IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 07 November 2014

Please note: this is an archived Conservation Outlook Assessment for Cape Floral Region Protected Areas. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Cape Floral Region Protected Areas

SITE INFORMATION

Country:
South Africa
Inscribed in: 2004
Criteria:
(ix) (x)

Site description:

Inscribed on the World Heritage List in 2004, the property is located at the south-western extremity of South Africa. It is one of the world's great centres of terrestrial biodiversity. The extended property includes national parks, nature reserves, wilderness areas, State forests and mountain catchment areas. These elements add a significant number of endemic species associated with the Fynbos vegetation, a fine-leaved sclerophyllic shrubland adapted to both a Mediterranean climate and periodic fires, which is unique to the Cape Floral Region.
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SUMMARY

2014 Conservation Outlook

Good with some concerns

The conservation outlook looks stable, particularly given accelerated management efforts to control invasive alien plants and wild fires. The Western Cape Nature Conservation Board has been proactive in addressing the challenge of alien invasives through complementary methods including biological control agents for invasive plants especially in mountainous areas both inside and outside of parks. Within the protected areas of the Cape Floral Region, the diversity, density and endemism of the flora as well as the associated evolutionary processes are stable. Uncertainty exists regarding future impacts of climate change, and there is insufficient data available on any changes in rare species since inscription, but they are likely to be stable. Other threats such as the growing impact of human populations, are mostly manageable.

Current state and trend of VALUES

Low Concern
Trend: Stable

Within the protected areas of the CFR, the diversity, density and endemism of the flora as well as the associated evolutionary processes are stable. Uncertainty exists regarding accelerated impacts of climate change. Insufficient data is available on any changes in rare species since proclamation, but their state is likely to be stable. Given current increased efforts to control invasive plants, and manage wild fires, trends are likely to be stable over the short to medium term.

Overall THREATS

High Threat

The main problems are aggressively invasive species and the resulting intensity of wildfires. Alien invasive plants pose the most severe threat for the continued existence of Fynbos ecosystems. Large areas of the site are invaded, particularly

coastal habitats. Invasive plants pose both a direct (through displacement), cumulative (disruption of catchment water retention) and a knock on effect (in promoting the second most severe threat, excessive fires). The impacts of climate change are likely to increase in the future. Five of the eight component sites offer some altitudinal buffering at a local scale; but at a larger geographic scale, there is limited ability for adaptation by southward vegetation shifts. Alien invasive plants, increased fires, and climate change impacts as well as increased human population pressure can expect to act synergistically with each other, (threats acting in concert can result in a multiplier impact effect).Trends for all of these threats are on the increase, over large areas of the Cape Floral Region, although major integrated efforts are underway, particularly within protected areas to control invasive plants and wild fires.

Overall PROTECTION and MANAGEMENT

Mostly Effective

The key threats of alien invasive species, and the associated fire risk that these invasive plants species pose, as well as land use change are both regulated and monitored. The Western Cape Nature Conservation Board has been proactive in addressing the challenge of alien invasive organisms through complementary methods including biological control agents for invasive plants especially in mountainous areas both inside and outside of parks. An integrated approach to fire and alien invasive management has been adopted. CapeNature has an Invasive Alien Plant Strategy which pinpoints localities in need (CapeFloral.WCMCDatasheet, 2011, IUCN, 2008).

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Outstanding diversity, density and endemism of flora**
  Criterion:(x)

  A serial site – in the Eastern and Western Cape Provinces, South Africa – made up of eight protected areas, covering 553,000 ha, the Cape Floral Region is one of the richest areas for plants in the world. It represents less than 0.5% of the area of Africa but is home to nearly 20% of the continent's flora. The outstanding diversity, density and endemism of the flora are among the highest worldwide. Some 69% of the estimated 9,000 plant species in the region are endemic, with some 1,435 species identified as threatened. The Cape Floral Region has been identified as one of the world's 18 biodiversity hot spots (SoOUV, 2011).

- **Ongoing ecological and biological processes associated with the evolution of the unique Fynbos biome**
  Criterion:(ix)

  The property is considered of outstanding universal value for representing ongoing ecological and biological processes associated with the evolution of the unique Fynbos biome. These processes are represented generally within the Cape Floral Region and captured in the eight protected areas. Of particular scientific interest are the plant reproductive strategies including the adaptive responses to fire of the flora and the patterns of seed dispersal by insects. The pollination biology and nutrient cycling are other distinctive ecological processes found in the site. The Cape Floral Region forms a centre

of active speciation where interesting patterns of endemism and adaptive radiation are found in the flora (SoOUV, 2011).

Assessment information

Threats

Current Threats

High Threat

The main problems are aggressively invasive species and the resulting intensity of wildfires. Alien invasive plants pose the most severe threat for the continued existence of Fynbos ecosystems. Large areas of the site are invaded, particularly coastal habitats. Invasive plants pose both a direct (through displacement), cumulative (disruption of catchment water retention) and a knock on effect (in promoting the second most sever threat, excessive fires)

▶ Fire/ Fire Suppression

Very High Threat
Inside site
Outside site

Too frequent burns are major threat to fynbos, as it prevents plants from reach seeding age. Fire is a natural component of the Fynbos Biome but the fire incidence is greatly increased within the Cape Peninsula (Table Mountain NP), due to the proximity to the larger urban centre of Cape Town. In some areas fire has been suppressed unnaturally due to the proximity to the Urban interface. Increasing fire incidence is also related to the presence of alien invasive species. Climate change, believed to stimulate growth of invasive woody plants, as well as increased drying will increase fire severity and frequency. Fire incidents outside CFR PA’s are increasing and risk to PA’s increasing proportionately.
Fire management is a major issue in all clusters. (R1, R2)

► Invasive Non-Native/ Alien Species

High Threat
Inside site
Outside site

Alien plants (including Pinus spp., blackwattle, Hakea spp and Eucalyptus spp.) pose the most severe threat for the continued existence of Fynbos ecosystems. Invasive species have invaded large areas of the site particularly coastal habitats. Species that depend on seed dispersal by ants are particularly under threat, as indications are that the alien Argentine ant could displace the native seed-dispersing species. (R1, R2).

► Temperature changes

Data Deficient
Inside site
Outside site

Increase in extreme climatic events, and rainfall variability are believed to be due to global/human-induced climate change (R1). Current impact on flora is uncertain, but may be promoting growth of woody invasive plants (R2).

► Other

Low Threat
Outside site

At the time of inscription, IUCN noted that invasive species were the most severe threat to the continued existence of the Fynbos ecosystems that characterize this site. In 2006, it was reported that a lack of funding was prohibiting effective management of this threat, however this situation has improved (The State Party report presents detailed information on the budgets allocated to the management of fire and invasive species in the site, confirming a significant additional allocation from the Provincial Treasury of R23.8million (c. USD 2.5million) in the financial year 2009/10 in addition to the R87.7 million in the 2008/09 budge. (SOC Report, 2009) TMNP Annual Working for Water (WfW) budget is R20 million per year.

Potential Threats

High Threat

The impacts of climate change are likely to increase in the future. Five of the eight component sites offer some altitudinal buffering at a local scale; but at a larger geographic scale, there is limited ability for adaptation by southward vegetation shifts. Human population pressure will pose an increasing threat to at least one of the major components, the Table Mountain NP, and will also exacerbate climate change impacts for all sites.

► Temperature changes

High Threat
Inside site
Outside site

Predictions include a warmer climate (up to 3.7 deg C) and a shifting rainfall (10-30 % decrease in Winter rainfall) by 2050. Six of the eight units are large with steep altitudinal gradients and all are surrounded by other conservation lands. These will help moderate some effects of climate change and a monitoring system is in place to detect what these effects will be. Predictions include that the geographic extent of Cape Fynbos may be reduced by around two-thirds, with over half of its species becoming extinct due to temperature rise. In addition to this, higher temperatures and levels of carbon dioxide in the air will increase the risk of wildfires in Fynbos areas (R1, R2)

► Housing/ Urban Areas

Low Threat
Outside site

Human population pressures on biodiversity are expected to grow and will particularly affect the Cape Peninsula portion of the site, reflecting its location adjacent to the city of Cape Town The current population within the Cape Peninsula region of 3.5 million is projected to grow to 6.2 million by 2020. Population pressure also results in increasing incidence of human induced fire and the park (TMNP) as a recreational resource for urban residents.

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

Except for the Cape Peninsula (Table mountain National Park) adjoining the metropolis, most of the component sites are nearly empty of people and buffered by lightly populated reserves, the mountainous areas with almost no population. The high population neighboring the Table Mountain National Park have necessitated social programs to combat poverty and enlist conservation awareness through volunteer group work.(R4)

► Management system

Mostly Effective

The Cape Floral Region Protected Areas comprises a serial property of eight protected areas covering a total area of 553,000 ha. The component protected areas are managed jointly by three conservation agencies (Western Cape Nature Conservation Board, South African National Parks Board and the Eastern Cape Parks and Tourism Agency). All the properties are protected in terms of various Provincial and National legislation and are already declared or are in the process of being declared in terms of the National Environmental Management: Protected Areas Act (57 of 2003). All properties within the site have management plans and have staff to manage the properties (SoOUV, 2011; IUCN Consultation Form, 2013).

► Management effectiveness

Mostly Effective

Monitoring and management systems are in place in all of the component l sites. While these systems are considered effective given the available resources, they could be further strengthened if a higher budget for these activities were available (Cape Floral SOC). Western Cape Nature Conservation Board (t/a CapeNature) has been proactive in addressing the challenge of alien invasive through complementary methods including

biological control agents for invasive plants, especially in mountainous areas. An integrated approach to fire and alien invasive management has been adopted. Fire management has also improved with the implementation of more coordinated responses to fires through Incident Command Centers supported by various government, local government and private stakeholders.

► Boundaries

Some Concern

The extension of the CFRPA WHs is a critical step to further secure the CFR protected area network and the associated buffering mechanisms inclusive of biodiversity corridors and biosphere reserves. There are proposed changes to the original extension nomination dossier and it is in the process of being finalized with the aim of submission by February 2014 (IUCN World Heritage Consultation Form).

► Integration into regional and national planning systems

Mostly Effective

Part of national park and provincial park management systems. The potential extension of the CFRPA WHS is part of the National Protected Area Expansion strategy. As Protected Areas under NEMA, management authorities also have to contribute to Provincial and local SDF and IDP’s.

► Sustainable finance

Some Concern

All three agencies responsible for the management of the component sites were able to access funding to support fire management, as well as actions undertaken to combat alien invasive species, through National Environmental Protection and Infrastructure Programmes (EPIP) and other existing programmes such as “Working on Fire”, “Working for Water” and “Working for Wetlands”. Sustainable funding for conservation management is under some pressure from competing socio-economic priorities.

► Sustainable use

Mostly Effective

No resource use is permitted within the component sites (apart from controlled recreational fishing within limited sites of Cape Peninsular National Park).

► Education and interpretation programs

Mostly Effective

The communications departments of the reserves have a broad range of outreach and educational programmes, information pamphlets, maps, brochures, and advertising campaigns both in the reserves and in travel magazines. Promotion uses other media outlets, meetings and discussions between reserve managers and neighbours in both provinces. (CapeFloral.WCMCDatasheet, 2011).

► Monitoring

Mostly Effective

Monitoring systems are in place in all of the component sites. While these systems are considered effective given the available resources, they could be further strengthened if a higher budget for these activities were available (Cape Floral SOC Report)
The concern over the increasing fire frequency, especially due to the proximity of the Table Mountain National Park to the urban environment has led to commissioning of the Council for Scientific and Industrial Research (CSIR) to update its fire management programme and set in place scientifically based desired measure and targets with respect to fire management. As such, an intensive fire monitoring programme, based on adaptive conservation management, is underway and a dedicated fire Management budgets now exceeds R10 million per year.

► Legal framework and enforcement

Mostly Effective

The component areas are managed under a region-wide conservation framework, the Cape Action for People & the Environment (CAPE) Project, established with assistance from the GEF in 2000. CAPE coordinates the work of national, provincial and local authorities (South African National Parks, Western Cape Nature Conservation Board and Eastern Cape Parks and

Tourism Agency, National Department of Environmental Affairs), and private landowners, make up the “Cape Floral Region Protected Areas World Heritage Property Joint Management Committee” to promote the protection of biodiversity by integrating social, financial and conservation initiatives. Acts and legal instruments affecting the area include the World Heritage Convention Act, National Environmental management Act, Environment Conservation Act, National Water Act, Conservation of Agricultural Resources Act, Mountain Catchment Areas Act, National Heritage Resources Act, National Forests Act, National Veld and Forest Fire Act, the Sea-shore Act, the Marine Living Resources Act, Wetlands
Conservation Bill, the Biodiversity White Paper and the National Coastal Management Bill. NEMA: Protected Areas Act, NEMA: Biodiversity Act

► Implementation of Committee decisions and recommendations

Mostly Effective

The 2009 State Party Report outlines the actions undertaken in response to the Committee decisions:
a) Establishment of a single management authority
In line with the World Heritage Convention Act, the Department of Environmental Affairs and Tourism (DEAT) was appointed as the single overall management authority for the property. Part of its authority was delegated to the three management agencies in charge of the different components, SANParks, CapeNature and the Eastern Cape Parks and Tourism Agency (ECPTA), which ensure the management of the components for which they have the lead responsibility. Coordination is ensured through a Joint Management Committee, which includes the Chief Executive Officers of these three entities together with a representative of DEA.
b) Extension of the property
The extension and buffering of the property is underway. An assessment of protected areas suitable for inclusion within an extended property was undertaken, based on a rigorous set of criteria. It is anticipated that the proposed extension will include extensions of existing protected areas, creation of several new protected areas and an extension of buffer zones. These are being considered within a number of landscape initiatives under the Cape Action People and Environment programme (CAPE), which is seeking to create biodiversity corridors to increase the connectivity between the components within the site and to improve the long term viability of the

protected area estate. This increased connectivity would also further enhance the resilience of the property to climate change.
c) Budgets to combat invasive plants and monitor fire impacts
Significant additional budget of R23.8million (c. USD 2.5million) was allocated from the Provincial Treasury in the financial year 2009/10 in addition to the R87.7 million in the 2008/09 budget.
(State Party Report, 2009) TMNP R20m per year.

► Staff training and development

Mostly Effective

Each reserve has at least one Resident Manager and highly qualified staff who are employed in planning and management, research and development, reinforced by in-house training and continued higher study. Total staff numbers differ with situation: Table Mountain National Park employs 207 permanent staff, Two of the Boland Mountain reserves, 75, Baviaanskloof, 75. De Hoop, 35, Swartberg, 30, Boosmansbos (CapeFloral.WCMCDatasheet, 2011).

► Tourism and interpretation

Mostly Effective

The Cape is a popular tourist destination, both nationally and internationally, especially the Table Mountain National Park which received in 2008 over 2 million fee-paying visitors and 2 million others. Flower, whale and penguin viewing are among the attractions. Other reserve visitation varies between 58,500 a year in the Boland Mountain reserves near Cape Town, to 18,000 a year in Cederberg and De Hoop and 1,130 in Boosmansbos. Baviaanskloof receives approximately 15 000 visitors p/a. Infrastructure and reserve facilities are excellent and effective methods are used to control visitor numbers when necessary. (CapeFloral. WCMCDatasheet, 2011).

► Research

Mostly Effective

This is one of the most intensely researched floral regions in the world. The site nomination’s bibliography lists 290 publications on the flora, fauna and culture of southwest Africa. Three local universities and the South African National Biodiversity Institute sponsor constant research. The Western Cape

Nature Conservation Board (Cape Nature) uses GIS recording in the State of Biodiversity database to capture, store, retrieve and
process biological data on species distribution and populations, alien plant eradication, fire mapping,
water quality and other ecological processes, all centrally stored at the Scientific Services Headquarters at Jonkershoek. Predictive models forecasting the potential effects of climate change on each area have been prepared. The Eastern Cape is also developing an information system. The eight areas contribute to national monitoring exercises such as the Protea Atlas Project, the South African Bird-ringing Project, the Birds in Reserves Project, Frog Atlas Project, the Nest Record Card Scheme, the Information System for Endangered Plants and the WCNCB Provincial Fire Records database.
The 200 hectare Kirstenbosch National Botanical Garden and Institute near Cape Town have very good visitor and research facilities and are an integral and biodiverse part of the Cape Peninsula National
Park, focussing on research and public education about the fynbos. Uniquely, the Botanic Garden is
therefore included within the natural World Heritage site.
(CapeFloral.WCMCDatasheet, 2011).

Overall assessment of protection and management

Mostly Effective

The key threats of alien invasive species, and the associated fire risk that these invasive plants species pose, as well as land use change are both regulated and monitored. The Western Cape Nature Conservation Board has been proactive in addressing the challenge of alien invasive organisms through complementary methods including biological control agents for invasive plants especially in mountainous areas both inside and outside of parks. An integrated approach to fire and alien invasive management has been adopted. CapeNature has an Invasive Alien Plant Strategy which pinpoints localities in need (CapeFloral.WCMCDatasheet, 2011, IUCN, 2008).

► Assessment of the effectiveness of protection and management in

addressing threats outside the site

Mostly Effective

Most of the nominated sites are in remote country, buffered by adjacent reserves and exist within a well
developed legal framework. They are part of the region-wide conservation framework. An integrated approach to fire and alien invasive management has been adopted both inside and outside of parks. (2013, Confidential Consultation Form)

► **Best practice examples**

The integrated approach to fire and alien invasive plant management adopted both inside and outside of parks. CapeNature has adopted a Working on Fire Programme to manage fires, and has trained and equipped 1,056 fire-fighting recruits since 2004. Fire Records database and an Alien Invasive Plant database are maintained along with Bio Control Agent database which is also being developed to add a further layer to support more efficient catchment management planning across the CFR.
The National monitoring exercises, that include the Protea Atlas Project, the South African Bird-ringing Project, the Birds in Reserves Project, Frog Atlas Project, the Nest Record Card Scheme, the Information System for Endangered Plants

State and trend of values

Assessing the current state and trend of values

World Heritage values

► **Outstanding diversity, density and endemism of flora**

Low Concern
Trend:Stable

No reports of any significant loss of diversity within the component sites could be found. However more recent monitoring information concerning the conservation status of rare flora in the properties is required. Of particular concern are the medium-long term impacts of alien invasive and wild fires on

rare species, despite clearing efforts.

▶ **Ongoing ecological and biological processes associated with the evolution of the unique Fynbos biome**
Low Concern
Trend:Stable

No reports could be found showing any significant damage to the reserves in which these processes are occurring.

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
Low Concern
Trend: Stable

Within the protected areas of the CFR, the diversity, density and endemism of the flora as well as the associated evolutionary processes are stable. Uncertainty exists regarding accelerated impacts of climate change. Insufficient data is available on any changes in rare species since proclamation, but their state is likely to be stable. Given current increased efforts to control invasive plants, and manage wild fires, trends are likely to be stable over the short to medium term.

Additional information

Key conservation issues

▶ **Control of invasive species**
Local

Alien plants pose the most severe threat for the continued existence of Fynbos ecosystems. Invasive species have invaded large areas of the nominated area particularly coastal habitats.

▶ **Fire management**

Local

Too frequent burns are major threat to fynbos, as it prevents plants from reach seeding ages, however, fire is a natural component of the Fynbos Biome but the fire incidence is greatly increased within the Cape Peninsula (Table Mountain NP), due to the proximity to the larger urban centre of Cape Town. Increasing fire. Some areas have received un-natural fire suppression. Incidence is also related to the presence of alien invasive species.

▶ **Mitigation of climate change impacts**

Local

Decreased winter rainfall , increased temperatures, and extreme climatic events, may be mitigated spatially, by allowing species distributional shifts, in particular along attitudinal gradients, and by improving landscape connectivity, in particular by expansion of park boundaries.

Benefits

Understanding Benefits

▶ **Is the protected area valued for its nature conservation?**

Large number of endemic flora representative of the Cape Floral Region, a global biodiversity hotspot.

▶ **Carbon sequestration, Soil stabilisation, Flood prevention, Water provision (importance for water quantity and quality), Pollination**

Water catchment, water flow regulation, erosion control, climate amelioration. Carbon sequestration and storage, pollination for crops.

▶ **History and tradition**

Cultural and historical sites.

▶ **Importance for research**

Scientific research (important resource for building knowledge on evolution of speciation)

▶ **Outdoor recreation and tourism**

Mountaineering and hiking, nature tourism, cultural tourism, scientific tourism

▶ **Does management of the site provide jobs (e.g. for managers or rangers)?**

Park management, interpretation, education and tourism, fire and alien plan control all generate jobs.

▶ **Collection of genetic material**

The large species diversity provides a potential genetic resource for phyto-chemicals and plant oils

Summary of benefits

The site provides various goods and services and plays a critical role in water security. South Africa is a water scarce country and there is need to secure and conserve these resources. Many of the properties that make up the site form part of the upper catchment and in some cases supply water to large metropolitan areas. Some key beneficiaries being, people living in urban areas such as Cape Town and Port Elizabeth. Securing ecological infrastructure including intact freshwater ecosystems is critical to ensure resilience in the face of anticipated climate change. Eco-Tourism has played an important role in job creation at the local, regional and national level. The protected areas also implement the EPIP programmes, which is primarily aimed at poverty alleviation and skills development. The National Biodiversity Assessment report (NBA.2011) produced by the South African National Biodiversity Institute highlights the role that that protected areas play in supporting rural livelihoods in areas with marginal agricultural activities.
The Cape floral WHS has a global value in securing the conservation of a large portion of the endemic flora of the Cape Floral Kingdom, a global biodiversity

hotspot. (2013, IUCN Consultation)

Projects

Compilation of active conservation projects

№	Organization / individuals	Project duration	Brief description of Active Projects
1	University of Cape Town: Animal Demography Unit		National monitoring exercises that include or focus on CFR: Protea Atlas Project, the South African Bird-ringing Project, the Birds in Reserves Project, Frog Atlas Project, Penguin-Watch , Southern African Butterfly Conservation Assessment
2	"Working for.. "programs (Water, wetlands , fire)		Part of the South African Government's initiative to create jobs and to alleviate poverty by providing biodiversity related jobs, to control alien invasive plants, fight fire and improve wetlands.
3	CapeNature: Save our fynbos fish		The indigenous fynbos fish of the Western Cape are under severe threat. The greatest threat comes from invasive alien fish, which prey on them (e.g. smallmouth bass), compete for resources (e.g. banded tilapia) and degrade their habitat (e.g carp).
4	CapeNature: Cederbeg amphibians and reptiles project		The Greater Cederberg Biodiversity Corridor (GCBC) is one of the corridors proposed for the Cape Floristic Region (CFR). To ensure that the Cederberg Corridor will make a significant contribution to the conservation of the amphibians and reptiles in the CFR, a detailed survey of the greater Cederberg area is first required.
5	CapeNature: The Greater Cederberg Biodiversity Corridor		The GCBC aims to establish biodiversity corridors across its landscape to ensure the establishment of healthy connected corridors of natural vegetation. These corridors include formally protected areas and natural vegetation on privately owned land
6	ECPTA Biodiversity Stewardship program		Biodiversity agreements entered into with private landowners where their properties are included in the conservation landscape and are managed by owners under guidance of a management plan and supported by ECPTA

№	Organization / individuals	Project duration	Brief description of Active Projects
7	ECPTA Baviaanskloof Mega Reserve Landscape Initiative		The Baviaanskloof Mega Reserve landscape Initiative is one of the corridors proposed for the Cape Floristic Region (CFR). The Baviaanskloof Mega Reserve Initiative seeks to have a landscape where conservation, agriculture and eco-tourism combine to work together for the benefit of all stakeholders in the landscape.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N/a	Improved monitoring of change in rare and sensitive species in particular with regard to climate change impacts.	
2	N/a	Bio-control of invasive alien organisms (e.g. argentine ant)	
3	N/a	Development of an early warning system for new invasive species Identification of useful 'indicator specie's to act as early warning systems of ecosystem changes	
4	N/a	Evaluation of economic value of ecosystem services	

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