



ECOSYSTEM PROFILE

THE CAPE FLORISTIC REGION  
SOUTH AFRICA

FINAL VERSION  
DECEMBER 11, 2001

# CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
THE ECOSYSTEM PROFILE	3
THE CORRIDOR APPROACH TO CONSERVATION	4
<b>BACKGROUND</b>	<b>4</b>
CONSERVATION PLANNING IN THE CAPE FLORISTIC REGION: THE CAPE ACTION PLAN FOR THE ENVIRONMENT (CAPE)	5
<b>BIOLOGICAL IMPORTANCE OF THE CFR</b>	<b>7</b>
LEVELS OF BIODIVERSITY AND ENDEMISM	7
LEVELS OF PROTECTION FOR BIODIVERSITY	9
STATUS OF PROTECTED AREAS IN THE CAPE FLORISTIC REGION	10
<b>SYNOPSIS OF THREATS</b>	<b>11</b>
LAND TRANSFORMATION	11
ECOSYSTEM DEGRADATION	12
INSTITUTIONAL CONSTRAINTS TO CONSERVATION ACTION	13
LACK OF PUBLIC INVOLVEMENT IN CONSERVATION	14
<b>SYNOPSIS OF CURRENT INVESTMENTS</b>	<b>14</b>
MULTILATERAL DONORS	16
NONGOVERNMENTAL ORGANIZATIONS	17
<b>POTENTIAL INVESTMENT IN CAPE IMPLEMENTATION AND PROPOSED COMPLEMENTARITY WITH CEPF FUNDING</b>	<b>17</b>
GOVERNMENT	18
NONGOVERNMENTAL ORGANIZATIONS	19
<b>CEPF NICHE FOR INVESTMENT IN THE REGION</b>	<b>21</b>
<b>CEPF INVESTMENT STRATEGY AND PROGRAM FOCUS</b>	<b>22</b>
SUPPORT CIVIL SOCIETY INVOLVEMENT IN THE ESTABLISHMENT OF PROTECTED AREAS AND MANAGEMENT PLANS IN CFR BIODIVERSITY CORRIDORS	24
PROMOTE INNOVATIVE PRIVATE SECTOR AND COMMUNITY INVOLVEMENT IN CONSERVATION IN LANDSCAPES SURROUNDING CFR BIODIVERSITY CORRIDORS	25
SUPPORT CIVIL SOCIETY EFFORTS TO CREATE AN INSTITUTIONAL ENVIRONMENT THAT ENABLES EFFECTIVE CONSERVATION ACTION	26
ESTABLISH A SMALL GRANTS FUND TO BUILD CAPACITY AMONG INSTITUTIONS AND INDIVIDUALS WORKING ON CONSERVATION IN THE CFR	27
<b>SUSTAINABILITY</b>	<b>27</b>
<b>CONCLUSION</b>	<b>28</b>
<b>LIST OF ACRONYMS</b>	<b>29</b>

## **INTRODUCTION**

The Critical Ecosystem Partnership Fund (CEPF) is designed to better safeguard the world's threatened biodiversity hotspots in developing countries. It is a joint initiative of Conservation International (CI), the Global Environment Facility (GEF), the Government of Japan, the MacArthur Foundation and the World Bank. CEPF provides financing to projects in biodiversity hotspots, areas with more than 60 percent of the Earth's terrestrial species in just 1.4 percent of its land surface. A fundamental purpose of CEPF is to ensure that civil society is engaged in efforts to conserve biodiversity in the hotspots. An additional purpose is to ensure that those efforts complement existing strategies and frameworks established by local, regional, and national governments.

CEPF aims to promote working alliances among community groups, NGOs, government, academic institutions, and the private sector, combining unique capacities and eliminating duplication of efforts for a more comprehensive approach to conservation. CEPF is unique among funding mechanisms in that it focuses on biological areas rather than political boundaries and will examine conservation threats on a corridor-wide basis for maximum return on investment. It also focuses on transboundary cooperation when areas rich in biological value straddle national borders, or in areas where a regional approach will be more effective than a national approach. CEPF aims to provide civil society with an agile and flexible funding mechanism complementing funding currently available to government agencies.

CEPF offers an opportunity to promote the conservation of some of the most important ecosystems in the world — places of high biodiversity and great beauty. Additionally, CEPF will stimulate engagement of a wide range of public and private institutions to address conservation needs through coordinated regional efforts

The Cape Floristic Region (CFR) is an appropriate recipient of CEPF investment for several reasons. The diversity of indigenous plants in the region is unparalleled in any similar-sized area of the world, and this unique environmental region is seriously threatened by expanding human activity. The level of previous investment and existing capacity in the region provides an exciting opportunity for CEPF to support activities that will conserve the CFR's biodiversity in perpetuity and to create a model of a holistic approach to regional conservation for other hotspots.

### **The Ecosystem Profile**

The purpose of the ecosystem profile is to provide an overview of the causes of biodiversity loss in a particular region and to couple this assessment with an inventory of current conservation activities in order to identify the niche where CEPF investments can provide the greatest incremental value. The ecosystem profile is intended to recommend broad strategic funding directions that can be implemented by civil society to contribute to the conservation of biodiversity in the targeted region. Applicants propose specific projects consistent with these broad directions and criteria. The ecosystem profile does not define the specific activities that prospective implementers may propose in the region, but outlines the conservation strategy that will guide those activities. For this reason, it is not possible or appropriate for the ecosystem

profile to be more specific about the site or scope of particular interventions or to identify appropriate benchmarks for those activities. Applicants will be required to prepare detailed proposals that specify performance indicators.

## **The Corridor Approach to Conservation**

The corridor approach to biodiversity conservation seeks to provide a practical and effective solution to the universal difficulty of maintaining extensive areas of pristine habitat. It is recognized that large habitat parcels are essential for maintaining biodiversity and large-scale ecological processes, and that every opportunity to protect large bodies of habitat in perpetuity should be taken. Existing protected areas are often too small and isolated to maintain viable ecosystems and evolutionary processes; indeed, in many hotspots, even the remaining unprotected habitat fragments are acutely threatened. In such circumstances, conservation efforts must focus on linking major sites across wide geographic areas in order to sustain these large-scale processes and ensure the maintenance of a high level of biodiversity. Such networks of protected areas and landscape management systems are *biodiversity corridors*. In many countries, there are few opportunities for the establishment of effective corridors for landscape-level conservation. In the Cape Floristic Region, however, there are extensive opportunities to link broad habitat units through landscape gradients, and ensure that ecosystem-wide processes are protected.

The main function of the corridors is to connect biodiversity areas through a patchwork of sustainable land uses, increasing mobility and genetic exchange among individuals of fauna and flora even in the absence of large extensions of continuous natural habitat. Such corridors not only promote the immediate goals of regional-scale conservation based on individual protected areas, but also help maintain the ecosystem processes needed in order to sustain biodiversity into the future. In this context, small habitat fragments within corridors perform several related functions — connecting or reconnecting larger areas, maintaining heterogeneity in the habitat matrix, and providing refuge for species that require the unique environments present in these fragments.

Large-scale intervention through biodiversity corridors, ecoregional planning, and landscape conservation is therefore one of the highest conservation priorities at the regional level in many of the world's hotspots and wilderness areas. From an institutional perspective, CEPF's adoption of the corridor approach aims to stimulate new levels of civil society empowerment and participation in practical and political processes as a way to underpin and to multiply the effect of government and corporate responses to conservation. The corridor approach relies on strategic partnerships with key stakeholders to build a support framework and to coordinate activities in the field. The active involvement of local stakeholders and the development of their planning and implementation skills are essential to the sustainability of the biodiversity corridor.

## **BACKGROUND**

A combination of political and geographic factors contributes to a unique set of opportunities and challenges to conservation in the Cape Floristic Region (CFR) Hotspot in South Africa. As a signatory to the Convention on Biological Diversity, CITES, and the International Convention on

Wetlands of International Importance, and host of the second Earth Summit in 2002, the Government of South Africa has demonstrated a significant commitment to conservation of Africa's biodiversity. Within the CFR, local capacity for conservation is of high quality but professionals are insufficient in number. The CFR is politically simplified by the fact that the entire hotspot primarily falls within a single province. In addition, poor soils and inaccessible mountain areas have effectively protected nearly 50% of the region's natural vegetation from destruction, making the CFR one of the most opportune places to conserve biodiversity in a global hotspot.

However, the ability to take advantage of this opportunity is hindered by several serious obstacles. Despite a desire to meet commitments to international conventions, the pressing need to redress past inequalities in South Africa has diminished the relative emphasis on conservation at all levels of government. As a result, resources to support conservation areas and sustainable use initiatives have decreased. Meanwhile, inappropriate land use decisions continue to allow conversion and fragmentation of original landscapes, and the proliferation within them of alien species, to continue unabated. There is also a powerful opportunity to demonstrate that conservation action and investment can contribute to community development and economic empowerment. In particular, the manner in which investments in biodiversity conservation are conducted can contribute not only to successful and exemplary conservation results, but also in redressing elements of the past marginalisation of communities in South Africa.

### **Conservation Planning in the Cape Floristic Region: The Cape Action Plan for the Environment (CAPE)**

To counter the threats facing the CFR, a comprehensive planning and strategy development process involving stakeholders from the government, academia, NGOs, and local communities was held from 1998-2000 with funding from the Global Environment Facility (GEF) and the World Bank. As part of this process:

- extensive stakeholder and community consultations were held;
- comprehensive assessments of the legal and institutional environment for biodiversity conservation were conducted; and
- a spatial plan of priorities was developed using a rigorous scientific process to identify areas that should be included in a conservation area network to protect ecological processes essential to biodiversity.

The result of this process, the Cape Action Plan for the Environment (CAPE), identifies threats to biodiversity and recommends a comprehensive strategy to achieve conservation and sustainable development goals for the CFR within 20 years. CAPE was launched at a public forum in September 2000 and its objectives and proposed priorities enjoy broad support in both government and civil sectors. In pursuit of its goal "to effectively conserve the biological diversity of the Cape Floral Kingdom (CFK), while distributing significant benefits to the people in the region in a way that is embraced by local communities, endorsed by government and recognized internationally," CAPE will:

- establish an effective reserve network, enhance off-reserve conservation, and support bioregional planning;
- strengthen and enhance institutions, policies, laws, cooperative governance, and community participation; and
- develop methods to ensure sustainable yields, promote compliance with laws, integrate biodiversity concerns into catchment management, and promote sustainable ecotourism.

A Coordinating Committee of government agencies has been established to oversee the implementation of CAPE; a memorandum of understanding was signed in September 2001 committing the Ministry of Environmental Affairs and Tourism, the Ministry of Water Affairs and Forestry, and the Eastern Cape and Western Cape provincial governments to the plan. To assist the Coordinating Committee — the CAPE Coordination Unit — has been established to coordinate and support conservation activities within the region at the local, national, and international levels.

Given CEPF’s objectives to address the highest priorities for conservation and to complement existing activities in the CFR Hotspot, the strategic directions of the CEPF program are linked to CAPE and address several specific opportunities and niches within this larger strategy – however with a distinct opportunity focusing on mobilizing civil society participation in conservation. Building on the collaborative processes already underway in the region, CEPF will continue to facilitate nongovernmental, scientific, and other private-sector participation in conservation while offering a flexible and rapid funding mechanism to complement longer-term funding from other donors, particularly the GEF and Table Mountain Fund (TMF).

While it is expected that CEPF funding will be used to implement key activities identified by CAPE, CEPF will remain responsive to new priorities and its funds will not be restricted to projects recommended by the CAPE Coordinating Committee. To ensure dynamic, robust, and broad-based implementation of projects in the CFR, CEPF will collaborate with the CAPE Coordination Unit.

Therefore, with both CAPE priorities considered and threats to biodiversity assessed, the following strategic directions have been identified:

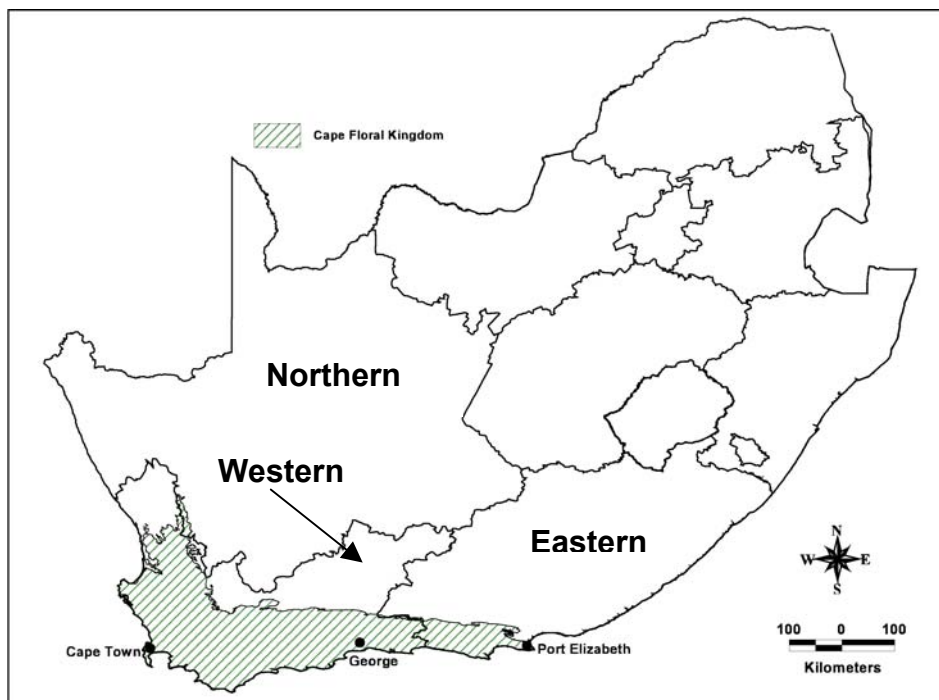
- Support civil society involvement in the establishment of protected areas and management plans in CFR biodiversity corridors.
- Promote innovative private sector and community involvement in conservation in landscapes surrounding CFR biodiversity corridors.
- Support civil society efforts to create an institutional environment that enables effective conservation action.
- Establish a small grants fund for civil society efforts to build capacity amongst institutions and individuals working on conservation in the CFR.

## BIOLOGICAL IMPORTANCE OF THE CFR

The CFR is one of the world's most biologically interesting ecosystems and an epicenter of diversity and endemism. The defined area of the floral region is less than 90,000 square kilometers yet it contains the highest density of plant species in the world, exceeding that of many tropical rainforest systems. Nearly 70% of the plant species and 20% of the genera here are endemic. Unfortunately, the CFR also has the highest concentration of Threatened plants in the world.

## Levels of Biodiversity and Endemism

The CFR is located at the southwestern tip of Africa and lies within the borders of South Africa (Fig. 1). Due to its high concentration of endemic plant taxa, its large number of species, and its vulnerability to processes that threaten its unique biodiversity, the CFR is recognized globally as a biodiversity hotspot. It is one of five Mediterranean-type systems included in nearly all assessments of global conservation priorities, and is the only hotspot that encompasses an entire floral kingdom. As the smallest floral kingdom — one of six botanically recognized regions of the world characterized by distinct groups of plants not found in the other kingdoms — it occupies only 90,000 square kilometers, yet its plant species richness is far greater than that of the Boreal Kingdom, which covers 40% of the Earth's surface. In fact, this small area contains nearly 3% of the world's plant species on 0.05% of the land area. A botanical wonder, the region also possesses high faunal diversity and endemism in both its terrestrial and aquatic communities.



**Fig. 1: The Cape Floristic Region lies at the southern tip of Africa. It includes the entire Fynbos Biome and the southern portion of the Nama Karoo Biome.**

The rich biodiversity of the CFR is due to an extensive and complex array of habitat types derived from topographical and climatic diversity in the region's rugged mountains, fertile lowlands, semi-arid shrublands, and coastal dunes. The dominant vegetation of the CFR is *fynbos* (Afrikaans for "fine bush"). This fire-prone, sclerophyllous shrubland covers just over 80% of the land area and accounts for more than 7,000 of the plant species identified in the CFR. In the lowlands, *fynbos* is replaced by *renosterveld* (Afrikaans for "rhinoceros scrub"), an ericoid shrubland, and coastal dunes and thickets that sustain an extremely high density of plants and animals threatened with extinction. Trees are very rare in pristine CFR habitats, and true forests occupy less than 4,000 square kilometers. The distribution of the CFR's biodiversity is also unusual in that many of the processes that sustain rare and endemic flora can occur in very small patches of remnant vegetation. For example, the remaining populations of three endemic plants only occur on the grounds of a racetrack in the suburbs of Cape Town on a patch of ground smaller than four hectares. It has been determined that many localized *fynbos* endemics persist in patches of 4-15 hectares. It is therefore important to recognize that each fragment of natural habitat in the CFR can be worthy of conservation action.

### **Flora**

The flora of the CFR is spectacularly diverse. More than 9,000 species of vascular plants occur in the CFR, of which nearly 70% are endemic. The CFR ranks ninth among the world's 25 hotspots in endemic plant species and, among the five Mediterranean climate hotspots, the CFR ranks second after the Mediterranean Basin in vascular plant diversity as well as endemism. When species diversity and endemism per unit area of intact vegetation are considered, the CFR tops the list of Mediterranean hotspots. On average, there are 456 species of plants per 1,000 square kilometers of intact natural vegetation, with the western portion of the CFR supporting even higher levels of diversity. In the Cape Peninsula alone, 2,285 species exist in 470 square kilometers. The importance of the region from an evolutionary perspective is evident in that the CFR boasts 193 endemic genera and six endemic plant families. Only the islands of Madagascar and New Caledonia have comparable rates of plant endemism at the family level.

Among plants, the South African proteas attract considerable attention on account of their wide range of beautiful colors and shapes. Flagship species that demonstrate the range of diversity within the family include the king protea; South Africa's national flower, the marsh rose; and the silver tree. Other notable species include the showy pincushions, which are exported in large numbers for the ornamental flower market. The striking red disa, an endemic orchid, is an important emblem in the Western Cape Province. The Clanwilliam cedar, endemic to the Cedarberg Mountains in the northwest CFR, is a globally threatened conifer.

### **Fauna**

Augmenting its incredible botanical diversity, the CFR also supports substantial diversity among the fauna, with more than 560 higher vertebrate species. After the Eastern Arc Mountains and New Caledonia, the CFR possesses the greatest vertebrate diversity per unit area of the original extent of natural vegetation among the hotspots. The Cape Peninsula alone has 111 endemic vertebrates, and even more plants and insects.



Despite significant reductions during the 20th century, the diversity and endemism of fauna in the CFR remain impressive. The grassy *renosterveld* supported sizeable numbers of large mammals prior to European colonization. Hunting and the expansion of agriculture in colonial times are known to have caused the complete extinction of at least two endemic mammals — the blue antelope and quagga — and led to local extinctions of many of the other large species. However, 127 mammal species (nine endemic) still persist in protected areas and remote mountain areas of the CFR. The CFR is also known for its diversity of small mammals and flagship species — notably, the Cape dune mole rat, a large rodent that lives in extensive burrows and plays a crucial role in dispersing CFR geophytes. Golden moles (various species and genera, listed as globally Threatened) are also endemic to the CFR and are unique among African insectivores for undergoing both daily and seasonal torpor.

Due to the structural uniformity of the vegetation and limited food supply, bird diversity in the CFR is low, ranking only 19th among the hotspots. However, with nearly 300 species and six endemics, the region is still considered a High Priority Endemic Bird Area by BirdLife International. Among the endemics, the Cape sugarbird and orange-breasted sunbird are avian flagships for the CFR based on their attractiveness and critical role in the ecosystem as pollinators of many *fynbos* plants.

Reptiles and amphibians are also well represented in the CFR fauna. Among the five Mediterranean-type hotspots, the CFR ranks first in amphibian diversity as well as in endemism per unit area of natural vegetation (both original extent and intact remnant vegetation). Over 55% of the 44 frog taxa recorded in the CFR are endemic. Reptile diversity is also impressive, with 142 indigenous taxa, 27 of which are endemic. Two species of tortoises occur almost exclusively within the CFR, while two others occur in the CFR and adjacent parts of Namibia.

Indigenous freshwater fishes are a priority group for conservation within the CFR. Of the 19 species found in the CFR, 16 are endemic. Alarmingly, nine species are Endangered or Critically Endangered, four are Vulnerable and another two are near-threatened. The southwestern CFR, where the majority of these species occur, is recognized as an important center of ichthyofaunal diversity in Africa. The most notable fish habitat is the Olifants River in the northwest CFR, with ten indigenous species, eight of which are endemic and Threatened.

Although less is known about the invertebrate fauna of the CFR, the few groups that have been studied suggest not only very high levels of endemism reaching 100% in some groups, but also many phylogenetically distinctive species. Many of the species are very unusual or are confined to very small geographical areas whether on mountain tops, caves or in streams. Of the 234 species of butterfly in the region, 72 are endemic. There is also a remarkable assemblage and diversity of earthworms in and near the CFR, including the largest earthworm in the world (seven meters long) and 90 endemic acanthodriline species, often with highly restricted distributions in woodland patches.

## **Levels of Protection for Biodiversity**

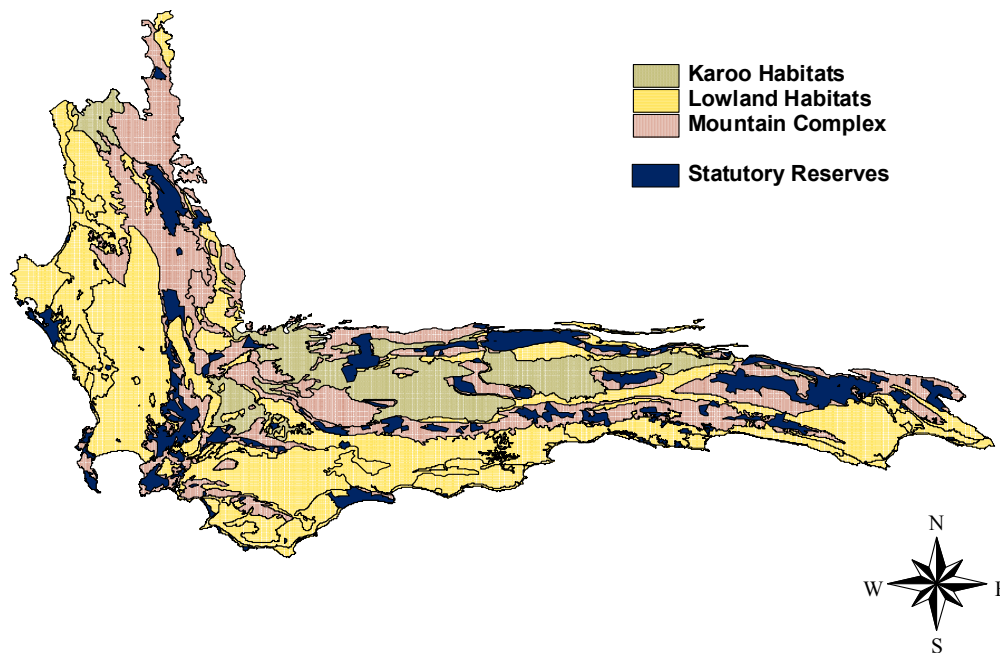
According to the World Conservation Union (IUCN), the CFR has the greatest concentration of Threatened plant species in the world. Among the CFR flora, 1,406 species are on the IUCN's

Red List of endangered plants; nearly 300 are on the brink of extinction, and 29 are already extinct in the wild. In addition, six species of butterflies, six dragonflies, 15 fish, five amphibians, five reptiles, 12 birds, and 21 mammals are Threatened. Almost one-third of the natural habitat in the CFR has been lost to urbanization, agriculture, and forestry, and the remaining natural habitat is threatened by invasive alien plants.

### Status of Protected Areas in the Cape Floristic Region

The extent of protected areas in the CFR is encouraging. Approximately 20% of the region enjoys some form of conservation status, and nearly 10,000 square kilometers of this area are protected in official nature reserves and national parks. The majority of statutory conservation areas in the CFR are protected under provincial legislation in the Western and Eastern Cape Provinces. National legislative protection, in the form of six national parks and four forest reserves, applies to less than 1% of the total protected area.

Despite its extent, the protected area network does not adequately protect biodiversity or natural processes in the CFR. Approximately 95% of all protected land is in mountain habitats; only 4.5% of the original extent of lowland *fynbos* and only 0.6% of *renosterveld* is protected (Fig. 2). Parcels of smaller than 10 square kilometers or less account for approximately 25% of all protected land; while these reserves are important, they do not sustain the ecological and evolutionary processes essential to the long-term persistence of the CFR's diverse plant populations (e.g. functional riparian ecosystems, migration corridors, natural fire cycles, sand movements, and viable populations of large herbivores).



**Fig. 2: Distribution of current statutory reserves in the Cape Floristic Region. Approximately 95% of the total reserve area is in mountain habitats, leaving important biodiversity in the lowland habitats vulnerable.**

The status of conservation in the CFR is also reflected by the level of support dedicated to management of natural resources. Within protected areas, according to a recent study, a 65% increase in funding is required for proper management of the current reserve network. Government funding decreased by 40% from 1995-2000, and more recent cuts have decreased the operating budget by another 60%, adversely affecting staff training, environmental education programs, control of alien vegetation, and efforts to engage private-sector stakeholders in conservation efforts.

## SYNOPSIS OF THREATS

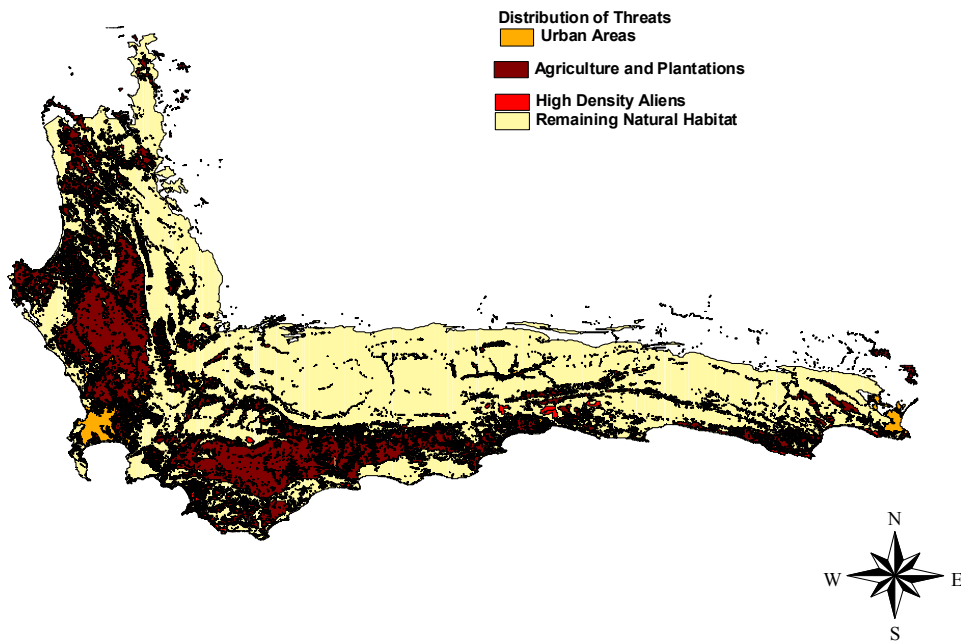
THREAT	KEY COMPONENTS	EXAMPLES
<b>Land transformation</b>	Agriculture Urban Expansion	26% of total region and 96% of CFR <i>renosterveld</i> converted for cultivation Wine, olives, and cut flower cultivation expanding rapidly Urban growth in Cape Town (2% per year)
<b>Ecosystem degradation</b>	Invasive alien species	43% of the Cape Peninsula is covered in alien vegetation An estimated 750 species of plants are threatened with extinction from invading alien species
<b>Institutional constraints to conservation action</b>	Lack of coordinated information on the CFR biodiversity Fragmented legal and institutional frameworks Insufficient human resources	Agencies do not share information relevant to effective conservation planning Existing laws provide disincentives for natural habitat protection Few conservation professionals, particularly lacking GIS, project management, and extension skills
<b>Lack of public involvement in conservation</b>	Lack of public information on benefits of biodiversity Lack of mechanisms for private involvement in conservation	Few environmental education programs Limited promotion of mechanisms for private conservation action Limited participation by disadvantaged people in conservation activities

### Land Transformation

The greatest threat to biodiversity in the CFR is agricultural and urban expansion. Agricultural land use has already consumed 26% of the CFR and has devastated lowland areas — 96% of *renosterveld* and 49% of *fynbos* habitats have been converted (Fig. 3). Even in mountain areas, where agriculture is limited by poor soils, rooibos tea, honeybush tea, and ornamental flower cultivation (mainly proteas) is rapidly encroaching on natural habitat. Economic incentives

aimed at creating jobs and increasing agricultural exports fail to include regulations to protect biodiversity. In addition, with increasing international demand for South African wine, innovations in viticulture and the introduction of crops that can grow on steeper slopes with lower rainfall (e.g. olives) have contributed to projections that an additional 15-30% of the remaining natural habitat will be converted to agriculture within the next 20 years. Furthermore, the booming fruit and viticulture industries require heavy water extraction, which reduces stream flow and has substantial ecological impact.

Human settlements are also encroaching on threatened lowland habitats, and urbanization is expected to encompass more than 9% of the CFR by 2020. Approximately 5 million people live in the region — 3 million in Cape Town — and the estimated 2% growth rate for the city poses a threat to the remaining lowland habitat nearby. Uncontrolled development also threatens much of the CFR coastline, encroaching on important dune and coastal shrubland habitats.



**Fig. 3: Extent and distribution of land conversion in the CFR. Agriculture and forestry have particularly affected the lowland areas in the southern and western CFR.**

## **Ecosystem Degradation**

While land conversion continues outside protected areas, ecosystem degradation jeopardizes conservation efforts throughout the CFR. Pollution, overgrazing and overharvesting of plant species are examples of degradation that affect ecosystem processes in the region, but the invasion of alien species poses the second-greatest threat to biodiversity (after land conversion) in the CFR.

The proliferation of alien plants in CFR ecosystems is alarming. There is no other place on Earth, excluding islands, where alien plants have invaded natural vegetation to a comparable extent. Nearly 2% of the CFR is covered in alien plant species in stands so dense as to constitute land conversion. An additional 1% is in medium-density stands, and another 70% of the remaining natural habitat is covered by low-density or scattered patches of alien plants. Alien fauna, including trout and the smallmouth black bass, are having adverse effects on the indigenous fish fauna and aquatic ecosystems. Marine invasives such as the European mussel are also posing a problem.

Coastal and lowland habitats are particularly susceptible to the threat of invasive plants, and in many of these habitats more than 25% of the ground is covered with alien plants in medium or high densities. Of the 60% of the Cape Peninsula that remains undeveloped, 11% is currently under dense stands of alien plants and another 33% is lightly invaded. Pines and woody *Acacia* and *Hakea* present the greatest threats in terms of extent and difficulty of removal. Without adequate measures to control invasive plants, approximately 30% of remaining natural vegetation is likely to be invaded within the next 20 years, and at least 750 species will face extinction in the next 50 to 100 years as a result.

The impact of alien invasives is highly synergistic with other impacts such as impact of trout, livestock and overconsumption of water. However, the recent removal of invasive alien plants is having an enormous positive impact on the aquatic invertebrate fauna.

Invasive species also have many negative secondary effects on ecosystem processes. Government studies have shown that alien vegetation consumes 7% of the region's water supply, degrading riparian areas and causing soil erosion. The spread of dense stands of alien plant species has also disrupted natural fire cycles, threatening veld habitats and native fauna. Although many of the habitats in the CFR depend on fire disturbance to maintain ecosystem functions, accelerated fire cycles can lead to local extinctions of many plant and animal species. Increased frequency of fires also results in a vicious cycle affecting civic institutions: conservation funds are diverted to emergency firefighting, leading to reduced capacities to mitigate invasion by alien species, leading to larger fires and more resources being diverted to firefighting.

## **Institutional Constraints to Conservation Action**

The extent of land conversion and degradation in the CFR can generally be traced to lack of appropriate institutions with needed capacity to support conservation efforts. Although there is a great deal of biodiversity information relevant to land use decision-making, it is not well integrated into conservation planning. Owing to the range of institutions investigating various elements of the CFR's biodiversity, it is difficult for policymakers and land use planners to know how and where to get information relevant to their areas. Some organizations in possession of a great deal of data lack the capacity to manage its distribution. As a result, environmental impact assessments (EIAs) and plans fail to consider biodiversity in their recommendations and inadvertently threaten biodiversity, despite the fact that EIAs are mandatory by law.

Legal protection for biodiversity outside protected areas is erratic and outdated. With approximately 80% of the CFR's land privately owned, conservation will largely depend on the development and enforcement of land use regulations. Existing mechanisms encouraging private protection of biodiversity are poorly applied, and there are few disincentives to destructive land use. Development is a significant threat to coastal areas in the CFR and regulatory laws are particularly weak, resulting in fragmented landscapes, inappropriate land use, and unsustainable resource management. The national government is seeking to address this problem through an ecoregional approach to land use planning; however, the lack of mechanisms to implement this approach remains a problem.

South Africa has a long history of conservation and enjoys the services of many respected conservation planners and managers; however, while conservation professionals in the region are highly skilled, there are too few of them in place to handle conservation activities on the scale required. Representation of disadvantaged people in the conservation community is especially limited. If biodiversity in the CFR is to be protected, the capacity to develop, manage, and implement conservation programs must be expanded rapidly through mentorship programs. In addition, to establish conservation goals as standards for land use decision-making, it is necessary to increase the technical capacity of staff in relevant agencies.

### **Lack of public involvement in conservation**

The future of the CFR will only be assured if the public can be educated about the value of its biodiversity and if this knowledge can be translated into participation and political action. Under the apartheid regime, the majority of South Africans were denied access to the region's resources, and few were exposed to environmental education programs. Historically, conservation has been considered a mandate of the state, and few mechanisms have been developed to stimulate private-sector participation. As South Africa develops new policies to promote regional development, biodiversity awareness must be enhanced among politicians, landowners, and the public; each sector must recognize its role as a steward of the CFR's biological wealth or risk sacrificing the resources that will provide the potential for long-term economic growth.

Moreover, it should be emphasized again that 80% of the land in CFR is in private hands. Lack of involvement by the viticulture and flower industries is, in particular, a great impediment to the conservation of biodiversity throughout the region.

### **SYNOPSIS OF CURRENT INVESTMENTS**

National, provincial, and local governments have historically invested significantly in conservation. Approximately \$800,000 per year is invested in management of national and provincial reserves, and the national government invests \$350,000 per year in a program aimed at creating jobs and clearing alien vegetation in mountain catchment areas. Although conservation remains a priority for South Africa, government funding is increasingly focusing on social issues, and conservation agencies, as a result, have to take measures to reduce their reliance on government funds. Accordingly, many conservation efforts now depend on foreign donor support.

Apart from management, current investment in conservation in the CFR falls into the categories of planning, expansion of protected areas, ecosystem rehabilitation, research, landowner involvement, and environmental education.

**Conservation planning:** As part of CAPE, a comprehensive and systematic planning effort was developed that identifies areas of the greatest priority at the 1:250,000 scale for achieving conservation targets for Broad Habitat Units. The plan was the first of its kind to systematically select priority areas based on conservation targets for biodiversity pattern, current species diversity and distributions, and ecological processes, the natural mechanisms that ensure the persistence of this diversity and its evolution. In addition to the landscape-level conservation planning effort in CAPE, finer-scale plans for the West Coast, Agulhas Plain, and Baviaanskloof have been developed with GEF funds. With support from the TMF, the Botanical Society of South Africa is also engaged in prioritizing and planning conservation efforts for the lowland habitat remnants.

As part of the BirdLife International program, the Important Bird Area's Conservation Programme (part-funded by GEF) has identified specific sites within the CFR of international importance for avian conservation. Nine IBAs are critical to the six birds endemic to the CFR: Olifants River Estuary, Lower Berg River Wetlands, West Coast National Park, Overberg Wheatbelt and De Hoop Nature Reserve plus the mountains of Swartberg, Eastern False Bay, Outeniqua and Southern Langeberg. The IBA concept is a site-based approach to conservation that uses birds as the primary indicators of priority sites based on four internationally recognized criteria concerning the presence of globally threatened species, species that have a highly restricted range, species unique to a particular biome, and significant congregations of species. An account of the IBAs is available in BirdLife South Africa's publication *Important Bird Areas of Southern Africa*.

**Expansion of protected areas:** A \$2 million GEF grant has facilitated development of the Cape Peninsula National Park, protecting biodiversity in several mountain areas within Cape Town Municipality. The involvement of several government agencies, community settlements, and private landowners in this project provides many lessons for efforts to create other protected areas. With the support of Flora and Fauna International, SANP is working to establish the Agulhas National Park in important lowland areas of the Agulhas Plain. This initiative is one of the flagship projects under the umbrella of CAPE and has been included in a PDF-B proposal to the GEF seeking \$3 million.

**Ecosystem rehabilitation through removal of alien plants:** The Working for Water Programme, a 20-year program created in 1995 under the authority of the Department of Water Affairs and Forestry, has been widely cited as a successful combination of conservation and development. With funds from the national government and the GEF, the program has employed large numbers of laborers and managers from disadvantaged communities — and has cleared more than 200,000 hectares of alien vegetation, leading to the restoration of many important catchment areas.

**Research:** Significant national investment endows biological and ecological research scholarships at four universities in the CFR: the University of Cape Town, the University of Stellenbosch, the University of Port Elizabeth, and the University of the Western Cape. In addition, three of the many research projects currently funded at the National Botanical Institute (NBI) are relevant to conservation in the CFR: The Protea Atlas Project, integrating public involvement in the gathering of information on protea distributions in and beyond the CFR; a study supported by the GEF and CI's Center for Applied Biodiversity Science (CABS) to model the impact of climate change on biodiversity in the CFR; and a project on "conservation farming," also funded by the GEF. The focus of this emerging research program is to identify land use practices that achieve sustainable use of biological resources in agriculture and forestry. Research conducted by UCT's Institute for Plant Conservation, and the Avian Demography Unit (e.g. the Bird Atlas and Frog Atlas projects) is relevant to the CFR. Although the research foundation is solid, the lack of mechanisms to coordinate such projects — and to ensure proper integration of their results into management applications — limits their impact.

**Landowner involvement:** The Botanical Society of South Africa has an ongoing project to support conservation by private landowners. To date, the program has focused on policy development, training of government extension staff, and support for local conservancy initiatives. Considering the potential for private conservation mechanisms in the CFR, this program is considerably underfunded and understaffed.

**Environmental education:** National government, the Cape Metropolitan Council, and the TMF have encouraged environmental education projects in the CFR by mainstreaming environmental education into school curricula and by funding special initiatives at the Kirstenbosch Botanical Garden and Driftsands Nature Reserve.

In December 2000, BirdLife South Africa's Education Programme released its *Learning for Sustainable Living* book, which is being integrated as a resource into the National Education Curriculum. BLSA has set up structures for teacher training and distribution of this text in three of the nine provinces, including the Western Cape (in collaboration with the Primary Science Project). Fifteen hundred teachers representing approximately 300 schools have been trained, and the project will extend to the remaining provinces by end of 2003. This project is funded by the British National Lottery Fund with additional support from the Royal Society for the Protection of Birds.

Major recent investors in biodiversity conservation in the CFR are outlined below.

## **Multilateral Donors**

**Global Environment Facility:** The GEF has been the primary international benefactor of conservation activities in the CFR since the mid-1990s. In August 1998, \$6 million from this fund was provided to South African National Parks (SANP) and the World Wide Fund for Nature – South Africa to support conservation of biodiversity in the Cape Peninsula. Over 50% of this grant was awarded to the TMF to augment its capital fund and expand its operations from the Table Mountain area to include the entire CFR. Another \$2 million of this grant was used by



SANP to consolidate and upgrade the Cape Peninsula Reserve to National Park status. The remaining \$1 million was used to develop the CAPE. In line with its mandate, the CAPE Coordination Unit, with the World Bank as the lead agency and support from the UNDP, has submitted a PDF-B proposal to the GEF to refine an implementation plan for the 20-year CAPE strategy. This proposal requests \$300,000 for further project development.

The GEF is also supporting the development of the national IBA program of BirdLife South Africa as part of a five-year African regional project.

## **Nongovernmental Organizations**

**Mazda Wildlife Fund:** The Mazda Fund provides significant in-kind support to conservation programs throughout the CFR and South Africa in the form of vehicle donations. Organizations in the CFR supported by the Wildlife Fund, representing Mazda's interests in the region, include the Botanical Society of South Africa, the National Botanical Institute, the CAPE Coordination Unit, the Institute for Plant Conservation, the Percy FitzPatrick Institute for African Ornithology, and BirdLife South Africa.

**World Wide Fund for Nature – South Africa:** WWF-SA generates revenue for conservation throughout South Africa through local campaigns as well as bilateral and multilateral fundraising. The organization invested approximately \$2 million in the CFR in 1999-2000, focusing on land acquisition for protected areas.

## **National Environmental Trusts**

**Table Mountain Fund:** This independent trust fund was launched by WWF-SA through a local campaign that raised more than \$1 million for conservation of Table Mountain and the Cape Peninsula, icons of the natural beauty of Cape Town. The fund was augmented by GEF financing, and the interest — approximately \$300,000 per year — provides the bulk of NGO support for conservation in the CFR today, including seed money for land acquisition, alien vegetation removal, capacity-building, and environmental education.

**The Green Trust:** A joint initiative of Nedbank-SA and WWF-SA to support sustainable conservation projects in South Africa, this initiative is much smaller than the TMF and, partly due to its national focus, this fund's investment in conservation in the CFR is limited.

## **POTENTIAL INVESTMENT IN CAPE IMPLEMENTATION and PROPOSED COMPLEMENTARITY WITH CEPF FUNDING**

A detailed description of various stakeholders, including mandates, funding, and staffing, is available in the institutional assessment produced by the Council for Scientific and Industrial Research, Environmentek. The following list of key agencies provides an introduction to potential implementers of CAPE initiatives.

## **Government**

Government agencies have developed proposals for significant funding to implement conservation activities based on the CAPE strategy. Since CEPF funding is intended to catalyze civil society involvement to complement this strategy, it is important to understand CAPE and ensure that the CEPF niche is defined in relation to government efforts. Therefore, government ministries and institutions involved in CAPE are described below.

### **National Agencies**

Several national bodies involved in the development of CAPE will have integral roles in its implementation. CEPF funds will support capacity-building initiatives led by civil society participants whose goal is to integrate biodiversity concerns into activities of key government agencies, including:

- Department of Environmental Affairs and Tourism
- South African National Parks
- National Department of Agriculture
- Department of Water Affairs and Forestry
- Department of Land Affairs

In addition to these public agencies, two relevant national institutions have recently been privatized but operate in close coordination with the national government:

**Land Bank:** This lender provides farm mortgages at discount rates. The institution provides economic incentives for farming initiatives that demonstrate the potential to create jobs. Incorporation of biodiversity concerns into this institution's lending policies could have a far-reaching conservation impact.

**Industrial Development Corporation:** Like the Land Bank, this institution provides incentives for large-scale industries with the potential to generate foreign exchange. The IDC's Orchard and Ecotourism initiatives present both a threat and an opportunity for conservation in the CFR, since both initiatives currently fail to incorporate biodiversity concerns into their policies.

### **Provincial Agencies**

The provincial governments of the Eastern Cape and Western Cape will be involved at various levels in the implementation of conservation plans for the CFR, and provincial government funding for CAPE will be distributed through activities within provincial ministries, including:

- Department of Environment, Culture and Sport
- Department of Economic Affairs, Agriculture, and Tourism
- Department of Planning, Housing and Local Government

### **Parastatals and Government Agencies**

The provincial authorities of the Cape Provinces have established parastatal agencies to increase efficiency and promote fiscal responsibility in the management of provincial land. The Western Cape Nature Conservation Board and Eastern Cape Nature Conservation Board in the CFR are

responsible for overseeing all activities within provincial reserves — particularly those activities related to fiscal responsibility and strategic partnerships. The conservation capacity of the Eastern Cape Nature Conservation Board is severely limited by lack of human and financial resources.

Similarly, at the national level, the National Botanical Institute (NBI) is responsible for recommending biodiversity policy and conducting ecoregional planning. Given the potential for testing conservation policy mechanisms within the CAPE strategy, the CAPE Coordination Unit has been recently established as a department of the NBI.

### **Municipalities**

South Africa is decentralizing many administrative functions of government to the provincial and municipal level, a transition that will expand the potential role of municipalities in conservation. Specific areas for cooperation with local authorities include land use decision-making; policies providing for removal of alien vegetation; and a new rural property tax.

### **Nongovernmental Organizations**

The CFR enjoys the support of many NGOs dedicated to preserving its unique flora and fauna. NGOs dedicated to the conservation and promotion of sustainable land use, such as those listed below, will be the primary civil society agents participating in pilot activities under CAPE. It is expected, however, that increasing awareness of CAPE efforts will stimulate new grassroots organizations and an expanded network of organizations and individuals working to achieve CAPE's long-term goal.

#### **International NGOs**

**Flora and Fauna International:** FFI is designing a model conservation and sustainable development project in the Agulhas Plain region, working with a local community in Flower Valley to sustainably harvest and export indigenous flowers. The project will preserve 5.5 square kilometers of natural vegetation. FFI is also a major stakeholder in the Agulhas Biodiversity Initiative, a separate proposal currently in the GEF pipeline, for conservation activities in the area.

**Conservation International:** CI – South Africa is a newcomer to conservation in the CFR. With limited human resources but significant technical capacity in the region, CI will not initiate an expansive program, but will provide technical assistance and liaison work on special initiatives that could benefit from the global expertise in CI's Center for Applied Biodiversity Science and the Center for Environmental Leadership in Business.

**BirdLife International:** The world's leading authority on bird conservation, BLI is a network of national NGO partner organizations — in this case, BirdLife South Africa. BLI, through BLSA, holds information on globally Threatened birds and Important Bird Areas in the CFR. BLI and BLSA will continue to make the most up-to-date information available to stakeholders through their World Bird Database. This global expertise will considerably strengthen CEPF's ability to consolidate data to support appropriate land use and other policy decisions.

## **National NGOs**

**WWF – South Africa:** WWF-SA has been at the forefront of conservation efforts in the CFR. The organization has a strong local presence and significant ability to raise funds and awareness in the region. In addition, it has substantial influence on conservation activities through its operational support for CAPE, the TMF, and the Leslie Hill Succulent Trust.

**Botanical Society of South Africa:** The Botanical Society, with 25,000 members, has promoted the conservation of indigenous flora in South Africa since 1913. The Botanical Society's new Cape Conservation Unit plays an important role in conservation, and its activities include advocacy, planning, research, and implementation. Taking the lead from the CAPE recommendations, this group is prioritizing lowland areas for conservation and enhancing opportunities for private conservation.

**Wildlife and Environment Society of South Africa:** WESSA, founded in 1927, has demonstrated ability to organize grassroots conservation efforts such as lobbying, monitoring water quality, and providing environmental education. The organization's experience in these areas, as well as its membership base in the CFR, make it an important stakeholder in the implementation of CAPE.

**BirdLife South Africa and the Cape Bird Club:** BirdLife South Africa's mission is to promote the enjoyment, conservation, understanding and study of wild birds for the benefit of all people. The Cape Bird Club, BirdLife South Africa's largest branch, is located in Cape Town. BirdLife South Africa is a newcomer to conservation in the CFR. Through its Education Programme, IBA Conservation Programme and Ecotourism and Guide Training Programme, BirdLife South Africa is demonstrating its interest in supporting grassroots conservation in the CFR.

## **Academic Institutions**

The scientific input from research institutions in the CFR resulted in CAPE enjoying broad support for its comprehensive and innovative approaches. The continued involvement of these research institutes will ensure relevant scientific input at the implementation stage. In addition, university-affiliated research institutes in the region will lead efforts to draw a broader segment of the South African community, particularly those from disadvantaged backgrounds, into conservation. Such institutes include:

- Institute for Plant Conservation, University of Cape Town
- Invertebrate Conservation Research Centre, University of Natal
- Percy FitzPatrick Institute for African Ornithology, University of Cape Town
- Freshwater Research Unit, UCT
- Marine Biology Research Institute, UCT
- Terrestrial Ecology Research Unit, University of Port Elizabeth
- Nature Conservation Department, University of Stellenbosch
- Elsenberg College of Agriculture
- Program for Land and Agrarian Studies, University of the Western Cape

## **Private Sector and Community Groups**

Conservation awareness in the CFR is fairly high among a small segment of the region's population, and this awareness can be leveraged into conservation results. In addition, there are many opportunities to provide an impetus for conservation action among disadvantaged groups seeking new sources of livelihood from the region's natural resources. Some examples follow.

**Fynbos Forum:** An informal organization of researchers and managers in the *fynbos* biome who meet regularly to facilitate sharing of scientific information and practical experience. This organization is an excellent model of an initiative to address the gap between academic research and managers.

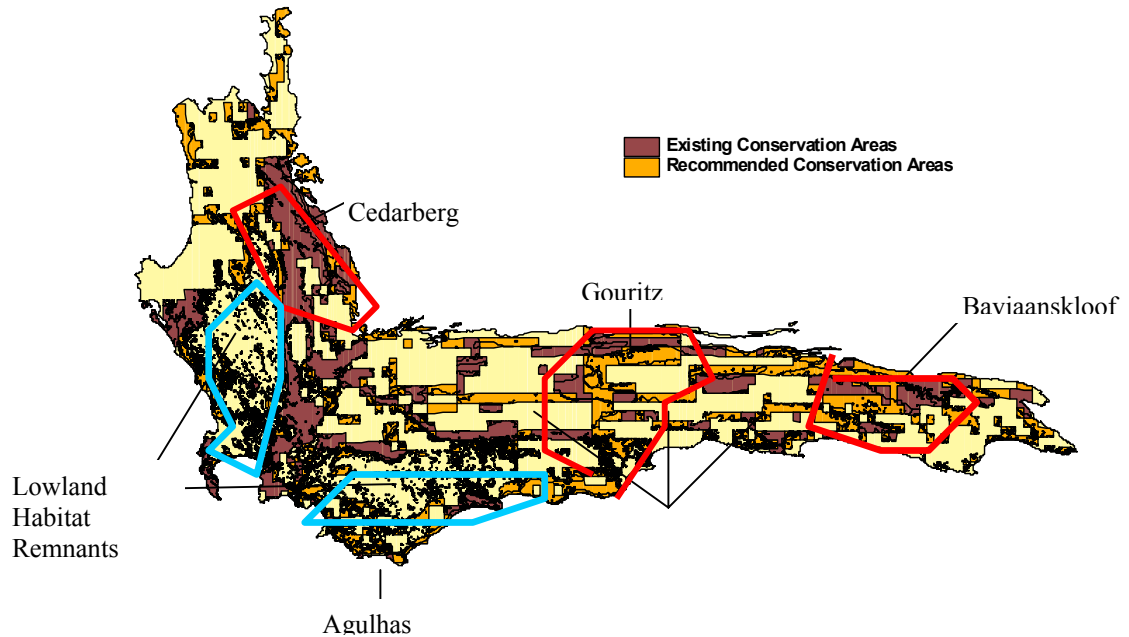
**Western Conservancies Association:** Formed in 1999 as an umbrella group for more than 40 private conservancies in the western CFR, the WCA represents its members' interests to the national government and provides a marketing platform for tourism enterprises.

**Fynbos Ecotourism Forum:** Like the WCA, this body was formed to coordinate private landowners involved in ecotourism activities that are dependent on the conservation of *fynbos*.

## **CEPF NICHE FOR INVESTMENT IN THE REGION**

Based on a synopsis of threats, current capacity, and anticipated investments in conservation of the CFR, the remainder of this ecosystem profile outlines the proposed niche for CEPF funding.

CEPF is designed to expedite funding in areas where it is most needed and where it will do the most good. CEPF acknowledges the rigorous priority-setting process of CAPE described earlier in this profile, and through a process of wide consultation, has identified a niche to catalyze civil society action on the most urgent geographic and thematic priorities. In the broad-scale spatial plan for CAPE, over 60% of the remaining natural vegetation of the CFR was targeted for conservation action. Remnants of the last remaining natural veld in lowland areas were identified as "irreplaceable" conservation priorities. Additionally, four sites with adequate natural habitat to create conservation units greater than 500,000 hectares were identified as potential regions for biodiversity corridors, or "mega-reserves" as they are called in the CFR. These areas encompass properties under various ownership that support conservation through the protection of ecosystem processes such as catchments, riparian ecosystems, and natural fire cycles. The protection of the CFR's biodiversity in the face of the threat of climate change was also considered in CAPE's identification of the location and size of the corridors. Obviously, it is not practical or realistic to acquire all of this land for formal protected areas; therefore, innovative civil society efforts will be critical to the realization of CAPE's goals. South African National Parks has successfully launched initiatives in the Agulhas Plain lowland area and the Garden Route Mega-Reserve area. CEPF investment will therefore focus on civil society led activities in lowland habitat remnants beyond the Agulhas Plain and the Cedarberg, Gouritz, and Baviaanskloof corridors (Fig. 4).



**Fig 4: Geographic focus for CEPF investment.** This figure shows the natural habitat remaining in the CFR that has been prioritized for conservation action. CEPF will focus investment on securing civil society participation in the development of core conservation areas and sustainable land use in the three mega-reserve areas (Cedarberg, Gouritz, and Baviaanskloof) and the last remaining areas of natural vegetation in the CFR lowlands. (Conservation activities of the Agulhas Plain habitat remnants are included in a SANP-FFI proposal to the GEF and will not be a CEPF focus.)

## **CEPF INVESTMENT STRATEGY AND PROGRAM FOCUS**

Within the targeted geographic areas, CEPF will complement other funding sources to augment the strength and capacity of the institutional structures being developed to implement CAPE. Through a focus on NGOs and private sector participation, CEPF will fill an important funding niche to implement key components of this plan. CEPF funding will complement support provided by other donors to government and other stakeholders, and will support innovative mechanisms and projects that involve local communities and the private sector as models for implementation of the CAPE 20-year strategy.

CEPF acknowledges that the innovation and strength of the CAPE strategy is its ability to unify donor interest and funding on the highest priorities for the conservation of the CFR. Such coordination is unprecedented at the scale of a biodiversity hotspot, and the results can only

increase the ability to share lessons among projects and ensure more effective use of conservation funds.

The following table summarizes the strategic funding directions for CEPF:

<b>CEPF Strategic Directions</b>	<b>CEPF Investment Priorities</b>
<p><b>1. Support civil society involvement in the establishment of protected areas and management plans in CFR biodiversity corridors</b></p>	<p>1.1 Through civil society efforts identify and design innovative mechanisms and strategies for conservation of private, corporate or communal landholdings within biodiversity corridors</p> <p>1.2 Support private sector and local community participation in the development and implementation of management plans for biodiversity corridors</p> <p>1.3 Especially within the Gouritz and Cedarberg corridors, identify priority landholdings requiring immediate conservation action</p>
<p><b>2. Promote innovative private sector and community involvement in conservation in landscapes surrounding CFR biodiversity corridors</b></p>	<p>2.1 Promote civil society efforts to establish and support biodiversity-based businesses among disadvantaged groups, in particular in areas surrounding the Gouritz and Baviaanskloof corridors</p> <p>2.2 Implement best practices within industries affecting biodiversity in the CFR, e.g. the wine and flower industries.</p>
<p><b>3. Support civil society efforts to create an institutional environment that enables effective conservation action</b></p>	<p>3.1 Support civil society efforts to consolidate data to support appropriate land use and policy decisions</p> <p>3.2 Support civil society initiatives to integrate biodiversity concerns into policy and local government procedures in priority municipalities</p> <p>3.3 Improve coordination among institutions involved in conservation of CFR biodiversity corridors through targeted civil society interventions</p>
<p><b>4. Establish a small grants fund to build capacity among institutions and individuals working on conservation in the CFR</b></p>	<p>4.1 Support internships and training programs to raise capacity for conservation, particularly targeting previously disadvantaged groups</p> <p>4.2 Support initiatives to increase technical capacity of organizations involved in CFR conservation, particularly in relation to the priority geographic areas</p>

## **Support civil society involvement in the establishment of protected areas and management plans in CFR biodiversity corridors**

CEPF will support civil society activities that entail conservation and management planning efforts in the irreplaceable and vulnerable lowland habitats and in the three corridors (Cedarberg, Gouritz, and the Baviaanskloof). Conservation plans developed by civil society agents and supported by CEPF will be expected to identify priority areas and recommend strategies to include them in an integrated network of protected state and private lands. Incentives and cooperative arrangements for the creation and management of protected areas have not been fully explored as a strategic approach to conservation in the CFR. While there are some examples of successful private conservancies, participation in such projects — particularly by disadvantaged communities — is still limited by lack of awareness and incentives. While CEPF funds cannot support capitalization of trust funds or land acquisition, they can support civil society efforts to study and implement other mechanisms in the CFR. Monitoring the successes and failures of pilot mechanisms is an important element of the CEPF strategy.

In places where private landowners have taken the initiative to protect their land, they often lack the financial capacity to undertake legal arrangements, clearing of aliens, fencing of sensitive habitats, or rehabilitation of degraded areas that are threatening conservation sites. These constraints can undermine the original achievement of convincing private landowners to protect biodiversity, and can thus allow patterns of conversion and invasion to continue. Therefore, while personal financial commitment will still be required, CEPF grants will be available to conservancies and other community groups to increase their capacity to mitigate threats. Finally, CEPF will support opportunities to secure formal recognition of these private conservation ventures through policy and legislative measures such as conservancies, contractual parks, and UNESCO Biosphere Reserves. CEPF funding will thus support the development of models for replication in the emerging areas of private and community stewardship.

CEPF will catalyze projects that leverage funds with support from the CI's Global Conservation Fund and WWF-SA to acquire land and stimulate establishment of trusts, and support from CI's Center for Applied Biodiversity Science and Center for Environmental Leadership in Business for innovative conservation mechanisms and industry best practices. By working within the CAPE framework, facilitating key activities and encouraging innovative opportunities for civil society participation, CEPF will provide a flexible, responsive funding mechanism to support a robust and unified approach to conservation in the CFR. Such collaboration will ensure the continuity of the momentum generated by CAPE and ensure that civil society has opportunities to contribute to long-term conservation in the CFR.

Management plans for new protected areas will also be a CEPF investment priority within this strategic funding direction. Support may be provided for workshops or other mechanisms to ensure that NGOs, local government, and the public near proposed protected areas participate fully in planning and management. The Botanical Society's Cape Flats Project and SANP's approach to the development of Agulhas National Park illustrate such approaches.



CEPF will support the identification of private lands requiring conservation action, particularly in the Gouritz and Cedarberg corridors. Given the range and scale of threats to the biodiversity of the CFR and the limited budget of conservation agencies, it is urgent to identify and prioritize areas for conservation action. A landscape-level plan (1:250,000 resolution) was developed as part of CAPE that recommends priority areas for achieving conservation targets for biodiversity representation and persistence. While the broader plan indicates the location of the most important components and linkages in the CFR landscape, further investigation and field-based verification is required to fine-tune this analysis for use by planners and decision-makers at the level of individual properties to ensure their effective implementation. The Gouritz and Cedarberg corridors are regarded as priorities for this activity, because the process has already advanced in the other priority geographic areas.

### **Promote innovative private sector and community involvement in conservation in landscapes surrounding CFR biodiversity corridors**

With 80% of the CFR in private hands, CEPF seeks to promote integration of conservation with private stewardship responsibilities, opportunities for public/private partnerships, and industry best practices. CEPF will particularly encourage innovative approaches that involve private landholders in land stewardship and will address threats from land conversion and degradation of ecosystems in the region while promoting sustainable development. Specifically, CEPF will contribute to direct conservation by supporting pilot projects and extension activities that will influence private agents and community groups to implement conservation activities.

The natural resources of the CFR — and their conservation — provide opportunities to create jobs and income in disadvantaged communities. Ecotourism, sustainable flower harvesting, removal of alien vegetation, and wilderness education camps have already been developed on a limited scale to benefit these communities. CEPF will support innovative, sustainable projects that promote the conservation of biodiversity as part of well-developed business plans. This support will primarily be targeted at activities surrounding the Gouritz and Baviaanskloof corridors, because it is in these areas that communities own land.

For example, the training of ecotourism guides from local communities of previously disadvantaged people is a means whereby these stakeholders can profit directly from biodiversity. Although plant diversity is high, birding ecotourism is a well-established industry in the CFR and South Africa generally. Specialized training as guides accredited by the Tourism, Hospitality, Sport, Education Training Authority (THETA), and therefore consistent with new policies of the South African government, will provide jobs that depend directly on sustainable biodiversity conservation.

Several industries threaten biodiversity in the CFR. In cooperation with the Center for Environmental Leadership in Business, important industries such as wine, cut flowers, and tourism will be targeted for efforts to assess and implement best practices. Organizations of industry players, such as South African Protea Producers and Exporters, Wine-growers Associations, and WineTech will be key partners in such initiatives. It is also expected that

CEPF investment in this arena can be leveraged to address land conversion in other hotspots by replicating successful approaches identified in the CFR.

### **Support civil society efforts to create an institutional environment that enables effective conservation action**

The biodiversity of the CFR will only be protected if a coherent and efficient institutional framework for conservation can be established. Significant obstacles to the development of such an environment include limited access to biological knowledge; fragmented laws, policies and institutions; and insufficient human resources. CEPF will address these challenges through initiatives that support the consolidation of biodiversity information, development of appropriate legislation and policies, and coordination and strengthening of local institutions responsible for activities that affect biodiversity.

Conservation efforts must be based on a clear understanding of ecological patterns and processes and the conditions that threaten them. While the volume and quality of biodiversity data in the CFR is tremendous compared to other hotspots, difficulty in accessing the information has resulted in limited application to land use and policy decisions. CEPF will support efforts to ensure that sound biological information is incorporated into planning and decision-making throughout the CFR. The Conservation Planning Unit (CPU) of the Western Cape Nature Conservation Board has been proposed to maintain and refine the databases on threats and priority habitats within the hotspot and to initiate and maintain links with other institutions to facilitate the use of biodiversity information in decision-making arenas. For example, CPU staff will leverage existing knowledge of C-plan, a computer program that uses GIS and conservation targets to identify priority areas for municipal land use plans.

South Africa is in the process of reviewing and updating legislation that may have dramatic long-term impact on conservation in the CFR. CEPF grants will support the creation of incentives for conservation and sustainable use of natural resources in the CFR. As incentive legislation is finalized, its implementation can often be hindered by lack of understanding or capacity among organizations, government agencies, and the public. CEPF will therefore support activities enabling local authorities to facilitate on-the-ground interpretation and activation of policy enforcement to maximize benefits for biodiversity. Finally, CEPF will support initiatives to monitor successes and failures of new legislation related to biodiversity and land use.

Effective conservation requires integration of biodiversity concerns into the work of all relevant agencies and, in particular, collaboration between agencies responsible for activities that affect biodiversity. Accordingly, a strategic focus of CEPF will be to ensure the coordination of conservation activities in the CFR.

The CAPE Coordination Unit will play a crucial role in bringing together NGOs, private-sector experts, and government agencies, building capacities for project development and ensuring sustainable funding for CAPE. The CAPE Coordination Unit will also serve as a liaison to government agencies — e.g. Agriculture, Housing, and Urban Planning — which may not be

directly concerned with biodiversity but whose actions can affect the success of the CAPE strategy.

### **Establish a small grants fund to build capacity among institutions and individuals working on conservation in the CFR**

CEPF funds will help develop a small grants program to deliver funding of \$10,000 or less to projects expanding human resources for conservation in the CFR. Through this initiative, CEPF will support the effort to develop technical skills among South African nationals, particularly those from previously disadvantaged communities. The criteria for evaluating applicants will include the ability to leverage existing capacity, and to promote an integrated approach to conservation.

The lack of an adequate force of professionals conversant in biodiversity issues is a major obstacle to effective conservation in the CFR. CEPF's strategic focus, through the small grants program, will be to facilitate mentorship links between academic institutions and existing conservation agencies, focusing on trainees from disadvantaged communities. Through scholarships and exchanges, CEPF will support training of individuals to increase the number of people working in conservation and will fill a crucial niche in CAPE by expanding human resources to ensure sustainability of conservation in the region.

CEPF will support innovative programs that complement professional training in conservation organizations to maximize their contribution to conservation activities in the greater CFR landscape. CEPF support will emphasize technical skills to use innovative conservation tools, e.g. negotiation skills to engage with private landowners on off-reserve conservation activities; GIS skills; and conservation project management skills. While professional development is needed throughout the region, particular emphasis will be placed on organizations involved with the CFR biodiversity corridors.

## **SUSTAINABILITY**

Guided by this ecosystem profile, CEPF will contribute to long-term conservation in the CFR through targeted investments to leverage existing capacity in formal reserves; to shift conservation focus into private and community stewardship of biodiversity in the wider landscape; to promote integration of biodiversity issues into the policy decisions of all relevant agencies; to facilitate public/private partnerships; and to generate public support for conservation. While activities in these strategic directions will naturally address immediate threats to biodiversity in the short term, commitment to capacity-building and sustained collaborations will be a key criterion in the application review process, ensuring positive long-term impact.

The coordination of CEPF activities and strategic funding directions to provide additional support and complementarity to the objectives of CAPE ensures sustainability beyond the immediate five-year investment. Building the capacity of civil society organizations is essential not only to the effective use of CEPF funds, but to ensure continued innovation in the implementation of the CAPE strategy that extends well beyond the scope of CEPF. In addition,

the relationships developed by CEPF for conservation in the CFR will support further collaboration in another hotspot, the Succulent Karoo, also located mostly in South Africa. Such coordination can be a precursor to development of the only corridor connecting two hotspots.

## **CONCLUSION**

The Cape Floristic Region is one of the biological wonders of the world, with levels of diversity and endemism that rival and even surpass those of many tropical forest ecosystems. The increasing threats to this unique region have compelled significant global, national, and local commitment to a comprehensive plan for its conservation, the Cape Action Plan for the Environment. CEPF provides a source of funding in the CFR designed to reach NGOs in a way that complements funding for government agencies and other stakeholders; supports the framework established by CAPE; ensures that civil society has an opportunity to contribute to conservation; and provides a flexible, responsive funding mechanism for innovative conservation activities. By aligning its focus with the national priorities of South Africa and the conservation goals of CAPE, CEPF will augment efforts to address immediate threats and contribute to long-term conservation in the CFR, developing a model of sustainable regional conservation efforts to be replicated throughout Africa and other biodiversity hotspots around the world.

## LIST OF ACRONYMS

BLSA	BirdLife South Africa
CABS	Center for Applied Biodiversity Science
CAPE	Cape Action Plan for the Environment
CEPF	Critical Ecosystem Partnership Fund
CFK	Cape Floral Kingdom
CFR	Cape Floristic Region
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
CPU	Conservation Planning Unit
FFI	Flora and Fauna International
GEF	Global Environment Facility
GIS	geographic information systems
IBA	Important Bird Area
IDC	Industrial Development Corporation
IUCN	World Conservation Union
NBI	National Botanical Institute
NGO	nongovernmental organization
SANP	South African National Parks (agency)
THETA	Tourism, Hospitality, Sport, Education Training Authority
TMF	Table Mountain Fund
UCT	University of Cape Town
UNDP	U.N. Development Programme
WCA	Western Conservancies Association
WWF-SA	World Wide Fund for Nature – South Africa