are receiving special attention. In addition, specific areas where significant pressures are present, or may occur in the future, and that contain important biodiversity, are receiving priority attention in the implementation process. Some of the pressures referred to are briefly described here.

Environmental issues



42. *Overgrazing by domestic stock (especially goats), followed by accelerated soil erosion, siltation of river systems and reduced water quality, presents a serious threat to biodiversity conservation in parts of the mega-reserve (Photo: M. Powell).*



43. *Increasing demands are being made on the area's natural resources. For example, stock farming is being extended in mountainous areas, with attendant problems caused by new management roads to service these areas, poorly designed 4x4 tracks, and frequent burning to provide grazing for introduced game and domestic stock (Photo: M. Wingfield).*

44. *Fires started by man, and inappropriately located reserve boundaries, disturb the natural fire regime, thereby compromising the maintenance of fire-dependent fynbos-dominated vegetation types (Photo: D. Rogers).*

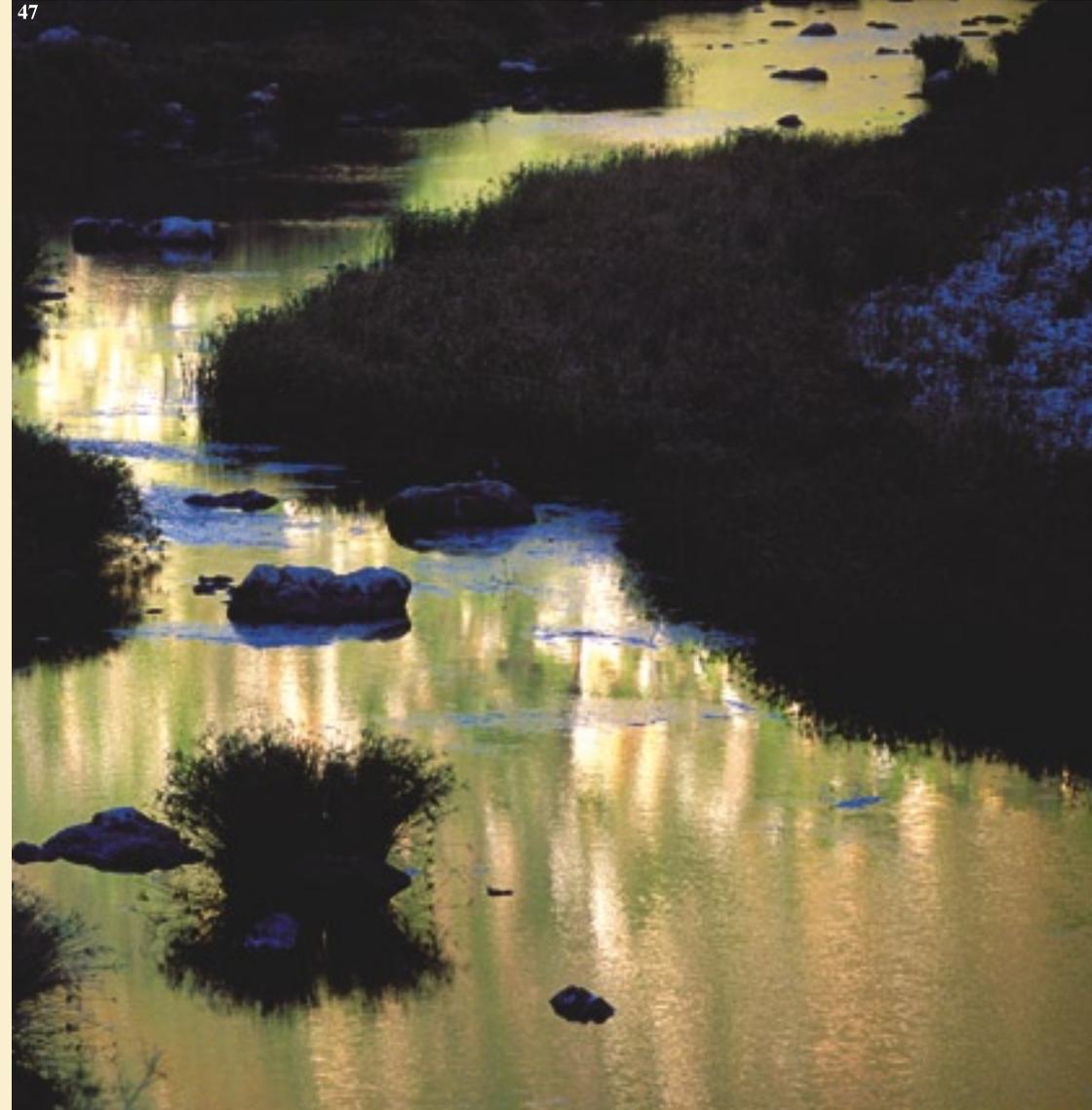




45. Stands of invasive alien shrubs and trees, most notably black wattle (*Acacia mearnsii*), are a threat to both biodiversity conservation and water production. The stability of the river channels is negatively impacted by invasive alien trees, especially black wattle, which fall into and block river watercourses. Alien plants also increase fuel loads, resulting in frequent and intense fires. Until these are completely eradicated, and all regrowth controlled, they will continue to pose a serious threat (Photo: D. Boshoff).



46. A number of alien herbivore species – such as the impala (*Aepyceros melampus*) – have been introduced onto private land in the area. Given that that these introductions may have negative ecological and economic consequences for the conservation and tourism value of the land, they will compromise its potential to be included as part of the mega-reserve (Photo: G. Kerley).



47. Many of the ancient endemic invertebrate forms in the mega-reserve are aquatic, or have aquatic life phases, emphasising the need for effective conservation management of the streams and wetlands. These habitats are currently threatened by incompatible land-use practices (e.g. excessive water extraction, channelization of flow, eutrophication from fertilisers) and are also extensively invaded by alien plants and fish. Alien fish prey on the endemic invertebrates, and also on amphibians and indigenous fish. The mega-reserve will make a significant contribution towards the successful conservation of this important component of South Africa's biodiversity (Photo: D. Rogers).



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48



49

48. Many of the old forestry management roads and tracks have become badly eroded, as have some of the more recently constructed 4x4 tracks (Photo: G. Spiby).

49. Large areas of valuable mountain catchment are being converted into croplands in some parts of the mega-reserve's planning region (Photo: D. Rogers).

50. Longstanding conflict between some stock farmers and the larger mammalian predators has resulted, in certain cases, in the persecution of these important components of a functioning ecosystem. Of particular concern is the impact of this on the local population of the leopard (*Panthera pardus*). A well-researched conservation plan for this species in the mega-reserve is urgently required (Photo: A. Skowno).

Institutional issues

Of great concern is the currently low capacity of the recently established Eastern Cape Parks Board to effectively plan and manage the formal protected areas (reserves), and of the Department of Economic Affairs, Environment and Tourism (Eastern Cape) to plan and manage off-reserve conservation initiatives. It is critically important that these managing authorities make sufficient resources available to ensure the successful implementation of the mega-reserve project, and the maintenance of the integrity of the Baviaanskloof World Heritage Site. The Baviaanskloof Nature Reserve has now been classified by the Eastern Cape Parks Board as one of five “flagship” reserves in the Eastern Cape, and the low management capacity has been identified as a problem that requires urgent attention.



51. *There is ongoing deterioration of infrastructure (e.g. roads, buildings, communications) and cultural artefacts (e.g. historical houses, rock paintings) within the mega-reserve area. Unless urgent steps are taken to improve institutional capacity and resources, this deterioration will continue and some artefacts will be lost forever, whilst others will become extremely expensive to rehabilitate (Photo: C. Urquhart).*

Socio-economic issues



52. *A number of private nature-based developments have taken place, or are being mooted, within the area. Whilst some have management goals that are consistent with those of the mega-reserve, others may not and these could present problems for the implementation of the mega-reserve. There is concern that, in some cases, Environmental Impact Assessment regulations are not being comprehensively applied, presenting a threat to the integrity of the mega-reserve (Photo: D. Boshoff).*



53. *Because of the high incidence (once every 10 years) of major flood events, the Baviaanskloof is largely unsuitable for crop-based agriculture. Each major flood reduces the area of arable land and reshapes the valley floor. For example, it has been estimated that the 1916 and 1932 floods removed almost half of the arable land in the lower Kouga River catchment. In addition, extensive loss of costly infrastructure, especially roads, causeways and telephone lines, usually accompanies each major flood (Photo: R. Cowling).*

There is a general lack of awareness of the value of biodiversity and the services it provides - a focused education programme is required to address this issue. The planned World Heritage Site-linked interpretation centre at the eastern gateway will make an important contribution in this regard. There is also uncertainty over the objectives of the mega-reserve and its potential impact on the livelihoods of local people; progress in addressing this issue is described in Chapter 8. In this context, the ongoing uncertainty over the future of the Sewefontein and Zaaimanshoek communities in the western Baviaanskloof also needs to be resolved.

There are a number of stakeholders and other interested and affected parties in the conservation and tourism fields that are active in the Baviaanskloof area. Although most of them have broadly similar goals and co-operation is good, there is sometimes a lack of synergy and the approaches employed differ, occasionally leading to tension. This could delay the attainment of common goals.

7 THE BAVIAANSKLOOF MEGA-RESERVE CONSERVATION STRATEGY



A broad medium-term Conservation Strategy has been compiled to guide the development and implementation of the Baviaanskloof Mega-reserve Project.

The Conservation Strategy has the following cascading components:



Photo: D. Rogers



The Guiding Principles for the strategy are listed below:



The Conservation Strategy document is available at www.baviaanskloofmegareserve.co.za.

Vision for the Baviaanskloof Mega-reserve Project:

Expanding the conservation estate of the Baviaanskloof for the benefit of all.

Principle underlying the vision:

Creating an ecologically, economically and socially sustainable conservation area, incorporating private land, formal protected areas and communal areas.

The Conservation Strategy addresses, *inter alia*, the following set of mega-reserve objectives:

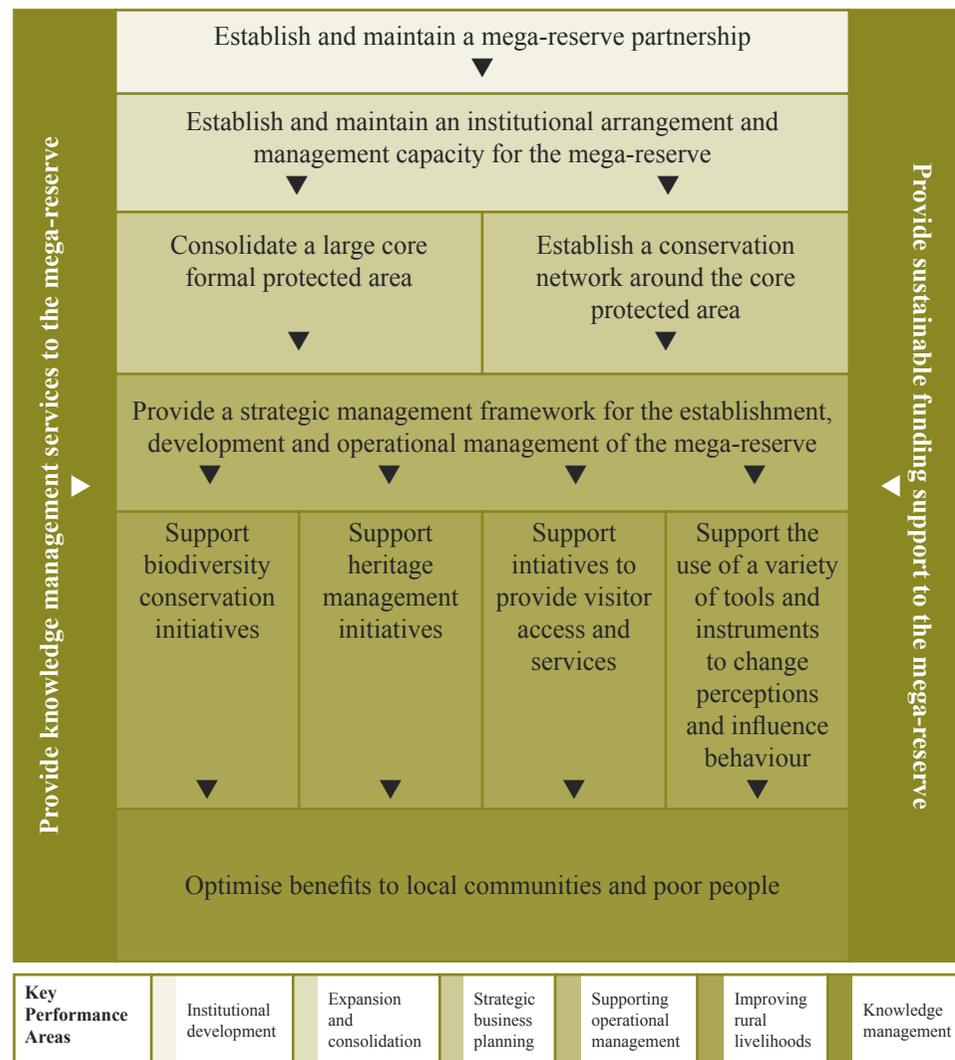
- The establishment, nurturing and expanding of partnerships as a means of equitably sharing the multiple benefits of the mega-reserve.
- The expansion of the conservation estate, focusing on priority areas.
- A general acceptance of conservation as an alternative and productive land use, thereby creating a new opportunity for local and regional economic growth.
- The payment for ecological services, notably the provision of potable water, to create new income streams and associated opportunities for job creation and economic growth.
- The implementation of a nature-based tourism plan, to stimulate and guide the development of local and regional tourism-related ventures.
- The sustainable harvesting and utilization of natural resources, in certain areas.
- The targeting of socially and environmentally responsible private investments for tourism and related small enterprises.
- The support of small-scale businesses from local communities, and the development of entrepreneurial and technical skills in local communities, to deliver services to the nature-based economy of the mega-reserve.

The Conservation Strategy addresses six Key Performance Areas (KPA's), the objectives of which are given in Table 2. Details of strategic actions and activities can be found at the website address (previous page).

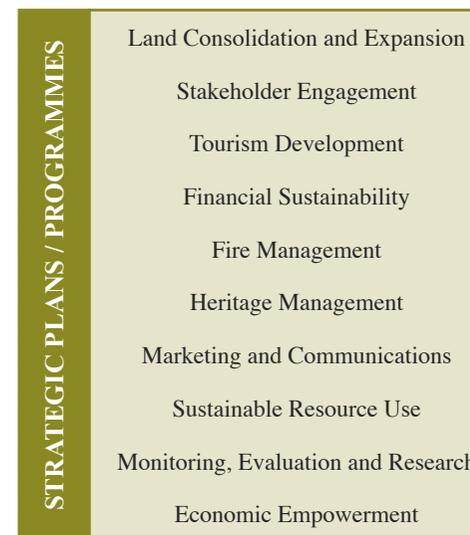
Table 2: The objectives of the six Key Performance Areas addressed by the Conservation Strategy.

Key Performance Areas	Objectives
1. Institutional Development	<ul style="list-style-type: none"> a. To establish and maintain active partnerships between statutory authorities and civil society that will support the establishment and management of the Baviaanskloof Mega-reserve. b. To develop the institutional arrangements, capacity and resources to support the implementation of the mega-reserve.
2. Consolidation and Expansion	<ul style="list-style-type: none"> a. To consolidate a core formal protected area. b. To establish a conservation network around the core protected area.
3. Strategic and Business Planning	<ul style="list-style-type: none"> a. To develop a vision and strategic management framework for the mega-reserve that provides for continual improvement in its management. b. To develop the potential for financial sustainability of the mega-reserve, without compromising its ecological and socio-economic sustainability.
4. Supporting Operational Reserve Management	<ul style="list-style-type: none"> a. To promote the long-term conservation, use and restoration of the biodiversity and heritage resources. b. To promote the provision of a unique experience and world-class service and facilities to visitors. c. To develop an appreciation and understanding of the bio-physical and socio-economic significance of the mega-reserve.
5. Improving Rural Livelihoods	To realize opportunities for, and equitable distribution of, benefits to surrounding rural communities.
6. Knowledge Management	To ensure that the improving management of the mega-reserve project is guided by the application of relevant scientific research and monitoring, resulting in information that is readily accessible to managers and relevant stakeholders.

The linkages between the mega-reserve project objectives, in relation to the six Key Performance Areas, are illustrated in the diagram below.



The Strategic Plans/Programmes that align with the Key Performance Areas include the following themes:



Current activities associated with some of the above themes are described in Chapter 8.





Although much remains to be done, substantial progress has been made in the implementation phase of the mega-reserve project. This Chapter highlights aspects of some of the current strategic and operational activities that flow from the Conservation Strategy. These provide examples of how the mega-reserve's vision is being achieved through innovative partnerships and projects that involve people and institutions representing government and civil society. All the activities mentioned have, or will have, direct and indirect benefits for the local communities, private landowners and formal protected areas. In order to capture their context, the topics below are grouped according to the Key Performance Areas (see Chapter 7).

Key Performance Area 1: Institutional Development

STAKEHOLDER ENGAGEMENT: GETTING PARTNERS ON BOARD

The Baviaanskloof Mega-reserve includes a wide diversity of people - it encompasses land occupied by rural communities (including local communities, commercial farmers [stock farming and irrigated crops], farm labourers and conservation agency staff), and a number of urban communities. In addition, descendants of the occupiers of the land in pre-historic times form an important stakeholder group. Broadly overseeing the activities within this mosaic of land-owners, land occupiers, land managers and land-uses are cascading spheres of national, provincial and local government. Of particular importance are the respective roles of the two District Municipalities (Cacadu, Eden), three Local Municipalities (Baviaans, Koukamma, Kouga), and one Metropolitan Municipality (Nelson Mandela) that are represented in the mega-reserve planning region (see Map 3).

A Stakeholder Engagement Strategic Programme is therefore an important component of the mega-reserve's Conservation Strategy, and one of the key requirements of the donor organizations that are providing funding support for the initiative. It has three main aims:

- a) To create an awareness of the vision, objectives and potential benefits of the mega-reserve project.
- b) To foster active participation in project design and implementation.
- c) To explore possibilities for future partnerships.

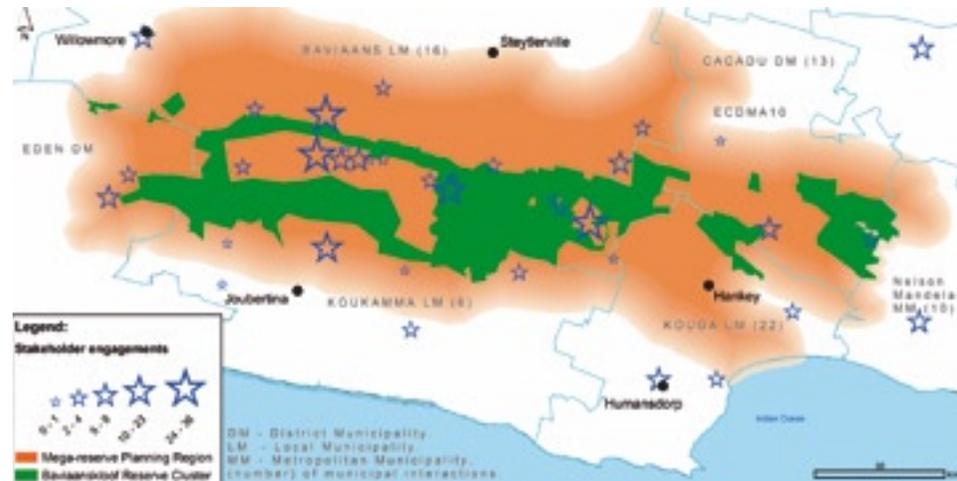
Participatory methods and materials used by the mega-reserve's Project Management Unit vary widely and depend on the profile of the stakeholders in question. They broadly comprise four categories:

1. Direct contact



54. Since the launch of the Stakeholder Engagement Programme in 2003, over 400 direct stakeholder interactions have taken place. Important stakeholders interacted with to date include private landowners, farm labourers, provincial conservation staff, local communities, organized agriculture and local government (municipal) officials (Photos: E. McGregor, M. Norval).

Stakeholders have contributed to the development of the vision and objectives of the mega-reserve project and have identified preferred methods of engagement by the Project Management Unit. These comprise one or more of the following: presentations, workshops, multiple participant meetings, one-on-one meetings, focus groups, committees, email and land mail. A wide range of stakeholders is represented on the Baviaanskloof Steering Committee, the principal formal tool for project-stakeholder interaction, which meets quarterly.



Map 3: The numbers and locations of stakeholder engagements (including municipalities) in the planning region of the Baviaanskloof Mega-reserve.

2. Indirect contact



Additional engagement and awareness creation instruments used are a dedicated project website (www.baviaanskloofmegareserve.co.za) with links to other important websites, general information brochures, specialized pamphlets, media releases, the South African National Biodiversity Institute's Eastern Cape Bioregional Co-ordination Unit newsletter, a Baviaanskloof Mega-reserve Project newsletter, magazine articles, resource packs and information packs. A poster display is used at appropriate venues.

3. Specialised Task Teams

Currently five specialized Task Teams (TTs) have been created – a Stakeholder TT, a Land Consolidation TT, Tourism Working Group, Financial Sustainability TT and a Scientific TT– to provide specialized inputs and services to the project, through the Baviaanskloof Steering Committee (seen at work here).



4. Skills development

This involves support from the Baviaanskloof Mega-reserve Project for internships that enable post-graduate students from tertiary institutions to work with the Project Management Unit for a year in order to gain experience in Protected Area management and conservation planning.



A community-driven initiative in the western sector of the Baviaanskloof

The community in the western Baviaanskloof established the Western Baviaanskloof Development Initiative in 2004. Run by a democratically elected committee, its aim is to create a community vision for the area and to identify and implement a range of development projects. Funding to support the planning stage of the initiative has

been secured from the Critical Ecosystems Partnership Fund. Projects - such as tourism skills development and river function restoration - have already been identified. The mega-reserve project is supportive of this initiative as it promotes participative interaction between role players.

A volunteer group from civil society – the Friends of the Baviaanskloof Wilderness Area – provides support to the mega-reserve project and the Eastern Cape Parks Board in a number of ways – this includes data collection and the monitoring and regulating of visitor activities. Another group – the Mountain Club of South Africa – has the potential to make significant contributions in three fields - provision of advice on climbing activities, assisting in search and rescue operations, and contributing to the compilation of a cultural heritage database for the area.

Broad stakeholder support for the Baviaanskloof Mega-reserve Project

As a consequence of the stakeholder engagement activities of the Project Management Unit, the vision and overall objectives of the project are now relatively well understood and supported by the majority of stakeholders. This is paving the way for the establishment of new, and the growth of existing, partnerships. These developments augur well for the future of the mega-reserve project.

SUPPORT FOR RESERVE MANAGEMENT: BUILDING ON TO WHAT WE HAVE

The management of the seven nature reserves that form the Baviaanskloof Reserve Cluster - the protected area core of the Baviaanskloof Mega-reserve – is the responsibility of the recently formed Eastern Cape Parks Board. Its current annual budget is some R4.7 million and this, together with the R9.7 million spent recently on land, infrastructure and job creation, confirms that the Parks Board has a significant role to play in the mega-reserve initiative. However, the budget is presently inadequate to meet the comprehensive management needs of the reserve cluster. Owing to this shortage of human, financial and infrastructural resources, two of the reserves (Baviaanskloof and Groendal) receive relatively little “on the ground” management attention, whilst the remaining five reserves receive virtually none.

55. There is strong political support for the Baviaanskloof Mega-reserve Project, witnessed here by Mrs Nosimo Balindlela, Premier of the Eastern Cape Province Government, officially opening the Komdomo tourist camp and launching the Conservation Strategy, in September 2004. This must now be translated into ongoing operational support to develop and manage the reserve to world-class standards (Photo: E. Richardson).





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56. If the Baviaanskloof Reserve Cluster is to effectively fulfil its role as the core protected area for the mega-reserve, and the Baviaanskloof Nature Reserve is to maintain its integrity as a World Heritage Site, then current funding levels by the national and provincial governments need to be significantly increased. Similarly, additional resources must be made available to effectively manage the off-reserve component of the mega-reserve project (Photo: A. Tanner).

Key Performance Area 2: Consolidation and Expansion

EXPANDING THE CONSERVATION ESTATE

The Land Consolidation and Expansion Strategy (“Land Strategy”), which has two thrusts – (a) spatial planning and (b) expansion and consolidation - is guided by a set of defined principles and objectives, and has two main aims:

- to consolidate and expand the existing formal protected area estate within the mega-reserve’s planning region, and
- to include private land, on a voluntary basis, that is managed according to conservation principles and practices.

Spatial planning

The Land Strategy is underpinned by the outcomes of a process that set out to identify and prioritise land, for incorporation into the mega-reserve, which would best contribute to achieving the vision of the mega-reserve. This process comprised a series of spatial planning actions at the regional and farm scales.

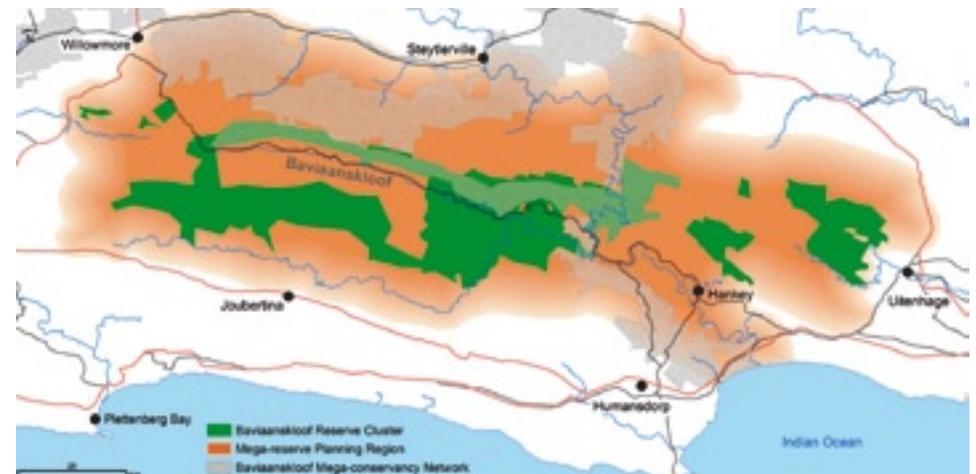
Regional scale planning

Step 1: Choosing a planning region

An important early step in the planning phase of the mega-reserve project was the choice of a project planning region. The following factors were considered in this action:

- The cluster of existing provincial nature reserves in the greater Baviaanskloof area.
- The diverse array of important biological gradients, biome transitions and large-scale ecological processes and biodiversity patterns in the region.
- Areas critical for water catchment management.
- The spatial planning outcomes of the STEP Project.
- Regional conservation initiatives and potential linkages.
- Management and project implementation realities and priorities.

A 1 million ha (10 000 km²) planning region, wherein mega-reserve planning will be focused in the short- to medium-term, was delineated (Map 4); individual areas of importance for biodiversity conservation were not considered in the process. The Baviaanskloof Mega-reserve, which lies



Map 4: The planning region of the Baviaanskloof Mega-reserve, in relation to the Baviaanskloof Reserve Cluster and the Baviaanskloof Mega-conservancy Network (as determined by the STEP Project – see Box 3). Note the linkage between the coast and the interior.

within this demarcated area, will never be fixed in size and shape since it will expand as additional properties are included through time. It will comprise state-owned provincial nature reserves and private land, the latter in the form of conservancies, private nature reserves and agricultural land where conservation farming principles and practices are adopted.

From the mountains to the sea – a biodiversity corridor

Three large perennial rivers- the Kouga River, draining the Kouga Mountains in the south-west - the Baviaanskloof River, flowing through the Baviaanskloof in the north-west - and the Groot River, draining part of the Nama-karoo to the north - meet to the south-east of the Baviaanskloof to form the Gamtoos River, which meanders across a broad and gently undulating coastal plain to the sea. Here the Gamtoos River Valley forms a natural linkage between the mountainous interior of the Baviaanskloof area and the coast, in the vicinity of the town of Jeffrey’s Bay. The coastal and valley bottom areas have been identified by the C.A.P.E. and STEP projects as being in urgent need of conservation attention. Consequently, one of the objectives of the mega-reserve project is to implement a biodiversity corridor that links the mountains to the sea, incorporating these important habitats, which will allow for plants and animals to be conserved there and to enable them to move in response to climate change. To implement this corridor, individual projects involving local farmers, other landowners and resident communities in appropriate conservation initiatives in this zone, are being compiled.

Step 2: Identifying appropriate planning units.

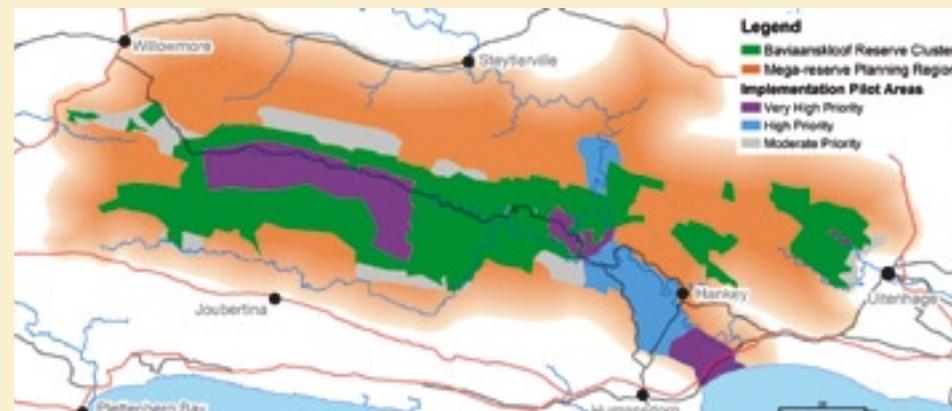
In order to facilitate further planning and management decision-making, medium-scale planning units, comprising biologically and/or socio-economically similar areas (of between 5 000 and 60 000 ha) were identified. Thus, the individual farms in each unit have similar land-use options and similar land values, and they represent distinct geographical zones.

Step 3: Compiling a spatial conservation plan.

The main objectives for this planning action are:

- a) to focus conservation efforts on biodiversity-rich areas, and on areas where ecological processes can be maintained in the long-term, and
- b) to ensure that the conservation and spatial planning outputs are aligned with the goals and obligations of the implementation agencies, and that they include socio-economic factors relating to tourism and other conservation-friendly land-uses.

The outcomes of this exercise are expressed as a set of Implementation Pilot Areas (Map 5).



Map 5: Implementation Pilot Areas in the Baviaanskloof Mega-reserve planning region, for guiding and prioritising further planning and implementation actions.

Farm scale planning

This involves the planning and provision of farm scale decision support and is geared to making informed and defensible decisions with regard to individual farms and farmers. The creation of a landowner database and the development of an understanding of landowner concerns and needs is a vital part of this component.

The Baviaanskloof Mega-reserve and municipal level land-use planning.

The planning region straddles parts of the areas administered by two District Municipalities, three Local Municipalities, one District Municipal Area and one Metropolitan Municipality (see Map 3). Given that key land-use planning decisions are made at local government level, co-operation between these local authorities and the mega-reserve project is essential. In this regard, the two main municipal planning instruments are the Integrated Development Plan (IDP) and its associated Spatial Development Framework (SDF); each local authority is legally required to produce, and regularly update, these documents. The mega-reserve project is providing inputs into, and ensuring alignment with, these documents.

Expansion and consolidation

The incorporation of land into the mega-reserve is being pursued according to three different mechanisms:

a) *Land purchase*

Some land of high conservation value will be purchased through the Eastern Cape Parks Board, on a willing-seller willing-buyer basis.

b) *Stewardship/conservancies and incentives*

This involves the use of a range of agreements and/or contracts (e.g. leases, fixed-term contracts, co-operation agreements) between landowners and the Parks Board. This land will form the greater part of the mega-reserve. An example of a conservancy mechanism is provided by the Baviaans Conservancy initiative (Box 6).

A package of financial and non-financial incentives is being developed to facilitate agreement by landowners to incorporate their land into the mega-reserve. These include:

- Alien vegetation clearing
- Fire management support
- Large mammal management support
- Rates relief
- Access to specialist and technical support
- Funding grants or direct payments
- Joint commercial tourism ventures
- Tourism product marketing

c) *Donations*

Conservation-minded landowners are encouraged to donate their land to the mega-reserve.

Towards a Baviaanskloof Mega-reserve: the growing conservation estate

Since 2002, 5 500 ha of land has been purchased for the formal protected area estate of the Baviaanskloof Mega-reserve and over 50 000 ha, represented by 10 private initiatives, is being considered for inclusion under a variety of agreements and contracts.

Box 6: The Baviaans Conservancy: seeking an alternative to stock farming

The Baviaans Conservancy was borne out of a desire by stock farmers in an area to the immediate north of the Baviaanskloof Nature Reserve, and some 20 kms south of the town of Steytlerville, to investigate possible alternatives to farming with domestic small-stock. The Conservancy, comprising 23 individual farms (representing 18 landowners) and covering some 57 000 ha, is characterized by a variety of land forms, biomes and vegetation types. It incorporates a number of cultural and historical sites, including caves, rock paintings and old homesteads. At present the Conservancy, which was established in 1997, is managed for domestic stock farming, with limited wildlife utilization, and with small areas set aside for biodiversity conservation.



57. The Baviaans Conservancy project will investigate the feasibility of converting from domestic stock farming to a game- and ecotourism-based economy that is sustainable and attractive enough to encourage a permanent land-use change. This land-use change will potentially provide benefits for biodiversity conservation, the local economy and employment opportunities in the long-term, and result in more than 200 years of domestic stock grazing pressure being removed (Photo: J. Kirkman).

Box 6 (continued)



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58. *In order for landowners to make the decision to convert to a wildlife-based economy the conversion must be shown to be economically viable. The one-year Baviaans Conservancy project will provide landowners with objective information on the ecological and economic sustainability of the land-use change, thereby empowering them to make an informed decision in this regard. This information will take short-, medium- and long-term scenarios into account, and will utilize expert knowledge from specialists in the fields of tourism, wildlife utilization and financial planning (Photo: J. Kirkman).*

A fundamental goal of the Conservancy project is to engage civil society in biodiversity conservation. The Conservancy is ideally situated to complement the Baviaanskloof Mega-reserve Project, and its proponents are working closely with Project staff to ensure that respective visions and objectives are in close alignment. In addition, the mega-reserve project is providing technical support to the Conservancy project.

In partial support of this project, the Conservancy has received a grant of R226 000 from the Critical Ecosystems Partnership Fund, which is a joint initiative of Conservation International, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank.

A model for the future ?

The Baviaans Conservancy project, which has been conceived, planned and implemented by civil society, transcends the aims of a traditional conservancy as it represents a feasibility study that, if successful, has far-reaching implications for the establishment of similar initiatives elsewhere within the planning region of the mega-reserve, and beyond.

Key Performance Area 3: Strategic and Business Planning

LANDOWNERS AND TOURISM: UNLOCKING THE POTENTIAL

A tourism development and implementation plan is being compiled for the mega-reserve. This plan, which emphasises nature-based tourism, includes an overview of existing tourism strategies, and is expressly designed to provide maximum socio-economic benefits for local communities, taking into account national and regional tourism perspectives.

The plan addresses, *inter alia* and through a series of participatory actions:

- the potential of tourism to supplement income for rural communities, and the nature reserves, through activities involving biodiversity conservation,
- mechanisms to establish the mega-reserve as a “must see” destination for local, national and international tourists,
- the planning and development of market-related tourist attractions and the provision of tourism products (facilities and services) and packages,
- marketing and branding of the mega-reserve, and
- expected challenges for implementation and sustainability.

The overall plan includes action plans, arising from participatory workshops, to guide implementation. These action plans identify stakeholders and partners, provide input for potential additional funding sources, include mentoring and coaching of start-up enterprises and SMMEs, provide for business skills development, and recommend mechanisms to monitor progress and to prioritise action plan implementation.



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59. There is good evidence that the Baviaanskloof Mega-reserve Project, and the awarding of World Heritage Site status to the Baviaanskloof Nature Reserve, has served to stimulate the growth of the local tourism industry, based on the spectacular biodiversity of the area. By the end of 2004, no fewer than nine properties in the western sector of the Baviaanskloof were offering a range of tourism products, including accommodation, hiking trails, birding, 4x4 trails, horse riding and rock art visits. The greater majority of these ventures, now advertised through a dedicated website (www.baviaans.co.za), commenced operation during the preceding two years. Similar trends have occurred in the areas to the immediate east and south of the reserve (Photo: G. Spiby).

60. Tourism-related economic development in and around local rural towns has been boosted by conservation initiatives associated with the Baviaanskloof Nature Reserve and World Heritage Site. For example, the town of Willowmore – the western “gateway” to the Baviaanskloof – has seen the establishment of a number of successful hospitality ventures, in town and on local stock farms, in the past two years (Photo: A. Boshoff).

Key Performance Area 4: Supporting Operational Reserve Management

RESTORATION: HEALING THE LAND

Over the past 200 years, man’s activities have transformed large areas within the mega-reserve’s planning region, thereby reducing their overall ability to function as parts of a natural ecosystem and to provide valuable ecosystem services. Restoration of transformed habitats is therefore an important requirement if the vision and objectives of the Baviaanskloof Mega-reserve Project are to be met. This section briefly describes two important components of this programme.

Bringing back the Subtropical Thicket

Overgrazing has seriously degraded large tracts of subtropical thicket in parts of the Baviaanskloof area. This plant biomass is vital for continued ecosystem functioning and long-term sustainability. A large percentage of the lost biomass is formed by a remarkable succulent tree called spekboom (*Portulacaria afra*). It is believed that this plant is a keystone species, playing a major role not only in primary production on the land, but also as a fundamental component of nutrient cycling. Research has shown that the soils associated with spekboom could have extraordinarily high levels of stored carbon in the form of soil organic matter. Here the plant can fulfil a potentially significant role in extracting and storing atmospheric carbon dioxide, thereby contributing to combating the role of



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61. The aim of the spekboom restoration pilot project is to test the viability of restoring degraded or transformed subtropical thicket. It involves three stages (Photos: M. Powell):

- i) Harvesting of spekboom from the wild (left), and then planting it, in varying densities, in spekboom “orchards” in transformed areas (centre).
- ii) Planting of other key plant species between the spekboom, once the latter has attained an appropriate size and cover; these species will be harvested from the wild, where feasible, or propagated in a nursery (right).
- iii) Monitoring and evaluating the success of the restoration actions.

this gas in global warming. It has been calculated that the removal of spekboom can result in the removal of up to 90 tonnes of carbon per ha. This carbon storage feature, and the plant's exceptional ability to grow from cuttings, has created the impetus for a spekboom restoration pilot project, which aims to achieve a balance between carbon storage and biodiversity conservation.

It is envisaged that, should the project be successful, it will kick-start the restoration of subtropical thicket on a landscape scale and possibly enable qualification for global credits linked to a number of potential international funding streams - carbon sequestration, conserving biodiversity, combating desertification, water security – established through the Clean Development Mechanism of Article 12 of the Kyoto Protocol.



62. Major benefits associated with the spekboom restoration project are the provision of work opportunities and skills development for local unemployed people, of which 55 are currently employed on the project. Research has indicated that the restoration of 10 000 ha of thicket per year will result in the employment of 4000 labourers. This will further contribute to combating the current influx of unemployed people into urban centres, where prospects are no better, and is firmly in line with the STEP vision of “keeping people on the land in living landscapes” (Photo: A. Tanner).

This R3.6 million three-year pilot project, which commenced in 2004, is funded by the national Department of Water Affairs and Forestry, through the Working for Woodlands Programme. Its potential success has been boosted by the inclusion of the Eastern Cape Parks Board, the Baviaanskloof Mega-reserve Project and the Gamtoos Irrigation Board as anchor partners.

Letting the rivers run: removal of alien plants

As part of its innovative and highly successful Working for Water Programme, the Department of Water Affairs and Forestry made funds available to the Gamtoos Irrigation Board in 1995 to act on its behalf to clear alien invasive plants from the catchment of the Kouga River. The aims of this

programme were threefold - to protect biodiversity, to improve water security and to provide employment opportunities. The importance of the Kouga Dam for the provision of water for the Nelson Mandela Metropole and for agriculture in the Gamtoos River Valley is discussed in Chapter 5.

The invasive alien plant clearance project has been a huge success and it is therefore essential that sufficient funding be made available for the task to be completed, and most importantly, so that the significant gains made to date are not reversed in the future.



63. In 1995, 100 unemployed people from local communities were hired for the Working for Water project in the Kouga River catchment, which at the time was conducted in areas close to local towns and villages. After 1998, the work was carried out in a more strategic manner – with teams starting at the head of a catchment and working downstream from there. From 1996 the project has employed between 500 and 600 people each year. Thus far, R43 million has been spent on the Kouga project, with R25 million of this going to wages for poor and unemployed people that were hired for the work (Photo: A. Kogana).



64. To date around 180 000 ha of the Kouga River catchment has been cleared of invasive alien plants, and follow-up clearing completed; approximately 95% of this area was lightly invaded. Few lightly invaded areas remain and the challenge is now to clear the heavily invaded areas. It is estimated that some 80 000 ha remain to be cleared – a task that is estimated will take more than 20 years. The main species being removed are black wattle (*Acacia mearnsii*) (95%), silky hakea (*Hakea sericea*) (2%), pines (*Pinus* species) (2%) and bluegum (*Eucalyptus* species), blackwood, rooikrans, Port Jackson (*Acacia* species) and grey poplar (*Populus x canescens*) (1%) (Photo: D. Rogers).

Integrated Catchment Management

Given that biodiversity conservation and the provision of good quality water are key products of the mega-reserve, an Integrated Catchment Management Plan (ICMP) is an important management tool. Fire management (especially in the Kouga Mountains) and the removal of invasive alien vegetation (especially black wattle), followed by restoration of transformed riverine areas, are vital components of this plan.

For the benefit of the fire-prone fynbos, and for maintaining communities of large herbivores, it is necessary to restore and maintain, as closely as possible, a natural fire regime, and to minimize the occurrence of unnatural fires. Alien plants use water, choke and transform riparian systems, and negatively impact on the aesthetic appeal of the area.

A well-resourced management authority is required for an ICMP to be compiled and effectively implemented.

Key Performance Area 5: Improving Rural Livelihoods

JOB CREATION AND SKILLS DEVELOPMENT: HARNESSING THE OPPORTUNITIES

The Baviaanskloof Project Management Unit and conservation managers from the Baviaanskloof Nature Reserve have identified priority projects that require implementation in the reserve. These projects, which range from repairs to roads and infrastructure to the creation and development of new tourism products, form the basis for a job creation and skills development initiative.

Funding to the value of R17.3 million has been sourced for these projects from the National Lottery Distribution Trust Fund (R1.3 million) and from the national Department of Environmental Affairs and Tourism's Poverty Relief Project (R16 million), the latter as part of the South African government's Expanded Public Works Programme. Both projects focus on the upliftment of local communities that have previously been denied access to development opportunities.

The information in this Chapter provides evidence that the plans and activities emanating from, or closely aligned with, the Baviaanskloof Mega-reserve's Conservation Strategy are starting to achieve success. It also illustrates what can be achieved when a spirit of co-operation and commitment prevails amongst a diverse array of stakeholders.

Clearly, the opportunities provided by the conservation of biodiversity are beginning to have a significant impact on the mega-reserve, and on many of the people that live there.



65. Lottery-funded projects will (a) provide an assessment of the heritage value of the Baviaanskloof area and the drawing up of a business plan for a heritage route through the reserve, (b) enable the creation of a new two-day hiking trail that starts and ends at Komdomo tourist camp on the eastern boundary of the Baviaanskloof Nature Reserve, with an overnight stop at the Bergplaas hut, and (c) support the upgrading of three day-visitor sites in the reserve. The Bergplaas hut (shown here) will receive an upgrade through this funding. The lottery funding is committed to delivering 40 % of the allocated budget to previously disadvantaged contractors from the surrounding local communities (Photo: A. Boshoff).

66. The majority of the people working on the poverty relief projects will be sourced from contractors in the surrounding areas. Within the budget, funds have been allocated to facilitate vocational training for those involved in the different components of the projects. Projects include a World Heritage Site Interpretation Centre, tourism development projects, new entrance gates and signage, the upgrading of 50 kms of road through the Baviaanskloof Nature Reserve, and the removal of obsolete structures. A total of 150 people are being employed on work teams under this scheme, these being made up of 60 % females, 20 % youths and 1 % disabled people (Photo: A. Tanner).



Photo: G. Spiby

The Baviaanskloof Mega-reserve Project has overcome a number of challenges to reach the point where the planning phase has been completed and the implementation phase initiated. Implementation actions on the ground are increasingly realising positive effects on biodiversity conservation, community upliftment and regional economic growth. Importantly, there is generally good ‘buy-in’ for the initiative from key stakeholders, including local communities, and funding has been secured to “kickstart” short- and medium-term activities. Notwithstanding the progress made to date in the establishment of the mega-reserve, considerable attention will need to be given to a range of critical issues, relating especially to the achievement of medium- and long-term objectives.

An overarching requirement is the need to secure large-scale funding to expand and maintain fully resourced provincial conservation agencies that can manage, monitor and evaluate the project, on both protected areas and on adjacent private or communal land. It is also essential that sufficient resources be secured to enable the effective management of the formal protected areas that constitute the core of the mega-reserve. In particular, the integrity of the Baviaanskloof Nature Reserve World Heritage Site must be maintained into the future; if adequate resources are not made available for this purpose, the international conservation status of this site will be threatened. It is now imperative that government, at the national and provincial levels, gives full expression to its prioritisation and institutionalisation of support for the mega-reserve project.

Strong emphasis also needs to be placed on attempts to get other conservation initiatives and organisations, and land management agencies, that are operating in the broader Baviaanskloof area to align their strategies and actions with those of the Baviaanskloof Mega-reserve

The ultimate success of the Baviaanskloof Mega-reserve remains dependent on the ongoing support of the people of the region, all three tiers of government, the conservation fraternity at large, and the donor community. The Baviaanskloof Project Management Unit, the Eastern Cape Parks Board and the Chief Directorate: Environmental Affairs (Eastern Cape Government) will work together to initiate, develop and expand appropriate relationships between the mega-reserve project and these broad stakeholder groups.

Although there remains a long road ahead, the Baviaanskloof Mega-reserve is becoming a reality. Increasing numbers of people and organisations are developing an awareness of, or participating directly and indirectly in, this innovative and exciting conservation and development initiative.

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Photo: E. Richardson



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Cacadu District Municipality P O Box 318 Port Elizabeth 6000	Tel: 041 508 7144 Fax: 041 508 7000
Eden District Municipality P O Box 12 George 6530	Tel: 044 803 1300 Fax: 044 874 6625
Baviaans Municipality P O Box 15 Willowmore 6445	Tel: 044 923 1004 Fax: 044 923 1122
Koukamma Municipality P O Box 11 Kareedouw 6400	Tel: 042 288 0303 Fax: 042 288 0090
Kouga Municipality P O Box 21 Jeffrey's Bay 6330	Tel: 042 293 1111 Fax: 042 293 1114
Western Baviaanskloof Initiative Matjesfontein Farm Baviaanskloof	Tel: 044 923 1751
Baviaans Conservancy P O Box 26 Steytlerville 6250	Tel: 049 835 0572 Fax: 049 833 0036
Friends of the Baviaanskloof Wilderness Area 5 Brendon Road Broadwood 6070	Tel: 484 4808 Fax: 041 484 4055
Mountain Club of South Africa (Eastern Cape Section) P O Box 1274 Port Elizabeth 6000	Tel: 041 368 2771
Eastern Cape Tourism Board P O Box 18373 Quigney 5211	Tel: 043 701 9600 Fax: 043 742 5567
Baviaanskloof Tourism	www.baviaanskloof.co.za

THE
BAVIAANSKLOOF
MEGA-RESERVE



Vision for the Baviaanskloof Mega-reserve Project:
Expanding the conservation estate of the Baviaanskloof for the benefit of all

