



**Western Cape
Government**
Environmental Affairs and
Development Planning

BETTER TOGETHER.

The Provincial Biodiversity Strategy and Action Plan 2015 to 2025

31 March 2016

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“Biodiversity underpins the functioning of the ecosystems on which we depend for food and fresh water, health and recreation, and protection from natural disasters. Its loss also affects us culturally and spiritually. This may be more difficult to quantify, but is nonetheless integral to our well-being”

(Ban Ki-moon, Secretary-General United Nations in Global Biodiversity Outlook – 3, 2010)

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Acronyms

ABI	:	Agulhas Biodiversity Initiative
BIOFIN	:	Biodiversity Finance Initiative
CAGR	:	Compounded Annual Growth Rate
CAPE	:	Cape Action Plan for the Environment
CBA	:	Critical Biodiversity Area
CBD	:	Convention on Biological Diversity
CEPF	:	Critical Ecosystems Partnership Fund
CFR	:	Cape Floristic Region
CI	:	Conservation International
COP	:	Conference of the Parties
DBSA	:	Development Bank of Southern Africa
DEA	:	National Department of Environmental Affairs
DEADP	:	Western Cape Provincial Government Department of Environmental Affairs and Development Planning
DST	:	Department of Science and Technology
EIA	:	Environmental Impact Assessment
EMF	:	Environmental Management Framework
FEPA	:	Freshwater Ecosystem Priority Area
ICT	:	Information and communication technologies
IDPs	:	Integrated Development Plans
IPAP2	:	The 2 nd Industrial Policy Action Plan
GDP	:	Gross Domestic Product
GEF	:	Global Environment Facility
LAB	:	Local Action Plans on Biodiversity
LUPA	:	Land Use Planning Act of the Western Cape Provincial Government
MAB	:	Man and Biosphere
MEAs	:	Multilateral Environment Agreements
MOAs	:	Memoranda of Agreements
METT	:	Management Effectiveness Tracking Tool
NBA	:	National Biodiversity Assessment
NBSAP	:	National Biodiversity Strategy and Action Plan
NDP	:	South Africa's National Development Plan, Vision 2030
NGOs	:	Nongovernmental organisations
NRM	:	Natural Resources Management
NWRS	:	National Water Resources Strategy
PBSAP	:	Provincial Biodiversity Strategy and Action Plan
PPP	:	Public Private Partnership
PSDF	:	Provincial Spatial Development Framework
PSOs	:	Provincial Strategic Objectives
ROD	:	EIA Record of Decision
SANBI	:	South African National Biodiversity Institute
SANPARKS	:	South African National Parks
SDFs	:	Spatial Development Frameworks
SKEP	:	Succulent Karoo Ecosystems Programme
SO	:	Strategic Objective

SPLUMA	:	Spatial Planning and Land Use Management Act (Act No 16 of 2013)
STEP	:	Subtropical Thicket Ecosystem Programme
TMF	:	Table Mountain Fund
UNDP	:	United Nations Development Programme
UNCCD	:	United Nations Convention to Combat Desertification
UNCED	:	United Nations Conference on Environment and Development
UNEP	:	United Nations Environment Programme
UNFCC	:	United Nations Framework Convention on Climate Change
WMA	:	Water Management Area

Definition of terms

Aichi Targets – these are a set of 20 targets agreed by Contracting Parties to the Convention on Biological Diversity at their Conference of the Parties in Aichi, Japan in 2010 and are set out in the CBD 2011-2020 Strategic Plan.

Biodiversity – this refers to the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and all the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Biodiversity-based economy – this refers to the part of the economy that is based on commercial or saleable products and services directly derived from ecosystems, habitats, species and genes. Included in this concept are also products derived from the by-products or waste streams from biodiversity management activities such as from alien clearing. Examples of the biodiversity economy include ecotourism, flower industry, fishing industry, various rooibos or honey-bush products, and any biotechnology products based on genetic resources.

Biodiversity hotspot – refers to areas with high levels of endemism that are also highly threatened.

Biome – a biome is defined in terms of climate and dominant growth forms in the vegetation.

Bioprospecting – refers to the search for plant and animal species from which commercially valuable compounds can be obtained.

Capability - this refers to the ability that exists in an organisation and which hinges on skills, expertise, technology, tools or systems and business processes that enable successful undertaking of a particular function.

Competence – this is the quantity and quality of skills and expertise in an organisation that enable successful undertaking of a particular function.

Conservation Areas – This refers to areas in the Western Cape Province that are classified in the Western Cape State of Biodiversity Report of 2012 as follows:

Conservation Category 1, these are protected areas with strong legislative security. These include National Parks, World Heritage Sites, Wilderness Areas, Provincial Nature Reserves, State Forest Nature Reserves, Marine Protected Areas, Island Nature Reserves, Contract Nature Reserves and Protected Environments.

Conservation Category 2, these are protected areas with some legislative security. These include Local Authority Nature Reserves, Mountain Catchment Areas, Private Nature Reserves and Biodiversity Agreements.

Conservation Category 3, these are protected areas with little or no legislative security. These include Voluntary Conservation Areas, Biosphere Reserves and Conservancies.

Critical Biodiversity areas or CBAs – these indicate areas of land as well as aquatic features that must be safeguarded in their natural state if biodiversity is to persist and ecosystems are to continue functioning. CBAs incorporate: (i) areas that need to be safeguarded in order to meet national

biodiversity thresholds; (ii) areas required to ensure the continued existence and functioning of species and ecosystems, including the delivery of ecosystem services; and/or (ii) important locations for biodiversity features or rare species.

Critically endangered marine and coastal habitats – these are determined as part of the National Biodiversity Assessment of 2011.

Ecological infrastructure – refers to naturally functioning ecosystems that deliver services to people such as fresh water, climate regulation, soil formation and disaster risk reduction. It is nature's equivalent of the built environment. It includes healthy mountain catchments, rivers, wetlands, coastal dunes, nodes and corridors of natural habitats, which together form a network of interconnected structural elements in the landscape.

Ecological resilience – this refers to the capacity of ecosystems to adapt to changes and disturbances, yet retain their basic functions and structures. A resilient ecosystem can adapt to shocks and rebuilds itself when damaged.

Ecosystem approach – this is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Ecosystem services – these are benefits people obtain from ecosystems. These include *provisioning services* such as food, water, timber and fibre; the *regulating services* that affect climate, floods, disease, wastes and water quality; *cultural services* that provide recreational, aesthetic and spiritual benefits, and *supporting services* such as soil formation, photosynthesis and nutrient cycling.

Endemism – see *species endemism*

Estuary – refers to a body of water forming an interface between a river and a sea into which the river flows. Estuaries may be permanently or periodically open to the sea.

Freshwater ecosystem priority areas or FEPAs – these are as determined by the National Freshwater Ecosystem Priority Areas project (NFEPA) and were confirmed by the National Biodiversity Assessment of 2011.

Important Bird and Biodiversity Areas – this consists of a network of sites that are significant for the long-term viability of naturally occurring bird populations, across geographical range of bird species and for which a site-based approach is appropriate.

Mainstreaming biodiversity – this is the strategy of internalisation of the goals of biodiversity conservation and the sustainable use of biological resources into social and economic sectors and development models, policies and programmes, and, therefore, into all human behaviour.

Off-reserve conservation – this is conservation activity that occurs in a land that is not proclaimed by law or that has limited legal protection. This may be private, communal or still public sector owned land.

Phytogeography - this refers to the branch of botany that is concerned with the geographical distribution of plants.

Precautionary principle – this is a principle of ecologically sustainable development whereby if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Species endemism – this refers to those species found only in one area and nowhere else in the world.

Sustainable use or wise use – this refers to the use of biodiversity within its capacity for renewal or regeneration.

Wetland – this refers to land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

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The PBSAP at a glance

PBSAP VISION

“By 2040, Biodiversity, the natural heritage and ecological infrastructure is valued, wisely used, conserved and restored and delivers ecosystem services that improve the quality of life for all people of the Western Cape Province”

OVERARCHING TEN - YEAR GOAL

By 2025 management, consolidation and expansion of all the categories of the Western Cape Province’s network of conservation areas; promotion of existing and new biodiversity mainstreaming and conservation initiatives; enabling of an inclusive and sustainable biodiversity based economy; and active participation of citizens, progressively contribute to the attainment of biodiversity conservation, economic and development vision of the Western Cape Province.

HEADLINE INDICATORS

Coverage of conservation areas	Change in land covered by natural habitats and ecosystems	Change in conservation status of threatened species, habitats and ecosystems.
Extent of alien invasive species	Extent of the restoration of degraded catchments	Water quality in aquatic environments
Integration of biodiversity priorities in Spatial Development Frameworks	Integration of biodiversity based economy programme into the Green Economy	Change in attitudes of citizens towards biodiversity conservation

CORE STRATEGIC OBJECTIVES

SO1: Conservation and effective management of biodiversity contributes to a resilient and inclusive Western Cape economy

SO2: Partner sectors contribute to achieving biodiversity conservation targets through mainstreaming biodiversity into policies, strategies, plans, practices and projects.

SO3: Contribution of biodiversity and ecosystem products, processes and services have a growing contribution to inclusive and sustainable livelihoods and development opportunities in the province

ENABLING STRATEGIC OBJECTIVES

SO4: Knowledge management supports effective planning, decision-making, monitoring and reporting

SO5: Stakeholders are mobilized to achieve sustainable long term benefits for biodiversity

SO6: Capable institutions achieve biodiversity management objectives

SO7: Resource mobilization enables the effective implementation of the biodiversity mandate in the province

Summary of Strategic Objectives and Outcomes

Strategic Objectives			
<p>SO1</p> <p>Conservation and effective management of biodiversity contributes to a resilient and inclusive Western Cape economy.</p>	<p>SO2</p> <p>Partner sectors contribute to achieving biodiversity conservation targets through mainstreaming biodiversity into policies, strategies, plans, practices and projects</p>	<p>SO 3</p> <p>A biodiversity - based economy contributes to an inclusive and sustainable livelihoods and development opportunities.</p>	<p>SO 4</p> <p>Knowledge management supports effective planning, decision – making, monitoring and reporting</p>
Outcomes			
<p>a. Representative biodiversity found in terrestrial, freshwater, coastal, wetlands, estuarine and the marine environments, at all levels including ecosystems, habitats, species, genes and ecological infrastructure, is secured and conserved through a network of conservation areas and existing and new off - reserve conservation initiatives in province.</p> <p>b. a Protection and restoration of biodiversity and its associated ecological infrastructure in all environments, at all levels, and ecosystem based adaptation (EbA) provides resilience against adverse effects of climate change and variability-related events</p>	<p>a. Identified economic and development sectors in the Western Cape Province that often impact biodiversity adversely, are actively contributing to securing, conservation and restoration of biodiversity and ecological infrastructure</p> <p>b. Compliance with authorisations and permits is monitored and enforced</p> <p>c. Knowledge based planning and decision-making processes restrain and limit the loss of biodiversity and its associated ecological infrastructure</p> <p>d. Biodiversity considerations are integrated into provincial and municipal development planning and monitoring</p> <p>e. The value of biodiversity and ecological infrastructure is positively recognised by authorities and stakeholders as contributing to the achievement of their functions as well as to their development and economic growth objectives</p>	<p>a. Opportunities from the biodiversity economy are expanded, strengthened and are progressively inclusive of all sectors of society</p> <p>b. The business case for conservation and sustainable use of biodiversity and its associated contribution to the economy and development goals of the province is recognised and appreciated by an increasing number of key decision makers and members of society</p> <p>c. Contribution of biodiversity and ecosystem-based products; processes; services, ecological infrastructure initiatives have a growing contribution to inclusive and sustainable livelihoods and development opportunities in the province</p> <p>d. Markets for prioritised biodiversity services and products that promote inclusive and sustainable economic growth of biodiversity economy, are established</p>	<p>a. Planning, decision-making, management and monitoring of biodiversity at the provincial and local government levels and by all biodiversity management authorities including the private sector, is knowledge-based and leverages the power of technology</p> <p>b. Available data and knowledge on biodiversity including on species, ecosystems and its associated ecological infrastructure is relevant, accessible, and friendly for users</p> <p>c. The status of species and ecosystems is regularly monitored and assessed</p> <p>d. Geographic priority areas for the management, conservation, and restoration of biodiversity assets and ecological infrastructure are identified on the best available science</p> <p>e. Management relevant and policy relevant research and analysis is undertaken through collaboration between scientists and practitioners</p>

Strategic Objectives		
<p>SO 5</p> <p>Stakeholders are mobilised to achieve sustainable long terms benefits for biodiversity</p>	<p>SO6</p> <p>Capable institutions achieve biodiversity management objectives</p>	<p>SO7</p> <p>Resource mobilisation enables the effective implementation of the biodiversity mandate in the province</p>
Outcomes		
<p>a. Collaborative programmes in the province contribute substantially to the implementation of this PBSAP</p> <p>b. c. Effective messaging, coordination and mobilisation of citizens enhances awareness, engagement, and championing of biodiversity conservation whilst ensuring its wise, restoration of associated ecological services and infrastructure in communities.</p> <p>d. Effective involvement by citizens and civil society in development and implementation of planning and other decision making processes enhances their activities that champion biodiversity.</p> <p>e. citizens assist in monitoring biodiversity</p>	<p>a. Biodiversity-related policies and laws are effective and are being implemented, and they enable and contribute to the attainment of the strategic objectives of the province and of local authorities</p> <p>b. Relevant government institutions have the required competence and capability to implement their mandated and/or allocated biodiversity-related functions and responsibilities</p> <p>c. The majority of the institutions operating and performing biodiversity functions in the province and the local authorities have the adequate quantity and appropriate quality of skills in house or leveraged through partnerships, to perform their mandated and allocated biodiversity-related functions and/or responsibilities</p> <p>d. Security of appropriate and demographically representative skills base is ensured</p>	<p>a. Implementation of the PBSAP is enabled by availability and appropriated allocation of financial resources to key institutions performing biodiversity functions</p> <p>b. Innovative financing strategies lead to the growth of the current funding available to achieve biodiversity goals, strategic objectives and actions of the province</p>



1. Introduction and Setting the Strategic Context

The Provincial Biodiversity Strategy and Action Plan (PBSAP) is a strategic mechanism of the Western Cape Provincial Government that aims to ensure that all stakeholders operating in the province, including the national and provincial government entities, local authorities, non-governmental organisations (NGOs), business and society as a whole, act in a coordinated and collaborative manner with regards to biodiversity conservation, its sustainable use, and the fair and equitable sharing of benefits arising from the use of genetic resources.

1.1. The time frame of this PBSAP

The PBSAP is a **ten-year strategy** that coordinates with the National and Provincial Medium Term Strategic Frameworks 2014-2019 as well as the National Biodiversity Strategy and Action Plan (NBSAP), 2015 to 2025. It responds to the national and provincial economic growth and development strategies as well as other biodiversity-related policies and laws internationally, nationally and provincially

1.2. The scope covered by this PBSAP

Below we define the scope covered by this PBSAP by defining biodiversity and the geographic boundary to which it applies.

Defining biodiversity

This PBSAP defines biodiversity as per the text of the Convention on Biological Diversity (CBD, 1992):

“Biological diversity or ‘biodiversity’ is the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

The key attributes associated with biodiversity as indicated in Table 1 below, are encompassed in defining the scope of biodiversity:

Table 1: Attributes of the biodiversity hierarchy (Source: adapted from Peck, 1998)

Level	Component	Pattern	Processes
Gene	Genes	Genetic structure of a population or species	Genetic processes
Species	Populations Species	Population structure and distribution	Demographic processes and life histories
Ecosystem	Communities Ecosystems	Habitat types Habitat architecture	Interactions among species Ecosystem processes
Landscape/ seascape	Landscape types Seascape types	Landscape and seascape patterns	Landscape and seascape processes and disturbances Resources use trends Hydrological processes

Geographic scope of the PBSAP

This PBSAP and all its strategy elements pertain to the geographic area that coincides with the Western Cape Province of South Africa as shown in Figure 1 below:



Figure 1: The Western Cape provinces and its local authorities (Source: www.westerncape.gov.za)

1.3. A snapshot of the process followed to develop the PBSAP

The methodology followed to develop this PBSAP is summarised below:



Figure 2: Methodology followed to develop the PBSAP

The Desktop Review Report contains comprehensive information that we have only summarised here and it formed the basis for strategy formulation. The Desktop Review Report document can be sourced from www.westerncape.gov.za/dept/eadp.

1.4. The Western Cape Province, home to globally important biodiversity

The province's biodiversity is characterised in large part by the CFR. At about 90 000 m², the CFR is not only the smallest plant kingdom of the six floral kingdoms in the world, but it is the only plant kingdom that is found within the boundaries of only one country.

Some 8 500 species of plants are found in the CFR. About 68% of the species of the region – 20% of the genera and six families – are characterised as endemic. These endemic species also face high levels of threats that have led or may lead to loss of this unique biological diversity. The CFR has thus been recognised as a biodiversity hotspot. In fact, Conservation International (CI) recognises as global biodiversity hotspots, both the Cape Floristic Region (CFR) as well the Succulent Karoo biome. In 2004, the "Cape Floral Region Protected Areas" were inscribed as a World Heritage Site that consists of eight protected areas representative of phyto-geographical centres of endemism of this region and covering an area of 553 000 ha.

The landscape of the province

The landscape of the province is as shown in Figure 3 and consists of the **Fynbos, Succulent Karoo, the Forest, the Subtropical Thicket and the Nama Karoo biomes.**

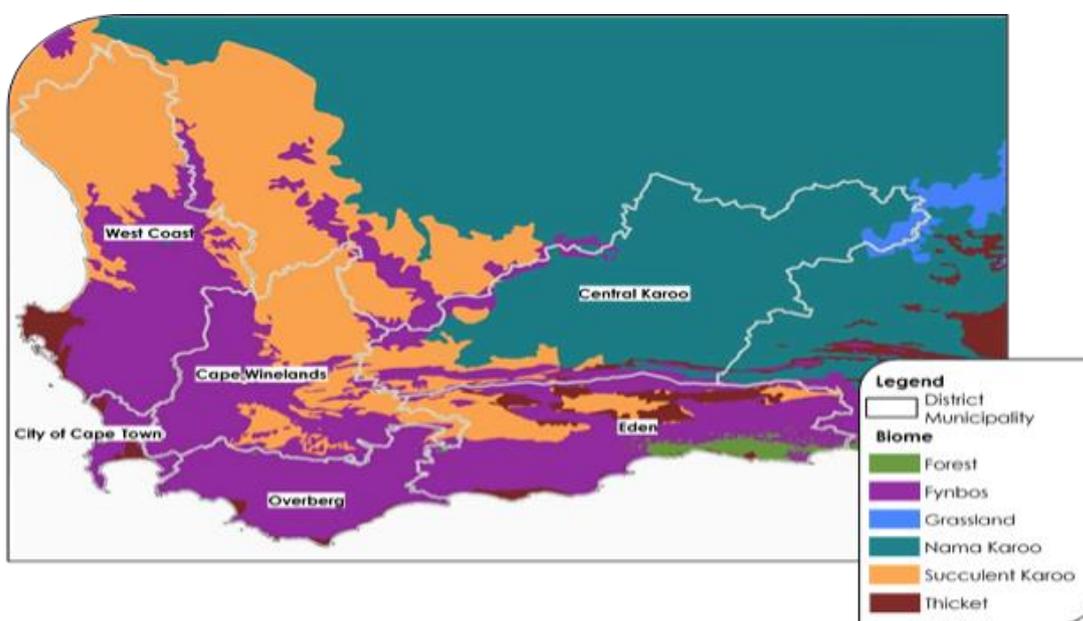


Figure 3: The major biomes falling in the province of the Western Cape (Source: SANBI. 2011)

The province's landscape is also endowed with mountain ranges, some of which such as Table Mountain are iconic and of tourist attraction. The 26 mountain ranges of the province fall under the Cape Fold Belt of the Cape Supergroup geological formation.

Freshwater environment, wetlands and estuaries

The Western Cape Province largely falls within four water management areas (WMAs), namely the Berg WMA, the Breede WMA, the Gouritz WMA and the Olifants-Doorns WMA.

The Western Cape State of Biodiversity (2012) finds that the river and wetland ecosystems of the province are highly threatened. In particular, 45% and 71% of the river and wetland ecosystem types, respectively, in the Western Cape Province are threatened, i.e. are critically endangered, endangered or vulnerable, compared to 51% and 65%, respectively, nationally.

The River Health Programme reports for various water management areas (WMAs) falling in the province show that these areas are generally in fair ecological health whilst significant parts of some of these are in poor health, for example 28% of the Berg River or 23% of the Greater Cape Town rivers.

The Western Cape Province is home to six Ramsar sites, namely De Mond, De Hoop, Verlorenvlei, Langebaan Lagoon, the Wilderness Lakes and False Bay Nature Reserve – the latter being recently declared. The floodplain and the Berg river estuary are known collectively as Lower Berg River Wetlands and are listed as an Important Bird Area under the Ramsar Convention. Overall there are some 30-37 wetland types that have been described in the province. On-going work is underway to update the wetland inventory for the province. The state of the wetlands of the Western Cape Province shows that 53% are critically modified, 34% are moderately modified, and 13% are intact condition.

The top three estuaries nationally in terms of conservation importance are found in the province. These are Knysna (1), Berg River (2) and Olifants (3).

The coastal environment and marine environments

The coastal environment is a dynamic environment that is influenced by the terrestrial environment as well as the marine environment. The Western Cape Province has a coastline that is in excess of 1 000 km, the largest coastal line of all the four coastal provinces of the country. The City of Cape Town plus three of the five district municipalities – the Western Coast, the Overberg and Eden – straddle the coast of the Indian and Atlantic Oceans. The ecological status of the coastal vegetation is cause for concern as shown below:

Table 2: Coastal vegetation types and their ecological status (Source: Jacobs, K & Jangle, R, 2008)

Vegetation Type	Vegetation Unit	Ecological status
Western Strandveld	Lambert's bay Strandveld	Vulnerable
	Saldanha Granite Strandveld	Endangered
	Saldanha Flats Strandveld	Endangered
	Saldanha Limestone Strandveld	Endangered
	Langebaan Dune Strandveld	Vulnerable
	Overberg Dune Strandveld	Endangered
	Cape Flats Dune Strandveld	Least threatened
	Blombos Strandveld	Least threatened
	Groot Brak Dune Strandveld	Endangered
Seashore Vegetation	Cape Seashore Vegetation	Least threatened

Two oceans – the Indian and Atlantic Oceans – are found in the province. The warmer Agulhas and the colder Benguela Ocean currents joining together in this part of the world explain some of the rich marine biodiversity of the province. Sadly, as the recent National Biodiversity Assessment (NBA, 2011) has found, of the recently mapped habitat types, there are several that are threatened and endangered. In terms of offshore habitat types, the NBA found that the Southern Benguela and Agulhas eco regions have the

most threatened habitats. The NBA 2011 lists critically endangered marine and coastal habitats that have no protection as including the following:

- Agulhas Canyon;
- Southern Benguela Canyon;
- Southern Benguela Hard Shelf Edge;
- Agulhas Muddy Inner Shelf;
- Agulhas Mixed Sediment Outer Shelf;
- Southern Benguela Gravel Outer Shelf;
- Southern Benguela Gravel Shelf Edge; and
- Southern Benguela Muddy Shelf Edge.

Genetic diversity

The high levels of endemism of the biodiversity falling within the Western Cape Province suggest high levels of genetic diversity. Genetic diversity is not only important due to diversity between species but it is also important within species. Therefore, it is important that conservation strategies take into account representation of populations within species. Key threats to genetic diversity include:

- Loss of representative species population due to loss of habitat, unsustainable and over harvesting of species.
- Genetic 'pollution' resulting from interbreeding of natural species and species that may be genetically modified in some way.

Intraspecific genetic diversity enhances the potential for developing new medicines, crops, cosmetics, ornamental plants and other useful products.

Ecological services

The Eco-Invest project of the DEADP in its Phase 1 report makes a point that there needs to be investment in the restoration of natural capital to secure the provision of ecosystem services. Accordingly the report notes that the biggest loss of ecosystem services in the province relates to water and fishery losses:

- Water losses caused by invasive alien plants (IAPs) are estimated to be worth R1.29 billion per annum.
- Depletion of fish stocks has cost the province's fisheries an estimated R1.3 billion per annum.
- Loss of nursery value of estuaries has cost in the order of R0.7 billion per annum.
- Degradation of the landscape's capacity to ameliorate water quality and to attenuate floods is estimated at over R2 billion per annum.

As per the Eco-Invest Phase 1 report, in total, degradation of the province's natural capital probably costs society at least R4.5 billion per annum.

Climate change

An overarching threat to biodiversity is climate change. It not only affects biodiversity but also the economy and societal activities in general.

The National Biodiversity Assessment of 2011 shows that South Africa's biomes are expected to be impacted by climate change. According to the research and modelling conducted, the climate 'envelopes' of some of these areas indicate the biomes are likely to be different from the current status.

Consequently, the Western Cape Government and in line with the national government climate response strategy is currently implementing the **Western Cape Climate Change Response Strategy 2014**

which creates an enabling framework through which significant new and emerging opportunities related to developing a low carbon, climate resilient Western Cape can be realised.

The strategy takes a two-pronged approach to addressing climate change:

Mitigation: which aims to contribute to national and global efforts to significantly reduce green house gas emissions and build a sustainable low carbon economy, which simultaneously addresses the need for economic growth, job creation and improving socio-economic conditions. The approach to mitigation in the Western Cape encompasses:

- setting performance benchmarks;
- identifying desired sectoral mitigation contributions; developing and implementing sustainable energy plans; and
- unlocking market opportunities and developing and implementing innovative economic instruments to achieve GHG emission reductions,

Adaptation: which aims to reduce climate vulnerability and develop the adaptive capacity of the Western Cape's economy, its people, its ecosystems and its critical infrastructure in a manner that simultaneously addresses the province's socio-economic and environmental goals. The strategy has adopted the following outcomes in regards to adapting to climate:

- well-managed natural systems that reduce climate vulnerability and improve resilience to climate change impacts;
- significantly increased climate resilience and coping capacity within communities which reduces climate-related vulnerabilities;
- an actively adaptive and climate change resilient economy which unlocks new markets and economic growth opportunities arising out of climate change.

Ecosystem based adaptation (EbA) is also being piloted in some sites in the province as a tool that could provide resilience against adverse effects of climate change and variability-related events

The strategy has identified select focus areas which are: Energy Efficiency and Demand-Side Management; Renewable Energy; the Built Environment, including Critical Infrastructure, Human Settlements and Integrated Waste Management; Sustainable Transport; **Water Security and Efficiency; Biodiversity and Ecosystem Goods and Services ; Coastal and Estuary Management;** Food Security; and Healthy Communities

1.5. The policy context

The PBSAP is being developed to align and respond to the requirements of international, national and provincial policy and legal framework governing biodiversity.

International policy context

Biodiversity has received focus and priority at highest level of international organisations, and in particular at the United Nations (the UN) General Assembly. Under the auspices of the UN, in September 25th 2015, countries adopted 17 sustainable development goals (a follow on to the Millennium Development Goals) and which aim to **end poverty, protect the planet, and ensure prosperity for all.**

Of relevance is **Goal 15 on biodiversity, desertification and forests**. Targets set under Goal 15, align to objectives, outcomes and targets in this PBSAP

There is an extensive body of specific subject matter Multilateral Environmental Agreements (MEAs) relating to this PBSAP. Examples are illustrated in Box 1 below.

Box 1. Examples of multilateral environmental agreements that are relevant to this PBSAP

- Convention of Biological Diversity (CBD, 1992)
- Convention on International Trade in Endangered Species of Fauna and Flora (CITES, 1975)
- Convention Concerning the Protection of World Cultural and Natural Heritage (WHC, 1975)
- Convention of Prevention of Marine Pollution (1975)
- International Convention for the Regulation of Whaling (IWC, 1948)
- Convention on Wetlands of International Importance, esp. as a waterfowl habitat (Ramsar, 1971)
- Convention on the Conservation of Migratory Species of Wild Animals (CMS, 1991)
- Benguela Current Convention (2013)

However, the specific requirement with regard to the development of the PBSAP stems from the decisions of the Convention on Biological Diversity (CBD) and under which National Biodiversity Strategies and Action Plans are developed.

The CBD in terms of Article 6 on General Measures for Conservation and Sustainable Use states that:

*“each Contracting Party shall, ... develop **national strategies, plans or programmes** for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and...”.*



Fig 4: The Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets

As per Decision 22 of the 10th Conference of the Parties (COP X/22) – which endorsed the Plan of Action on subnational governments, cities and other local authorities for biodiversity (2011-2020) with regard to implementation of the objectives of the Convention, the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets – Parties are encouraged to develop and implement:

“... subnational and local biodiversity strategies and actions plans in support of national biodiversity strategies and action plans”.

National policy context

The national context for this PBSAP first emanates from the Constitution of the Republic of South Africa, which stipulates the mandates of the three tiers of government – national, provincial and local government. In relation to functions pertaining to biodiversity management, Schedule 4 ascribes the following functions concurrently to national and provincial governments:

“...nature conservation, excluding national parks, national botanical gardens and marine resources”.

The Constitution under the Bill of Rights also states:

“Everyone has the right:

- a) *To an environment that is not harmful to their health or well-being*
- b) *To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that*
 - i. *Prevent pollution and ecological degradation*
 - ii. *Promote conservation; and*
 - iii. *Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”*

This, therefore, means that all the three tiers of government – national, provincial and local – and other organs of state are required to take legislative and other measures to give effect to the environmental right.

In addition to the country's Constitution, the economic and development perspective informs this PBSAP. Key macro policies at the national level and that are relevant to this PBSAP include, among others, those stipulated in Figure 5 below:



Figure 5: Examples of South Africa's current macro policies

National strategy on sustainable development and the overarching national environmental policy and legal framework

South Africa has extensive policies and legislation pertaining to sustainable development and environmental management. The PBSAP is informed significantly by these policies, highlighted in Box 2:

Box 2: The sustainable development and national environmental policy and legal framework

- National Framework for Sustainable Development (NFSD, 2008)
- National Strategy on Sustainable Development and Action Plan 2011-2014 (NSSD 1, 2011)
- White Paper on Environmental Management (1997)
- National Environmental Management Act (NEMA, Act No 107 of 1998 as amended)
- White Paper on National Climate Change Response (2011)

National biodiversity policy and legislation

The policy development and law reform in respect of biodiversity management has ensured alignment with the Constitution, and sustainable development and environmental management policies and laws. Biodiversity policies and laws are also a mechanism to implement the relevant national and provincial obligations under the Constitution as well as the sustainable development and environmental

principles, particularly those contained under the United Nations Conference on Environment and Development. The biodiversity policy and legal framework also responds to international biodiversity agreements highlighted in Box 2 above.

In Figure 6 below we highlight the current national biodiversity policy framework:

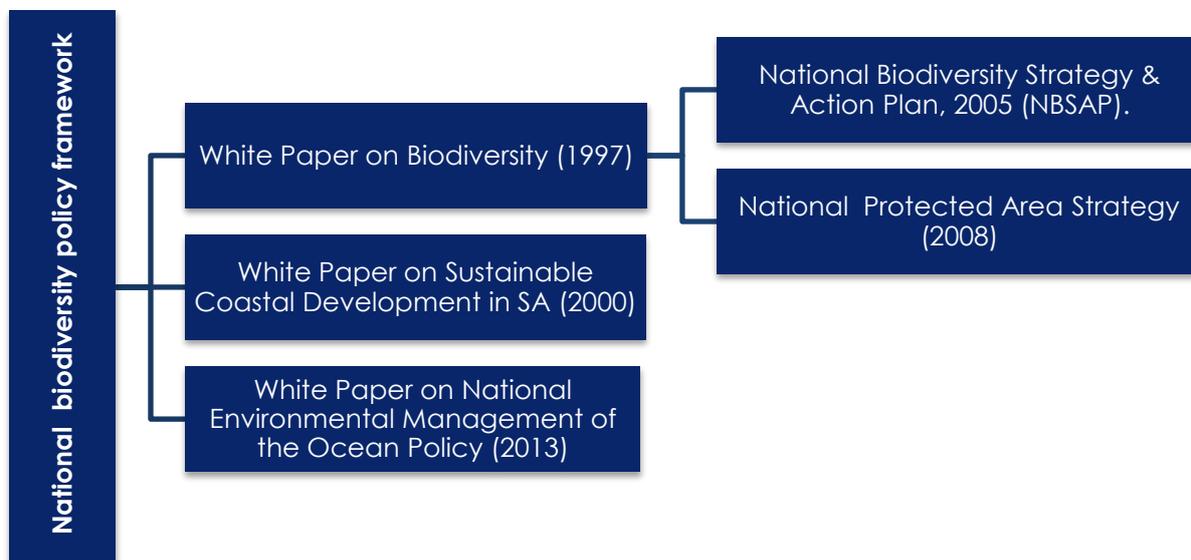


Figure 6: The relevant national policy framework on biodiversity

The NBSAP version of 2005 is currently under revision and the development of this PBSAP has been aligning with the process updating the NBSAP. The reviewed NBSAP is envisaged to respond to the CBD Strategic Plan 2011-2020 and the 20 Aichi Targets (the CBD Strategic Plan). This PBSAP is also taking into account the CBD Strategic Plan.

The national legislation on biodiversity covers various subject matters as we depict in Figure 7 below. In addition to the biodiversity legislation we illustrate below, there are regulations such as on alien invasive species and on bioprospecting, access and benefit sharing that guide implementation in these regulatory areas.

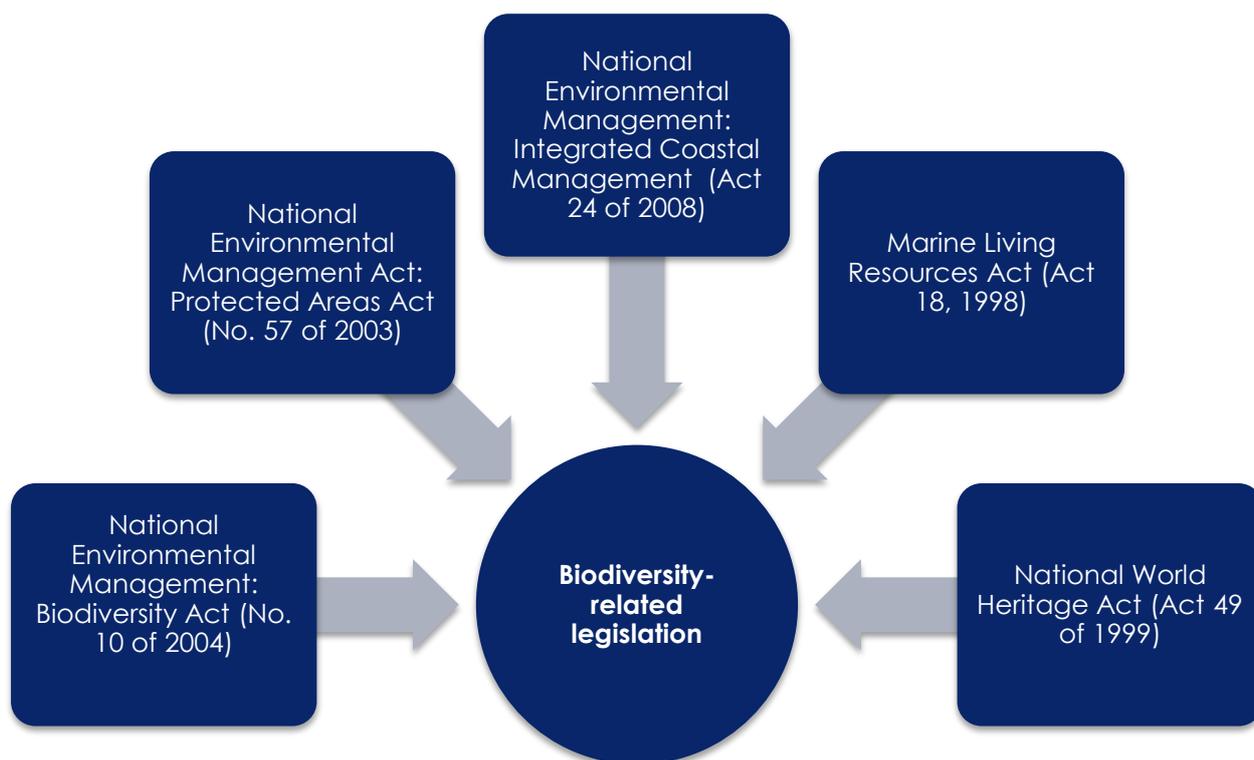


Figure 7: The current biodiversity related legislation

National cross-sectoral strategies, policies and legislation

The scope of biodiversity (see 1.2.1 above) suggests that various cross-cutting sector policies are relevant to the achievement of the PBSAP objectives. The relevance of these cross-cutting policies is also attributed to the scope of the ecosystem types where biodiversity is found, i.e. terrestrial, aquatic and marine. We highlight some examples of these in Box 3:

Box 3

- National Water Policy (1997)
- National Water Act (Act No. 36 of 1998)
- National Water Resources Strategy 2 (NWRS2, 2013)
- National Veld and Forest Fire Act (Act No. 101 of 1998)
- National Forest Act (Act No. 84 of 1998)
- Genetically Modified Organisms Act, 1997 (Act No. 15 of 1997)
- Conservation of Agriculture Resources Act (Act No. 43 of 1983)
- The Spatial Land Use Management Act (Act No. 16 of 2013)
- The Bio – economy strategy (2013)
- The National Research and Development Strategy (2001)
- The Ten Year Innovation Strategy 2010 to 2018 (2010)
- Mineral and Petroleum Development Act (Act No. 28 2002)
- Local Government Municipal Systems Act (Act No. 32 of 2000)

Provincial policy context

The Constitution of the Western Cape (1998) is enabled in terms of the national Constitution. In terms of Chapter 10 of the Provincial Constitution, there are provincial policy directive principles aimed at achieving:

- (a) The protection of the environment in the Western Cape, including its unique fauna and flora, for the benefit of present and future generations; and
- (b) The protection and conservation of the natural historical, cultural historical, archaeological and architectural heritage of the Western Cape for the benefit of the present and future generations.

The Western Cape Province has in place several overarching strategies and policies that guide it in implementation of its mandate and pursuance of its economic and social development goals.

OneCape 2040

This Western Cape Provincial Government initiative complements the NDP, and builds on the Provincial Strategic Objectives (PSOs). In essence, OneCape 2040's aims are highlighted in Box 4 overleaf:

Box 4: OneCape 2040

OneCape 2040 sets the goal of:

"...creating a resilient, inclusive and competitive Western Cape with higher rates of employment producing growing incomes, greater equality and an improved quality of life".

The vision as stated in OneCape 2040 is that of:

"...a highly-skilled, innovation driven, resource efficient, connected, high opportunity and collaborative society".

OneCape 2040 identifies six changes or transitions that are required to achieve the OneCape 2040 vision and these are:

1. Knowledge (**Educating Cape**) – aiming for high quality education for all plus high innovation capacity.
2. Economic access transition (*Working Cape*) – aiming for innovation-driven economy with low barriers to entry and with high productivity and entrepreneurship rates.
3. Ecological transition (*Green Cape*) – aiming for sustainable low carbon resource use.
4. Cultural transition (**Connecting Cape**) – **aiming for high level of local connectivity and global market fluency.**
5. Settlement transition (*Living Cape*) – aiming for healthy, accessible, liveable multi-opportunity communities.
6. Institutional transition (*Leading Cape*) – **aiming for open, collaborative system.**

The ecological transition's goals are for:

- All people to have access to water, energy and waste services that are delivered on a sustainable resource-efficient manner; and
- The Western Cape to be a recognised leader and innovator in the Green Economy.

The primary levers identified to achieve these goals are:

- Energy and water infrastructure and regulation geared to sustainable resource use; and
- Innovation and the fast tracking of the green agenda incentivised.

During the 2014-2019 political term, the Western Cape Provincial Strategic Plan stipulates five Provincial Strategic Goals to guide action and these are to:

- Create opportunities for growth and jobs;
- Improve education outcomes and opportunities for youth development;
- Increase wellness, safety and tackle societal ills;
- Enable a resilient, sustainable, quality and inclusive living environment; and
- Embed good governance and integrated service delivery through partnerships and spatial alignment.

The Provincial Spatial Development Framework (PSDF, 2014), the Western Cape Province Land Use Act No. 3 of 2014 (LUPA) and the Western Cape Infrastructure Framework (2013) are some of the relevant provincial level overarching policies.

The Provincial Spatial Development Framework provides a good opportunity for biodiversity considerations to be integrated in development activities. It deals with four interrelated themes namely: introducing a transversal system of spatial governance; sustainable use of the Western Cape Province's spatial assets or resources; opening-up opportunities in the provincial space-economy; and developing integrated and sustainable human settlements. The PSDF includes as elements of the spatial assets or resources, biodiversity and ecosystems; water; soil and mineral resources; resource consumption and disposal and landscape and scenic assets.

During the 2015/16 financial year, the Cabinet of the Western Cape Provincial Government adopted game changers as shown in Box 5 below. Several actions in this PBSAP can make a contribution to achieving the actions relating to game changers.

Box 5: Western Cape Provincial Government Game Changers

Energy Security Game Changer is geared toward enhancing the uptake of rooftop PV and Solar Water Heaters, reduce energy usage in public and private buildings, facilitate economic growth by limiting electricity disruptions, and to diversity the energy mix.

Artisan and Technical Skills Game Changer is positioned to align the demand and supply of labour. Its focus is on addressing the shortage of vocational skills in line with industry particularly as it relates to tourism, agri – processing, and oil and gas sectors.

After Schools Game Changer aims to have 20% of no fees schools have access to high quality after school programmes by 2019. This equates to 112 600 no fee school learners by 2019.

e-Learning Game Changer aims to create modern classrooms to enhance learning. E-learning will increase access to ICT in disadvantaged communities, provide support to learners, contribute toward teacher learning and professional development, and management and administration in schools.

Better Living Model Game Changer aims to develop a replicable better living model of mix use, mix income, mix tenure residentially led development that will address apartheid legacy.

Provincial biodiversity-related and relevant cross-sector legislation

The province has put in place strategies and legislative mechanisms to effect its obligations in respect to environmental and biodiversity functions. There are also currently underway initiatives that are aimed at strengthening the biodiversity policy and legal regulation within the province. These initiatives include this project – the PBSAP – as well as the development of the Provincial Biodiversity Bill. Box 6 below features some of the existing provincial biodiversity-related and relevant cross-sectoral policies and legislation:

Box 6: Examples of provincial biodiversity-related and relevant cross-sectoral policies and legislation

- Western Cape Nature Conservation Board Act, 1998 (Act No. 15 of 1998)
- Nature and Environmental Conservation Ordinance (No. 19 of 1974 as amended)
- Western Cape Biosphere Reserves Act, 2011 (Act No. 6 of 2011)
- Western Cape Environment Conservation Bill (draft)
- Western Cape Monitoring and Support of Municipalities Act, 2014 (Act No. 2 of 2014)
- The Western Cape Disaster Management Framework: Disaster Management Act , (Act No 57 of 2002)
- Western Cape Climate Change Response Strategy (CCRS) and Implementation Framework (2014)

In addition to the above policies, it is also worth highlighting the Green Economy Strategic Framework (2013), which encompasses biodiversity-based economy and to which objectives of this PBSAP will contribute:

Box 7: About the Green Economy Strategic Framework (2013)

The strategy, which goes by the tag line, **Green is Smart**, is the Western Cape's roadmap to become the leading green economic hub on the African continent. The framework is premised on five key principles and choices of action, namely market focus, private sector-driven, public sector-enabled, collaboration and inclusion. The key elements of the framework are five drivers, namely smart living, smart mobility, smart ecosystems, smart agri-production and smart enterprise.

The Smart Ecosystems driver, has as its the objectives, enhanced water and biodiversity preservation, as well as expanded infrastructure, tourism, livelihood and job opportunities created through better - managed ecosystems. Opportunities identified are ecosystem management and restoration, biodiversity management, mariculture, tourism, sustainable harvest, conservation education, and research and development. Enablers have been identified as finance, rules and regulations, knowledge management, capabilities and infrastructure.

1.6. Local government and biodiversity

Despite there being no clear constitutional mandate relating to biodiversity management at local government level, this tier of government does have biodiversity responsibilities that emanate from the need to comply with the Constitution and relevant national and provincial legislation. Further, important sites of biodiversity almost at all times fall within the boundaries of one or more local authorities. Such sites have ecological, economic and social relevance and more often than not serve the objectives of local authorities. There are various policy instruments at this level of government that are the basis for local action with regard to biodiversity. These include the:

- Integrated Development Plans (IDPs);
- Spatial Development Framework (SDFs); and
- Environmental Management Frameworks (EMFs).

These policy instruments (IDPs, SDFs, EMFs) suggest that plans and decisions that are taken at this level can facilitate for protection of biodiversity including critical biodiversity. Certain local authorities – notably the City of Cape Town and Berg River Local Municipality – have also taken additional biodiversity initiatives and have developed local biodiversity action plans (LABs). The Cape Winelands District Municipality is currently developing its LAB.

Despite the enabling policies, the limitation for local government to implement these policy instruments tends to be inadequate capacity. Consequently, the provincial support to local government through the Provincial Local Government Support Programme has been established. Through this programme support can include: reviewing IDPs, SDFs, biodiversity plans, coastal management development and also provides implementation support.

2. The situation analysis and the basis for the strategy and action plan

This PBSAP, as already indicated, has been developed following a rigorous process and which is the basis for the strategy and action plan herein. Below, we summarise key issues, institutional challenges as well as pressures on and threats to the biophysical environment of the province that we identified as part of the strategy development process. As we highlight these we also indicate the implications with regard to the focus of this strategy and action plan.

2.1 The economy and the development context

The Western Cape Province – as the rest of the country – faces enormous challenges that include poverty, unemployment, inequality and inadequate access to some of the basic services, in particular housing. As an example and according to Statistics SA (Census 2011), the Western Cape Province has a narrow unemployment rate of 21.6% and an expanded unemployment rate of 29.3%. Further and according to the Western Cape Province's Destination, Investment and Trade Promotion Agency (WESGRO), the province has seen the population grow at a compounded annual growth rate (CAGR) of 2.18% over the past 10 years. An associated driver of this trend is migration of population from rural areas to urban areas thus leading to urban sprawl that increases significantly the demand for formal housing.

Although the economy of the Western Cape Province from 2002 to 2012 grew at an average of 4.5% (higher than the national average of 3.9%), the economy is currently constrained, as is the case countrywide. The Provincial medium Term Budget Policy Statement of 2014 estimated that the provinces annual growth would be 3.6% from 2013 to 2018. In the 2015/16 budget speech by the Minister of Finance, Mr Nhlanhla Nene, the economy in 2015 is expected to grow by 2% and in 2016 it will grow well below the required economic growth level that will significantly reduce unemployment levels and increase financial resources required to deliver backlogs in service delivery.

South Africa's NDP, Vision 2030; the OneCape 2040; the Provincial Strategic Plan (2015-2020); the infrastructure development plans at national and provincial levels; and industrial development plans, to name a few macro interventions, are aimed at addressing the challenges mentioned. The Industrial Policy Plan 2 (IPAP 2) and Operation Phakisa – the strategy on the Ocean economy – have identified Oil & Gas, Marine Transport & Manufacturing and Aquaculture as some of the key sectors that will be developed in the Western Cape Province. The Green Economy initiative of the province is also being fostered to encourage development and investment in the emerging industries and economic sectors that offer products, processes and services that promote green living and sustainability.

What does this mean for biodiversity conservation?

Biodiversity is a resource that directly contributes to several economic sectors and is the basis for potentially new commercial products, processes and services. Managing biodiversity and restoration of ecosystem programmes are a key contributor to job creation. Conserving biodiversity thus contributes to the achievement of social and economic objectives of the province. At the same time the implementation of the identified economic and infrastructure projects have the potential to cause loss of ecosystems, habitats, populations, species and genes. It is important that development should avoid any such loss. Where necessary, effective mitigation strategies for conservation should be implemented. Ideally, strategic environmental assessments of these key economic activities and the development planned should be undertaken with the aim to secure beneficial outcomes for biodiversity conservation.

2.2 The biophysical environment of the Western Cape Province

The Desktop Review Report describes in detail the biodiversity found in the province at all its levels in all environments as well as various conservation initiatives being implemented.

The biodiversity of the Western Cape Province, which is characterised in large by the CFR and with the landscape that consists of the five biomes already mentioned, is very rich at levels including in regard to the ecosystems, habitat, species and genetic diversity. The terrestrial environment, freshwater ecosystems, wetlands, estuarine, coastal and marine environments, in an integrated manner, deliver ecosystems services and provide ecological infrastructure that underpins and supports the economic, social, spiritual requirements of society. Much has been undertaken to protect representative biodiversity through a variety of conservation tools including through formal protected areas and off-reserve conservation initiatives. These too are insufficient and more conservation land fully representative of biodiversity at all levels needs to be secured to ensure persistence of ecosystems and resilience in the face of climate change. The status of biodiversity of the province still remains a key concern:

- 45% of river and 75% of wetland ecosystem types are threatened.
- 28% of the Berg River and 23% of the Greater Cape Town Rivers are in poor health.
- 53% of wetlands are critically modified.
- The top three estuaries in terms of national conservation are found in the province.
- The ecological status of the coastal vegetation is of concern.
- Several recently described marine and coastal habitats are threatened and endangered.
- Eight coastal and marine habitats are listed as critically endangered and have no protection.

Climate change under the worst-case scenarios is likely to change the vegetation patterns of some of the biomes. This includes parts of the Fynbos, the Subtropical Thicket and the Nama Karoo biomes.

What needs to done? The diversity of ecosystems, habitats, populations, species and genetic diversity must be protected. Areas that are protected should be representative of all these levels of biodiversity and should encompass all environments as well as ensure ecosystem processes are maintained and are resilient in the face of climate change and variability. Government should partner with private landowners who can set aside land that would achieve biodiversity conservation objectives as government alone cannot achieve the extent of the task at hand.

2.3 Pressures and threats on the biophysical environment of the province

The concerns regarding the status of biodiversity found in the province is due to several pressures on and threats to the ecosystems, habitats, species and genes that constitute the biodiversity of the Western Cape Province. These include economic and development activities such as agriculture, mining, oil, gas, renewable energy; urbanisation and related demand for human settlement expansion; alien invasive species of fauna and flora found in terrestrial and aquatic environments; over-harvesting and illegal harvesting of species such wild flowers, succulents, geophytes, reptiles and fish resources; over abstraction and pollution of water; and climate change. These pressures and threats cause:

- Threat of, near extinction and loss of species of fauna and flora some of which are not found anywhere else in the world.
- Transformation and degradation of the often globally important ecosystems and habitats.
- Loss or reduction in the quality of ecosystem services that support the economy and society.
- Reduced availability and poor quality of water that support the ecosystems, households and the economy.
- Alteration of natural fire regimes and increase in frequency and intensity of fires, thus threatening and destroying property, landscapes and life.
- Increased vulnerability to natural disasters such as fires, droughts and floods.

What should change? There is a need to focus on educating, raising awareness and involving citizens to play their part in preventing harmful actions and to take local conservation action. Business and the private sector should also take precaution and avoid or seek to minimize the impacts of their development and operational activities on the environment. Where opportunities exist, business should offset their impacts by setting aside land for conservation. The pressures and threats and their underlying drivers should be addressed at multiple-linked scales.

2.4 Policy, legislation, institutions and capacity to implement

Policy and legal reform processes implemented since the new political dispensation of 1994 have produced progressive environmental policies and laws that are not only world-class but also world leading in many ways. South Africa's policy framework has more than responded to the international policy obligations.

The focus now is clearly on implementation of these national policies and laws. Institutions are key during this implementation phase. The Western Cape Province is not short of institutions. However, the following challenges constrain the ability to implement:

- Limited number of skilled people.
- Even more limited number of senior and experience skilled people.
- Rapid turnover of key skills especially in municipalities leading to inability to retain institutional memory.
- New demands emanating from new policies and laws.

The Desktop Review Chapter focusing on local authorities and their role in biodiversity management shows that in general there is uneven focus and capacity to deal with environmental issues and in particular biodiversity management responsibilities. What is encouraging is that at least at the level of setting objectives for biodiversity as part of the IDP's, almost 60% of the municipalities reviewed have addressed biodiversity. As already indicated, only two local authorities have a LAB.

Institutional and human capacity building initiatives should also emphasise this local tier of government as key decisions made at this level impact on achievement of biodiversity objectives.

Feedback from consultation indicates that almost all institutions have inadequate financial resources to fulfil some of their biodiversity mandates, functions and responsibilities.

What needs to change? : A systematic and focused approach should be taken with respect to institution-building, development of the required human resources and on mobilising of additional financial resources. Partnerships involving all sectors of society are going to be key.

3. The Vision, the Overarching Goal and the Guiding Principles

The PBSAP's Vision is a far-reaching aspirational statement that indicates where “we want to be” and in this context it is aligned with OneCape 2040, the development plan of the province. In turn, OneCape 2040 is aligned with the NDP, Vision 2030.

The Overarching Goal represents a 10-year milestone en route to achieving the vision. The strategic objectives, outcomes, targets and actions in this PBSAP are anchored on the Overarching Goal.

The Guiding Principles reflect the values and the philosophies or enduring truths that serve as the foundation for the PBSAP and cut across all elements of this strategy.

3.1 The Vision

By 2040, Biodiversity, the natural heritage and ecological infrastructure is valued, wisely used, conserved and restored, and delivers the ecosystem services that improve the quality of life of the people of the Western Cape Province.

3.2 The Overarching Goal

By 2025 management, consolidation and expansion of all the categories of the Western Cape Province's network of conservation areas; promotion of existing and new biodiversity mainstreaming and conservation initiatives; enabling of an inclusive and sustainable biodiversity based economy; and active participation of citizens, progressively contribute to the attainment of biodiversity conservation, economic and development vision of the Western Cape Province.

3.3 Headline Indicators

Coverage of conservation areas	Change in land covered by natural habitats and ecosystems	Change in conservation status of threatened species, habitats and ecosystems
Extent of alien invasive species	Extent of the restoration of degraded catchments	Water quality in aquatic environments
Integration of biodiversity priorities in Spatial Development Frameworks	Integration of biodiversity based economy programmes into the Green Economy Framework	Change in attitudes of citizens towards biodiversity conservation

3.4 The Guiding Principles

These Guiding Principles complement the values adopted by the Western Cape government and should be pivotal in planning and decision – making by all sectors in government and general stakeholders.

INTRINSIC VALUE: Biodiversity is conserved for its intrinsic value as well as for its contribution to the economy and society.

PEOPLE VALUE AND TAKE COLLECTIVE RESPONSIBILITY FOR BIODIVERSITY: All of the people of the Western Cape province, including the general public; civil society and the private sector recognize the value of biodiversity. They take collective responsibility for the conservation; management; the wise; and sustainable use of the biodiversity and ecological services of the globally important biodiversity found in the province by cooperating and effective coordination.

FAIR AND EQUITABLE BENEFITS FROM BIODIVERSITY: There is fair and equitable distribution of the benefits that arise from the commercial development of the biodiversity and biological resources found in the Western Cape Province.

ECOSYSTEMS HAVE A FINITE CAPACITY: Ecosystems have a finite capacity to recover from threats; impact; pressures and global change is recognised by all stakeholders.

ECOLOGICAL RESILIENCE: Building ecological resilience recognises the province's social and economic development imperatives; links between ecological and social systems and global change.

ECOSYSTEM APPROACH: The ecosystem approach to conservation of the biodiversity of the Western Cape Province guides planning and management authorities as well as private landowners in their biodiversity management activities.

PARTICIPATORY AND CO-GOVERNANCE PROCESSES: Planning, decision-making and management of biodiversity are underpinned by participatory and co-governance processes.

SOUND KNOWLEDGE: Planning and decision-making of biodiversity management are based on sound knowledge that is periodically reviewed. The Precautionary Principle applies when knowledge is limited or does not exist.

4. The Strategic Objectives, Outcomes, Targets & Actions

The PBSAP's Strategic Objectives, Outcomes and Targets have been devised as a means to achieve the 10-year Overarching Goal. These address key issues, challenges, threats and pressures on biodiversity and ecological infrastructure identified following the desktop review conducted as part of this project as well as the inputs received during the consultation process. This PBSAP has **three Core Strategic Objectives** and **four Enabling Strategic Objectives**. Further in this section we present the Actions that need to be undertaken.

Box 8

Strategic Objectives (SOs) are statements that relate to fulfilment of the Overarching Goal.

We have organised the PBSAP Strategic Objectives into:

- **Core Strategic Objectives** – these relate to objectives that pertain to the core function of biodiversity conservation and management and associated tools and mechanisms.
- **Enabling Strategic Objectives** – these are supporting strategic objectives that will enable effective implementation of the core strategies.

Outcomes are results that stem from achieving strategic objectives.

Targets are measures that inform us whether we are achieving our objectives.

4.1. Core Strategic Objectives, Outcomes, Targets & Actions

Strategic Objective 1 (SO1): Conservation and effective management of biodiversity contributes to a resilient and inclusive Western Cape economy.

Scope: Focus is on consolidating, expansion and effective management of the network of conservation areas in the province. There is further focus on promoting existing and new off-reserve conservation initiatives. All these interventions are aimed at restoring and securing representative and resilient biodiversity and its related ecosystem infrastructure and contributes to a resilient and inclusive Western Cape economy

Protected areas are a formal and core strategy to conserve biodiversity. This is acknowledged as the most effective strategy for conservation, although not sufficient on its own. The conservation areas of the province are seeing some expansion – albeit limited.

Under the 2010, the Protected Areas Expansion Strategy 2010 -2015, CapeNature set an expansion target of an additional 147 740 ha of land to be formally protected by 2015. The amount achieved by

2015 was 124 106 ha, or just over 84% of the target. Nearly a third of the sites (51) identified as spatial priorities in the 2010-2015 strategy, have either been conserved or are in the process of being secured for conservation,

According to the Western Cape State of Biodiversity 2012, as of 2012, the conservation areas of the province – which includes conservation categories with limited legal security – stood at 1 623 479 ha and covered about 29.07% of the Critical Biodiversity Areas (CBAs). Between 2007 and 2012, some 25 279 ha were added to the conservation estate of the province, thus increasing the protection of CBAs to 34%.

Recently (2015) the CapeNature Board adopted a Western Cape Protected Areas Expansion Strategy and set its goals to be:

- Expand the Protected Area network to increase its representativity and resilience,
- Regularise the Protected Area network to ensure NEM: PAA compliance and environmental security.

The targets set for expansion in the **Western Cape Protected Area Expansion Strategy: The 2015 - 2020** strategy to expand the Protected Area network of the Western Cape Province are being adopted as part of this PBSAP.

In addition to the work of the government and its government agencies in conserving biodiversity found in The Western Cape, the region has seen several ground-breaking and stakeholder collaborative ecosystem-based conservation initiatives that include the Cape Action Plan for the People and Environment (CAPE), the Succulent Karoo Ecosystem Planning Programme (SKEP) and the Subtropical Thicket Ecosystem Planning Programme (STEP). International conservation mechanisms are also being employed in the province and include the World Heritage Convention, the Convention on Wetlands of Importance (the Ramsar Convention) and the Man and the Biosphere Programme (MAB).

The private sector is also a critical player in securing important and critical biodiversity as the government on its own will never have adequate financial resources and land to ensure full protection of all identified critical biodiversity areas. The Biodiversity Stewardship Programme and other programmes involving private landowners need to be enhanced and expanded.

The global significance of the biodiversity found in the Western Cape and the threats and pressures that have the CFR identified as global biodiversity hotspot make it imperative to continuously mitigate against these and to ensure these are restrained and halted where possible. Fortunately, our macro development policies, and environmental and biodiversity-specific policy and legislation – which draw significantly from international perspectives – provide a solid basis to pursue such efforts.

It is, therefore, important that greater effort is directed at the expansion of the conservation areas falling within the province; that there is management effectiveness in land already set aside for conservation; that strategies against the threats to and pressures on this precious and valuable resource are advanced; and participation and contribution of civil society, business and private sector to achieving the biodiversity is actively encouraged and reinforced.

Box: 9

Alignment to the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 1 and its related outcomes and targets primarily aligns with Strategic Goal C on:

“...improved the status of biodiversity by safeguarding ecosystems, species and genetic diversity”.

SO 1 contributes to the following Aichi Target:

Target 11: By 2020, at least 17% of terrestrial and inland water, and 10 % of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems.

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

In addition, SO 1 contributes to certain targets in Strategic Goal B on:

“...reduce the direct pressures on biodiversity and promote sustainable use”.

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem functioning and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritised, priority species are controlled or eradicated and measures are in place to manage pathways to prevent their introduction and establishment.

Alignment with the National Biodiversity Strategy and Action Plan (July 2015)

As per the draft NBSAP of July 2015, there is alignment with SO1 of this PBSAP in respect of draft NBSAP SO's:

NBSAP SO 1: Management of biodiversity assets and their contribution to the economy, rural development, job creation and social well-being is enhanced.

NBSAP SO2: Investments in ecological infrastructure enhance resilience and ensure benefits to society.

Strategic objectives, outcomes, targets, indicators and actions

Strategic Objective 1 (SO1): Conservation and effective management of biodiversity contributes to a resilient and inclusive Western Cape economy.

Scope: Focus is on consolidating, expanding and effective management of the network of conservation areas in the Province. There is further focus on promoting existing and new off-reserve conservation initiatives. All these interventions are aimed at restoring and securing representative and resilient biodiversity and its associated ecological infrastructure and contributes to a resilient and inclusive Western Cape economy

Outcome 1: Representative biodiversity found in terrestrial, freshwater, coastal, wetlands, estuarine and the marine environments, at all levels including ecosystems, habitats, species, genes and ecological infrastructure, is secured and conserved through a network of conservation areas and existing and new off-reserve conservation initiatives in the province

Targets	Indicators	Actions
By 2020 the protected areas of the Western Cape have been expanded by 50 000 ha (WCPAES), 100,000 ha (stretch target) and 350,000 ha (Aichi target) of identified priority areas	Areas protected under the Protected Areas Act (ha, km, km ²)	Implement the Western Cape Protected Area Expansion Strategy 2015 - 2020 to expand the Protected Area Network of the Western Cape Province.
By 2020, 13.2% of the Western Cape forms the conservation estate	Number of hectares in the conservation estate	
By 2020 50% of PA Network is fully NEMBA compliant	??	
By 2020 new biodiversity stewardship agreements have been signed	Number of biodiversity stewardships with biodiversity agreements	

Annual and 5 yearly outputs and responsibility

WCPAES

- 2016: Programme of implementation
- 2017 – 2020: Awareness and mainstreaming

(CapeNature supported by DEA and DEA&DP)

By 2019, 75% of state protected area management authorities operating in the Province have assessed with a Management Effective Tracking Tool (METT) score above 67%		Effectively manage and monitor the formal PA network
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Annual and 5 yearly outputs and responsibility

Outcome 10 METT Scores (State managed PAs)

- 2016: No Assessment
- 2017: METT Assessment
- 2018: No Assessment
- 2019: METT Assessment
- 2020: No Assessment

Privately managed PAs

- 2016 – 2020: Stewardship Audits conducted

(CapeNature, SANPARKS, City of Cape Town)

By 2020 there are five funded MAB Biosphere Reserves	Number of funded MAB biosphere reserves	Sign memoranda of understanding (MOAs) with all WC province biosphere reserves and ensure biosphere management plans are approved and action plans for the funding of biosphere reserves have been developed
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Annual and 5 yearly outputs and responsibility

Biosphere Reserves

- 2016 – 2020: MOA signed, quarterly oversight report Transfer Payment
- 2016 – 2019: GBR application submitted and processed

(CapeNature, DEA&DP and relevant implementing agencies)

Coordinated AIS programme	Approved plan that is comprehensive, addresses key obstacles to effective management, includes strategy for halting spread and remaining biomass, monitoring state of IAPs and realising sustainable funding streams	Continue and finalise the development of the Western Cape Provincial Alien Invasive Species Framework and implement an integrated catchment plan for CapeNature managed protected areas.
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Annual and 5 yearly outputs and responsibility

IAS Strategy

- 2016: Community of Practice developed
- 2016: Review of existing IAS strategy
- 2016: Submit bids for NRM funding
- 2017 – 2020: Consolidated IAS spatial plan (info portal)
- 2018: Co-ordinated IAS programme
- 2019: Prioritised IAS projects
- **2020: 291 invasive plant species are targeted for early detection (check info)**
- 2020: IAS impact evaluation

(CapeNature, SANParks, Local Authorities, Metro's DEA&DP and relevant implementing agencies)		
By 2020, two new sites employing one or more of the international conservation instruments, e.g. the Ramsar Convention and the World Heritage Convention	Number of new Ramsar sites declared	National Ramsar Strategy
By 2020 achieved one strategic level offset	An SDF with at least one Strategic Level Offset	Identify and promote effective conservation of further priority landscape sites or ecosystems or habitats, species of special concern and ecological infrastructure in all environments.
Annual and 5 yearly outputs and responsibility		
<u>Strategic Level Offsets</u>		
<ul style="list-style-type: none"> • 2016: Develop strategy for strategic level offsets • 2017 – 2018: Establish technical basis for a strategic level offset • 2019 – 2020: Test the preferred legal mechanism to implement strategic offsets 		
(DEA&DP, CapeNature)		
By 2020 have an integrated catchment management strategy in place for CapeNature managed protected areas.	Integrated catchment management strategy developed	Implement an integrated Catchment Management Strategy for CapeNature managed protected areas.
Annual and 5 yearly outputs and responsibility		
<u>Integrated Catchment Management Strategy</u>		
<ul style="list-style-type: none"> • 2016: Identify partners/municipalities • 2017: Initiate payment for ecosystem services – develop the biodiversity economy • 2017 – 2020: Awareness and mainstreaming 		
(CapeNature, DEA&DP, local authorities and relevant implementing agencies)		
Outcome 2: Protection and restoration of biodiversity and its associated ecological infrastructure in all environments and at all levels and Ecosystem based Adaptation (EbA) provides resilience against negative effects of climate change and variability-related events		
Targets	Indicators	Actions
By 2019, 20 wetlands per annum have been initiated for rehabilitation in the WC	Number of wetlands rehabilitated	Implement and scale up where possible biodiversity and ecological infrastructure in all environments, at all levels, and ecosystem based adaptation (EbA) provides

		resilience against negative effects of climate change and variability-related events
By 2019 a total of 8 interventions in multiple water source areas is undertaken	Number of significant, integrated water-related, ecological infrastructure maintenance or improvement interventions	Implement an integrated catchment management strategy for CapeNature managed protected areas
5 FPAs are established with fire management plans	Disaster management reports	
100% of priority and prescribed firebreaks are completed annually	% of priority and prescribed firebreaks that have been completed annually	
By 2020, successful implementation results in resilience to climate change in communities linked to pilot projects	Implementation plan for ecosystem-based adaptation is developed, funded and implemented	
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>EbA Strategy</u></p> <ul style="list-style-type: none"> • 2016: Incorporate EbA principles into the PBSAP • 2016 – 2020: Effective deployment of disaster management resources • 2016 – 2020: Disaster management co-ordination meetings • 2017: Implementation plan for EbA including targets • 2017/2018: Assess FPA FM Unit action plans • 2018 – 2020: Awareness and mainstreaming <p>(CapeNature, SANParks, FPAs and metro and local authorities)</p>		

Alignment with existing initiatives

Encourage on - going implementation and/or effective management of these current initiatives:

Western Cape Protected Area Expansion Strategy Management (CapeNature)	Cape Action Plan for People and the Environment Programme (CAPE)	Ramsar sites that include Demond, De Hoop, Verlorenvlei, Langebaan Lagoon, Wilderness Lakes and False Bay Nature Reserve, Man and the Biosphere that include Kogelberg, Cape West Coast and Cape Winelands
Implementation of effectiveness Tracking Tool (METT) (CapeNature)	Succulent Karoo Ecosystem Programme (SKEP) (as it pertains to the Western Cape Province)	
World Heritage Sites under the Cape Floristic Region Protected Areas	Subtropical Thicket Ecosystem Programme (STEP) (as it pertains to the Western Cape Province)	Natural Resources Management Programmes that include Working for Water, Working for Wetlands, Working for Coast and Working on Fire

Case studies

Case study 1 – the example of CAPE

Box 10

The Cape Action for People and the Environment (CAPE) is a 20-year partnership of government and civil society aimed at conserving and restoring the biodiversity of the CFR and the adjacent marine environment, while delivering significant benefits to the people of the region. It is primarily funded by the GEF. CAPE is a partnership that seeks to create linkages between government, the private sector and civil society so that all work together with a common strategy, avoiding duplication, addressing gaps and uniting to leverage resources and to tackle agreed common priorities in terms of the following shared vision:

“By the year 2020, the natural environment and biodiversity of the Cape Floristic Region and adjacent marine environment will be effectively conserved, restored where appropriate, and will deliver significant benefits to the people in a way that is embraced by local communities, endorsed by government and recognised internationally.”

The programme has been instrumental in catalysing exciting new approaches to conservation including landscape initiatives, conservation stewardship, business and biodiversity, fine-scale planning, catchment management, conservation education and strengthening institutions.

Case Study 2: Examples of the Department of Environmental Affairs-funded Natural Resources Management (NRM) Programmes.

Box 11

There is an extensive implementation activity of these NRM programmes in the Western Cape Province.

Working for Water

This programme focuses on clearing of alien invasive plants using mechanical, chemical, biological and integrated control methods. It has led to creation of a number of job opportunities. Secondary products such as furniture for schools and charcoal are being manufactured from clearing of IAPs.

Working for Wetlands

The South African National Biodiversity Institute (SANBI) implements this programme. It focuses on rehabilitation of wetlands through gabion construction, the removal of invasive alien plants in the immediate area, surveying of flood irrigation furrows, construction and placing of grass bale gabions and levelling of drainage furrows.

Working for the Coast

This programme is coordinated by the Department of Environmental Affairs (DEA) and assists with challenges of sedimentation, pollution and destruction of coastal habitats through activities coast and/or beach clean ups, removal of illegal and abandoned structures, removal of invasive alien vegetation and rehabilitation of degraded areas, including dunes and estuaries

Strategic Objective 2 (SO 2): Partner sectors contribute to achieving biodiversity conservation targets through mainstreaming biodiversity into policies, strategies, plans, practices and projects.

Scope: Focus is on mainstreaming biodiversity priorities and considerations in policies, strategies, plans, practices, projects and all economic and development sectors in order to secure and safeguard biodiversity and its related ecological infrastructure.

It is clear that in light of the challenges that the country and the province face, economic development and job creation are imperatives. The economic development focus areas and sectors prioritised by the province suggest that there are potential adverse impacts on the biodiversity of the province although key objectives are being pursued. Therefore, it is critical that strategies that focus on sustainable development – balancing environmental, social and economic goals - are adopted.

In this PBSAP and considering the province's economic and development trajectory, it is sensible to advance the strategy of mainstreaming biodiversity considerations and priorities in policies, strategies, plans, practices, projects and priority economic and development sectors of the Western Cape Province. In addition to being a potentially effective mitigation strategy against biodiversity loss, when strategically employed, this is an also an opportunity to involve industry and business in achieving the biodiversity conservation goals and objectives and to enhance participation of broader stakeholder in biodiversity conservation.

Business and private sector should be encouraged to adopt sustainability practices by, among other, adopting organisational policies and industry standards that foster responsibility toward the environment. Measures that indicate to companies, as they pursue their projects, that their actions are likely to impact the environment adversely need to be developed by industry bodies. Incentives, certification and other recognition programmes that encourage best practice in sustainability should be reinforced and supported. There are already biodiversity and business initiatives that lead the way in this regard, these include the Biodiversity and Wine Initiative, Badger Friendly Honey Initiative, Sandveld Biodiversity Best Practice Potato Project, Right Rooibos, Integrated Biodiversity and Ostrich Industry project and Farming for the Future, to name a few. The Flower Valley Conservation Trust, under the Agulhas Biodiversity Initiative (ABI), led the process of testing a code of practice for sustainable harvesting of wildflowers. Under the on-going initiatives of ABI, a certification programme is being explored that would encompass sustainable biodiversity management practices.

In mainstreaming biodiversity it is also sensible to engage with the development processes early on at the strategy development phases and planning stages. Interface and engagement by biodiversity policy makers and managers with macro development planning processes (such as those like the National Development Plans or OneCape 2040) and local level planning (e.g. Integrated Development Plans, Spatial Development Frameworks and Local Economic Development Plans) to secure beneficial outcomes for biodiversity goals and objectives is imperative. It is also efficient to subject the economic and other development plans to strategic environment assessment processes rather than engaging only when project level Environmental Impact Assessments take place and when stakeholders at times are already invested in their positions.

Box 12

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets:

The PBSAP SO 2 and its related outcomes and targets primarily aligns with Strategic Goal A and the following Aichi Targets:

“...address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society”.

Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4: By 2020, at the latest, governments, business and stakeholders at all levels have taken

steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

In addition, this SO 2 contributes to the following Strategic Goal B, Target 7:

By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Alignment with the National Biodiversity Strategy and Action Plan (July 2015)

As per the draft NBSAP of July 2015, there is alignment with this SO 2 of this PBSAP with respect to the following draft NBSAP SO:

NBSAP SO 3: Biodiversity considerations are mainstreamed into policies, strategies and practices of a range of sectors

Strategic objectives, outcomes, targets, indicators and actions

Strategic Objective (SO 2): Partners contribute to achieving biodiversity conservation targets through mainstreaming biodiversity into policies, strategies, plans, practices and projects.

Scope: Focus is on mainstreaming biodiversity priorities and considerations in all economic and development sectors to secure and safeguard biodiversity and its related ecological infrastructure

Outcome 1: Identified economic and development sectors in the Western Cape Province that often impact biodiversity adversely, are actively contributing to securing, conserving and restoring biodiversity and ecological infrastructure

Target	Indicator	Actions
By 2020, 2 identified sectors (e.g. mining and agriculture) are engaged in securing/offsetting or strategically planning for biodiversity gains and sustainable development	Increased number of environmental planning tools relative to the 2015 baseline that strategically integrate priority biodiversity considerations	Implement sector development planning tools (e.g. Sandveld, Brandvlei dam or Saldanha EMFs).

Annual and 5 yearly outputs and responsibility

EMFs/Strategic Level Offsets (SLO)

- 2017/2017: Finalise Sandveld EMF
- 2016 – 2020: Activate ploughing of virgin land MoU
- 2016 – 2020: Pro-active identification of potential future needs for environmental planning tools that inform SLOs
- 2016 – 2018: Articulate Agric engagements with DRDLR Rural Development Plans

<ul style="list-style-type: none"> • 2016 – 2020: Fields cover for agriculture incorporated into SBP • 2017 – 2018: Finalise Saldanha EMF • 2018 – 2020: Implement EMFs • 2020: Monitor and evaluate effectiveness of MEF s and Biodiversity gains <p>(DEA&DP)</p>		
By 2020 one strategic level offset achieved	A provincial guideline and policy document on biodiversity offsets has been adopted	Establish policy and institutional mechanisms for securing and implementation of biodiversity offsets
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Biodiversity Offsets Guidelines</u></p> <ul style="list-style-type: none"> • 2016: Assess National progress/alignment • 2017 – 2020: Establish database and adjudication platform • 2017 – 2018: Secure funding (TMF) and finalise Provincial BOG and mainstream <p>(DEA&DP in collaboration with CapeNature, SANBI)</p>		
<p>Outcome 2: Compliance with authorisations and permits is monitored and enforced</p>		
Targets	Indicators	Actions
By 2018, an appropriate process to assess the compliance levels and effectiveness of biodiversity-related conditions in Environmental Impact Assessments (EIAs) Records of Decisions (RODs) has been initiated and implemented and informs policy improvements	Existence of a functional EIA compliance assessment tool in place	Initiate and implement a process or tool to assess the compliance levels and effectiveness of biodiversity-related conditions in Environmental Impact Assessments (EIAs) and Records of Decisions (RODs) Encourage compliance with industry specific biodiversity mainstreaming guidelines
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>EIA Assessment Tool</u></p> <ul style="list-style-type: none"> • 2016: Assess current tools available • 2017: Develop or implement the tool • 2018 – 2020: Evaluate impact and efficiency • Mainstreaming and capacity building <p>(DEA&DP)</p>		
<p>Outcome 3: Biodiversity considerations are integrated into provincial and municipal development planning and monitoring</p>		
Targets	Indicators	Actions
By 2020 all reviewed SDFs integrate priority biodiversity considerations	Number of local municipality zoning schemes reflecting conservation land use	Municipal support: develop and review SDFs to integrate

		priority biodiversity considerations
By 2020 ecological infrastructure (EI) maps are integrated into the provincial spatial biodiversity plan (SBP)	Number of local municipality zoning schemes reflecting conservation land use	Integrate ecological infrastructure maps into the provincial spatial biodiversity plan to support planners and decision makers
By 2020, locally initiated and relevant biodiversity projects, which result in the restoration of ecosystem service have been identified and are implemented by one or more of the local authorities	Increased number of municipalities implementing locally initiated restoration programmes	Support municipalities in the implementation of locally initiated restoration programmes
By 2020, an increased number of local authorities from baseline have developed their local biodiversity action plans	Number of local municipalities that have developed the LBSAPs	Finalise and implement the Cape Winelands District Municipality local biodiversity action plan. Support other municipalities to develop local biodiversity action plans
By 2018, lessons learnt from implementation of ecosystem-based adaptation to climate change strategies are being disseminated across the province	A programme of dissemination lessons learnt of ecosystem-based adaptation	Disseminate lessons learnt from implementation of ecosystem-based adaptation to climate change strategies to provincial and local authorities

Annual and 5 yearly outputs and responsibility

Municipal Support

- 2016 – 2020: Co-ordinate LGMTEC and assessments of SDFs
- 2016 – 2020: Engage with all reviewed and/or amended SDFs and incorporate SBP
- 2017 – 2018: Provide feedback to municipalities on SDFs
- 2018 – 2020: Assess impact of municipal support (tools?)

LBSAPs

- Assist municipalities with LBSAPs

(Cape Winelands District Municipality and other relevant Municipalities are supported by DEA&DP and relevant NGOs – Cape Partners)

Mainstreaming and capacity building

- Develop M&C strategy to incorporate PSBP into SDFs
- 2017 – 2018: Integrate EI maps in SBP

Outcome 4: Knowledge based planning and decision-making processes restrain and limit the loss of biodiversity and its associated ecological infrastructure		
Targets	Indicators	Actions
Integrated spatial biodiversity plan implemented in all municipalities	Integrated spatial biodiversity plans implemented in all municipalities	Integrate ecological infrastructure maps into the provincial spatial biodiversity plan to support planners and decision makers
Annual and 5 yearly outputs and responsibility Planning and Decision Support <ul style="list-style-type: none"> • 2016 – 2020: Incorporate into Capacity Building and Mainstreaming PSBP into the SDF review process <i>(DEA&DP in collaboration with SALGA)</i> 		
Outcome 5: The value of biodiversity and ecological infrastructure is positively recognised by authorities and stakeholders as contributing to the achievement of their functions as well as to their development and economic growth objectives (RETHINK PLACEMENT ON PBSAP AND MOVE LEGISLATIVE TOOLS SOMEWHERE ELSE???)		
Targets	Indicators	Actions
By 2020, policy and institutional mechanisms on securing and implementation of biodiversity offsets are in place and effective	Number of municipalities adopting rates/tax incentives for conservation as a land use	Identify and raise financial resources for the design, development and implementation of at least three locally relevant and managed biodiversity restoration projects
By 2020 there is an increased number of replicable examples of rates and/or tax policies at the local government level that incentivises conservation as a	Motivation for the amendment of the Property Rates Act to include all categories of PAs as per NEMPAA and other land managed for conservation of natural resources	Initiate rates or tax policy reforms that incentivise biodiversity conservation land use
By 2020, implementation of policy for the PSBP through adequate integration in SDF and IDP reviews in underway	A Provincial guideline and policy document on biodiversity offsets has been adopted	Establish an international partnership that elevates the value and profile of Provincial Biodiversity, Ecological Infrastructure and its contribution to environmental resilience?????
By 2019, 3 legislative tools to ensure the protection of species and ecosystems	Number of legislative tools to ensure the protection of species and ecosystems	

developed and implemented	developed and implemented	
Annual and 5 yearly outputs and responsibility <u>Integrated Catchment Management and Payment for Ecosystem Services</u> <u>Move PES TO so 3??</u> <ul style="list-style-type: none"> • 2016: Co-ordinate with Communities of Practice • Engagement of insurance companies • Assess Water Fund value chain • 2017 – 2020: Develop project plans and support funding • 2020: Implement tax/rates reform with municipalities <i>(DEA&DP, CapeNature and local authorities together with relevant NGOs)</i>		

Alignment with existing initiatives

Encourage on going implementation of:

Biodiversity Offset Guidelines	Green Choice (of Conservation SA)	Sandveld Biodiversity Best Practice Potato Project
Local authorities' capacity building and support programmes	South African Sustainable Seafood Initiative (SASSI-led WWF, the Green Trust and Pick n Pay)	Right Rooibos
Agulhas Biodiversity Initiative's Code of Practice on Sustainable Wildflower Harvesting	Biodiversity and Wine Initiative (led by World Wide Fund for Nature)	Integrated Biodiversity and Ostrich Industry Project
City of Cape Town Local Biodiversity Action Plan	Badger Friendly Honey Initiative (led by Endangered Wildlife Trust, the Green Trust and Wild and Environment Society of South Africa)	Fair Game
		Farming for the Future
		Berg Rivier Local Biodiversity Action Plan

Case Studies

Box 13

Case Study 1: South African Sustainable Seafood Initiative

The initiative was established to raise awareness of the conservation status of marine species and encourage public pressure; it aims to create informed seafood choices for consumers, wholesalers, retailers and restaurateurs. It was initiated by the WWF, the Green Trust and Pick n Pay.

Case Study 2: Biodiversity and Wine Initiative

The wine producing region of South Africa coincides with largely the renosterveld vegetation of the CFR and the country being the eighth largest producer of wine globally, the threat to biodiversity is a concern. This initiative was created to help protect the CFR by minimising further loss of threatened natural habitat and to contribute to sustainable wine production. The initiative has 163 members and covers over 204 ha of land.

Case Study 3: Badger Friendly Honey Initiative

This focuses on reducing the impact of honey badgers – a near threatened species - on honey production without harming the animals and promotes low cost management practises in return for receiving a logo endorsed by the three partner organisations, namely the Endangered Wildlife Trust (EWT), the Green Trust and Wildlife & Environment Society of South Africa (WESSA).

Case Study 4: Sandveld Biodiversity Best Practice Potato Project

This project is located in the Sandveld, Western Cape Province. This project has produced guidelines for sustainable potato production. The initiative comprised some 29 members in 2010 and nearly 83 000 ha of land.

Strategic Objective 3 (SO 3): A biodiversity - based economy contributes to inclusive and sustainable livelihoods and development opportunities.

Scope: Focus is on promoting equitable access to biodiversity and heritage resources and assets as well as on a biodiversity-based economy that contributes to inclusive and sustainable livelihoods and development opportunities.

Biodiversity and its related ecological infrastructure underpin and support economic and development activities in any country. Almost all sectors of the economy directly or indirectly rely on healthy ecosystems, habitats, species and genetic resources. In addition, ecosystem processes and services are critical for industries such as agriculture and ensure that basic requirements of human beings are met.

The ecotourism, fishing, horticulture and wildflower industries, pharmaceuticals, traditional medicines, cosmetics, agriculture and agro-processing sector and other biotechnology-enabled products and processes as examples, have direct dependence on biodiversity.

According to *Life: The State of South Africa's Biodiversity 2012*:

“Tourists, many of whom are drawn to our beaches, natural spaces and wild animals, brought an estimated R251 billion into the country’s gross domestic product (GDP) in 2011.”

The Western Cape Province is a significant recipient of these tourists who are drawn to the iconic sites such as Table Mountain, to coastal attractions such as the whale route, to the many nature reserves that are home to the beauty of the fauna and flora of the CFR and the majestic ecosystems found along the Garden Route.

The same report we cite above states that the Cape wild flower industry – another example of a biodiversity-based industry – is estimated to be over R150 million per annum and 80% of this is earned as foreign exchange. It also states that the Cape fishing industry is worth over R1.6 billion per annum.

The unique species of the Cape Floristic Region such as the rooibos and honeybush are now a basis of tea products that have found growth in international markets. The rooibos has even been developed to other products such as cosmetics because of the unique genetic properties of this species.

The commercial potential of the species and genetic diversity of the province is vast and once realised, it will boost the efforts of the province to develop the Green Economy.

The DEADP has recently been invigorating structured efforts to develop the economic potential of the province’s biodiversity and ecological services. Recently DEADP implemented Eco-Invest Phase I and II projects - **the Eco- Invest Programme** - and with the following objectives:

- Create jobs,
- Create new environmental goods and services businesses,
- Leverage of investment for restoration.

Eco Invest Phase 1 profiled the ecosystem goods and services of the Western Cape Province’s ecosystems and these include provisioning services such as water, grazing, food, medicine, genetic resources; regulating services that include flow regulation, water quality amelioration, carbon storage, erosion control, pollination refugia and cultural services that have recreational, spiritual, scientific and educational value. The value of these services is vast and efforts to effect the proper valuation of biodiversity and the related ecosystems goods and services are necessary. Of concern, however, is that these ecosystem services are being lost or degraded. The Eco-Invest Phase I report estimates that the loss of the provinces natural capital costs society at least R4.5.billion per annum.

The DEADP then implemented Eco Invest II. The Eco – Invest programme in both phases has recommended:

- Transitioning Eco- Invest from phased project to established programme,
- Sustainable and equitable financing of estuary management,
- Funding land restoration with Spekboom using Carbon Credit Trading,
- Funding restoration through trading invasive alien plant biomass,
- Developing the indigenous natural plant products sector

The DEADP has now taken up these recommendations and is currently developing the Provincial Biodiversity

Economy Strategy (PBES) with strategy and programme components, Eco – Invest III. Two projects have also been commissioned, viz. "Value Added Industries from Alien Clearing Biomass" and 'Carbon Sequestration Using Spekboom'.

Further CapeNature is currently developing its income Generation Strategy (IGS). The preliminary process of developing the IGS identified 57 opportunities and these are being prioritized. The 57 opportunities are,

- Tourism (19)
- Natural Resource Utilisation (6)
- Payments for Ecosystem Services (9)
- Renewable Energy (5)
- Investment & commercial opportunities (12)
- Market priced services (2)
- Leveraging position as management authority (4)

These initiatives are providing a foundation for unlocking and developing the biodiversity economy of the province.

The DEADP initiatives take place at time when the national government has also developed a National Biodiversity Economy Strategy (NBES). The NBES has identified its underlying drivers as being:

- Transition to a green economy,
- Improved livelihoods through job creation,
- Poverty reduction,
- Rural development, and transformation of the economy

Three sectors have been identified as part of the NBES, viz:

- Bioprospecting
- Ecotourism (under developed in the NBES)
- Wildlife sector

As part of implementation of NBES two economy transformation nodes identified for the Western Cape, namely:

- City of Cape Town - Khayelitsha-Mfuleni, and
- Eden – Keurbooms/Avontuur.

Government has, for several years, been putting significant investment in the restoration of ecosystems across the country including the Western Cape Province as part of the natural resource management programmes such as Working for Water, Working for Wetlands, Working for the Coast and Working on Fire. There is already

some evidence of the benefits of the government investment in this regard. As per interviews conducted during the development of this strategy some representatives of the local authorities of the Western Cape Province, for example, report that water resources are beginning to flow as clearing of alien invasive species succeeds. These management programmes are also leading to other commercial activities such as furniture manufacturing and bioenergy.

There is thus a need to mobilise investment by public and private sectors towards unlocking the biodiversity economy of the province and restoration of ecological services.

In addition to economic contribution, these biodiversity-based industries and services, are also responsible for the creation of employment. The natural resources management programmes have the dual objectives of employment creation and ecological restoration.

The fishing industry also employs a large number of people and provides livelihood for many coastal communities. Many people in poor communities depend on nature as the buffer against poverty and derive cultural and spiritual benefits from nature. Therefore, it is important that there is active promotion of access to biodiversity and ecological resources to all communities. This will enhance society's commitment to biodiversity conservation.

As the province pursues economic growth and development plans, the vast potential of biodiversity as the basis for economic growth of existing industry as well as development of new industries and businesses should be harnessed.

Box 14

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 3 and its related outcomes and targets primarily aligns with Strategic Goal D on:

"...enhance the benefits to all from biodiversity and ecosystem services".

In addition, it contributes to:

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Alignment to the National Biodiversity Strategy and Action Plan (July 2015)

As per the draft NBSAP of July 2015, there is alignment with SO 1 of this PBSAP with respect to the following draft NBSAP SOs:

NBSAP SO 1: Management of biodiversity assets and their contribution to the economy, rural development, job creation and social well-being is enhanced

NBSAP SO 2: Investments in ecological infrastructure enhance resilience and ensure benefits to society

Strategic objectives, outcomes, targets, indicators and actions

<p>Strategic Objective 3 (SO 3): A biodiversity-based economy contributes to inclusive and sustainable livelihoods and development opportunities</p> <p>Scope: Focus is on promoting equitable access to biodiversity and heritage resources and assets as well as on a biodiversity-based economy that contributes to inclusive and sustainable livelihoods and development opportunities</p>		
<p>PBES CORE OBJECTIVE 1</p> <p>Biodiversity economy of the province grows by developing and unlocking the economic potential of biodiversity sector value chains</p>		
<p>Outcome 1: Opportunities from the biodiversity economy are expanded, strengthened and are progressively inclusive of all sections of society</p>		
Targets	Indicators	Actions
950 work opportunities are created through Natural Resource Management programmes annually	Number of work opportunities created through environmental programmes	Create work opportunities through environmental programmes
450 full time equivalents are employed every year	Number of full time equivalents employed	Employ 450 FTEs
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Work Opportunities (EPIP, EPWP and others)</u></p> <ul style="list-style-type: none"> • 2016: Co-ordinate activities of CapeNature Income Generation Strategy • 2017: Provide a platform for community participation • 2017 – 2020: Funding, project development and implementation <p>(CapeNature, DEA&DP and local government)</p>		
15 SMMEs are supported annually	Number of SMMEs supported	Support the establishment and growth of SMMEs in the biodiversity economy sector
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>SMMEs and Enterprise Development</u></p> <ul style="list-style-type: none"> • 2016: Co-ordinate with implementers/guide strategy • 2017 – 2018: Develop sustainability plans for Bitou Agroforestry Projects • Guide implementation with partners • 2018 – 2020: Monitor sustainability and develop exit strategy <p>(DEA&DP and CapeNature)</p>		
<p>PBES CORE OBJECTIVE 2</p> <p>Stakeholders recognise and value the economic contribution of ecological services to the western Cape Province's development goals.</p>		
<p>Outcome 2: The business case for conservation and sustainable use of biodiversity and its associated contribution to the economy and development goals of the province is recognised and appreciated by an increasing number of key decision makers and stakeholders</p>		
Targets	Indicators	Actions

By 2020 the scope, the value and the growth potential of the biodiversity-based economy of the province is determined	A biodiversity economy strategy and programme (PBES) is in place	Communicate the PBES to key decision makers and stakeholders
By 2020 there are increased incidences of endorsements or facilitation of investment in priority ecological services	Rand value of biodiversity economy as defined in the PBES is determined Increased incidences of endorsement or facilitation of investment	Communicate to key decision makers the outcomes of implementation of the PBES on an ongoing basis
By 2020, there are a number of formalized mechanisms which incorporates the value of ecosystem goods and services	Priority ecological infrastructure assets identified	
Annual and 5 yearly outputs and responsibility <u>PBES Capacity Building</u> <ul style="list-style-type: none"> • 2016: Complete and publish PBES • 2016 – 2020: Disseminate through capacity building (DEA&DP) <u>Mainstreaming and capacity building??</u> <ul style="list-style-type: none"> • 2016: Develop case studies of positive outcomes of PBES • 2016 – 2020: Incorporate into PBES 		
Targets	Indicators	Actions
By 2020, the PBES is integrated into the Green Economy Strategy	PBES references in the Green Economy Strategy Framework	Finalise and implement a Provincial Biodiversity Economy Strategy and Programme (PBES)
By 2020, markets for prioritised biodiversity services and products that promote inclusive and sustainable growth of the biodiversity economy, are established	Priority biodiversity economy services and products identified	Develop regional institutional capacity for the sustainable development of natural products
Annual and 5 yearly outputs and responsibility <u>PBES Programme (5 year) and Implementation Plan</u> <ul style="list-style-type: none"> • 2016: Budget for and publish PBES and develop an Implementation Plan • 2018: Implementation Plan for 17/18 • 2018 – 2020: Provide Implementation Plans for ensuing years (DEA&DP)		

<p><u>Develop Communities of Practice (CoPs)</u></p> <ul style="list-style-type: none"> • 2016: Co-ordinate for Province, liaise with Biodiversity LAB and BIOPANZA • 2017: Monitor and guide Bitou Agroforestry Projects for sustainability • 2016 – 2020: Develop CoPs and facilitate Provincial initiatives in natural products <p>(DEA&DP)</p>		
Targets	Indicators	Actions
By 2020, incentives and guidelines promoting inclusive and sustainable development or priority biodiversity economy sectors is in place	Number of incentive programmes and/or guidelines in place	Develop guidelines for the sustainable development of the Honeybush industry
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Establish Honeybush Industry CoP</u></p> <ul style="list-style-type: none"> • 2016: Co-ordinate with industry and public sector and guide development of the CoP • 2017: Develop guidelines for the sustainable harvesting of wild honeybush • 2017 – 2020: Monitor sustainability and develop industry initiatives and transformation <p>(DEA&DP)</p>		
		Implement the business plan for “Value-added industries from Alien Clearing Biomass”
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Develop Alien Biomass Value Added Initiatives CoP</u></p> <ul style="list-style-type: none"> • 2016: Develop ToR, arrange initial workshops and establish CoP • 2016 – 2017: Develop annual plan, info portal and provincial AIS and AB spatial plan • 2018 – 2020: Implement annual strategies and plans <p>(DEA&DP)</p>		
		Implement the business plan for “Carbon Sequestration Using Spekboom”
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Develop Intervention Strategy for Carbon Spekboom Project</u></p> <ul style="list-style-type: none"> • 2016: Host symposium towards a CoP • 2016 – 2017: Develop the CoP and communication and information portal • 2017 – 2020: Implement annual strategies and plans <p>(DEA&DP)</p>		
		Priority biodiversity economy services and products identified
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Develop Biodiversity Economy Phakisa Outcomes</u></p> <ul style="list-style-type: none"> • 2016: Co-ordinate WC region and requisition research 		

<ul style="list-style-type: none"> • 2017: Help develop plans and facilitate partnerships • 2017 – 2020: Disseminate through capacity building <p>(DEA&DP, CapeNature with GreenCape)</p>		
		Develop markets for prioritised biodiversity economy sectors and value chains identified and developed
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Broker relationships for biodiversity Economy Market Access</u></p> <ul style="list-style-type: none"> • 2016: Guide biodiversity economy development in the Western Cape • 2016 – 2017: Co-ordinate with CapeNature Income Generation • 2016 – 2017: Broker guide for further project development • 2017 – 2020: Disseminate through capacity building <p>(DEA&DP, CapeNature with GreenCape)</p>		

Alignment with existing initiatives

Encourage on-going implementation and/or effective management of these current initiatives:

Agulhas Biodiversity Initiatives' themes on Viable, Nature-based responsible tourism and Transitioning to Green Economy	DEA's NRM programmes on secondary industry development initiatives (e.g. furniture manufacturing from alien invasive vegetation)	Operation Phakisa People and Parks Programme DEADP Eco-Invest programme
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Case studies

Box 15

Case study 1: Operation Phakisa – Aquaculture Priority Sector

Operation Phakisa is an initiative under the Presidency. Its strategy is to fast track economic development. Based on the NDP, within the environmental sector, it aims to unlock economic potential of South Africa's oceans by contributing to poverty alleviation and employment creation. Government has identified four priority sectors for Operation Phakisa. One of these is on aquaculture.

Government will be looking at enhancing growth in the sector through increasing the contribution of all segments across the aquaculture value chain, while creating jobs especially in fish processing and marketing. Aquaculture is a relatively underdeveloped area in South Africa, despite it being an increasingly important contributor to food security globally. Despite its relatively small size, aquaculture in South Africa has shown strong growth of 6.5 % per annum.

4.2. Enabling Strategic Objectives, Outcomes and Targets

SO 4: Knowledge management supports effective planning, decision –making, monitoring and reporting

Scope: Focus is on generating, updating and sharing of data, information and knowledge, and on optimal use of technology in support of planning, decision-making, monitoring, reporting and management of biodiversity and ecological infrastructure.

Planning, decision-making, monitoring, reporting and management of biodiversity are effective when sound data, information, and knowledge are available. Despite many years of research and data, information and knowledge gathered on the biodiversity of the Western Cape Province, there are still gaps. For example, more knowledge is required on understanding biodiversity processes, more data and information on the invertebrates and micro-organisms are required, as well as more knowledge of the aquatic environment, estuaries and wetlands. These and other gaps require that more research be conducted.

It is also important that accurate data and correct knowledge are available to planners, managers, policy makers and other decision makers as the first step in ensuring that there is conscious understanding of the potential impacts of, for example, development decisions. It also ensures that biodiversity policy implementation shows measurable results. Private sector and society at large too require information and knowledge that will enhance their understanding of the actions they undertake and of the state of the environment in the sites they operate or implement projects.

There have been advances in this regard by biodiversity researchers. The CBA maps (prioritising biodiversity in certain areas) are now widely disseminated to provincial and local authorities. There is evidence that these are being considered in planning and decision-making in some local authorities. There are some challenges that are being identified as implementation occurs, e.g. those that relate to the need to update the data and information on which these are based. Since the first suite of CBA maps were completed, an assessment of FEPAs was completed as part of the National Biodiversity Assessment (NBA) conducted by the South African National Biodiversity Institute (SANBI). The NBA also identified critical

coastal and marine ecosystems. These updated maps on FEPAs need to be incorporated into the updated CBA together with information regarding critical coastal and marine ecosystems.

Gathering, analysis and packaging data and information into usable formats for a wide range of users are imperative. For example, ecological infrastructure maps – a subcomponent of the CBAs – have a valuable role to play in enhancing the appreciation by decision makers and ordinary citizens of the ecological assets in their environments from which they can leverage economic and development goals.

Researchers, biodiversity managers and local communities should all collaborate in ensuring that the knowledge they gather and have – including indigenous knowledge on the environment – is available to achieve the strategic objectives stated herein.

The power of technology and in particular information and communications technologies such as satellite data, can enhance and fast track the process of gathering data and information on biodiversity. Technology is all the more valuable now that there are rapid changes in land uses and other global changes that may transform ecosystems. Therefore, the need to consistently monitor, assess, report, share and disseminate data, information and knowledge on the status of biodiversity at all levels is key and critical for improving performance on biodiversity conservation.

Box 16

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 4 and its related outcomes and targets primarily aligns with Strategic Goal E on:

“...enhance implementation through participatory planning, knowledge management and capacity building”. **SO 4 in particular contributes to the following Aichi Targets:**

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Alignment to the National Biodiversity Strategy and Action Plan (July 2015)

As per the draft NBSAP of July 2015, there is alignment with this SO 4 of this PBSAP with respect to the following draft NBSAP SO:

NBSAP SO 6: Effective knowledge foundations, including indigenous knowledge and citizen science, support the management, conservation and sustainable use of biodiversity

Strategic objectives, outcomes, targets, indicators and actions

Strategic objective 4 (SO 4): Knowledge management supports effective planning, decision-making, monitoring and reporting

Scope: Focus is on generating, updating and sharing of data, information and knowledge, and on optimal use of technology in support of planning, decision-making, monitoring, reporting and management of biodiversity and ecological infrastructure

Outcome 1: Planning, decision-making, management and monitoring of biodiversity at the provincial and local government levels and by all biodiversity management authorities

Targets	Indicators	Actions
By 2020 strategic research priorities that support the implementation of biodiversity strategies, plans, conservation management and decision-making are determined as part of the Provincial Biodiversity Research Strategy	A Provincial Biodiversity Research Strategy with priorities is in place	Initiate and develop a Biodiversity Research Strategy focussing on provincial biodiversity priorities, strategic research partnerships and information and knowledge management Regularly disseminate research findings to planners, decision-makers, biodiversity managers and stakeholders as appropriate

Annual and 5 yearly outputs and responsibility

Biodiversity Research Strategy

- 2016: Co-ordinate strategic research priorities (DEA&DP)
- 2016: Determine biodiversity research partners and stakeholders
- 2016 – 2020: Determine stakeholder research priorities/needs
- 2016 – 2020: Requisition research partners
- 2017: Develop active research info portal
- 2017 – 2020: Annual assessment and publishing research priorities
- Disseminate research intelligence and findings

Outcome 2: Available data and knowledge on biodiversity, including on species, ecosystems and ecological infrastructure is relevant, accessible and friendly for users

Targets	Indicators	Actions
By 2020 key biodiversity strategies, policies, plans are regularly disseminated to stakeholders	Number of strategies and policies that are in place	Updating the website for Biodiversity and link to CapeNature website

Annual and 5 yearly outputs and responsibility

To be determined

Outcome 3: The status of species and ecosystems is regularly monitored and assessed

Targets	Indicators	Actions
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An ecosystem and species monitoring and assessment programme is in place	Ecosystems and species status are updated regularly	Update ecosystems and species status regularly
Annual and 5 yearly outputs and responsibility <u>Ecosystem and Species Monitoring in Place</u> (CapeNature)		
Outcome 4: Geographic priority areas for the management, conservation and restoration of biodiversity assets and ecological infrastructure are identified on the best available science		
Targets	Indicators	Actions
By 2025 updates of biodiversity spatial plans in the province takes place at least every five to ten years	Biodiversity spatial plans in the province are updated every five to ten years	Implement the spatial biodiversity plans for the province
Annual and 5 yearly outputs and responsibility <u>Spatial Biodiversity Plans (SBPs)</u> <ul style="list-style-type: none"> • 2016: Develop monitoring plan for SBPs and PBSAP • 2017 – 2020: Update the Provincial BSP • 2017 – 2020: Update ecosystems and species status • 2018 – 2020: Disseminate updated SBPs to stakeholders (DEA&DP, CapeNature)		
Outcome 5: Management-relevant and policy-relevant research and analysis is undertaken through collaboration between scientists and practitioners		
Targets	Indicators	Actions
Establish mechanisms or platforms for sharing amongst stakeholders, information and knowledge on biodiversity	??	??

Action Plan

Alignment with existing initiatives

Continue to contribute to/ reporting against:

SANBI's Information Resources	Red Lists of South African Species of Fauna and Flora	DEA reporting mechanisms to the CBD and other MEAs.
Critical Biodiversity Area Maps (CBAs)	The National Biodiversity Assessment 2011	The National Biodiversity Framework
Freshwater Ecosystem Priority Areas (FEPA)	Western Cape State of Biodiversity Report 2012	Provincial government's annual reporting processes
Important Bird and Biodiversity Areas (IBAs, Birdlife)	Western Cape Biodiversity Spatial Plan	

Strategic Objective 5 (SO 5): Stakeholders are mobilised to achieve sustainable long term benefits for biodiversity.

Scope: Focus is on promoting and mobilising for environmental awareness, education and outreach as well as on civil society organisations and citizen initiated programmes, projects, and initiatives. A further objective is to encourage empowerment and meaningful participation of the civil society organisations and citizens in biodiversity-related planning, policy and decision-making processes.

South Africa and the Western Cape Province are well-endowed with a vibrant civil society in the environmental sector. Over the years, civil society has been at the forefront of environmental advocacy and stewardship. Civil society leads and champions initiatives on biodiversity – many of which contribute enormously to conservation of biodiversity. Some of these are ground breaking and include CAPE, SKEP, STEP and the Biodiversity and Wine Initiative, to name a few. Civil society in its advocacy role, alerts policymakers to significant environmental risks emanating from decisions they make. Civil society thus plays a key role in shaping policy. Non-government organisations also have expertise and knowledge on biodiversity that supplement that is available in research institutions, universities and in government entities. Non-government organisations often also have well-established expertise and relationships with donors including international donors and the private sector. Key initiatives in the province have been funded from financial resources mobilised by or in partnership with civil society. Although the relationship between decision makers and civil society is not always easy, on the whole there is mutual dependence. Engagement with civil society is thus important to overcome the enormous challenge of protecting and

securing biodiversity of the province.

The appreciation of the value of biodiversity by ordinary citizens especially in providing essential ecological services that include provisioning, regulating and cultural services needs to be enhanced and is an on -going endeavour. Ordinary citizens also need to be aware of their own individual every day -to- day actions that impact on biodiversity.

Interventions and approaches required or that need to be reinforced in promoting environmental awareness, education and outreach, and that encourage civil society and citizens' initiative, participation and engagement, vary. These also depend on an issue and the maturity of the partnership with the key stakeholders. The partnership or relationship with stakeholders can take several forms, as we have simplified in Figure 8 below.

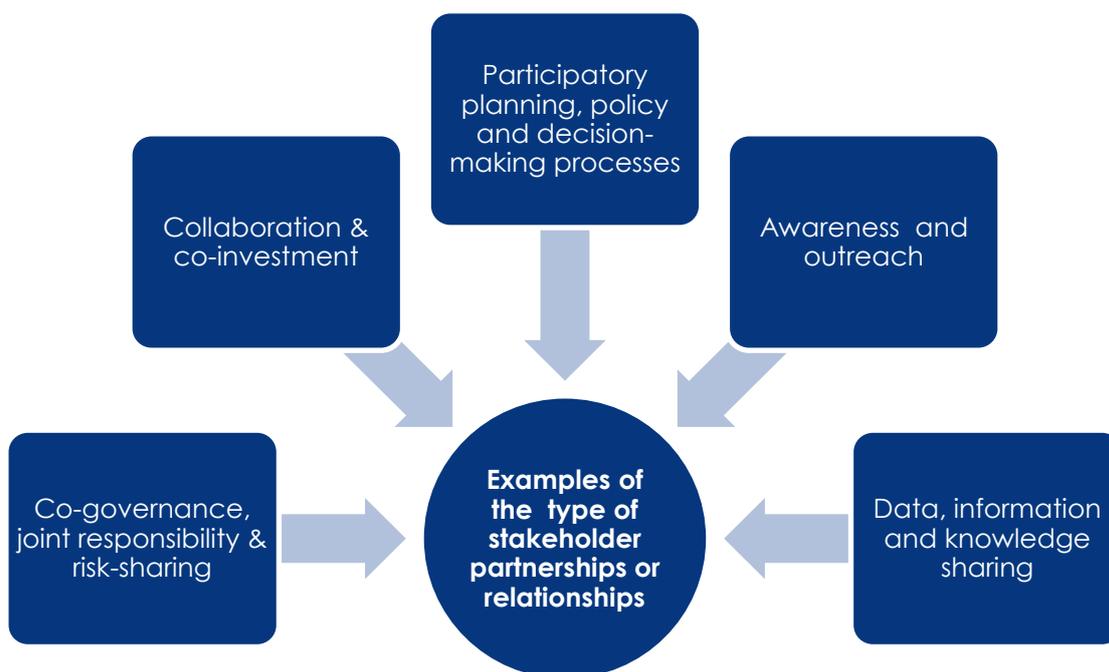


Figure 8: Various approaches that can be used to share, empower and partner with civil society organisations and citizens

Children and the youth are recognised as key influencers of society's attitude about the environment, nature or biodiversity. Their future is vested in having a healthy environment and they play a role in indirectly influencing their parents' attitude and behaviours. Investment in environmental education, awareness and outreach activities is key. Already national and provincial environmental government departments and their public entities as well as civil society organisations have programmes that focus on this stakeholder group. These programmes have to be reinforced, enhanced and expanded as necessary.

Box 17

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 5 and its related outcomes and targets primarily aligns with Strategic Goal & A & E on:

Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.

Goal E: Enhance implementation through participatory planning, knowledge management and capacity building.

SO 5 in particular contributes to the following Aichi Targets:

Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Alignment with the National Biodiversity Strategy and Action Plan (July 2015)

As per the draft NBSAP of July 2015, there is alignment with SO 5 of this PBSAP with respect to the following draft NBSAP SOs:

NBSAP SO 4: People are mobilised to adopt practices that sustain the long term benefits of biodiversity

Strategic objectives, outcomes, targets, indicators and actions

Strategic Objective 5 (SO 5): Stakeholders are mobilised to achieve sustainable long term benefits for biodiversity

Scope: Focus is on promoting and mobilising for environmental awareness, education and outreach as well as on civil society organisations and citizen initiated programmes, projects and initiatives. A further objective is to encourage empowerment and meaningful participation of the civil society organisations and citizens in biodiversity-related planning, policy and decision-making processes

Outcome 1: Collaborative programmes in the province contribute substantially to the implementation of this PBSAP

Targets	Indicators	Actions
By 2020 there has been quantification of the value of financial and human resources leveraged from strategic partnerships forged by DEA&DP and CapeNature to achieve the biodiversity objectives of the province	Rand value of leveraged resources from partnerships	Continue existing and initiate as required new collaborative partnerships between national, provincial and local levels of government and their entities, civil society and the private sector to achieve the goals, strategic objectives, targets and actions of the PBSAP
Annual and 5 yearly outputs and responsibility <u>Provincial Biodiversity Committee (ex CIC-CAPE)</u> <ul style="list-style-type: none"> • 2016: Develop list of collaborators and partners • 2017: Provide a platform for collaboration through PBC • 2017 – 2020: Annual work plan to inform the PBSAP implementation plan (DEA&DP, CapeNature)		
By 2020 develop and implement a biodiversity-focussed communication and citizen engagement programme	A biodiversity-focussed communication and citizen engagement programme in place	Quantify the value of financial and human resources leveraged from strategic partnerships forged by DEA&DP and CapeNature to achieve biodiversity objectives
Annual and 5 yearly outputs and responsibility <u>Value of Partnerships</u> <ul style="list-style-type: none"> • 2016 – 2020: Assess value add through partnerships (DEA, BRs and GEF) (DEA&DP, CapeNature)		
		Establish a database or web portal that provides information resources on key initiatives, programmes and projects of government, NGOs and the private sector
Annual and 5 yearly outputs and responsibility <u>Biodiversity database or web portal</u> <ul style="list-style-type: none"> • 2016: Co-ordinate and collate biodiversity data needs • 2016 – 2017: Explore options for data dissemination • 2016 – 2020: Establish data portal and ensure management • 2017 – 2020: Centralise data themes through a single biodiversity portal (DEA&DP, CapeNature)		

Outcome 2: Effective messaging, coordination and mobilisation of citizens enhance awareness, engagement, and championing of biodiversity conservation whilst ensuring its wise use, restoration of associated ecological services and infrastructure in their communities		
Targets	Indicators	Actions
By 2020, the DEA&DP and CapeNature are actively collaborating with the Provincial Department of Education on ongoing improvements in environmental education curriculum in schools	Number of schools implementing an improved environmental curriculum	Implement communication programmes that encourage participation and engagement of stakeholders established in biodiversity and conservation in the province
150 environmental awareness activities per annum	Number of environmental awareness activities conducted	Articulate the provincial EE strategy with the international "Transforming Our World: The 2030 Agenda for Sustainable Development"
Annual and 5 yearly outputs and responsibility		
<u>Develop Communication Programmes</u>		
<ul style="list-style-type: none"> • 2016: Develop communication strategy and annual themes • 2016 -2017: Plan and budget for media material and events • 2018 – 2020: Incorporate materials into capacity building and info sessions 		
(CapeNature, DEA&DP)		
Outcome 3: Effective involvement by citizens and civil society in the development and implementation of planning and other decision making processes enhances their activities that champion biodiversity		
Targets	Indicators	Actions
By 2020 there is increased participation by civil society in Protected Area Advisory Committees	Increased number of attendees in Protected Area Advisory Committees	Ensure improved stakeholder participation in Protected Area Advisory Committees
Annual and 5 yearly outputs and responsibility		
<u>Protected Areas Advisory Committee</u>		
<ul style="list-style-type: none"> • Assess stakeholders and their PA needs • 2016 – 2017: Develop stakeholder list and ensure info sharing • 2016 – 2020: Collaborate with CapeNature and attend quarterly biodiversity communication programmes 		
(DEA&DP, CapeNature)		

Alignment with existing initiatives

Continue to support the work of and/ foster:

CAPE partnership	Protected Area Advisory Committees	Existing strategic partnerships in CapeNature and DEADP
	Environmental education and awareness programmes being implemented	

Actions linked to outcomes

Case studies

Strategic Objective 6 (SO 6): Capable institutions achieve biodiversity management objectives

Scope: The focus is on developing the required capable institutional capacity and suitable skilled and diverse human capital for effective implementation of biodiversity related mandates, responsibilities and functions.

Box 18
Case Study 1: GreenMatter
 Lewis Foundation, responding to the Environmental Sector Skills under the auspices of the Department of Environmental Affairs (DEA) and the Department of Science and Technology (DST), partnered with SANBI to create a platform for broad-based transformation in the sector through a shared network called GreenMatter, administered by the Development Bank of Southern Africa (DBSA). GreenMatter is the implementing programme that puts the Biodiversity Human Capital Development Strategy into action. It provides a skills base for postgraduate, scarce and critical skills development through, among others, the provision of fellowships.

The country as well as the province's advances in the development of environmental and related policy and legislation that is highly regarded nationally and internationally, also mean that the capacity to implement policy at the institutional level needs to be strengthened. Institutions need to develop their environmental (including biodiversity) capacities in order to fulfil:

- Their core mandates and functions in terms of the South African Constitution, the Western Cape Province Constitution or as per the relevant legislation.
- Their compliance responsibilities as stipulated in legislation.

The adequacy of institutional capacity and of human capital at all levels is an on-going challenge.

In some institutions, as was reported during the consultation process with local authorities, dedicated capacity to undertake biodiversity-related responsibilities does not exist. In other instances it is fulfilled

partially alongside other functions that are a core mandate of the local authority. Key challenges cited by local authorities in this regard include:

- Turnover of decision makers, experts and the associated loss of institutional memory.
- No or limited human resources dedicated to fulfilling biodiversity responsibilities.
- Limited financial resources.
- Overwhelming amount of legislation to comply with.
- On-going legislative reform and the requirement to acquire knowledge thereof.

The progress being made in policy, legislation and availability of information, knowledge and tools to better advance conservation and management of biodiversity also means that even in institutions whose core mandate is biodiversity, there is an increasing requirement to enhance the number and quality of skills, and to build new organisational competencies and capabilities.

Fulfilment of these institutional requirements is constrained by a general shortage of skills in biodiversity-related fields such as botany, zoology and ecology and general environmental management. The new policy requirements also call upon specialist scientists to acquire other corporate skills such as strategic planning, project management, communication, public relations, stakeholder management and negotiation skills.

Limited financial resources exacerbate these challenges.

It is important, therefore, that there is a systematic approach to addressing the institutional and human capital-related challenges.

The DEADP has in place a programme that focuses on capacity building of local authorities. This programme should be leveraged to achieve the goal, strategic objectives and actions proposed in this PBSAP. Fortunately, this would build on a solid platform with a variety of local authorities having integrated biodiversity objectives in their Integrated Development Plans (IDPs) and/or Spatial Development Frameworks (SDFs). Some have dedicated environmental management frameworks (EMFs). The City of Cape Town and the Berg Rivier Local Municipality have also led the way in having developed Local Action Plans on Biodiversity (LABs). The Cape Winelands District Municipality is also in the process of developing its LAB.

A solid platform also exists for focusing the development of the human capital required to implement the requirements of this PBSAP and the biodiversity legislation currently being developed. Nationally, a Human Capital Development Strategy for the Biodiversity Sector 2010-2030 – implemented by GreenMatter, a collaborative initiative of SANBI and the Lewis Foundation – is already in place. There is also Groen Sebenza, a SANBI programme funded by the Development Bank of Southern Africa (DBSA)'s Job Fund. The DEA-NRM expanded public works programmes also contribute to development of some skills required for the biodiversity sector. The province and local authorities should leverage these initiatives as a first step to address their biodiversity skills requirements. Even so, there will be a need to have a systematic assessment of biodiversity skills requirements so as to develop effective and comprehensive interventions.

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 6 and its related outcomes and targets aligns with all aspects of the CBD Strategic Plan and its Aichi targets in that it enables implementation.

Alignment with the National Biodiversity Strategy and Action Plan (draft of July 2015)

As per the draft NBSAP of July 2015, there is alignment with this SO 6 of this PBSAP with respect to the following draft NBSAP SO:

NBSAP SO 5: Conservation and management of biodiversity is improved through the development of an equitable and suitably skilled workforce.

Strategic objectives, outcomes, targets, indicators and actions

Strategic Objective 6 (SO 6): Capable institutions achieve biodiversity management objectives		
Scope: Focus is on developing the required capable institutional capacity and suitable skilled and diverse human capital for effective implementation of biodiversity-related mandates, responsibilities and functions		
Outcome 1: Biodiversity-related policies and laws are effective and are being implemented, and they enable and contribute to the attainment of the strategic objectives of the province and local authorities		
Target	Indicator	Actions
By 2020 key biodiversity strategies, policies, plans are regularly evaluated and reviewed	Number of strategies and policies that are evaluated and reviewed	Disseminate and communicate the PSAP to all stakeholders in the province and beyond
Annual and 5 yearly outputs and responsibility		
Disseminate PBSAP <ul style="list-style-type: none"> • 2016: Publish PBSAP with Directorate: Communications • 2017: Public event to launch PBSAP • 2017 – 2020: Incorporate PBSAP materials into capacity building programme • 2017 – 2020: Capacity building workshop for PBSAP (DEA&DP)		
2016 – 2020: report on the implementation of the PBSAP	Annual PBSAP implementation reports	Finalise, promulgate and implement the provincial legislation currently under development
Annual and 5 yearly outputs and responsibility		
Provincial Legal Reform (Biodiversity Bill) <ul style="list-style-type: none"> • 2016: Assist State Legal Advisor in vetting Bill • 2016 – 2017: Draft amendment Bill completed • 2017 – 2018: Publish draft Bill in Provincial Gazette 		

<ul style="list-style-type: none"> • Obtain Provincial Cabinet approval to introduce the Bill to the Provincial Parliament • Introduce draft Bill to Provincial Parliament • Public hearings on the Bill • Formal consideration of Bill by the Standing Committee • Consideration and adoption of the Bill by the House • Assent to Bill by the Premier • Publish the Bill in the Provincial Gazette • 2018 – 2020: Implement the Bill <p>(DEA&DP, CapeNature)</p>		
<p>Outcome 2: Relevant government institutions have the required competence and capability to implement their mandated and/or allocated biodiversity-related functions and responsibilities</p>		
Targets	Indicators	Actions
By the end of the 2018/2019 financial year, there should be an assessment of the adequacy of resource requirements of the DEA&DP and its public entity CapeNature to implement this PBSAP and the provincial biodiversity legislation	Quantified financial resources for implementation of the PBSAP have been completed	Conduct an assessment of the adequacy of resource requirements of the DEA&DP and its public entity CapeNature to implement this PBSAP and the provincial biodiversity legislation and implement its recommendations as appropriate
By 2020 DEA&DP and CapeNature in-house skills development and capacity building initiatives on biodiversity contribute significantly to the provincial biodiversity-focused human capital development programme	Number of PDI trained as part of the province's biodiversity human capital programme OR Number of new learners appointed through various initiatives in the sector, including learnerships, internships, Work Integrated Learning (WIL), etc.	
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Biodiversity Mandate and Implementation</u></p> <ul style="list-style-type: none"> • 2016: Assess resource needs to implement PBSAP and the Bill • 2016 – 2017: Disseminate DAE&DP and CapeNature responsibilities through MoA • 2016 - 2020: Conduct joint APP and strategic 5 year planning <p>(DEA&DP, CapeNature)</p>		
<p>Outcome 3: The majority of the institutions operating and performing biodiversity functions in the province and the local authorities have the adequate quantity and appropriate quality of skills in-house or leveraged through partnerships, to perform their mandated and allocated biodiversity-related functions and/or responsibilities</p>		
Targets	Indicators	Actions

By 2020 a capacity building programme for local government councillors on the recently promulgated national biodiversity legislation as well as provincial legislation to be promulgated has been rolled out	Number of environmental stakeholder capacity building initiatives	Implement environmental capacity building initiatives
Annual and 5 yearly outputs and responsibility <u>Biodiversity Capacity Building</u> <ul style="list-style-type: none"> • 2016: Establish stakeholder focus groups list and capacity needs • 2016 – 2017: Determine capacity building priority themes • 2016 – 2020: Conduct capacity building programmes with focus groups 		
4 environmental stakeholder capacity building initiatives are implemented per annum	A capacity building programme for councillors in place	Roll out a capacity building programme for local government councillors and officials on the recently promulgated national biodiversity legislation as well as provincial legislation to be promulgated Continue and strengthen as necessary the environmental capacity building aspect of the local government support programme of DEA&DP
Annual and 5 yearly outputs and responsibility <u>Municipal Support and Biodiversity Mainstreaming</u> <ul style="list-style-type: none"> • 2016: Co-ordinate with LGMTEC/Municipal support Programme • 2016 – 2017: Integrate priority themes in to capacity building materials and presentations • 2016 – 2020: Conduct capacity building programmes with focus groups • Participate in intergovernmental SDF planning • Incorporate BSP into planning tools 		
Outcome 4: Security of appropriate and demographically representative skills base is ensured		
Targets	Indicators	Actions
By 2020 a provincial biodiversity-focused human capital development programme that promotes demographic transformation	??	Initiate and implement a provincial strategic biodiversity-focused human capital development programme that addresses

of the province's skills base has been established		the skills requirement of the biodiversity sector and demographic transformation
Annual and 5 yearly outputs and responsibility <u>Biodiversity Human Capital Development (HCD)</u> <ul style="list-style-type: none"> • 2016 - 2017: Establish provincial biodiversity career paths • 2017 – 2018: Develop HCD needs assessment • 2018 – 2020: Develop biodiversity-focused HCD programme • 2019 – 2020: Implement biodiversity-focused HCD programme (DEA&DP, CapeNature)		
??	??	Continue to implement DEA&DP CapeNature in-house skills development and capacity building initiatives and contribute to the Provincial biodiversity-focused human capital development programme
Annual and 5 yearly outputs and responsibility <u>Biodiversity Talent Management</u> <ul style="list-style-type: none"> • 2016: Establish current biodiversity talent, needs and gaps • 2017 – 2018: Develop biodiversity talent management programme • 2018 – 2019: Implement biodiversity-focused talent management programme (DEA&DP, CapeNature)		

Action Plan

Alignment with existing initiatives

Support, leverage or expand:

DEA and SALGA environmental capacity building initiative	GreenMatter initiative (led by Lewis Foundation in collaboration with SANBI)	DEADP and Cape Nature in-house skills development programmes
	Groen Sebenza (led by SANBI in collaboration with the Development Bank of Southern Africa's Job Fund)	DEADP local government capacity building programme

Actions linked to outcomes

Strategic Objective 7 (SO 7). Resource mobilization enables the effective implementation of the biodiversity mandate in the province

Scope: The focus is on developing new and innovative financing mechanisms and on mobilising resources required from the implementation of the PBSAP.

“The Provincial Biodiversity Strategy and Action Plan (PBSAP) is a tool that should unify the Western Cape Government, its departments, implementing agency (CapeNature), municipalities, partners and the local community to work together to ensure that biodiversity in the province is optimally conserved, sustainably utilised and equitably shared by all. The PBSAP will define the mandate, functions, priorities and associated responsibilities of all relevant parties in biodiversity management. The PBSAP is concerned with laying the road map for biodiversity strategy and actions leading from the period 2014 to the next international Convention on Biodiversity assessment.”

(2014 Estimates of Provincial Revenue and Expenditure, Vote 9)

The PBSAP project is a strategic initiative of the Western Cape Provincial Government as indicated above. It is important that once developed, together with the provincial biodiversity legislation being drafted, the strategy is effectively implemented. The primary responsibility for resourcing biodiversity conservation resides first with government. In this regard, the Provincial Government of the Western Cape Province, under Vote 9 of the Estimates of Provincial Revenue and Expenditure, allocates about 0.95% of its total budget to the Department of Environmental Affairs and Development Planning (DEADP) and within the same vote allocation, financial resources are provided for biodiversity management in the province.

The targets and actions in this PBSAP already indicate an increase in scope of policy interventions by DEADP for the 2015 - 2020 period. For example, there is detailed emphasis on interventions relating to biodiversity mainstreaming, on promoting the biodiversity-based economy, on leading stakeholder and citizen engagement and partnerships, and of biodiversity-based capacity building initiatives at local government level. These mandates will require substantially more financial resources for effective implementation.

Although CapeNature is the recipient a significant part of the biodiversity sub-programme funds, it too appears to not have adequate funding to fulfil its legislative mandate, to be fully compliant with national legislation and to implement the various new and innovative strategies that will achieve better performance with respect to biodiversity conservation. The Western Cape State of Biodiversity (2012) also noted that although the institution finds that the Stewardship Programme is a cost effective strategy to achieve biodiversity goals, there are inadequate resources to expand and manage the programme effectively. This PBSAP also implies further responsibilities by CapeNature that would need funding. For example, CapeNature will have to lead acquisition of land required to meet the conservation areas expansion targets, the implementation of actions contained in the Western Cape Provincial Protected Areas Strategy, and coordination of the implementation of the Western Cape Provincial Alien Invasive Species Framework.

CapeNature supports a large organisation of about 861 people (as at 31 March 2014) and manages some 234 987 ha of a conservation estate that requires management, maintenance, expansion and upgrading from time to time. The organisation, being where the largest capacity of the provincial

government of the Western Cape on biodiversity is, is organised at a high level as per Figure 9 below.

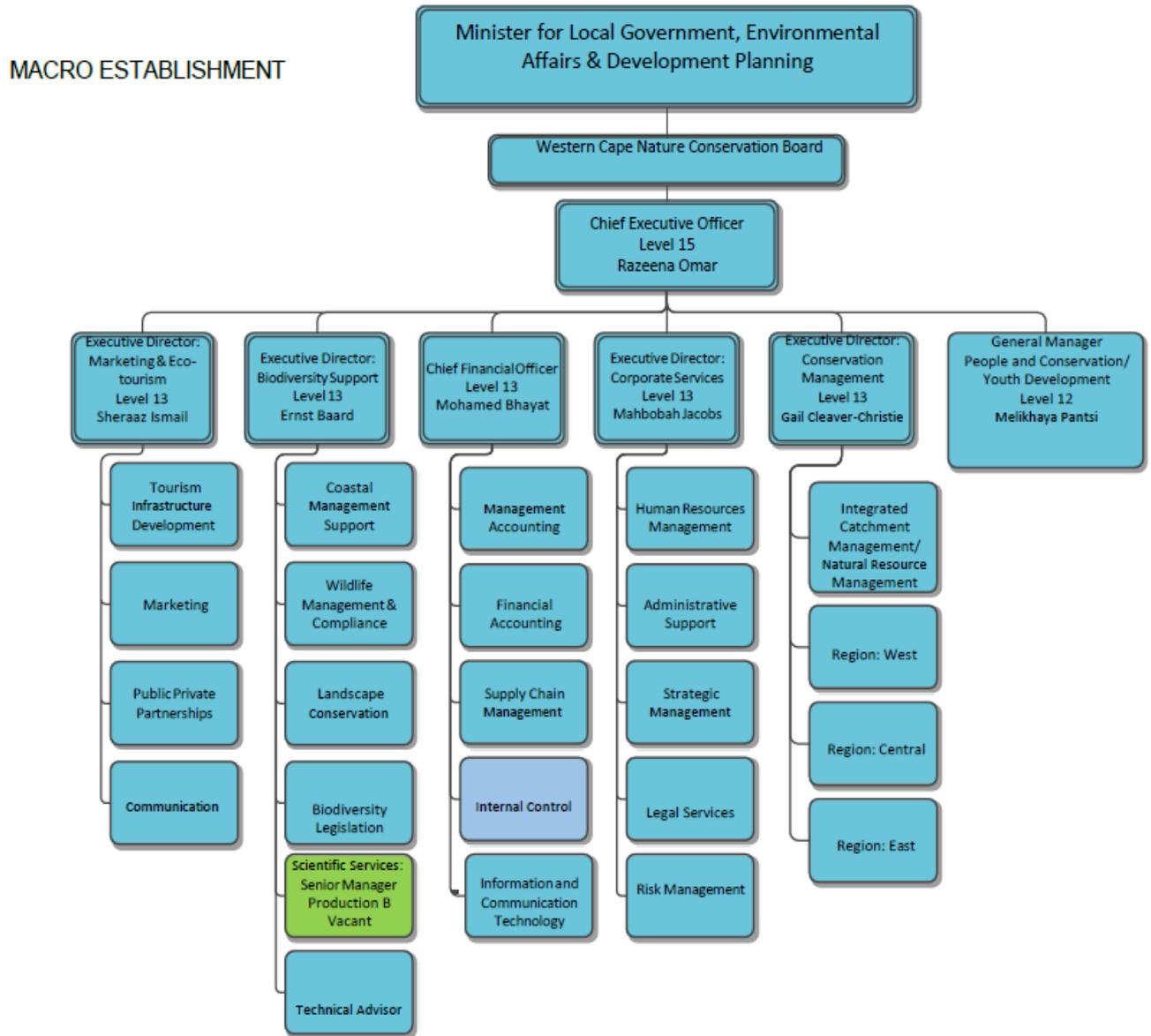


Figure 9: CapeNature macro organisational establishment

In addition to the government grant allocation, CapeNature is able to raise some additional funding ('own income') from sources such as tourism, licenses and permits, grants, donations and project funds, as depicted in Figure 10 below:

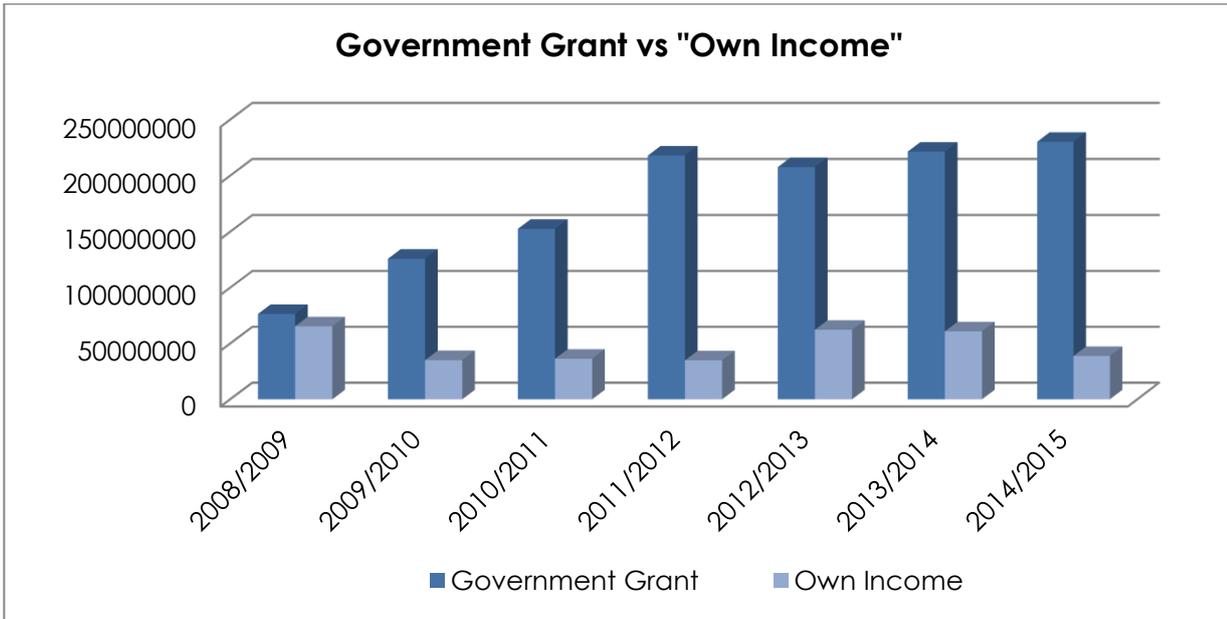


Figure 10: CapeNature income sources

The high level analysis of CapeNature's revenue split over a five-year period shows that the government grant allocation constitutes on average about 86% and 'own income' about 14%. Based on the 2014/15 income analysis, grants, donations and project funds make up most of the 'own income', and this category is followed by tourism (51%). Only about 4% is derived from licenses and permits (refer to Figure 11 below).

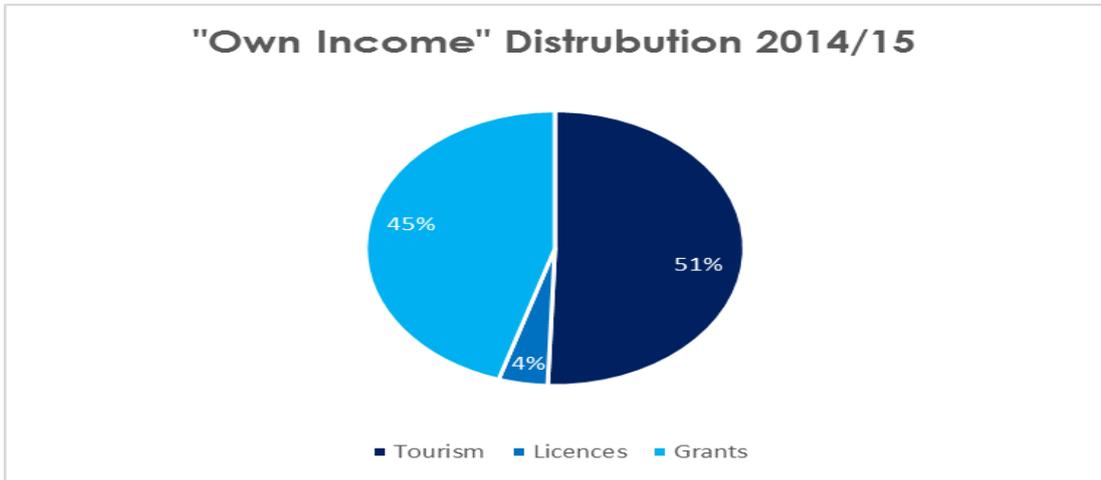


Figure 11: CapeNature 'own income' split

For CapeNature, there may be a need to rigorously explore a commercial strategy that

leverages its protected areas and tourism assets as part of the objective to grow its revenue. Indeed during 2015/16 such an initiatives – Income Growth Strategy – is being implemented. The public private partnership model can also add value to achieve financial goals of the

In addition to the DEADP and CapeNature resources, some conservation activities within the provincial borders are funded by national entities such as SANPARKS, SANBI, the DEA natural resources

management programmes, some local authorities and by resources from the private sector. Non-governmental organisations (NGOs) regularly mobilise funds that achieve conservation goals of the province. The amount of funds invested by these other authorities, private sector and NGOs is difficult to quantify at this point.

The many innovative biodiversity initiatives implemented in the recent past have also been possible due to donor funding from sources such as the Global Environmental Facility (GEF) and the Critical Ecosystem Partnership Fund directed at addressing the pressures and threats on the two global biodiversity hotspots falling within the province's boundaries, i.e. the CFR and the Succulent Karoo. The Table Mountain Fund is another innovative funding model established as a capital trust fund to support biodiversity conservation within the CFR.

Mobilising financial resources and developing new and innovative financial mechanisms to implement this strategy is, therefore, a key objective that should be pursued for the next five years. Possibilities exist to leverage the biodiversity assets of the province as part of the development of the biodiversity-based economy. Development of markets that would enable investment in ecosystem services needs to be explored further.

The DEADP will have to lead initiatives. However, some of these initiatives will need upfront investments by the provincial government in order to show desired impact.

Further donor funding from international and private sectors can be strategically harnessed through various models including co-investment or co-funding. Indeed, internationally, mobilising additional financial assistance is a challenge being addressed under the banner of implementing the CBD Strategic Plan 2011-2020 and its Aichi Targets.

As part of implementation of Aichi Target 20, the Biodiversity Finance Initiative (BIOFIN) under the UNDP is being piloted in select countries and aims to enable governments to build sound business cases for increased investment in conservation, sustainable use and equitable sharing of benefits of ecosystems and biodiversity, with a particular focus on identifying and filling financial needs at the national level. The BIOFIN initiative has been developed to provide concrete guidance to countries on how to assess existing biodiversity-related expenditures, gauge costs for implementation of their NBSAPs and understand how to mobilise financial resources required to fully implement their revised NBSAPs. By doing so, countries can improve biodiversity and sectoral policies, and better align their national expenditures with their biodiversity and development goals. South Africa is one of the participating countries in this initiative. The recommendations and lessons learnt by South Africa in this project should be beneficial towards the achievement of this PBSAP strategic objective 3 and should inform the provincial biodiversity-financing plan that should be developed during the timeframe of this strategy.

Box 20

Alignment with the CBD Strategic Plan (2011-2020) & Aichi Targets

The PBSAP SO 7 and its related outcomes and targets specifically aligns with Strategic Goal E of Aichi Target 20:

Goal E: Enhance implementation through participatory planning, knowledge management and

capacity building.

Target 20: By 2020, at the latest, the mobilisation of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilisation should increase substantially from the current levels. This target will be subject to changes contingent to resources need assessments to be developed and reported by Parties.

Alignment with the National Biodiversity Strategy and Action Plan (version of July 2015):

NBSAP SO 3: Biodiversity considerations are mainstreamed into policies, strategies and practices of a range of sectors

And specifically:

Outcome 3.5: Appropriate allocation of resources in all sectors and spheres of government facilitates effective management of biodiversity, especially in biodiversity priority areas.

Strategic objectives, outcomes, targets, indicators and actions

Strategic Objective 7 (SO 7): Resource mobilisation enables the effective implementation of the biodiversity mandate in the province		
Scope: The focus is on developing new and innovative financing mechanisms and on mobilising resources required from the implementation of the PBSAP		
Outcome 1: Implementation of the PBSAP is enabled by availability and appropriated allocation of financial resources to key institutions performing biodiversity functions		
Targets	Indicators	Actions
By 2020 a feasibility study of new and innovative funding sources, models and mechanisms is being conducted	Study on new and innovative funding sources is completed BioFIN project recommendation adopted	Implement the CapeNature protected area income strategy
By 2020 implement the CapeNature protected area income generation strategy	CapeNature income generation completed and implemented	Incorporate relevant actions related to ensuring continued funding for the implementation of the PBSAP over the medium term
Annual and 5 yearly outputs and responsibility		

<p><u>Develop PBSAP Implementation Plan and Budget</u></p> <ul style="list-style-type: none"> • 2016: Develop PBSAP Implementation Plan and budget • 2016 – 2017: Co-ordinate with Treasury regarding the APP and 5 year Strategic Plan • 2016 – 2018: Develop models and mechanisms for continued funding • 2018 – 2020: Develop a Provincial biodiversity mandate funding plan <p><i>(DEA&DP, CapeNature)</i></p>		
<p>Outcome 2: Innovative financing strategies lead to the growth of the current funding available to achieve biodiversity goals, strategic objectives and actions of the province</p>		
Targets	Indicators	Actions
By 2020 the Western Cape Province is developing its biodiversity funding plan that takes into account the recommendation of the feasibility study and of the South African pilot of the BioFIN project	BioFIN project recommendations adopted	Conduct a feasibility study of new and innovative funding sources, models and mechanisms
<p>Annual and 5 yearly outputs and responsibility</p> <p><u>Biodiversity Funding Initiatives</u></p> <ul style="list-style-type: none"> • 2016 – 2017: Explore contribution from BIOFIN and other (GEF?) • 2017 – 2020: Incorporate findings of CapeNature Income Generation Strategy • 2017 – 2020: Explore and incorporate opportunities in PES, ACRABE, Carbon • 2017 – 2020: Explore and incorporate opportunities in estuary-related income/redistribution <p><i>(DEA&DP, CapeNature)</i></p>		

Action Plan

Alignment with existing initiatives

Continue to pursue various funding opportunities, which include these examples:

International biodiversity donor funds: e.g. the Global Environment Facility or GEF (implemented by the World Bank and UN Development Programme)	SA Government-initiated funding opportunities, e.g. the DEA/Development Bank of Southern Africa Green Fund, the Jobs Fund, the Marine Living Resources Fund, the Technology Innovation Agency funds	Leslie Hill Trust
The Critical Ecosystem Partnership Fund or CEPF (joint initiative of AFD, Conservation International, GEF, the Government of Japan, the McArthur Foundation and the World Bank)	Civil society/ private sector initiated funding opportunities, e.g. the Table Mountain Fund, the Green Trust, Anglo Zimele's Green Fund	Western Cape Eco-Invest Initiative The South African Pilot of the Biodiversity Finance Initiative (BIOFIN)

Actions linked to outcomes

Case studies

Box 21

Case Study 1: The Global Environment Facility (GEF)

The Global Environment Facility is a partnership for international cooperation where 183 countries work together with international institutions, civil society organisations and the private sector, to address global environmental issues. It serves as a financial mechanism for the international agreements like the CBD, United Nations Framework Convention on Climate Change (UNFCCC) and United Nations Convention on Combating Desertification (UNCCD). It was established in 1991 as a \$1 billion pilot programme in the World Bank to assist with the protection of the global environment and to promote environmental sustainable development. The United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the World Bank were the three initial partners implementing GEF projects. In the Western Cape Province, GEF funded the CAPE programme and the Agulhas Biodiversity Initiative and recapitalised the Table Mountain Fund.

Case Study 2: Table Mountain Fund (TMF)

The Table Mountain Fund (TMF) is a Capital Trust Fund designed to provide a sustainable source of funding to support biodiversity conservation within the CFR.

The main objective of TMF is the conservation of biodiversity of the Cape Peninsula and the CFR as a whole, including the adjacent marine systems. The World Wide Fund for Nature South Africa (WWF – SA) raised the start-up capital in 1993.

By 1998 South African custodians had donated R10 million and the Trust was registered with WWF-SA as the founder, and SANPARKS and the Cape Peninsula National Park Committee as Trustee Groups, providing the opportunity to expand beyond Table Mountain and the Peninsula, to support

conservation efforts throughout the CFR. The Global Environment Facility increased the capital fund by R30 million, and achieves synergy through this and its other investments in the CFR, particularly in the CAPE programme.

Case Study 3: BIOFIN

South Africa is one of the countries participating in the Biodiversity Finance Initiative (BIOFIN). BIOFIN is an initiative under the UNDP and aims to enable governments to build sound business cases for increased investment in conservation, sustainable use and equitable sharing of benefits of ecosystems and biodiversity, with a particular focus on identifying and addressing finance needs at the national level.

The BIOFIN initiative has developed the following tools to assist countries:

- BIOFIN Workbook, which aims to promote consistent application of resource mobilisation steps and fostering the adoption of key principles. This workbook consists of three parts, namely the Review of biodiversity finance context, Analysis of NBSAP cost, and Development of a financing plan
- BIOFIN Excel Spreadsheet, which helps planners to capture data at each step of the BIOFIN workbook.
- BIOFIN User Manual, which provides illustrative examples and lessons learnt across BIOFIN participating countries.

The aim of these tools is to provide concrete guidance to countries on how to assess existing biodiversity-related expenditures, gauge costs for implementation of their NBSAPs and understand how to mobilise financial resources required to fully implement their revised NBSAPs. By doing so, countries can improve biodiversity and sectoral policies and better align their national expenditures with their biodiversity and development goals.

5. Conclusion

The Western Cape Province through this PBSAP is consolidating and creating further momentum for government and its partners to continue to expand on the commendable initiatives underway to conserve the biodiversity of the globally important CFR. The province has a global responsibility to safeguard, limit the loss of and restore the biodiversity and ecological services within its boundaries.

The Western Cape Province's own imperatives to grow the economy, to create jobs and to reduce inequality underscore the need to pursue these initiatives in a manner that ensures that the youth will also have an opportunity to derive the benefits we now enjoy from the biodiversity endowment. At the same time this PBSAP has laid the foundation for unlocking and developing the economic value of the rich biodiversity found in the province.

The actions proposed herein, including the existing initiatives – which we reinforce – have to be implemented within the 10-year period. The target date of the year 2025 aligns with the National Biodiversity Strategy and Action Plan. The timeframe falls during the period when the Aichi Targets need to be achieved in 2020 and when the next political term will end for national and provincial levels of government. At the same time, this PBSAP contributes significantly to goal 4 of Provincial Strategic Plan, 2014 to 2019.

The PBSAP was developed with view that, DEADP will take the lead and will coordinate actions. However, national, provincial, local governments and entities operating in the province should also align their actions to this PBSAP. Civil society including private sector and NGOs should similarly do the same. Partnering and collaborating has been the basis for achieving many ground - breaking initiatives in the province, this PBSAP reinforces this manner of working.



Annexure1: Headline Indicators to Assess Progress towards Achieving the Overarching Goal

<p>Overarching Goal: By 2025, management, consolidation and expansion of all categories of the Western Cape Province's network of conservation areas; promotion of existing and new biodiversity mainstreaming and conservation initiatives; promotion of an equitable and sustainable biodiversity-based economy; and increasing participation of citizens, progressively contribute to the attainment of biodiversity conservation, economic and development vision of the Western Cape Province.</p>		
Headline Indicator	Specific Indicators	Sources of data to measure
Coverage of conservation areas	Increase in number of hectares of land classified as conservation areas	Western Cape Province State of Biodiversity Reports
	Increase in the percentage of critical biodiversity areas that are protected as part of conservation areas	
Change in land covered by natural habitats and ecosystems	Percentage change of land covered by natural vegetation	Land cover data
	Share of land covered by natural vegetation as a proportion of other land uses	
Change in conservation status of threatened species, habitats and ecosystems	Reduction of the number of species listed as critically endangered	Red Lists & Government Gazetted Lists of Threatened Species

	The number of species that improve from threatened to least threatened status	Government Gazetted Lists of Threatened Habitats and Ecosystems
	Reduction in the number of ecosystems and habitats listed as threatened	Western Cape Province State of Biodiversity Reports
	Reduction in the extent of conversion of mapped wetlands for other land uses	Working for Wetlands reports
	Number of wetlands that have been rehabilitated	Green Choice Initiatives
	% of agriculture land under sustainable agriculture practices	
Extent of alien invasive vegetation	Increase in the extent of land (ha) cleared of alien invasive vegetation	Working for Water Reports
	Number of emerging invasive species targeted for early detection	To be determined
Extent of the restoration of degraded catchments	Increase in river flows	Working for Water Reports Reports by Catchment Management Agencies and CapeNature.
Water quality in aquatic environments	Quality of water in all the major water management areas	Water quality reports of the Catchment Management Agencies

		River Health Programme
	Quality of coastal waters	Blue Flag Assessments
Integration of biodiversity-based economy programmes into the Green Economy Framework	Programmes on development of biodiversity-based economy are integrated into the Green Economy Framework	Strategic Plans and Annual Performance Plans of the DEADP and GreenCape.
Integration of biodiversity priorities in Spatial Development Frameworks	Extent of the integration of the CBAs in the Provincial Spatial Development Framework	Provincial and Local Governments Spatial Development Frameworks
	Number of local authorities that have integrated CBAs in their Spatial Development Frameworks	
Change in attitude of citizens towards biodiversity conservation	Number of provincial level environmental awareness activities conducted per annum	To be determined
	Improvement in awareness level regarding biodiversity conservation	Perception survey on environment issues

Annexure 2: Provincial Biodiversity Framework and Monitoring and Evaluation Framework

SO 1: Conservation and effective management of biodiversity contributes a resilient and inclusive Western Cape economy.

Scope: Focus is on consolidating, expansion and effective management of the network of conservation areas in the province in the province while also mitigating the threats and pressures on biodiversity. There is further focus on promoting existing and new off-reserve conservation initiatives. All these interventions are aimed at restoring and securing representative and resilient biodiversity and its related ecosystem infrastructure

Outcomes	Actions	Responsibility	Targets	Indicators
<p>a. Representative biodiversity found in terrestrial, freshwater, coastal, wetlands, estuarine and the marine environments, at all levels including ecosystems, habitats, species, genes and ecological infrastructure, is secured and conserved through a network of conservation areas and existing and existing and new off - reserve conservation initiatives in province.</p>	<p>a.1 Implement the Western Cape Protected Area Expansion Strategy: The 2015 - 2020 strategy to expand the Protected Area network of the Western Cape Province</p> <p>a.2. Implement the Western Cape Protected Area Expansion Strategy: The 2015 - 2020 strategy to expand the Protected Area network of the Western Cape Province</p> <p>a.3. Sign Memoranda of Agreement (MOAs) with all Western Cape Province Biosphere Reserves and ensure Biosphere Reserves Management plans are</p>	<p>a. 1. CapeNature supported by DEADP and DEA</p> <p>a.2. CapeNature, SANPARKS, City of Cape Town.</p> <p>a.3. DEADP, CapeNature, and relevant implementing agencies</p>	<p>a. By 2020, the protected areas of the Western Cape have been expanded by 348 840 ha of priority terrestrial area; 25 216 km² of marine offshore SA EE; 616 km² of marine inshore</p> <p>b. By 2020, 13.2% of the Western Cape forms the conservation estate</p> <p>c. By 2020 new biodiversity stewardship with biodiversity agreement signed</p> <p>d. By 2020, two new sites employing one or more of the</p>	<p>a. Areas protected under the Protected Areas Act (ha, km, km²)</p> <p>b. Number of hectares in the conservation estate</p> <p>c. Number of biodiversity stewardships with biodiversity agreements signed</p> <p>d. Number of new Ramsar site and Man and Biosphere sites declared</p> <p>e. METT score</p> <p>f. No Western Cape endemic species status declines</p> <p>g. Number of emerging invasive species targeted for early detection</p> <p>h. Number of significant, integrated water-related ecological</p>

	<p>approved and action plans for the funding of Biosphere Reserves have been developed.</p> <p>a.4. Support the implementation of the National Plant Conservation Strategy</p> <p>a.5. Continue and finalise the development of the Western Cape Provincial Alien Invasive Species Framework</p> <p>a.6. Implement an Integrated Catchment Management Strategy for CapeNature-managed protected areas.</p>	<p>a.4. CapeNature, DEADP in collaboration with SANBI</p> <p>a.5. CapeNature</p> <p>a.6. CapeNature</p>	<p>international conservation instruments, e.g. the Ramsar Convention, the World Heritage Convention, and the MAB Programme, are declared in the province</p> <p>e. By 2019, 80% of state-protected area management authorities operating in the province have been assessed with a Management Effective Tracking Tool (METT) score of above 67%.</p> <p>f. By 2020, there is Improvement status of Western Cape endemic threatened and protected species</p> <p>g. By 2020, 291 invasive plant species are target for early detection</p>	<p>infrastructure maintenance or improvement interventions</p> <p>i. Number of wetlands rehabilitated</p> <p>j. % of priority and prescribed firebreaks that have been completed</p> <p>k. Implementation plan for ecosystem-based adaptation developed, funded and implemented</p>
<p>b. Adequate protection of priority biodiversity and ecosystems in terrestrial, coastal, estuarine and marine environments restrain the loss of biodiversity, of species of special concern and ecological infrastructure</p>	<p>b. Identify and promote effective conservation of further priority landscape sites or ecosystems or habitats; species of special concern and ecological infrastructure in all environments.</p>	<p>b. DEADP, CapeNature, supported by SANBI and relevant NGOs</p>		

<p>c. Protection and restoration of biodiversity and its associated ecological infrastructure in all environments and at all levels and ecosystem based adaptation (EbA) provides resilience against negative effects of climate change and variability-related events</p>	<p>c. Implement and scale up where possible biodiversity and ecological infrastructure restoration programme and adopt EbA guidelines where these practical to implement</p>	<p>c. CapeNature and metro and local municipalities</p>	<p>h. By 2019, 4 integrated interventions in each of 2 key rural Strategic Water Source Areas</p> <p>i. By 2019, 20 per wetlands per annum have been rehabilitated in the Western Cape</p> <p>j. 100% of priority and prescribed firebreaks are completed annually</p> <p>k. By 2020, successful implementation results in resilience to climate change in communities linked to pilot projects</p>
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SO 2: Partner sectors contribute to achieving biodiversity conservation targets through mainstreaming biodiversity into policies, strategies, plans, practices and projects.

Scope: Focus is on mainstreaming biodiversity priorities and considerations in all economic and development sectors to secure and safeguard biodiversity and its related ecological infrastructure.

Outcomes	Actions	Responsibility	Targets	Indicators
<p>a. Identified economic and development sectors in the Western Cape Province that often impact biodiversity</p>	<p>a.1 Develop and review SDF to integrate priority biodiversity considerations</p>	<p>a.1. DEADP</p>	<p>a. By 2020 SDFs that are being developed and reviewed and integrate</p>	<p>a. Increased number of SDFs relative to the 2015 baseline that</p>

adversely, are actively contributing to securing, conservation and restoration of biodiversity and ecological infrastructure.	a.2 Establish policy and institutional mechanisms for securing and implementation of biodiversity offsets	a.2 DEADP in collaboration with CapeNature, SANBI	priority biodiversity considerations. b. By 2018, an appropriate process to assess the compliance levels and effectiveness of biodiversity-related conditions in	integrate priority biodiversity considerations. b.Existence of a functional EIA compliance assessment tool in place.
b. Compliance with authorisations and permits is monitored and enforced.	b.1 Initiate and implement a process or tool to assess the compliance levels and effectiveness of biodiversity-related conditions in Environmental Impact Assessment (EIA) Records of Decisions (RODs) b.2. Encourage compliance with industry specific biodiversity mainstreaming guidelines.	DEADP DEADP	Environmental Impact Assessment (EIA) Records of Decisions (RODs) have been initiated and implemented and informs policy improvements. c.By 2020, ecological infrastructure maps are integrated in the provincial spatial biodiversity plan. d.By 2020, locally initiated and relevant biodiversity projects, which result in the	c.Integrated spatial biodiversity plan implemented in all municipalities. d.Increased number of municipalities implementing locally initiated restoration programmes. e. Number of local municipalities that have developed their LBAs. f. A programme disseminating lessons learnt on ecosystem based adaptation is in place.
c. Knowledge based planning and decision-making processes restrain and limit the loss of biodiversity and its associated ecological infrastructure	c. Integrate ecological infrastructure maps into the provincial spatial biodiversity plan to support planners and decision makers	DEADP SANBI	restoration of ecosystem services, have been identified and are implemented by one or more of the local authorities e.By 2020, increased number of local authorities from current baseline have developed their local biodiversity action plans.	g. A provincial guideline and policy document on biodiversity offsets has been adopted.
d. Biodiversity consideration are integrated into provincial and municipal development planning and monitoring.	d.1 Finalise and implement the Cape Winelands District Municipality local biodiversity action plan. d.2. Support other local municipalities to develop	d. 1 Cape Winelands District Municipality supported by DEADP and relevant NGOs	f.By 2018, lessons learnt from implementation of	h. Number of municipalities

	<p>their local biodiversity action plan.</p> <p>d.3. Disseminate lessons learnt from implementation of ecosystem - based adaptation to climate change strategies to provincial and local authorities</p>	<p>d.2. Relevant municipality supported DEADP and relevant NGOs</p> <p>d.3. CAPE Partners</p>	<p>ecosystem-based adaptation to climate change strategies are being disseminated across the province.</p> <p>g. By 2020, policy and institutional mechanisms on securing and implementation of biodiversity offsets are in place and effective</p> <p>h. By 2020, there is an increased number of replicable examples of rates and/or tax policies at the local government level that incentivise conservation as a land use.</p> <p>i. By 2020 implementation of policy for the Provincial Systematic Biodiversity Plan through adequate integration in SDF and IDP reviews is underway.</p> <p>j. By 2019, 3 legislative tools to ensure the protection of species and ecosystems developed and implemented</p>	<p>adopting rates/ tax incentives for conservation as a land use.</p> <p>i. Implementation of Provincial Systematic Biodiversity Plan</p> <p>j. Number of legislative tools to ensure the protection of species and ecosystems developed and implemented</p>
<p>e. The value of biodiversity and ecological infrastructure is positively recognised by local authorities as contributing to the achievement of their functions as well as to their development and economic growth objectives.</p>	<p>e.1. Identify and raise financial resources for the design, development and implementation of at least three locally relevant and managed biodiversity restoration projects</p> <p>e.2. Initiate rates or tax policy reforms that incentivise biodiversity conservation</p>	<p>e.1. Local authorities supported by DEADP and relevant NGOs</p> <p>e.2. Local authorities supported by DEADP</p>	<p>h. By 2020, there is an increased number of replicable examples of rates and/or tax policies at the local government level that incentivise conservation as a land use.</p> <p>i. By 2020 implementation of policy for the Provincial Systematic Biodiversity Plan through adequate integration in SDF and IDP reviews is underway.</p> <p>j. By 2019, 3 legislative tools to ensure the protection of species and ecosystems developed and implemented</p>	<p>j. Number of legislative tools to ensure the protection of species and ecosystems developed and implemented</p>

Scope: Focus is on promoting equitable access to biodiversity and heritage resources and assets as well as on a biodiversity-based economy that contributes to inclusive and sustainable livelihoods and development opportunities.

Outcomes	Actions	Responsibility	Targets	Indicators
a. Opportunities from the biodiversity economy are expanded, strengthened and are progressively inclusive of all sectors of society.	a.1. Create work opportunities are created through environmental programmes	a.1 CapeNature	a. 4000 people on annual basis are accessing CapeNature Protected Areas for cultural purposes	a. Number of people accessing CapeNature Protected Areas for cultural purposes
	a.2. Enhance initiatives to increase to access by diverse demographic groups in CapeNature Protected Areas	a.2. CapeNature	b. 950 work opportunities are created through environmental programmes annually	b. Number of work opportunities created through environmental programmes
	a.3. Support establishment of and growth of SMME's in the biodiversity economy sector	a.3.DEADP CapeNature Metro, District Municipalities and Local Municipalities	c. 10 SMMEs are supported annually	b. Number of work opportunities created through environmental programmes
b. The business case for conservation and sustainable use of biodiversity and its associated contribution to the economy and development goals of the province is recognised and appreciated by an increasing number of key decision makers and members of society.	b.1. Communicate the PBES to key decision makers and stakeholders	b.1. DEADP	d. By 2020, the scope, the value and the growth potential of the biodiversity-based economy of the province are determined.	c. Number of SMMEs supported
	b.2. Communicate to key decision makers the outcomes of implementation of PBES on an on - going basis	b.2 DEADP	e. By 2020, there are increased incidences of endorsements or facilitation of investment in priority ecological services	d . (i) A biodiversity economy strategy and programme (PBES) is in place. (ii) Rand value of the biodiversity economy as defined in the PBES is determined
c. Contribution of biodiversity and ecosystem products, processes and services have a growing contribution to inclusive and sustainable	c.1. Finalise and implement a Provincial Biodiversity Economy Strategy and Programme (PBES)	c.1. DEADP		
	c.2. Develop regional			

livelihoods and development opportunities in the province	institutional capacity for the sustainable development of natural products.	c.2. DEADP in collaboration with GreenCape	f. By 2020, the PBES is integrated into the Green Economy Strategy Framework	e. (i) Priority ecological identified
	c.3. Develop guidelines for the sustainable development of the Honeybush Industry.	c.3. DEADP in collaboration with GreenCape	g. By 2020, markets for prioritised biodiversity services and products that promote inclusive and sustainable economic growth of biodiversity economy, are established.	(ii) Increased incidences of endorsements or facilitation of investment
	c.4. Implement the business plan for "Value - Added Industries from Alien Clearing Biomass"	c.4. DEADP and partners	h. By 2020, incentives and guidelines promoting inclusive and sustainable development of priority biodiversity economy sectors is in place	f. PBES references in Green Economy Strategy Framework g. (i) Priority biodiversity economy services and products identified (ii) 2 markets identified and developed
	c.5. Implement the business plan for "Carbon Sequestration Using Spekboom"	c.5. Implement the business plan for "Carbon Sequestration Using Spekboom"		h. Number of incentive programmes and / or guidelines
	d. Markets for prioritised biodiversity services and products that promote inclusive and sustainable economic growth of biodiversity economy, are established.	d.1. Identify priority biodiversity economy services and products identified	DEADP with GreenCape	
	d.2. Develop markets for prioritized biodiversity economy sectors and value chains identified and developed	DEADP with GreenCape		

SO 4: Knowledge management supports effective planning, decision –making, monitoring and reporting

Scope: Focus is on generating, updating and sharing of data, information and knowledge, and on optimal use of technology in support of planning, decision-making, monitoring, reporting and management of biodiversity and ecological infrastructure.

Outcomes	Actions	Responsibility	Targets	Indicators
a. Planning, decision-making, management and monitoring of biodiversity at the provincial and local government levels and by all biodiversity management authorities including the private sector, is knowledge-based and leverages the power of technology.	a.1 Initiate and develop a Biodiversity Research Strategy focusing on provincial biodiversity priorities, strategic research partnerships and information and knowledge management a.2. Regularly disseminate research finding to planners, decision – makers, biodiversity managers and stakeholders as appropriate.	a.1. CapeNature collaborating with DEADP a.2. CapeNature collaborating with DEADP	a. By 2020, strategic research priorities that support the implementation of biodiversity strategies, plans, conservation management and decision making are determined as part of Provincial Biodiversity Research Strategy b. An ecosystem and species monitoring and assessment programme is in place c. By 2025, a review of the achievement of the PBSAP goal, strategic objectives and targets has been conducted d. Reporting on the implementation of the PBSAP is undertaken annually e. By 2025, updates of spatial biodiversity plans in the province takes place at least every five to ten years f. By 2020, key biodiversity strategies, policies, plans are regularly disseminated to stakeholders.	a. A Provincial Biodiversity Research Strategy with priorities is in place b. Ecosystems and species status is updated regularly c. A PBSAP review has taken place d. Reports on implementation of the PBSAP e. Spatial biodiversity plans in the province are updated at least every five to ten years f. Number of strategies, policies, plans that are disseminated
b. Available data and knowledge on biodiversity, including on species, ecosystems and its associated ecological infrastructure is relevant, accessible and friendly for the users	b. Update spatial biodiversity plans in the province every five years	b. DEADP and CapeNature		
c. The status of species and ecosystems is regularly monitored and assessed	c. Update ecosystems and species status regularly	c. CapeNature		
d. Geographic priority areas for the management, conservation and restoration of biodiversity assets and ecological infrastructure are identified on the best available science.	d. Implement the spatial biodiversity plans for the province	d. DEADP in collaboration with all stakeholders		

e. Management - relevant and policy-relevant research and analysis is undertaken through collaboration between scientists and practitioners	e.1. Establish mechanism (s) or platform for sharing, amongst stakeholders, information and knowledge, on biodiversity	e.1. DEADP, CapeNature
	e.2. Conduct a review of the achievement of the PBSAP goal, strategic objectives and targets as per targets set	e.2.DEADP

Strategic Objective 5 (SO 5): Stakeholders are mobilised to achieve sustainable long terms benefits for biodiversity.

Scope: Focus is on promoting and mobilising for environmental awareness, education and outreach as well as on civil society organisations and citizen initiated programmes, projects, and initiatives. A further objective is to encourage empowerment and meaningful participation of the civil society organisations and citizens in biodiversity-related planning, policy and decision-making processes.

Outcomes	Actions	Responsibility	Targets	Indicators
a. Collaborative programmes in the province contribute substantially to the implementation of this PBSAP	a.1. Continue existing and initiate as required new collaborative partnerships between national, provincial, local levels of government and their entities, civil society and the private sector to achieve the goals, strategic objectives, targets and actions of the PBSAP.	DEADP a.2. DEADP and CapeNature	a. By 2020, there has been quantification of the value of financial and human resources leveraged from strategic partnerships forged by DEADP and CapeNature to achieve biodiversity objectives of the province. b. By 2020, develop and implement a biodiversity-focused communication	a. Rand value of leveraged resources from partnerships b. A biodiversity-focused communication and citizen engagement programme in place. c. Number of schools implementing improved environmental curriculum

	<p>a.2. Quantify the value of financial and human resources leveraged from strategic partnerships forged by DEADP and CapeNature to achieve biodiversity objectives</p> <p>a.3. Establish a database or web portal that provides information resources on key initiatives, programmes and projects of government, NGOs and the private sector.</p>	a.3. Any stakeholder	<p>and citizen engagement programme.</p> <p>c. By 2020, the DEADP and CapeNature are actively collaborating with the Provincial Department of Education on ongoing improvements in environmental education curriculum in schools.</p> <p>d. 150/annum environmental awareness activities</p> <p>e. By 2020, there is increased participation by civil society in CapeNature's Protected Area Advisory Committees</p> <p>f. By the end of the 2016/17 financial year, there should be an assessment of the adequacy of resource requirements of the DEADP and its public entity CapeNature to implement this PBSAP and the provincial biodiversity legislation.</p> <p>g. By 2020, a provincial biodiversity-focused human capital development programme that promotes demographic transformation</p>	<p>d. Number of environmental awareness activities conducted</p> <p>e. Increased number of attendees in CapeNature's Protected Area Advisory Committees.</p> <p>f. % of PDI trained in as part of the province's biodiversity HC</p> <p>g. Number of biodiversity professionals trained as part of the dedicated provincial HC programme</p>
<p>b. There is a discernible positive behavioural change and attitude among citizens of all ages and backgrounds in relation to biodiversity conservation, its wise use and its contribution to society's well-being.</p>	<p>b. Conduct, periodically, surveys to gauge perceptions and attitude of citizens on biodiversity, conservation, its wise use and its contribution to society's well-being</p>	b. DEADP with partners		
<p>c. Effective messaging</p> <p>d. Effective messaging, coordination and mobilisation of citizens enhances awareness, engagement and championing of biodiversity</p>	<p>c. Implement communication programmes that encourage participation and engagement of stakeholders in established biodiversity and</p>	c. DEADP		

<p>conservation whilst ensuring its wise use, restoration of associated ecological services and infrastructure in their communities</p>	<p>conservation for a in the province</p>		<p>of the province's skills base, has been established h. By 2020, DEADP and CapeNature in-house skills development and capacity building initiatives on biodiversity contribute significantly to the provincial biodiversity-focused human capital development programme</p>
<p>d. Effective involvement by citizens and civil society in development and implementation of planning and other decision making processes enhances their activities that champion biodiversity</p>	<p>d.1. Ensure improved stakeholder participation in Protected Areas Advisory Committee d.2. Develop and implement a biodiversity-focused communication and citizen engagement programme d.3. Promote recognition of individuals and organisations that champion biodiversity conservation</p>	<p>d.1. CapeNature and other state management authorities DEADP d.2. DEADP, CapeNature, Conservation NGOs and other partners</p>	
<p>e. Ordinary citizens assist in monitoring compliance of biodiversity-related legislation and policies and report infringements to relevant authorities</p>	<p>e. Create or enhance existing mechanisms enabling citizens to monitoring compliance of biodiversity-related legislation and policies and report infringements to relevant authorities</p>	<p>e. DEADP in collaboration with CapeNature and other stakeholders</p>	

Strategic Objective 6 (SO 6): Capable institutions achieve biodiversity management objectives

Scope: The focus is on developing the required capable institutional capacity and suitable skilled and diverse human capital for effective implementation of biodiversity related mandates, responsibilities and functions.

Outcomes	Actions	Responsibility	Targets	Indicators
a. Biodiversity-related policies and laws are effective and are being implemented, and they enable and contribute to the attainment of the strategic objectives of the province and of local authorities	a.1 Disseminate and communicate the PBSAP to all stakeholders in the province and beyond.	DEADP	a. By the end of the 2016/17 financial year, there should be an assessment of the adequacy of resource requirements of the DEADP and its public entity CapeNature to implement this PBSAP and the provincial biodiversity legislation.	a. Quantified financial resources for implementation of PBSAP have been completed b. Number of environmental stakeholder capacity building initiative
	a.2. Finalise, promulgate and implement the provincial biodiversity legislation currently under development	DEADP		
b. Relevant provincial and institutions have the required competence and capability to implement their mandated and/or allocated biodiversity-related functions and responsibilities.	b. Conduct an assessment of the adequacy of resource requirements of the DEADP and its public entity CapeNature to implement this PBSAP and the provincial biodiversity legislation and implement its recommendations as appropriate	DEADP.	b. 100 environmental stakeholder capacity building initiatives are implemented per annum c. By 2020, a capacity building programme for local government councillors and officials on the recently promulgated national biodiversity-related legislation as well as provincial legislation to be promulgated has been rolled out	c. A capacity building programme for councillors in place d. % of PDI trained in as part of the province's biodiversity HC
c. The majority of the institutions operating and performing biodiversity functions in the province and the local authorities have the adequate quantity and appropriate quality of skills in house or leveraged through	c.1. Implement environmental stakeholder capacity building initiatives	DEADP, CapeNature	d. By 2020, a provincial biodiversity-focused human capital development	e. Number of biodiversity professionals trained as part
	c.2. Roll out a capacity building programme for local government councillors and officials on the recently promulgated national	DEADP		

<p>partnerships, to perform their mandated and allocated biodiversity-related functions and/or responsibilities</p>	<p>biodiversity-related legislation as well as provincial legislation to be promulgated c.3. Continue and strengthen as necessary the environmental capacity building aspect of the local government support programme of DEADP.</p>	<p>DEADP in collaboration with DEA and SALGA</p>	<p>programme that promotes demographic transformation of the province's skills base, has been established e. By 2020, DEADP and CapeNature in-house skills development and capacity building initiatives on biodiversity contribute significantly to the provincial biodiversity-focused human capital development programme</p>	<p>of the dedicated provincial HC programme</p>
<p>d. Security of appropriate and demographically representative skills base is ensured.</p>	<p>d.1. Initiate and implement a provincial strategic biodiversity-focused human capital development programme that addresses the skills requirement of the biodiversity sector and demographic transformation. d.2. Continue to implement DEADP and CapeNature in-house skills development and capacity building initiatives and biodiversity contribute to the provincial biodiversity-focused human capital development programme</p>	<p>DEADP I collaboration with DEA, SANBI</p>	<p>DEADP and CapeNature</p>	

Strategic Objective 7 (SO 7). Resource mobilization enables the effective implementation of the biodiversity mandate in the province

Scope: The focus is on developing new and innovative financing mechanisms and on mobilising resources required from the implementation of the PBSAP.

Outcomes	Actions	Responsibility	Targets	Indicators
a. Implementation of the PBSAP is enabled by availability and appropriated allocation of financial resources to key institutions performing biodiversity functions	a. Implement the CapeNature protected area income generation strategy.	CapeNature, DEADP, Provincial Treasury	a. By 2020, a feasibility study of new and innovative funding sources, models and mechanisms is being conducted.	a. Study on new and innovative funding sources is completed
			b. By 2020, implement the CapeNature protected area income generation strategy.	b. CapeNature Income generation strategy completed and implemented
b. Innovative financing strategies lead to the growth of the current funding available to achieve biodiversity goals, strategic objectives and actions of the province.	b. Conduct a feasibility study of new and innovative funding sources, models and mechanisms.	DEAP to lead and work in collaboration with Provincial Treasury, NGOs	c. By 2020, the Western Cape Province is developing its biodiversity-financing plan that takes into account the recommendation of the feasibility study and of the South African pilot of the BIOFIN project.	c. BioFIN project recommendations adopted.

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