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DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

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CONSULTATION ON THE DRAFT WHITE PAPER ON CONSERVATION AND SUSTAINABLE USE OF SOUTH AFRICA'S BIODIVERSITY 2022

I, Barbara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, hereby publish the draft White Paper on Conservation and Sustainable use of South Africa's Biodiversity, 2022 for public comments, as set out in the Schedule.

Members of the public are invited to submit, within 60 days from the date of the publication of the notice in the *Gazette or in the newspaper, whichever date is the last date*, written comments to the draft White Paper on Conservation and Sustainable use of South Africa's Biodiversity, 2022, to any of the following addresses:

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Any inquiries in connection with the draft White Paper on Conservation and Sustainable use of South Africa's Biodiversity, 2022 can be directed to Mr Khuthadzo Mahamba on +27 66 115 8144 or whitepaper@dfffe.gov.za.

Comments received after the closing date may not be considered.



BARBARA DALLAS CREECY
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

SCHEDULE

Draft White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity

Department of Forestry, Fisheries and the Environment

1. EXECUTIVE SUMMARY

South Africa is one of the most biodiverse countries in the world. However, global change, including climate change, habitat loss and transformation, invasive species, pollution, over-harvesting (and illegal harvesting), continues to result in the ongoing loss of biodiversity, ecological degradation, and decline of the ecosystem services from biodiversity and ecological infrastructure. Legislation, regulation, and implementation is, therefore, required to guide the Government, the private sector, and traditional and indigenous communities, in biodiversity conservation and sustainable use. For these purposes, the White Paper Policy on the Conservation and Sustainable Use of South Africa's Biodiversity was developed to achieve the following:

- (a) To provide an overarching policy context for biodiversity legislation, regulation, and implementation;
- (b) clarity on the approach to biodiversity conservation and sustainable use, based on the Constitution, Ubuntu, and giving prominence to gender equality;
- (c) a re-imagined and context-specific, localised approach, to addressing the aspirations and needs of our people;
- (d) effective transformation of the biodiversity sector; and
- (e) equitable socio-economic development based on our rich biodiversity, and the broad values and benefits from ecosystem services for the well-being of people and their livelihoods.

The White Paper is in terms of the provisions of section 24 of the Constitution of the Republic of South Africa, 1996 ("Constitution"), and takes cognisance of relevant legislation across all spheres of government, as well as key applicable international commitments and obligations that South Africa has signed and ratified. Other rights such as dignity, equality, culture, and property are also taken into account. The White Paper promotes conservation and the sustainable use of biodiversity, in line with the National Environmental Management Act, 1998 (Act No. 107 of 1998), and its subsidiary legislation, and is guided by a clear set of principles.

The White Paper sets forth the following vision: "A prosperous nation, living in harmony with nature, where biodiversity is conserved for present and future generations, and secures equitable livelihoods and improved human well-being". The White Paper is aspirational and advocates activities that enhance the well-being of people and nature at the same time. The approach identifies the path, out of unsustainable practices, toward a world where all people have a high quality of life, a voice, and a nurturing earth supporting them. As such, the policy sets out the following impact statement: "Thriving People and Nature".

This vision and impact are based on by a set of principles which:

- (a) Derive directly from the Constitution and give clear effect to all the components of environmental rights in the context of biodiversity conservation and sustainable use;
- (b) acknowledge the significance of equity in sustainable use of wild resources and the need to guide transformation to achieve equity;
- (c) emphasise important ways in which we need to think about, and approach biodiversity conservation and sustainable use; and
- (d) acknowledge the role of good governance and strong institutions in managing conservation and sustainable use of biodiversity.

The policy objectives and outcomes give direction for the future of the sector and the country, promoting a new approach that underpins a progressive understanding of biodiversity conservation and sustainable use, with a strong localised context through adopting the principles of Ubuntu.

The policy objectives are structured to achieve eight goals, summarised as:

- (a) Goal 1: Biodiversity conservation and sustainable use is transformative;
- (b) Goal 2: Integrated, mainstreamed, and effective biodiversity conservation and sustainable use;

- (c) Goal 3: Biodiversity conservation promoted;
- (d) Goal 4: Responsible sustainable use;
- (e) Goal 5: Equitable access and benefit sharing;
- (f) Goal 6: Enhanced capacity;
- (g) Goal 7: Biodiversity economy transformed; and
- (h) Goal 8: Promote the conservation and sustainable use of biodiversity globally.

Each goal is unpacked further into key outcomes outlined below:

- (a) Globally respected aspirational and progressive policy on biodiversity conservation and sustainable use that catalyses rural socio-economic development;
- (b) expanded land under conservation, promoting livelihoods and well-being;
- (c) inclusive and equitable biodiversity economy and beneficiation of ecosystem services;
- (d) integration and cooperation across sectors and levels promotes successful strategies;
- (e) increased sustainability, such that socio-economic development enriches rather than degrades biodiversity;
- (f) ecological integrity and resilience enhanced in and out of protected areas;
- (g) strengthened, rationalised and representative protected and conservation area system;
- (h) equitable and fair socio-economic development;
- (i) improved ecosystem services;
- (j) ecosystem-based adaptation enhances climate resilience;
- (k) increased resilience to anthropogenic disturbance;
- (l) sustainable harvesting of natural resources;
- (m) biodiversity mainstreamed across sectors to promote conservation, including habitat retention and restoration;
- (n) production and consumption transformed to ensure sustainability;
- (o) genetic and biological resources leveraged to benefit the people, country, and the world;
- (p) localised biodiversity value chain beneficiation improves livelihoods and well-being of previously disadvantaged communities;
- (q) ecologically sustainable use of components of biodiversity drives socio-economic growth, and national GDP;
- (r) the participation of diverse groups, especially those previously excluded from participation, in the biodiversity sector is promoted and supported by Government;
- (s) responsive and adaptive biodiversity management enhances conservation and use;
- (t) holders of traditional knowledge and practices benefit equitably; and
- (u) South Africa is a leader on the African continent in the conservation of biodiversity and is instrumental in advancing African agenda in international biodiversity fora.

These White Paper outcomes, considered collectively, will achieve the following strategic outcomes for South Africa:

- (a) Policy certainty and a strong policy base for biodiversity conservation, equitable growth in the biodiversity economy, and socio-economic development in the biodiversity sector;
- (b) coherent and effective biodiversity conservation practices protect South Africa's unique biodiversity, so that it benefits current and future generations;
- (c) integrated environmental, social, and economic elements of sustainable development secure responsible sustainable use;
- (d) protected areas and other conservation areas contribute strongly to ecologically sustainable rural development;
- (e) invigorated process for the transformation of the sector, with nature-based access and benefit flows for equitable and inclusive socio-economic growth and development; and
- (f) South Africa remains a leader in biodiversity conservation with a strong international reputation, and promoting African coherence and unity.

In summary, this White Paper will set South Africa on a strong path of sustainable development based on rich biodiversity and the valuable ecosystem services provided. It emphasises the importance of the biodiversity sector to the South African economy, and to people's livelihoods and well-being. This is underpinned by strengthened conservation of biodiversity heritage, the restoration, rehabilitation, and rewilding of our natural landscapes, and a robust evidence base for effective decisions on, and responsible practices for, sustainable use. The outcomes of this process will contribute strongly to the achievement of a broad range of the sustainable development goals, as well as the goals encapsulated within the National Development Plan, the Africa Agenda 2063, and key relevant Multilateral Environmental Agreements that South Africa has signed and ratified.

This White Paper will take into consideration and be relevant to the historical, socio-economic, and environmental context of South Africa, and the aspirations and needs of its people: It is a new deal to ensure people will not only be living in harmony with nature, but that both people and nature will thrive.

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3. LIST OF ACRONYMS AND ABBREVIATIONS

AIS	Alien Invasive Species
BABS	Bioprospecting, Access and Benefit Sharing
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CPB	Cartagena Protocol on Biosafety
DALRRD	Department of Agriculture, Land Reform and Rural Development
DFFE	Department of Forestry, Fisheries and the Environment
GMO	Genetically Modified Organism
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
LMO	Living modified organism
NBES	National Biodiversity Economy Strategy
NBA	National Biodiversity Assessment
NBF	National Biodiversity Framework
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM:PAA	National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)
NEMLA	National Environmental Management Laws Amendment Bill [B14B-2017]
MLRA	Marine Living Resources Act, 1998 (Act No. 18 of 1998)
NGOs	Non-Governmental Organisation
NKLSP	Nagoya Kuala-Lumpur Supplementary Protocol on Liability and Redress
NPABS	Nagoya Protocol on Access and Benefit Sharing
NPAES	National Protected Area Expansion Strategy
Ramsar	Convention on Wetlands of International Importance
SADC	Southern African Development Community
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SDG	Sustainable Development Goal
TFCA	Transfrontier Conservation Area
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
WHC	World Heritage Convention

4. DEFINITIONS

4.1. EXISTING LEGAL DEFINITIONS THAT INFORMED THE POLICY

The definitions contained within this section are already defined in existing legislation and are intended to have the same meaning for the purpose of this White Paper:

Adaptive management: An iterative process of interventions to achieve management plan objectives in the face of uncertainty through development of an expectation of how the system may respond to a considered and planned intervention, implementation thereof, monitoring the outcomes, adapting management interventions and/or expectations, thereby allowing continued improvement through learning (from National Norms and Standards for the management of elephants in South Africa).

Alien species: (a) a species that is not an indigenous species; or

(b) an indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention (NEMBA).

Biological Resources: Includes indigenous and other genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity (CBD).

Biotechnology: Any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use (CBD).

Ex-Situ Conservation: The conservation of components of biological diversity outside their natural habitats (CBD).

Genetic Resource: Includes

- (a) any genetic material; or
- (b) genetic potential or characteristics of any species. (NEMBA).

Other effective area-based conservation measure (OECM): A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values (CBD, 2018).

Traditional or Indigenous Knowledge: The knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity (CBD).

Well-being: The holistic circumstances and conditions of an animal which are conducive to its physical, physiological and mental health and quality of life, including its ability to cope with its environment (NEMLA Bill).

4.2. ADDITIONAL DEFINITIONS FOR THE PURPOSES OF THIS POLICY

For the purpose of this White Paper, definitions have been compiled using existing legislation, common usage within in the sector, published sources, and, where available, sources include international policy. Definitions of concepts defined in this White Paper may be amended in legislation in future, depending on the specific meaning within the specific legislative context.

Biological Diversity or Biodiversity: The variability among living organisms from all sources including, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity at genetic, species, and ecosystem levels (modified from NEMBA).

Community: A group of persons with interest or rights in land pertaining to biodiversity conservation and sustainable use, and/or a particular area of land on which the members have or exercise communal rights in terms of an agreement, custom or law, and includes any group of persons whose rights in land are derived from shared rules determining access to land held in common by such group, and includes part of any such group¹.

Conservation: Under the imperative of protection of the Environment,

- (a) protection, custodianship, care, maintenance, rehabilitation, restoration, and recovery, of biological diversity and its components;
- (b) in a manner that, where justifiable, secures equitable and ecologically sustainable use, access, and sacred appreciation;
- (c) of the benefits and values that present and future generations derive from nature's contribution;
- (d) to improve the well-being of people consistent with Ubuntu.

¹ This definition is adapted from the definitions of the term "community" found in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), the Interim Protection of Informal Land Rights Act, 1998 (Act No. 31 of 1996) (IPILRA) and the Restitution of Land Rights Act, 1994 (Act No.22 of 1994) (RLLA).

Domestication: Adapting wild plants and animals for human use, potentially leading to human dependency for survival, usually within controlled environments, by manipulating reproductive, physical, physiological or behavioural characteristics.

Ex-situ collections: For conservation of seeds, tissues, or reproductive cells of plants or animals in biobanks, including sample banks, gene banks, microbial collections, explants, seedbanks, and living biobanks (including horticultural collections, botanical gardens, zoological gardens).

In-Situ Conservation: The conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings (derived from CBD).

Marine: Means anything that is of or pertaining to the Coastal Zone, as defined in the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), namely the area between the outer edge of the Exclusive Economic Zone and the landward boundary of the Coastal Protection Zone, inclusive of offshore and inshore ocean waters, estuaries, the seashore (coast), and the Admiralty Reserve, and includes the organisms and species associated with marine areas.

Marine Spatial Planning: A governance process of collaboratively assessing and managing the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives.

Rehabilitation: The process of manual intervention where reparation of ecosystem processes, services, and productivity is done through upgrading existing features and/or adding new features, not necessarily to its pre-existing condition.

Restoration: The process of recovering an ecosystem that has been damaged, degraded, or destroyed, through re-creating missing features or characteristics, based upon physical or documentary evidence.

Revegetation: The process of replanting and rebuilding the soil of disturbed land in order to accelerate repairing damage to a landscape.

Rewilding: Restoration, including rehabilitation or reallocation, of landscapes, and reintroduction of individuals of a species into their natural habitats, to improve biodiversity, wildness, and/or ecosystem services.

Species: A population (s) of animal, plant or other organism that does not normally interbreed with individuals of another kind, and includes any sub-species, cultivar, variety, geographic race, strain, hybrid, or geographically separate population (derived from NEMBA).

Sustainable Use: In relation to the use of any component of biodiversity, means the use of such components in a responsible way, and that:

- (a) does not contribute to its long-term decline in the wild; or disrupt the genetic integrity of the population;
- (b) does not disrupt the ecological integrity of the ecosystem in which it occurs;
- (c) ensures continued benefits to people that are fair, equitable and meet the needs and aspirations of present and future generations; and
- (d) in the case of animals, is humane and does not compromise their well-being.

Systems approach: Considering, holistically, components of socio-ecological systems as inter-related and interdependent, together with their interacting properties, instead of their elements separately.

Ubuntu: Refers to a unifying vision of community built upon compassionate, respectful, interdependent relationships, and that serves as "a rule of conduct, a social ethic, which underpins the moral and spiritual foundation for African societies." The very essence of Ubuntu hinges on consolidating the human, natural, and spiritual tripartite².

² Museka, G & Modondo, M.M. 2012. The quest for a relevant environmental pedagogy in the African context: Insights from unhu/ubuntu philosophy. *Journal of Ecology and the Natural Environment* 4: 258-265. DOI: 10.5897/JENE12.052.

Wildness: Characteristics of ecosystems, on a spectrum from controlled environments to intact fully functioning wilderness, and where wilder landscapes are more natural, and increase human wellbeing, and are promoted by rewilding³.

5. POLICY ISSUE IDENTIFICATION

This White Paper is published in accordance with Section 24 of the Constitution of the Republic of South Africa, 1996 ("Constitution"). Section 24 of the Constitution (set out in full under 5.2 below), in relevant part, provides that everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that, inter alia, promote conservation and secure ecologically sustainable development⁴ and use of natural resources while promoting justifiable economic and social development.

This is an overarching policy on the conservation and sustainable use of biodiversity in South Africa that will guide future law reform and the future administrative and policy decisions of Government, and practices by the State, private sector and communities. It represents a paradigm shift for the conservation and sustainable use of biodiversity. Most importantly, it provides a strong constitutional foundation for the conservation and sustainable use of biodiversity, and promotes the transformation of the biodiversity sector in an ecologically sustainable manner. It is also based on more modern approaches to the conservation of biodiversity than existing policies, and emphasises the need for a uniquely South African approach to conservation, founded on the principles of Ubuntu.

In short, this White Paper is South Africa's New Deal on the conservation and sustainable use of biodiversity, aimed at achieving a South Africa where people live in harmony with nature, resulting in thriving people and nature.

6. SOUTH AFRICA'S BIODIVERSITY: A LIVING HERITAGE

6.1. BACKGROUND

The National Biodiversity Assessment (NBA, 2018) notes that South Africa has exceptional biodiversity, characterised by high species richness, high levels of species endemism, and a wide variety of ecosystems. South Africa's diversity and richness are not limited to biodiversity, but also diverse cultures and languages, and exceptional geological and climatic diversity within its borders. This is why South Africa is considered a megadiverse nation where its living heritage, biodiversity and natural capital ranks among the highest on the planet.

With a landmass of 1.21 million km² and surrounding seas of 1.1 million km², South Africa is among the smaller of the world's 17 megadiverse countries, which together contain more than two thirds of the world's biodiversity. Three of the 35 biodiversity hotspots of the world (regions that are biologically rich and highly threatened), the Succulent Karoo, The Cape Floristic Region, and the Maputaland–Pondoland–Albany occur in South Africa.

South Africa has a wide range of bioclimatic, oceanographic, geological, and topographical settings. These create high ecosystem diversity and endemism across terrestrial, freshwater and marine ecosystems. South Africa's terrestrial, freshwater, and marine ecosystems are recognised globally for their biodiversity and high levels of endemism.

South Africa's biodiversity provides people tangible benefits like food, clean water, medicine and materials, and it supports agricultural and fisheries production. The conservation of biodiversity and ecosystems provides ecological infrastructure that also provides protection against natural hazards like floods and droughts. The natural heritage is the basis of a vibrant tourism industry, and offers natural spaces and a valued sense of place⁵ for recreational, cultural, and traditional practices and activities. The unique and diverse fauna and flora, together with the wide range of ecosystems, underpins South Africa's wildlife industries, culturally and economically important traditional

³ Modified from Child, M.F. 2021. Wildness, infinity and freedom *Ecological Economics* 186: 107055. <https://doi.org/10.1016/j.ecolecon.2021.107055>.

⁴ The integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations (NEMA).

⁵ Sense of place. The unique character of natural environments, and the value people derive from this.

medicine practices, extensive livestock farming industry, and, *inter alia*, the functioning of water catchment areas. Together these industries and ecosystem functions provide numerous jobs, and contribute to food and water security. Jobs directly related to biodiversity are often outside urban centres and are labour intensive, contributing to rural development, poverty alleviation, and inclusive growth. The marine ecosystem provides South Africans with food and livelihoods by providing a basis for fishing (commercial, subsistence or recreational). Rivers, wetlands, and catchment areas are crucial ecological infrastructure for water security, often complementing built infrastructure. In addition to the wide range of current use of biodiversity, there are additional opportunities to leverage underused, or as yet undeveloped, components. Continued investment in managing and conserving biodiversity is essential so that biodiversity can be adequately recognised and accounted for in our national accounts including its contribution to livelihoods, the economy and job creation.

6.2. STATUS OF BIODIVERSITY

Almost half the of the 1 021 ecosystem types assessed in the National Biodiversity Assessment (2018) are categorised as threatened. Overall, estuaries, rivers, and inland wetlands have the highest proportion of threatened ecosystem types. Rivers and inland wetlands have the highest proportion of types in the Critically Endangered category, 42% and 61% respectively. Estuaries have the highest overall proportion of threatened ecosystem types (86%), followed by inland wetlands (79%), and rivers (64%). Over two-thirds of ecosystem types are represented in the current protected area⁶ network, leaving 31% in the Not Protected category. Wetland and river ecosystem types have the lowest levels of protection overall.

Of the assessed taxa in South Africa (23 312 indigenous taxa from 11 taxonomic groups), 0.2% are extinct and 14% are threatened with extinction. Twenty per cent of endemic taxa are threatened with extinction. Estuaries have the highest proportion of threatened taxa (27%), and 19% of marine taxa are threatened.

The IUCN Red List Index, that tracks the changes in species threat status, shows an increased extinction risk for most of eight taxonomic groups assessed (plants, reptiles, birds, mammals, amphibians, freshwater fishes, dragonflies, and butterflies), but freshwater species and butterflies show a steep decline. In addition, species confined to inland aquatic ecosystems are declining more rapidly than those occurring in terrestrial ecosystems. Approximately 99% of the estuarine area and 88% of the wetland area are threatened. Across the main ecosystems, estuaries and inland wetlands are also the least protected ecosystem types, with less than 2% of their extent in the Well Protected category.

6.3. PRESSURES AND DRIVERS

There are many pressures on biodiversity within the country, including habitat loss, freshwater flow modification, overfishing, overuse of some species, pollution, climate change, and biological invasions. Overutilisation of rangelands, which results in the loss of shrub and herbaceous cover and leads to increased erosion, is a direct pressure to terrestrial species and ecosystems, and an indirect pressure on inland aquatic ecosystems. Degradation of rangelands lowers the carrying capacity for both livestock and wildlife, with associated decrease in other ecosystem services like water quality, erosion control, and carbon sequestration, as well as the sustainability of jobs. Both wildlife ranching and livestock farming are vitally important land uses for both socio-economic development and biodiversity conservation, but can have negative impacts if conducted too intensively, or inappropriately. The harvesting of edible and medicinal plants and animals from the wild is widely practised in South Africa, and is particularly important as part of the rural economy. Many indigenous plant and animal species have documented traditional medicine uses, and many also have important spiritual meanings.

Over abstraction of water from rivers and wetlands is a case of unsustainable use of natural resources that directly threatens biodiversity, ecosystems, and human well-being.

In the marine ecosystem, including the ocean, coastal areas, and estuaries, the unsustainable use of biological resources is a significant pressure on biodiversity. Fishing (including commercial, recreational, subsistence, small-

⁶ Protected area "Protected area" means a geographically defined area, designated under NEM: PAA, which is designated, regulated and managed to achieve specific conservation objectives (derived from CBD).

scale, and illegal fishing) remains the biggest pressure on most inshore and offshore parts of the marine ecosystem, with greater impact on inshore resources than on the deep ocean systems.

The past decade has seen a rise of international wildlife trafficking syndicates that supply species subject to global trade bans to overseas markets. For example, there has been large-scale investment by the South African government and private sector in rhino anti-poaching measures. Similarly, South Africa's cycads, succulent plants, pangolins, parrots, and some reptiles and invertebrates, are also severely threatened by illegal collection and trade.

Human activities are often concentrated in areas rich in natural resources, of high productivity and high accessibility. Pressures are particularly marked in and around estuaries, inland wetlands, river valleys, and riparian areas, lowland areas such as coastal plains, the seashore, bays and the inner shelf and shelf edge in the ocean. In addition to these natural features, pressures are also focused on regions with high agricultural potential, around human settlements, and in regions with high mining potential. Ecosystems and species in these pressure hotspots are, therefore, particularly at risk of extinction or collapse due to the accumulation of pressures. Inland wetland, river and estuarine ecosystems have very high levels of threats.

6.4. BENEFITS DERIVED FROM SOUTH AFRICA'S BIODIVERSITY

South Africa's biodiversity provides a wide array of benefits to the economy, society, and human well-being, which are dependent on intact ecosystems, healthy species populations and genetic diversity. Biodiversity-related jobs number approximately 418 000 and the biodiversity-based tourism industry is worth over R30 billion per year. Intact ecosystems and high species diversity are essential for agricultural production, providing healthy populations of crop pollinators and natural predators of agricultural pests. Healthy rangelands support both livestock and wildlife ranching (the latter worth R14 billion per year). South Africa's biodiversity provides substantial employment in a range of sectors. This level of employment is comparable to that of the mining sector. There are at least five other jobs that depend directly on biodiversity use, for every job dedicated to conserving biodiversity (e.g., in protected areas or conservation authorities).

These jobs are in sectors such as fisheries, wildlife ranching, biodiversity-based tourism, traditional medicine, and indigenous tea production. Intact catchments, wetlands, and riparian systems help clean water supplies, attenuate floods, and store water for times of drought, thus, they protect people from floods and droughts, and contribute in adapting to changing climate. Harvesting of edible plants, edible insects, fish, medicinal plants, and building or weaving materials from the wild is widely practised in South Africa, and is an important part of the rural economy. Natural ecosystems, plants and animals have also influenced cultural and spiritual development, and are woven into languages, place names, religion, culture, and folklore.

Biodiversity forms part of South Africans' national identity and heritage. Biodiversity is also an important national asset and a powerful contributor to inclusive growth and job creation. Biodiversity, therefore, contributes to the goals of the National Development Plan (2030) by reducing poverty and inequality in South Africa through stimulating the economy, improving employment figures, building an inclusive rural economy, and providing affordable health care, which all rely to some extent on biodiversity, healthy ecosystems, resilient ecological infrastructure, and environmental sustainability. Every decision taken, whether by government or individuals, affects the future of biodiversity. By investing in the restoration, protection, and conservation of biodiversity assets and ecological infrastructure, social and economic development is enhanced, while at the same time contributing to human well-being.

7. POLICY AND LEGAL CONTEXT

7.1. INTERNATIONAL POLICY CONTEXT

The Convention on Biological Diversity, 1996 (CBD) has three main objectives: the conservation of biodiversity, the sustainable use of the components of biodiversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

In addition to the CBD, South Africa has ratified the following Multi-lateral Environmental Agreements in relation to biodiversity:

- (a) The Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Cartagena Protocol) (governing the movement of living modified organisms, resulting from biotechnological intervention, from one country to another) (ratified by South Africa in 2003);
- (b) the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their use to the Convention on Biological Diversity (Nagoya Protocol) (ratified by South Africa in 2014);
- (c) the UN Convention to Combat Desertification (UNCCD, ratified by South Africa in 1997);
- (d) the UN Framework Convention on Climate Change (UNFCCC, ratified by South Africa in 1997);
- (e) the UN Convention on Trade in Endangered Species of Wild Flora and Fauna (CITES, ratified by South Africa in 1975);
- (f) the International Plant Protection Convention (IPPC, ratified by South Africa in 1952);
- (g) the Ramsar Convention on Wetlands (Ramsar, ratified by South Africa in 1971);
- (h) the World Heritage Convention (WHC, ratified by South Africa in 1972); and
- (i) the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA, ratified by South Africa in 2004).

Other international agreements and programmes:

- (a) The UN Agenda 2030 for Sustainable Development and the Sustainable Development Goals (SDGs);
- (b) the UNESCO Man and Biosphere (MAB) Programme; and
- (c) the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES).

Africa's regional economic communities also play a significant role in coordinating the development of Africa's subregions in a way that is compatible with regional development and conservation objectives. South Africa is a member State of the African Union (AU), as well as the Southern African Development Community (SADC). South Africa subscribes to the African Union Agenda 2063 for a prosperous Africa as a member of the AU, which is Africa's plan for sustainable development on the continent. South Africa is also a party to SADC's biodiversity-related protocols.

7.2. NATIONAL POLICY AND LEGISLATIVE CONTEXT

South Africa's environmental management regime is underpinned by the environmental right in section 24 of the Constitution of the Republic of South Africa, 1996 with the following provisions:

24. *Everyone has the right –*

- (a) *to an environment that is not harmful to their health or wellbeing; and*
- (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 the use of natural resources while promoting justifiable economic and social development.*

As part of its effort to fulfil the obligation to adopt reasonable legislative measures, a White Paper on Environmental Management Policy was developed in 1997. This served as the basis for South Africa's framework environmental

law, the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). NEMA, amongst other things, sets out the fundamental principles that guide environmental decision-making in South Africa, and provides for mechanisms for monitoring compliance with, and enforcing of, environmental laws.

A draft White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity was also prepared in 1997. Although the White Paper was never, officially adopted as over-arching policy on biodiversity and sustainable use, it has informed the content of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) and the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPAA). The object of NEMBA is to provide for the management and conservation of biodiversity. It also makes provision for the establishment and governance of the South African National Biodiversity Institute (SANBI), which has the mandate of advising the Minister on issues related to biodiversity based on the best available science. NEMPAA has the overarching goal of providing for the protection and conservation of ecologically viable areas representative of biological diversity, and natural landscapes and seascapes. NEMPAA also provides for the continued existence and governance of South African National Parks (SANParks), which expands and manages South Africa's national park network. The World Heritage Act, makes provision for the management of natural and cultural heritage, and provides for the establishment of the iSimangaliso Wetland Park Authority.

The Marine Living Resources Act, 1998 (Act No. 18 of 1998) (MLRA) is South Africa's primary law dealing with the conservation of marine ecosystems and the long-term sustainable utilisation of marine living resources.

Other legislation that applies to the conservation and sustainable use of biodiversity in South Africa include: the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), the National Water Act, 1998 (Act No. 36 of 1998) (NWA), the National Forests Act, 1998 (Act No. 84 of 1998), the World Heritage Convention Act, 1999 (Act No. 49 of 1999), and the Game Theft Act, 1991 (Act No. 105 of 1991).

There is also national legislation that have implications for conservation and sustainable use despite not having those explicit purposes. These include the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) and the Marine Spatial Planning Act, 2018 (Act No. 16 of 2018), which have implications for conservation planning. Legislation such as the Animal Diseases Act, 1984 (Act No. 35 of 1984), the Animals Protection Act, 1962 (Act No. 71 of 1962), the Meat Safety Act, 2000 (Act No. 40 of 2000), Animal Improvement Act, 1998 (Act No. 62 of 1998), and the Performing Animals Protection Act, 1935 (Act No. 24 of 1935), all have implications for species conservation and sustainable use.

The implementation of national legislation is guided by relevant policies, such as, the National Development Plan: Our Future – Make it Work (NDP 2030). The primary objective of the NDP is to eliminate poverty and reduce inequality by 2030. Chapter 5 of the NDP envisions ensuring environmental sustainability and an equitable transition to a low-carbon economy.

The National Framework on Sustainable Development (2008) provides the national vision for sustainable development and indicates strategic interventions to re-orientate the development path of the country in a more sustainable direction. It proposes a national vision, principles and areas for strategic intervention that will enable and guide the development of the national strategy and action plan.

The National Biodiversity Framework (NBF), required in terms of NEMBA provides for an integrated, co-ordinated and uniform approach to biodiversity management by organs of state in all spheres of government, non-governmental organisations, the private sector, local communities, other stakeholders, and the public. The NBF identifies priority areas for conservation action and the establishment of protected areas; and reflects regional co-operation on issues concerning biodiversity management in Southern Africa.

The National Biodiversity Strategy and Action Plan (NBSAP) is required in terms of the CBD and sets out a strategy and action plan to fulfil the objectives of the Convention; the conservation and sustainable use of a country's biodiversity, and the equitable sharing of benefits derived from this use.

Other relevant national policies include the following:

- (a) The National Protected Areas Expansion Strategy, which guides decisions to declare protected areas in terms of NEMPAA and other legislation providing for forms of protected areas;

- (b) the National Biodiversity Economy Strategy, which is a strategy for developing and growing businesses and economic activities that either directly depend on biodiversity for their core business or that contribute to conservation of biodiversity;
- (c) the National Action Plan, which is a plan for the implementation of the UNCCD in South Africa; and
- (d) the National Biosafety Framework, a strategy for the implementation of the Cartagena Protocol in South Africa.

7.3. PROVINCIAL AND MUNICIPAL LAWS AND POLICIES

In terms of the Constitution, the “environment” and “nature conservation” are functional areas of concurrent national and provincial legislative competence. Provinces may, therefore, also pass legislation dealing with the conservation and sustainable use of biodiversity.

Each province has legislation dealing with nature conservation. Legislation has remained unchanged since the 1960s and 1970s in some provinces, and is, therefore, outdated. Nevertheless, they still play an important role in biodiversity governance, especially in so far as species management is concerned. Certain provincial legislation makes provision for the establishment and governance of conservation authorities that are primarily responsible for the management of provincial State-owned protected areas, and the conservation of biodiversity outside of those protected areas.

Some provinces have also adopted policies to help guide the implementation of provincial and national legislation, including provincial biodiversity spatial planning tools and protected area expansion strategies.

In terms of the Constitution, local government/ municipalities are required to promote a safe and healthy environment, and to deliver services in an environmentally sustainable manner. Local government plays an important role in biodiversity conservation as they have land that includes important biodiversity features, and areas that support biodiversity and ecosystem functioning; these need to be conserved and used sustainably. Local Government/ municipalities enact municipal by-laws in pursuance of their legislative mandate. In terms of the Spatial Planning and Land Use Management Act (SPLUMA), Local Government/ municipalities are required to take into consideration environmental factors when developing spatial planning instruments, such as spatial development frameworks and land use schemes, and when taking land development decisions. Furthermore, municipalities also play an important role in supporting provincial and national organs of state to implement initiatives to conserve and use biodiversity.

8. PROBLEM STATEMENT

The development of the White Paper on Conservation and Sustainable Use of South Africa's Biodiversity is a response to fill an existing policy gap due to the lack of an approved, over-arching policy on biodiversity.

Despite having a range of biodiversity and sustainable use legislation and policies, biodiversity loss continues to threaten the health of ecosystems and survival of species, and results in negative impacts for livelihoods and the economy. Global change, habitat loss and degradation, invasive alien species, overharvesting, and illegal harvesting all threaten South Africa's biodiversity. Over two decades since democracy, the biodiversity sector remains substantially untransformed and there is inequality in access to benefits arising from biodiversity and associated ecosystem services. Furthermore, the sector has not reached its potential in terms of the contribution to the national economy and Growth Domestic Product (GDP). Biodiversity and its use is a catalytic engine of rural economies, and the value chains that emerge from these need to be fully realised.

Notwithstanding programmes such as People and Parks and land reform, there are limitations and shortcomings to the current conservation model and approaches, which were founded on the historical colonial practices, entrenched by Apartheid, of over-exploitation and the exclusion of the indigenous and local communities. While there has been substantial growth of the biodiversity economy, there has been little participation by Previously Disadvantaged Individuals (PDIs), and communities that have received land through the land restitution programme. As a result, they have not adequately benefited from their land. Furthermore, communities have been

disempowered from ownership and governance structures and decision making over their land, and its potential benefits. Meaningful value-chains have not extended from State protected areas into adjacent communities.

Terrestrial conservation areas are fragmented in terms of governance, operations and resource allocation, and only 17% of land is under conservation with a growth in expansion of just under 1% per annum. Private areas are mostly white-owned with low participation or beneficiation for Africans. Large expanses of communal land has high potential for wildlife-based enterprises that potentially can contribute to the conservation estate. Only 0.5% of communal land is under formal conservation, and working with traditional authorities and land claimants, there is a huge potential to rewild these areas and bring them under formal protection. Biodiversity, including wildlife-based activities, offer significant potential for socio-economic development in these areas. While some partnerships have developed, with some successes in expanding protected areas, existing policies and models of public-private partnerships are inefficient and difficult to implement, resulting in lost opportunities for land consolidation and conservation area growth. Restriction of animals by fences and breakdown of natural ecological processes increases management of game and habitats, which may reduce the sense of wildness and naturalness. Poor practices, including domestication of wildlife, have further eroded this sense of wildness, and the cultural heritage and stewardship for the environment. The protection of biodiversity, and conservation practices, have to take into account duty of care for both plants and animal species and associated ecosystem services. Conservation and sustainable use have to take into account the health of the ecosystem, including the well-being and welfare of wild animals.

The marine ecosystem provides a wide range of benefits to the economy, society, and human well-being through the provision of food, coastal livelihoods, rural development, and employment opportunities. Estuarine and marine ecosystems provide South Africans with food and livelihoods. However, many fish stocks are over-exploited, with illegal fishing exacerbating pressure on already stressed resources, and taking away livelihood opportunities from legitimate fishers, especially community fishers. While a range of plans are in place to ensure that fisheries are sustainable, better practices to rebuild stocks of priority species are needed. Marine protected areas and their effective management can play a significant role in this regard. Freshwater systems and species are under threat, and some marine stocks are reliant on freshwater systems such as estuaries.

The genetic potential of South Africa's biodiversity, and the associated rich traditional and indigenous knowledge has been strongly protected, but this value is not being unlocked into biotechnology value chains, as processes and procedures do not facilitate this.

Existing policies fall short of advancing a uniquely South African approach to biodiversity conservation that is context specific, in order to address the triple challenges of unemployment, poverty, and inequality, and recognising indigenous approaches to conservation. In some provinces, there remain vast areas that have the potential for very large extensive conservation areas, containing free-roaming wildlife and threatened habitats and species, which can enhance the sense of naturalness and wildness of the land, and provide a foundation for extensive growth in nature-based activities, including globally competitive ecotourism. These areas include mixtures of State, private and community owned lands. Mechanisms need to be put in place to catalyse a shift to more natural, wild, expanded biodiversity estate, which becomes the driver of regional rural economies. Importantly, mechanisms have to be put in place to fast-track transformation of the sector, providing access and ownership by rural communities, African, women, and youth entrepreneurs, in order to realise the full value and potential of ecosystem services. The country has to elevate matters to a different level and take bold and ambitious actions that bring a new approach and achieves real and tangible expression of a new deal of people and nature.

Transformation of the sector will require a major step-change; therefore, key policy interventions are necessary to effect a paradigm shift. This will capitalise on the gains and foundation created, whilst aiming for a much more meaningful beneficiation process that seeks to grow biodiversity-based industry, and bring real transformation; to build a unique South African approach to biodiversity and conservation.

This White Paper, therefore:

- (a) Provides policy certainty and a stable base for conservation, growth, and sustainable development;
- (b) repositions South Africa as a leader in conservation and responsible use of biodiversity;

- (c) re-imagines the role of protected areas, both State and other, in contributing to ecologically sustainable use and to rural development; and
- (d) proposes transformation of the sector, with real meaningful access to nature-based development opportunities and benefit flows to marginalised communities.

9. POLICY VISION, MISSION AND GUIDING PRINCIPLES

9.1. A VISION

A prosperous nation, living in harmony with nature⁷, where biodiversity is conserved for present and future generations, and secures equitable livelihoods and improved human well-being.

9.2. THE MISSION

To conserve South Africa's biodiversity, and maintain and/or restore ecological integrity, connectivity, processes, and systems, with resulting ecosystem services providing transformative socio-economic development benefits to the nation, through justifiable, responsible, and ecologically sustainable, and socially equitable, use of components of biodiversity.

9.3. IMPACT STATEMENT

Thriving People and Nature.

This statement recognizes that:-

- (a) An integrative approach will be the primary framework for action to address threats to biological diversity, and to establish priorities for its conservation;
- (b) Conservation efforts will focus not only upon relatively "natural" landscapes, but will include abandoned crop fields, near natural areas, and wilderness that provides ecosystem goods and services that sustain human health, fuel the economy, prevent environmental degradation, and promote conservation of wildlife heritage, including water source areas;
- (c) Biodiversity and conservation will provide a competitive advantage for the wildlife-based economy to make a significant contribution to the Gross Domestic Product (GDP);
- (d) Sustainable conservation of biological resources is centred around the participation and involvement of all members of society;
- (e) Biological diversity is best conserved in the wild (in-situ), through the conservation and restoration of ecosystems and natural habitats, and the maintenance and recovery of viable populations of species in these managed and natural ecosystems;
- (f) Ex-situ measures will be implemented primarily for the purpose of complementing in-situ conservation measures;

9.4. GUIDING PRINCIPLES

The following inter-related principles are applicable in the context of the conservation and sustainable use of the South Africa's Biodiversity. These principles have guided the development of this policy, and must be considered in applicable activities and practices, and in the development of all legislation and policy.

- 9.4.1. **Constitutional supremacy:** The constitution is the starting point, with Section 24 guiding aspects of the environment, and all recommendations, decisions, practices, activities, law, and policies related to biodiversity must be consistent therewith.

⁷ Living in harmony with nature: "biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people." (from CBD 2011-2020, strategic vision)

- 9.4.2. **People First:** Biodiversity must be protected in a way that people can benefit from its presence and use, including in promoting and enhancing human health and well-being, and their physical, psychological, spiritual, developmental, cultural, and social interests.
- 9.4.3. **Dignity, equality, and freedom:** The Constitution gives pre-eminence to the values of human dignity, the achievement of equality, and the advancement of human rights and freedoms, and interventions are needed to ensure dignity, equality, and the rights of all.
- 9.4.4. **Intergenerational equity:** There is an important and tangible link of nature with children and future generations, which must be included into conceptualisation of sustainability, and stand testing against this on a continuous basis, as well as giving effect to the views, perspectives, and aspirations of youth.
- 9.4.5. **Ubuntu:** Ubuntu promotes harmonious relations, based on respect for nature for nature's sake, economic and ecological justice for all, and, as an African social compact for just relations between humanity, and the whole creation, Ubuntu is relevant to biodiversity conservation and sustainable use in Africa; biodiversity is required for human existence, and we all have a stake in its conservation.
- 9.4.6. **Transformation:** There is a collective responsibility on all role players in the biodiversity sector to ensure the inclusive participation and beneficence of all people, particularly those that were previously disadvantaged, in the sector and in its growth.
- 9.4.7. **Empowerment of women:** In order to promote social cohesion, it is critical to empower women, and the views, perspectives, and aspirations of women, who are very connected to components of biodiversity.
- 9.4.8. **Rights of local and Indigenous communities:** Local and Indigenous communities have the right to self-determination and full participation in the biodiversity sector, to maintain and strengthen their distinct political, legal, economic, social and cultural institutions, and to practice, with dignity, the diversity of their traditions, cultures, customs, histories, and aspirations.
- 9.4.9. **Intrinsic Value:** Nature and ecological systems have intrinsic value and must be conserved, such that nature has value in its own right, independent of human uses, and even if it does not directly or indirectly benefit humans. This intrinsic value must not be discounted against more readily assigned economic values of nature.
- 9.4.10. **Existence value:** The existence value of nature is the use people derive from knowing of the existence of biodiversity, and that others and future generations can also enjoy biodiversity. This existence value must not be discounted against more readily assigned economic values of nature.
- 9.4.11. **Duty of care:** All persons, organizations and organs of states have a duty of care to conserve and avoid loss of biodiversity, anticipate and prevent irreversible loss to biodiversity and adopt a cautious approach in relation to any decisions taken in respect of biodiversity.
- 9.4.12. **Animal Well-being:** The well-being of wild animals must form an integral part of all wildlife-based practices, recognising wild animals are capable of suffering and of experiencing pain, and that sentience requires a higher level of consideration of the impact of actions on the well-being of wild animals.
- 9.4.13. **Economic principles:**
- 9.4.13.1. **Public trust:** Biodiversity and its components is held in public trust for the people. The beneficial use of biological resources must serve, or not be detrimental to, the public interest⁸ and the environment must be protected as the people's common heritage.
- 9.4.13.2. **Rights and responsibilities:** Rights have associated responsibilities, accordingly, ownership and its associated use of biodiversity and its components in South Africa is not free from responsibility, regulation, governance and, in some instances, restrictions or limitations.

⁸ In the interest of the general public as opposed to an individual or restricted interest group

- 9.4.13.3. **Responsibility:** All enterprises and activities must be environmentally, economically and socially responsible, and the social and environmental costs of the benefits generated should be internalised.
- 9.4.13.4. **Improved performance:** Law, policies, decisions and interventions in the biodiversity sector, given effect by sufficient human and financial capital, should improve efficiencies in governance, collective buy-in of affected role players, enhance uniformity across South Africa and reduce financial and biodiversity and ecosystem vulnerabilities.
- 9.4.13.5. **Sector diversity:** A diverse biodiversity sector and associated biodiversity economy activities, where different business models and biodiversity-based enterprises enhance the resilience of the sector in different landscapes and seascapes in various environmental, social and economic conditions.
- 9.4.13.6. **Living with biodiversity:** In recognizing and acknowledging their sacrifices, people living with biodiversity, for the public good, should be prioritized in terms of access and flow of benefits from biodiversity, and mitigation of negative impacts incurred.
- 9.4.14. **Sustainable Development:** The economic system, socio-political system, and ecosystem are embedded within each other, in that order, framed within a governance system. Sustainable development requires a systems approach to sustainability, that acknowledges and ensures:
- 9.4.14.1. That the disturbance of ecosystems and loss of biological diversity are avoided or minimised, and, where avoidance and minimisation is impossible, are remedied;
- 9.4.14.2. That the use of natural resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised and that this level is determined according to the best available science;
- 9.4.14.3. That a risk-averse and precautionary approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions;
- 9.4.14.4. That negative impacts on the environment and on people's environmental rights be anticipated and prevented, or minimised and remedied;
- 9.4.14.5. That decisions for use must be integrated and evidence based, acknowledging that all elements of the environment are interlinked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment;
- 9.4.14.6. That, to ensure environmental justice, adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons;
- 9.4.14.7. That ensures equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued, and special measures must ensure access thereto by categories of persons disadvantaged by unfair discrimination;
- 9.4.14.8. The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment;
- 9.4.14.9. Benefits arising from the use and development of biological resources will be fairly and equitably shared. The rights to use biological resources will be equitably allocated, and will recognise that the socio-economic upliftment of disadvantaged communities is an important criterion upon which decisions will be based, and where peoples' historical rights of access to natural resources have been removed or constrained this should redressed;
- 9.4.14.10. **Full Cost-Benefit Accounting:** Decision-makers and users of biological resources will be guided by evidence-based ecological and economic approaches which assess the full social and environmental costs and benefits of projects, plans and policies that impact upon biodiversity, and which internalise or otherwise compensate for costs borne to the environment and to society.

- 9.4.14.11. **Responsible trade:** National and international trade of all biological resources must not be detrimental to the survival of species and associated habitats, adversely affect the broader biodiversity sector, and must be supportive of conservation, display sensitivity toward traditional cultural values of people, and mitigate wildlife crime.
- 9.4.15. **Governance:** Barriers to effective and efficient biodiversity conservation and sustainable use must be removed. In order to correct this an integrated approach is required, including:
- 9.4.15.1. There must be inter-governmental co-ordination and harmonisation of policies, legislation and actions relating to the biodiversity;
- 9.4.15.2. Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures;
- 9.4.15.3. Global and international responsibilities relating to the environment must be discharged in the national interest;
- 9.4.15.4. That there is participation of all interested and affected parties in governance of use, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured;
- 9.4.15.5. That decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge;
- 9.4.15.6. Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
- 9.4.16. **Evidence Based decision-making:** Scientific, traditional, and other forms of reliable knowledge, understanding, and practice should underpin biodiversity conservation and sustainable use, including monitoring and evaluation, with adaptive management and learning where knowledge gaps or assumptions make this necessary.

10. POLICY OBJECTIVES AND EXPECTED OUTCOMES

10.1. The Rationale for goals and objectives

The basis for each of the goals is provided below, as well as policy objectives to achieve each goal.

10.1.1. GOAL 1: BIODIVERSITY CONSERVATION AND SUSTAINABLE USE IS TRANSFORMATIVE:

The intention of this goal is to give effect to Section 24 of the Constitution, the environmental right, and other human rights, facilitates redress, and promote transformation.

Preventing harm to human health or well-being, promoting conservation, and securing ecologically sustainable use are three key elements within the Environmental Right. The intention of this goal is to adopt transformative change in biodiversity conservation and sustainable use in order to more effectively ensure those and other rights are achieved. The goal promotes the African philosophy of Ubuntu, and also recognises cultural and heritage value and practices in biodiversity conservation and sustainable use. Transformation will also advance the meaningful participation and active involvement of Previously Disadvantaged Individuals (PDIs) through the value chain of the biodiversity sector. Finally, in line with Ubuntu and recent jurisprudence, this goal provides policy direction for adopting conservation and sustainable use practices that do not harm biodiversity.

Furthermore, the intention of this goal is to capitalise on the mega-diverse nature of biodiversity, and key biophysical attributes, and wild landscapes, to drive rural socio-economic development.

The biodiversity sector has made considerable progress since 1994, however, a lot still needs to be done. The rights of access and traditional appreciation and use of wildlife have not been restituted to communities that live with or near wildlife. Conservation performance and the biodiversity economy must improve in support of human well-being and socio-economic development, environmental justice with restitution, transformation and full participation of communities and previously disadvantaged groups, including access and benefit sharing. Significant tracts of land under the custodianship of communities, land reform beneficiaries, and new entrants to the sector, will increasingly make a further substantial contribution as part of a successful transformation strategy. Challenges and risks include: (1) Perceptions of over-regulation and over-management, irresponsible and unsustainable hunting practices, unethical tourism practices, and reputational damage to sector and South Africa; (2) land use rights and arrangements, ownership of wildlife and land; (3) 'wildness', or lack thereof; (4) inequities in access to and benefits from natural resources; and (5) State protected areas' mediocre performance.

Lack of transformation within the sector is a critical weakness including the current South African 'Wildlife Model', where the largest percentage of wildlife land is owned by the white minority and by the State, with few wildlife resources on community lands. Although the democratic government has intervened with a number of policies, the transformation of this wildlife model has been very slow. Importantly, besides specific disadvantages and exclusion of rural communities from the wildlife sector, lack of involvement by previously disadvantaged individuals (PDIs), in general, is a major concern, as well as the empowerment of individuals as owners. There is a limited awareness within the African community, as well as broadly across government, of the Wildlife sector and its potential.

These challenges are addressed in the policy objectives included under this goal:

10.1.1.1. Enable transformation of biodiversity conservation in an African context;

10.1.1.2. Enable transformation of sustainable use for ecological sustainability and inclusive socio-economic development;

10.1.1.3. Adopt an integrated Conservation Philosophy that is in line with the principles of Ubuntu;

10.1.1.4. Adopt practices that do not harm biodiversity;

10.1.1.5. Promote participation and influence of previously disadvantaged individuals in biodiversity conservation and sustainable use;

10.1.1.6. Create large, contiguous, connected terrestrial conservation landscapes that enhance naturalness and wildness;

10.1.1.7. Ensure protected areas as effective drivers of inclusive rural socio-economic development;

10.1.1.8. Secure socio-economic interventions that drive equitable sustainable development.

GOAL 2: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE:

The intention of this goal is to integrate and mainstream biodiversity conservation and sustainable use across all spheres of government and society to ensure biodiversity contributes more meaningfully to justifiable sustainable development, but that development does not compromise conservation and sustainable use of biodiversity for present and future generations.

Given that multiple sectors use and impact on biodiversity, and that there are concurrent national and provincial mandates for the environment, effective co-operative governance is essential. Complicated governance arrangements require strategic approaches to partnering for effective and efficient biodiversity conservation and sustainable use, as well as the clear need for mainstreaming of biodiversity across sectors.

Funding and resourcing is a key constraint on sustaining the sector, let alone growing it. Innovative mechanisms are required to ensure effective biodiversity conservation.

The following objectives fall under this Goal:

10.1.1.9. Enhance co-operative governance across spheres of government;

10.1.1.10. Integrate and mainstream the conservation and sustainable use of biological diversity into all sectoral and cross-sectoral work at all levels in government and in society;

10.1.1.11. Strengthen arrangements to conserve biodiversity, both inside and outside of protected areas;

10.1.1.12. Identify and implement resource mobilisation, with innovative financial solutions to fund transformation and promote financial sustainability.

10.1.2. GOAL 3: BIODIVERSITY CONSERVATION PROMOTED:

The intention of this goal is to promote the conservation of the unique megadiverse nature of biodiversity, including the diversity of land- and sea-scapes, ecosystems, habitats, ecological communities, species, populations, and genes.

South Africa is home to a major portion of the biodiversity of the world, and still retains much of its biodiversity, and large areas of natural lands that provide for the opportunity to conserve this biodiversity. Such lands provide essential and critical ecosystem services that underpin the livelihoods and well-being of our people. However, there has been major degradation of large areas of South Africa, and of the populations of many species, such that threatened habitats and species have been identified. Progressive approaches to biodiversity conservation and sustainable use provide opportunity to leverage the existing biodiversity, and restore and rehabilitate other components, such that biodiversity conservation can grow and drive the biodiversity economy, as the key mechanism for step change in rural socio-economic development in South Africa. This is critical for a developmental state such as South Africa. In addition to this potential, are also massive global change influences that threaten the biodiversity estate and the ecosystem services provided, making South Africa less resilient and more vulnerable to future shocks. This includes risks from Climate Change, as well as alien invasive species. Close association of people and animals exposes people to health risks from zoonotic diseases, which can have global impacts, such as manifested in the COVID19 pandemic. This requires careful consideration of ex-situ use of animals in particular.

This complex landscape requires robust understanding of biodiversity and the threats to its conservation and sustainable use.

The following objectives are included under this Goal:

10.1.2.1 Evidence-based conservation priorities;

10.1.2.2 Establish a representative system of protected and conservation areas that are effectively and efficiently managed;

10.1.2.3 Conservation areas better integrated into broader ecological and social landscapes;

10.1.2.4 Restore and rehabilitate degraded ecosystems, and strengthen and further develop species recovery plans where practical and where this will make a significant contribution to the conservation and sustainable use of biological diversity;

10.1.2.5 Prevent the introduction, establishment, and spread of potentially harmful alien species, and control and eradicate, where feasible, invasive species which threaten ecosystems, habitats and species;

10.1.2.6 Minimise the potential risks associated with the release of genetically modified organisms into the environment, taking into account risks to human health;

10.1.2.7 Support, complement and enhance in-situ biodiversity conservation and ecologically sustainable use through ex-situ practices;

10.1.2.8 Adopt climate resilient approaches to biodiversity conservation and management to restore and maintain ecosystem goods and services;

10.1.2.9 Prevent where possible, or minimise risk of the animal-human transmission and further evolution of Zoonotic diseases associated with wild animals.

10.1.3 GOAL 4: RESPONSIBLE SUSTAINABLE USE:

The intention of this goal is to ensure that sustainable use avoids, or minimises and remedies, adverse impacts on biodiversity, and, where possible, enhances thriving living landscapes and ecosystems, livelihoods, and human well-being.

South Africa relies on industries or economic activities which directly use or impact on biological resources or the services provided by ecosystems. Through such activities, jobs and opportunities are created, and significant contributions are made to the country's economy. However, these benefits are not without direct and indirect costs to the environment. Activities which provide socio-economic gains from the use of biological resources and ecosystems often result in the loss of biodiversity, including the impairment of ecosystem functioning. Decision-making should be based on the real costs and benefits for conserving biodiversity that are quantified using innovative and progressive mechanisms such as natural capital accounting to enable South Africans to continue to benefit from the use of biodiversity, to ensure that biological resources are used sustainably, and adverse impacts on biodiversity are minimised. In addition to these economic benefits, there are a wide range of other values and benefits that people derive from nature, including existence value, sense of place, cultural values, and spiritual values. The importance of these values should not be underestimated. For example, increased access to green spaces significantly reduces the probability of depression in South Africans.

South Africa's biodiversity is used by many different sectors in many different ways. Within each of these categories, and reflective of South Africa's dual economy, are modern, highly commercialised industries, as well as more traditional, subsistence activities. At a broad level, these can be divided into economic sectors which: (1) Directly use biological resources, are dependent upon the renewal of such resources, and which by overuse may impact on biodiversity; (2) less dependent upon the direct use of indigenous biological resources are activities such as cultivation and afforestation, which depend upon ecological processes, such as the generation of soils, the pollination of crops, or the control of pests, but which require that natural habitats be transformed; (3) Many other sectors in South Africa do not rely upon the direct, consumptive use of biodiversity, but may depend upon the maintenance of biodiversity, or may inadvertently have considerable negative impacts on biodiversity. These include industrial sectors dependent upon extractive use of non-renewable resources, such as mining and energy; those which rely upon chemical or biological processes; those involved in manufacturing or the provision of services such as housing or transport; as well as sectors such as tourism and recreation. Each of these sectors impacts upon biodiversity in different ways, and at many different levels of activity. Such activities may result in habitat degradation, loss and fragmentation, the overexploitation of species, the pollution of soil, air and water, the invasion of harmful alien organisms, and/or climate change.

However, sectoral-specific strategies to ensure the sustainable use of components of biodiversity and minimise adverse impacts on biodiversity are only part of the solution. Biodiversity questions are largely cross-sectoral, and the only way in which conservation and sustainable use can be tackled effectively is by a collective endeavour which pulls together the seemingly diverse institutions characterising the various sectors.

The following objectives fall under this Goal:

10.1.3.1 Prevent ecological degradation, through enhancing ecological integrity and resilience;

10.1.3.2 Avoid and/or minimise adverse impacts of development and use on biodiversity and ecosystem services;

10.1.3.3 Enhance sustainable use of biological resources in terrestrial, freshwater, marine and coastal ecosystems;

10.1.3.4 Multisectoral plans, approaches, and practices promote biodiversity conservation and enhance ecological integrity;

10.1.3.5 Promote the conservation, wise use, and prevent the further loss, and degradation, of wetlands, strategic water source areas, and other ecological infrastructure;

10.1.3.6 Ensure the protection, conservation, and sustainable use of marine, estuaries, and coastal ecosystems and their natural resources;

10.1.3.7 Integrate biodiversity conservation and ecological integrity into land use planning and implementation;

10.1.3.8 International trade in biodiversity promotes biodiversity conservation, equitable socio-economic development, and protects biodiversity heritage;

10.1.3.9 Sustainable lifestyles promote socially and ecologically sustainable development.

10.1.4 GOAL 5: EQUITABLE ACCESS AND BENEFIT SHARING:

The intention of this goal is to ensure that benefits derived and shared from the use and development of South Africa's genetic and biological resources serve national interests

South Africa contains an extraordinary diversity of indigenous genetic material which has the potential to be used in a range of commercial and environmental applications. As is the case for other countries in the world, South Africa is heavily dependent upon material from elsewhere for its agriculture, horticulture, and forestry industries, as well as for the biological control of pest species and thus requires continued access to the broader gene pool of genetic resources located elsewhere in the world. This requires continued coordination and cooperation with other countries. There are many different types of genetic or biological resources that may be used for different purposes. For example, categories of plant genetic resources for food and agriculture may include wild species, wild relatives of crop species, landraces, primitive and obsolete varieties, modern varieties, breeding lines and experimental populations, and lines with specific genetic characteristics. Many other types of genetic or biological resources are used for such purposes as pharmaceutical development, traditional medicine, horticulture, personal care and cosmetics, foods or beverages, or environmental remediation. There are concerns with the ownership of biodiversity; the equitable distribution of benefits derived from the use of biodiversity; and the fair and equitable compensation for use of traditional or indigenous knowledge about the useful properties of biological resources.

South Africa is a favoured destination for "bioprospecting" companies seeking potential new crops and novel biochemical molecules with medicinal, agricultural, horticultural, environmental, or other economic potential. This is largely because of the country's high levels of endemism and diversity, comprehensive traditional or indigenous knowledge base of the fauna and flora, considerable scientific capacity, well-developed infrastructure, and well-managed protected areas and living collections, which enables the reliable sourcing of materials. Biotrade⁹ is emerging as a significant industry which sustainably uses wild or cultivated natural resources for social and economic development. It is a high potential sector which can enhance and conserve biodiversity, build rural economies, empower women and youth and also stimulate skills and technology development. Biotrade combines the traditional or indigenous knowledge of indigenous communities with modern manufacturing and emerging market demand of consumer economies.

The following objectives fall under this Goal:

10.1.4.1 Control access to South Africa's indigenous genetic and biological resources through the introduction of appropriate legislation and establishment of institutional structures;

10.1.4.2 Access to sources of genetic and biological material promotes biodiversity-based food security.

⁹ Biotrade is understood as harvesting, cultivation, processing and trade of products from indigenous plant species for the development of novel food, cosmetics and phytopharmaceutical products for local and international markets.

10.1.5 GOAL 6: ENHANCED CAPACITY:

The intention of this goal is to expand and develop capacity to conserve biodiversity, to manage its use, and to address factors threatening it.

This goal describes South Africa's plans to meet requirements of the CBD, concerning the expansion of human capacity to conserve biodiversity, to manage its use, and to address threats to it. South Africa's approach towards achieving this goal has three main components: (1) Increasing public awareness and stewardship of the value and importance of biodiversity, and public involvement in its conservation and sustainable use; (2) Improving the understanding of biodiversity through conducting research, improving biological inventories, establishing and maintaining monitoring systems, sharing information, and incorporating traditional knowledge; and (3) Strengthening existing management capacity through appropriate training.

Without the support and commitment of all South Africans, efforts to conserve this country's biodiversity are unlikely to succeed, and this is one of the most critical issues to address in the implementation of this White Paper. A narrow interpretation of biodiversity has predominated, directed at the need to preserve endangered species and maintain protected areas rather than at the broader development context which makes biodiversity relevant to the millions of people in South Africa who are dependent upon the country's components of biodiversity to fulfil their basic needs. This has been aggravated by the inaccessibility of protected areas to the poor, leading to the perception that conservation is elitist and irrelevant to the majority of South Africans.

A substantial amount of data and information that is necessary for biodiversity conservation and sustainable exists in South Africa. However, much of this information is in a form which cannot be easily used by managers, researchers, decision-makers, or the general public, and initiatives to collect data and information on biodiversity are uncoordinated. Considerable investment has been made in biological research in South Africa, resulting in a well-developed knowledge base and understanding concerning aspects of the country's biodiversity. However, gaps remain, in particular, the interactions between biological and social processes are poorly understood, and the causes underlying the decline in biodiversity. There is a need to accelerate the translation of research results into applied action, and so promote the conservation and sustainable use of biodiversity.

Scientific Biodiversity Assessments are increasingly and timeously used as mechanisms to compile and update knowledge and data on Biodiversity, ecosystem services, and their interlinkages. The NBA is therefore a primary tool for monitoring and reporting on the state of biodiversity in South Africa. Biodiversity inventorying and monitoring programmes are essential to strengthen South Africa's ability to detect and report on trends, plan accordingly, and manage effectively. Monitoring pressures on biodiversity, such as invasive species distribution and abundance, impacts of harvesting, mining operations, water pollution, and hydrological regime changes, is also crucial for biodiversity risk assessments and informed planning. Threats to biodiversity and human livelihoods like climate change cannot be realistically understood unless there is continuous, long-term, regular monitoring of relevant data.

South Africa has a vast traditional/ indigenous knowledge of biodiversity which has developed over millennia. However, much of this knowledge has been fractured by South Africa's colonial and Apartheid past, and by increased urbanisation, and, today, only pockets of traditional knowledge still exist, generally amongst older people in rural areas and traditional healers. Customary practices to maintain or enhance biodiversity have similarly been impacted by previous policies, particularly in instances where people were forcibly removed from their land and denied access to resources. An issue of contention relates to the fact that the considerable benefits which modern society has gained from the traditional/ indigenous knowledge and innovations of South Africa's people have resulted in few, if any, of such benefits being returned to the people from whom knowledge was derived. There is therefore a clear need to strengthen implementation of existing legal frameworks on traditional/indigenous knowledge, practices and cultures by protecting and recognising the value of such systems, and preventing their loss.

A common theme across the NBA 2018 was that of human capacity. The High Level Panel report in 2020 highlighted gaps, and the lack of articulation in legislation and policy for supporting education, skills development, and capacity building within the sector, especially in terms of redress, equity, and empowerment of PDIs. There are huge demands for accredited skills training, upskilling, mentorship, and high level skills across the sector workforce

The following objectives fall under this Goal:

- 10.1.5.1 Increase public education, awareness and stewardship of the value and importance of biodiversity, and public involvement in its conservation and sustainable use;*
- 10.1.5.2 Data and information the basis of decision making and practice;*
- 10.1.5.3 Knowledge and understanding informs effective decision making and practice;*
- 10.1.5.4 Monitoring and evaluation underpins biodiversity conservation, management, and sustainable use;*
- 10.1.5.5 Indigenous/ Traditional knowledge and practice provides localised solutions to biodiversity conservation and sustainable use;*
- 10.1.5.6 Enhance the capacity necessary to conserve and use South Africa's biological diversity sustainably.*

10.1.6 GOAL 7: BIODIVERSITY ECONOMY TRANSFORMED:

The intention of this goal is to create conditions and incentives that support the conservation and sustainable use of biodiversity.

South Africa's approach towards achieving this goal has two main components: (1) Promoting and developing economic opportunities that are compatible with and which complement the conservation and sustainable use of biodiversity; and (2) creating and implementing incentives that support the conservation and sustainable use of biodiversity.

Despite South Africa having an incredibly rich diversity in genetic and biological resources, the biodiversity economy has not reached its full potential as it remains largely unrecognised, underdeveloped and untransformed. Sustainable use of genetic and biological resources have been an integral part of populations' well-being for centuries, but has far greater potential to support many local economies and livelihoods in the country through the establishment of businesses and the creation of job opportunities for individuals and communities at every level of the variety of value chains within the biodiversity economy sector.

Both the bioprospecting and wildlife sub-sectors of the biodiversity economy have already demonstrated the potential for significant future development and growth. Growth in the wildlife and bioprospecting industries can make a significant impact on the national economy, while contributing to national imperatives such as job creation, rural development, transformation, and conservation of biodiversity.

However, for these two sectors to achieve their full potential, a strategic partnership between the State, private sector and communities is required. A National Biodiversity Economy Strategy NBES (NBES) seeks to contribute to the transformation of the biodiversity economy in South Africa through inclusive economic opportunities, reflected by a sector which is equitable; equitable access to resources, equitable and fair processes and procedures, and equitable in distribution of resources (i.e. business, human, financial, indigenous species, land, water) in the market. Working collaboratively and cooperatively, NBES provides the opportunity to develop the rural economy of the country, and address environmental and rural development imperatives of government.

South Africa has a substantial amount of legislation in place governing the conservation and use of natural resources. However, as is the case for other countries, these "command and control" mechanisms have not been adequate to address the underlying forces resulting in the loss of biodiversity. New approaches, such as those embraced by the Convention on Biological Diversity, are increasingly turning towards the use of incentives as instruments and mechanisms by which people can be motivated to conserve and use biodiversity sustainably. Consideration needs to be given to: (1) The need to remove existing incentives that discourage biodiversity conservation (so-called "perverse incentives"); and (2) the need to use an array of different instruments, based upon bioregional and social characteristics, as well as the nature of the threat to biodiversity, to encourage biodiversity conservation in different areas.

The following objectives fall under this Goal:

10.1.6.1 Promote and develop inclusive economic opportunities that are compatible with and which complement the conservation and sustainable use of biodiversity;

10.1.6.2 Create and implement incentives that support the conservation and sustainable use of biodiversity.

10.1.7 GOAL 8: PROMOTE THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY AT THE INTERNATIONAL LEVEL

The conservation of biodiversity is a global issue, requiring global action. Countries depend upon each other's biodiversity, and the loss of biodiversity represents a loss to all people. Moreover, the impacts of ecosystem degradation reach beyond national boundaries, requiring Transfrontier cooperation to be a necessary component of this policy.

Government is committed to safeguarding the planet's biotic wealth, recognising that the conservation of global biodiversity is a common concern of all nations. This commitment is reflected in the active participation of South Africa in the range of international agreements to which the country is a party, and in numerous other scientific and technical collaborations. South Africa must continue to strengthen efforts to cooperate on environmental matters at an international level. In addition to global cooperation, Government will continue to work as a member of the African group in international forums, of the Organisation of African Unity, and of the Southern African Development Community, to solve the problems of biodiversity loss on the continent and in the region, and to advance the interests of Africa internationally. South Africa has recognised the importance of the CBD for the country's economic development, and its considerable implications for the future use and conservation of our natural resources, and is committed to sustainable development and international co-operation on matters relating to environment, development, and human rights.

The following objective falls under this Goal:

10.1.7.1 Develop an integrated, coordinated, and effective approach to international and multilateral engagements on biodiversity conservation and sustainable use, and equitable benefit sharing.

10.2 Strategic Linkages and impact

The White Paper is aligned with Chapter 5 of the National Development Plan 2030 (Ensuring environmental sustainability and an equitable transition to a low-carbon economy), and responds to all of the Medium Term Strategic Framework (MTSF) Priorities 2019 – 2024.

The Constitution was a deliberate starting point, ensuring that all components of Section 24 of the Constitution of the Republic of South Africa guided this process, but also considering other rights such as Dignity, Equality, Culture, Property, and the principle of redress. The policy takes cognisance of other legislation across sectors, and at National and Provincial level, with consideration of the role of municipalities, as well as international commitments and obligations. This White Paper compliments the White Paper on Environmental Management Policy for South Africa (1998), in that it specifically covers areas of promoting conservation and securing sustainable use, which are not dealt with in that paper. The absence of such a White Paper creates a policy vacuum, resulting in a lack of coherence or integration, as well as the irresponsible and poor practices prevalent in the sector. In addition, the sector is largely untransformed following the end of Apartheid, and there is an urgent need to ensure equitable beneficiation from ecosystem services. The White Paper addresses these shortcomings. Global change, including climate change, habitat loss and transformation, invasive species, pollution, overharvesting (and illegal harvesting), results in ongoing loss of our biodiversity, ecological degradation, and decline of the ecosystem services from biodiversity and our ecological infrastructure.

The Policy Objectives and Outcomes give strong direction for the future of the sector and the country, highlighting the need for a new approach that is framed on progressive understanding of biodiversity conservation and sustainable use, with a strong localised context through adopting the principles of Ubuntu. As such, the White Paper emphasises the importance of people living in harmony with nature, and sets forth the vision "A prosperous nation, living in harmony with nature, where biodiversity is conserved for present and future generations, and secures equitable livelihoods and improved human well-being". The White Paper is aspirational in that it takes the concept of sustainability further, highlighting activities that enhance people and nature at the same time, is intended

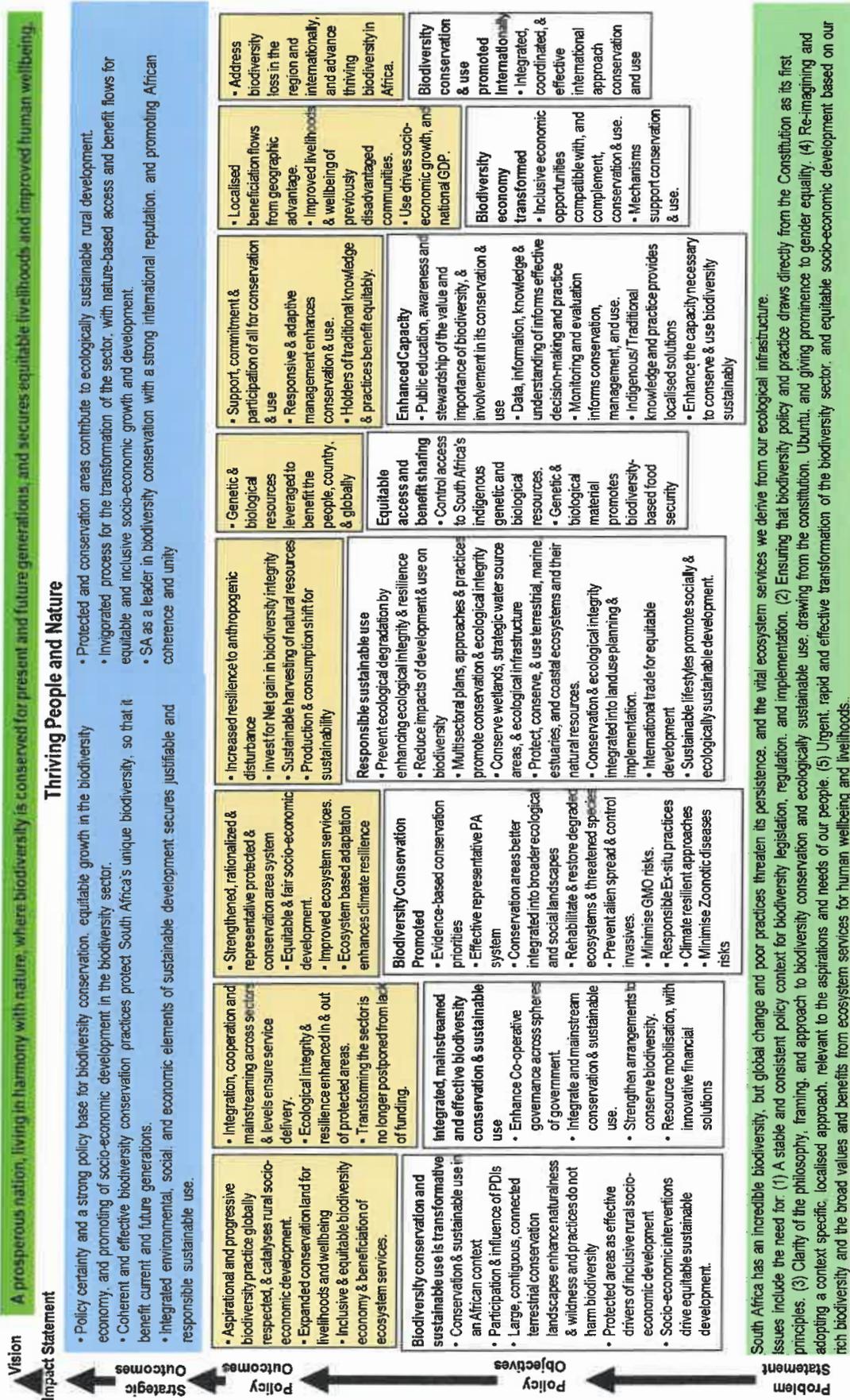
to encompass a vision that represents our path out of unsustainable practices, toward a world where all people have a high quality of life, a voice, and a nurturing earth supporting them. As such, the White Paper sets out an impact statement: "Thriving People and Nature".

The White Paper will achieve the following strategic outcomes:

- (a) Policy certainty and a stable base for biodiversity conservation and equitable growth and socio-economic development;
- (b) coherent and effective biodiversity conservation protects South Africa's unique biodiversity for current and future generations;
- (c) integrated environmental, social, and economic elements of sustainable development secures justifiable and responsible sustainable use;
- (d) re-imagined protected and conservation areas contributing to ecologically sustainable rural development;
- (e) invigorate transformation of the sector, with nature-based access and benefit flows for equitable and inclusive socio-economic growth and development; and
- (f) South Africa as a leader in biodiversity conservation with a strong international reputation, and promoting African coherence and unity.

Adopting this White Paper will set South Africa on a strong path of sustainable development based on our rich biodiversity and the valuable ecosystem services this provides. The sector will contribute to improving the livelihoods and well-being of our people, and growing the Gross National Product of the country. This is underpinned by strengthened conservation of our biodiversity heritage, restoration, rehabilitation, and rewilding of natural landscapes, and a robust evidence base for effective decisions on, and responsible practices for, sustainable use. The outcome of this will contribute strongly to the achievement of a broad range of the Sustainable Development Goals, as well as the Goals encapsulated within the National Development Plan and the Africa Agenda 2063.

10.3 Theory of Change (Figure 1)



10.4 Policy Objectives and expected outcomes

10.4.1 Placing Conservation in Context: a progressive definition of Conservation for use in Policy and Legislation

The definition of conservation speaks to an understanding of conservation whereby clarity is provided as to what conservation means in terms of protecting the environment for benefit of present and future generations. This, and the individual components of the environmental right frame the **intended outcomes** of promoting conservation.

This definition is then broken down to the different components of conservation **outputs** that can be promoted to achieve the above: protection, custodianship, care, maintenance, enhancement, rehabilitation, restoration, and recovery, of biological diversity and its components.

It should be noted that the definition does not include **activities** that would need to be undertaken in order to achieve the outputs, and, therefore, the intended outcomes. These activities are technical processes that provide the means to achieve the outputs, and include, inter alia, plan, mitigate, adapt, manage, control, offset, research, monitor, consult, report, assess, evaluate reflect, etc. Furthermore, each of these technical process activities would include particular activities tailored to the specific context and circumstance. These activities are, therefore, the means to achieve the end, in this case the outputs that can deliver on the intended outcomes.

It should be noted that there is a tendency to consider management as interchangeable with conservation, but the approach should emphasise conservation as the mandate, with management a function that is undertaken under specific circumstances, where control is, indeed, necessary.

Given this understanding, the primary objective and intent of legislation should, therefore, be to frame the intended outcomes and the outputs needed to achieve these, to ensure that reasonable legislative and other measures are provided. In addition to this primary objective, secondary objectives could include definition and regulation of activities that may need to be undertaken to achieve the outputs, and such regulation should be directed to ensure that activities do not compromise or undermine the achievement of the intended outcomes, and, thus, the ability to deliver on the environmental right embodied in the constitution.

The middle part of the definition "*in a manner that, where justifiable, secures equitable and ecologically sustainable use access, and sacred appreciation,*" gives a context for the outputs in terms of Section 1 and Section 9 of the constitution, which speaks to the need to achieve equity, and then emphasizes three elements of delivery on S24(b)(iii):

- (a) The ecologically sustainable use of the benefits and values of nature specifically;
- (b) the need to ensure access in order to achieve this right;
- (c) highlighting the often ignored importance of appreciation of the environment as a component of enjoying the environmental right (linked to well-being (Section 24(a), and use of non-economic benefits and values, linked also to the cultural rights of Section 30 and Section 31; and
- (d) including the requirement for justifiability, in terms of "while promoting justifiable economic and social development".

The third part of the definition "benefits and values that present and future generations derive from nature's contribution," emphasizes that:

- (a) the benefits and values that can be derived from nature are vast, and should be considered in their totality;
- (b) sustainability has to be inter-generational; and
- (c) we should explicitly recognize that these benefits and values that are derived are nature's contribution.

Finally, "*to improve the well-being of people consistent with Ubuntu*" emphasizes the intent of the legislation to provide a reasonable legislative measure that will improve the well-being of people through promoting conservation in the manner encapsulated in this definition, and giving effect to the preamble of the constitution: "*Improve the quality of life of all citizens and free the potential of each person*". This is placed within the philosophical framing

of Ubuntu, emphasizing an African approach that is consistent with the traditions, culture, knowledge, and aspirations of African people in terms of defining their well-being.

10.4.1.1 More detailed elaboration of the basis of each component of the definition

“Conservation¹⁰”, under the imperative of protection of the Environment, means

- (a) protection¹¹, custodianship¹², care¹³, maintenance¹⁴, rehabilitation¹⁵, restoration¹⁶, and recovery¹⁷, of biological diversity¹⁸ and its components,

¹⁰ **Conservation:** Constitution Section 24: Everyone has the right— (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that— (ii) promote conservation; noting that this is under the imperative of protection of the environment to give it clear context. This relates to the Framework for Sustainable Development 2008, which indicates social and economic components are embedded within environment.

¹¹ **Protection:** Constitution Section 24(b): Everyone has the right to have the environment protected; including in IUCN Definition of Conservation: “The protection, care, management and maintenance of ecosystems, habitats, wildlife species and populations, within or outside of their natural environments, in order to safeguard the natural conditions for their long-term permanence.”

¹² **Custodianship** –Public trust doctrine: NEMA: 2(4)(o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage.

¹³ **Care:** included in IUCN Definition of Conservation (see note above). NEMA 28. Duty of care and remediation of environmental damage. (1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment. NEMA 2(4)(a) (vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions.

¹⁴ **Maintenance:** included in IUCN Definition of Conservation (see note above); included in CBD definition of “In-situ conservation” means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings”; also NEMA Principles 2(4)(a)(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied; (ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

¹⁵ **Rehabilitation:** Constitution Section 24(b)(i) prevent Ecological degradation – conservation implies correction of previous degradation through rehabilitation; CBD Article 8(f): Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species. NEMA 2(4)(a)(i) and (ii) ...and remedied.

¹⁶ **Restoration:** Constitution Section 24(b)(i) prevent Ecological degradation – conservation implies correction of previous degradation through restoration; CBD Article 8(f): Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species; NEMA 2(4)(a)(i) and (ii) ...and remedied.

¹⁷ **Recovery:** Constitution Section 24(b)(i) prevent Ecological degradation – conservation implies correction of previous degradation through recovery of species; CBD definition of ‘in situ’ conservation (see maintenance note above); NEMA 2(4)(a)(i) and (ii) ...and remedied. Included in IUCN definition of in situ conservation (see above).

¹⁸ **Biological diversity and its components:** Convention on Biodiversity preamble: Biological Diversity and its components.

- (b) in a manner that, where justifiable¹⁹, secures²⁰ equitable²¹ and ecologically sustainable²² use²³, access²⁴, and sacred appreciation²⁵,
- (c) of the benefits and values²⁶ that present and future generations derive²⁷ from nature's contribution,
- (d) to improve²⁸ the well-being of people²⁹ consistent with Ubuntu³⁰.

10.4.2 Placing Sustainable Use in Context: a progressive definition for use in Policy and Legislation

A number of challenges have been identified in current processes and practices within the wildlife sector. These include identification of processes and practices that: (1) are not ecologically sustainable; (2) promote short-term economic gain for select few, and may lead to the degradation of the environment; (3) exacerbate poverty and inequality and undermine human dignity; (4) are often not socially or culturally sensitive given the significance of these species in the wild; (5) do not take into account the costs and risks to communities living with dangerous animals; and (6) relate to governance and institutional arrangements that hamper effective implementation of required interventions. These threaten South Africa's reputation as a conservation leader, and undermine

¹⁹ **Justifiable:** Constitution Section 24(b)(iii) while promoting justifiable economic and social development. The intention is that the use should contribute to economic and social development, and the inclusion of justifiable here makes reference not only to the requirement for justification, but also implies a link to economic and social development as a requirement.

²⁰ **Secures:** Constitution Section 24(b)(iii): Secure ecologically sustainable development and use of natural resources.

²¹ **Equitable:** Constitution Section 1: ... founded on the following values: (a) ... the achievement of equality; Section 9 (1) Everyone is equal before the law and has the right to equal protection and benefit of the law; NEMA 2(4) (d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

²² **Ecologically Sustainable:** Constitution Section 24(b)(iii): ecologically sustainable.

²³ **Use:** Constitution Section 24(b)(iii): ecologically sustainable ... use; CBD preamble: Determined to conserve and sustainably use biological diversity for the benefit of present and future generations; NEMA 2(4)(a) (vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

²⁴ **Access:** Implied in the right to benefit under Constitution Section 24(b). NEMA 2(4)(d) ... equitable access ... must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

²⁵ **Sacred Appreciation:** derives from Constitution Section 24 (a) well-being – appreciation links to existence value, sense of place, and other intangible components that are not inherent or assumed in use; The inclusion of Sacred links to the understanding that some values of biodiversity are sacred, and violating these creates taboo trade-offs (see Schwartz, M. W. 2021. Conservation lessons from taboos and trolley problems. *Conservation Biology* 35: 794-803; <https://doi.org/10.1111/cobi.13618>).

²⁶ **Benefits and values:** CBD preamble: Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components.

²⁷ **Present and future generations derive:** Constitution Section 24(b) for the benefit of present and future generations.

²⁸ **Nature's contribution to improve:** Constitution Section 24(b)(iii) promoting justifiable economic and social development.

²⁹ **Well-being of people:** Constitution Section 24(a) to an environment that is not harmful to their health or well-being; combined with Section (24(b): ... the environment protected, for the benefit; Preamble to the Constitution: Improve the quality of life of all citizens and free the potential of each person.

³⁰ **Ubuntu:** As an African social compact for just relations between humanity, and the whole creation, Ubuntu is relevant to African elephant conservation. Ubuntu promotes harmonious relations, based on respect for nature for nature's sake, economic and ecological justice for all, especially for communities that are negatively affected by ecological destruction and economic globalization (LenkaBula, P. (2008). Beyond Anthropocentricity – Botho/Ubuntu and the Quest for Economic and Ecological Justice in Africa. *Religion and Theology*, 15(3-4), 375-394. <https://doi.org/10.1163/157430108X376591>; van Norren, D. E. (2020). The Sustainable Development Goals viewed through Gross National Happiness, Ubuntu, and Buen Vivir. *International Environmental Agreements: Politics, Law and Economics*, 20(3), 431-458. <https://doi.org/10.1007/s10784-020-09487-3>). Relatedness to future generations as expressed in the notion of Ubuntu can contribute to an ongoing discourse in environmental philosophy about our moral obligations to future generations (Grange, L. L. (2015). Ubuntu/Botho as Ecophilosophy and Ecosophy. *Journal of Human Ecology*, 49(3), 301-308. <https://doi.org/10.1080/09709274.2015.11906849>). Ubuntu mitigates against the impact of capitalism and economic globalisation, harmful ecological practices, excessive accumulation of ecological resources, and privatisation of commons. Instead, it advances human dignity by promoting attitudes of care and nurture (LenkaBula, 2008, *ibid*).

competitiveness as a global ecotourism destination. Importantly, they highlight the undermining of ecological sustainability and ignoring social imperatives associated with transformation of the sector.

Considering sustainable development, and sustainability more broadly, these challenges are inconsistent with the definition of sustainable development in NEMA, which reads: "Sustainable development means the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations". Practices that present these are also inconsistent with the vision and principles contained within the National Framework for Sustainable Development (People - Planet - Prosperity) (2008).

The National Framework for Sustainable Development highlights that sustainable development is based on two major premises: equity within generations and between generations, and maintaining the integrity of natural, financial and human capital, to ensure that economic and social development is reconciled with environmental protection. The 2008 framework highlights the need to adopt a systems approach to frame the three elements of social, economic and environmental factors, emphasising the integration across these, as well as the importance of the governance system that holds other systems together (as per the Figure 2 below from the National Framework for Sustainable Development (2008)).

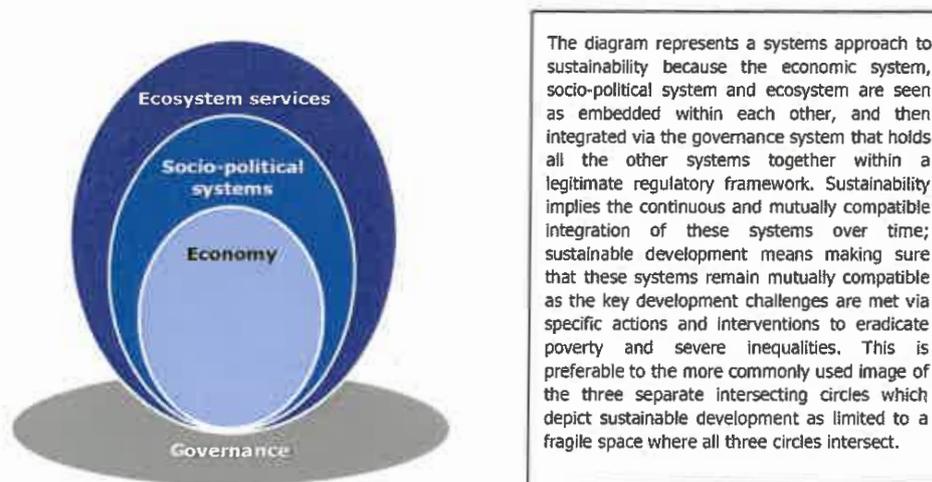


Figure 2: Systems approach to sustainable development, as found in the NFSD.

NEMBA defines sustainable use: in relation to the use of a biological resource, means the use of such resource in a way and at a rate that (a) would not lead to its long-term decline; (b) would not disrupt the ecological integrity of the ecosystem in which it occurs; and (c) would ensure its continued use to meet the needs and aspirations of present and future generations of people. However, in considering the challenges posed and potential solutions, this definition has become too narrow, dated within the current South African context, and is not aligned with a systems approach to sustainability as envisaged within the National Framework for Sustainable Development. The term "sustainable use" should not be narrowly construed. It must be understood in the wider constitutional legal and socio-economic context. This is emphasised by the Constitutional Court in stating³¹ "... NEMA makes it abundantly clear that the obligation of the environmental authorities includes the consideration of socio-economic factors as an integral part of its environmental responsibility." Furthermore, that "importantly, these [NEMA] principles provide guidance for the interpretation and implementation not only of NEMA but any other legislation that is concerned with the protection and management of the environment. It is therefore plain that these principles must be observed as they are of considerable importance to the protection and management of the environment." Therefore, all of the NEMA principles, among other factors, should be considered in framing sustainable use.

³¹ Fuel Retailers Association of Southern Africa v Director General Environmental Management, Department of Agriculture, Conservation and Environment Mpumalanga Province and Others CCT 67/06 Judgment date: 7 June 2007, see below.

An important third dimension of consideration, in addition to sustainable development and sustainable use, is ecological sustainability, as required by the constitution. This was emphasised by the Constitutional Court: "It envisages that decision-makers guided by the concept of sustainable development will ensure that socio-economic developments remain firmly attached to their ecological roots and that these roots are protected and nurtured so that they may support future socio-economic developments."³²

Finally, sustainable use needs to consider the needs of society as a whole: "The very idea of sustainability implies continuity. It reflects a concern for social and developmental equity between generations, a concern that must logically be extended to equity within each generation. This concern is reflected in the principles of inter-generational and intra-generational equity which are embodied in both Section 24 of the Constitution and the principles of environmental management contained in NEMA" "It is, therefore, not enough to focus on the needs of the [individual] while the needs of the society are neglected"³³. The definition for sustainable use in this White Paper will ensure ecological sustainability by requiring adequate consideration of the persistence of species and ecological resilience of ecosystems.

The Principles and Policy Objectives contained within this White Paper, recognise the need adopt a systems approach towards sustainability. Firstly, the Principles and Policy Objectives provide a much stronger recognition of the primacy of ecological sustainability than the current definition of sustainable use in NEMBA, in line with the constitution. Secondly, the Principles and Policy Objectives highlight the critical need to forefront the social dimension of the massive potential of the environment in general, and, biodiversity particularly, to eradicate poverty, promote equity, and enhance dignity and respect of rural people.

In posing these Principles and Policy Objectives, sustainable use in South Africa has been reconceptualised to change to a more systems approach; an approach that is aligned with the economic, social, and environmental factors for sustainable development, as envisaged in NEMA. The Principles and Policy Objectives further give the necessary primacy to ecological sustainability as envisaged by the Constitution, and fore fronting dignity, equality, and redress as imperatives that need to drive transformation of the sector.

The definition for sustainable use in the definitions section is derived from the Constitution, NEMA principles, the Principles contained within this White Paper, and relevant Acts and judgements. An expanded definition is provided below to assist with interpretation and implementation of the definition, and the contents of this White Paper.

10.4.2.1 Sustainable Use of components of biodiversity

This White Paper adopts the definition of sustainable use as contained within the Definitions section. The intention of this expanded explanation, indicating sources for various clauses, is to provide additional clarity for interpretation and implementation of the definition.

"Sustainable Use" in relation to the use of any component of biodiversity³⁴, means the use of such components in a responsible way, and that:

(a) *does not contribute to the long-term decline in the wild*³⁵ or *disrupt the genetic integrity of the population* [The integrity of the genetics of a population has become an important consideration in addition to the population demography per se; NEMBA provides for the management and of the use of components of such biological diversity; components include genes and genomes³⁶]

(b) *does not disrupt the ecological integrity of the ecosystem of which occurs*³⁷ [The use secures ecological sustainability through ensuring ecological resilience and maintaining the integrity of natural capital, in that the use

³² Fuel Retailers Association of Southern Africa v Director General Environmental Management, Department of Agriculture, Conservation and Environment Mpumalanga Province and Others CCT 67/06 Judgment date: 7 June 2007 clause 58.

³³ Fuel Retailers Association of Southern Africa v Director General Environmental Management, Department of Agriculture, Conservation and Environment Mpumalanga Province and Others CCT 67/06 Judgment date: 7 June 2007 clause 75 and 76.

³⁴ NEMBA 2: The objectives of this Act are (a) within the framework of the NEMA, to provide for – (i) the management and conservation of biological diversity within the Republic and of the use of components of such biological diversity.

³⁵ As per existing NEMBA.

³⁶ NEMBA definitions: "components", in relation to biodiversity, includes species, ecological communities, genes, genomes, ecosystems, habitats and ecological processes"

³⁷ Modified from existing NEMBA.

would not jeopardise the ecological integrity of the ecosystem in which it occurs³⁸, and disturbance to the ecosystem and loss of biodiversity are avoided, or minimised and remedied³⁹].

(c) *ensures continued benefits to people that are fair, equitable and meet the needs and aspirations of present and future generations*⁴⁰. [The very idea of sustainability implies continuity. It reflects a concern for social and developmental equity between generations, a concern that must logically be extended to equity within each generation. This concern is reflected in the principles of inter-generational and intra-generational equity which are embodied in both Section 24 of the Constitution and the principles of environmental management contained in NEMA (Section 1(1)(xxix) of NEMA defines sustainable development to mean the integration of social, economic and environmental factors into planning implementation and decision-making so "as to ensure that development serves present and future generations")⁴¹; Takes place within an integrated governance system and legitimate regulatory framework⁴² that promotes the participation of all interested and affected parties⁴³. Negative impacts on people's environmental rights be anticipated and prevented, or minimised and remedied⁴⁴, and that the rights of the previously disadvantaged are protected and enhanced, fore fronting dignity, and equality, as imperatives that need to drive transformation of the sector⁴⁵; such that the environment is protected for the benefit of present and future generations⁴⁶]

(d) *in the case of animals, is humane, and does not compromise their well-being* [The use of animals shows respect and concern for individual animals ⁴⁷, is humane, responsible, and justifiable ⁴⁸, and considers their welfare and well-being⁴⁹, and does not wantonly or unreasonably or negligently causing any unnecessary suffering to any animal⁵⁰. An animal must be handled humanely during all steps of killing, including on the veld⁵¹]

³⁸ NEMA: 2(4) (a) (vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised; and National Framework for Sustainable Development (People - Planet – Prosperity) (2008): maintaining the integrity of natural, financial and human capital, to ensure that economic and social development is reconciled with environmental protection; and Fuel Retailers Association of Southern Africa v Director General Environmental Management, Department of Agriculture, Conservation and Environment Mpumalanga Province and Others CCT 67/06 Judgment date: 7 June 2007, clause 58: "socio-economic developments remain firmly attached to their ecological roots and that these roots are protected and nurtured so that they may support future socio-economic developments".

³⁹ NEMA: 2(4) (a) (i) that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied.

⁴⁰ Modified from existing NEMBA.

⁴¹ Fuel Retailers Association of Southern Africa v Director General Environmental Management, Department of Agriculture, Conservation and Environment Mpumalanga Province and Others CCT 67/06 Judgment date: 7 June 2007, clause 75.

⁴² National Framework for Sustainable Development (People - Planet – Prosperity) (2008).

⁴³ NEMA: 2(4) (f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

⁴⁴ NEMA: 2(4) (a) (viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

⁴⁵ NEMA: 2(4) (d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

⁴⁶ Constitution of South Africa: S24 (b); and National Framework for Sustainable Development (People - Planet – Prosperity) (2008): sustainable development is based on two major premises – equity within generations and between generations.

⁴⁷ National Society for the Prevention of Cruelty to Animals V Minister of Justice and Constitutional Development and another ZACC 46, note 58.

⁴⁸ As per S24 (b) (iii).

⁴⁹ As per Animals Protection Act, and NEMLA revisions.

⁵⁰ Animals Protection Act 2(1)(r) by wantonly or unreasonably or negligently doing or omitting to do any act or causing or procuring the commission or omission of any act, causes any unnecessary suffering to any animal.

⁵¹ Meat Safety Act applies to species listed in Schedule 1, and 11(1)(h) An animal presented for slaughter at an abattoir must be handled humanely during loading, transportation, off-loading, housing, immobilising and killing as prescribed in accordance with the requirements of the Animals Protection Act; MSA 1(1). (xxii) "slaughter" means "the killing of an animal and the performance of the usual accompanying Acts in connection therewith in order to obtain meat and animal products therefrom; MSA 1(1)(xxiii)] A "slaughter facility" is defined as "any facility, whether stationary or mobile, at or on which animals are

10.4.3 Placing animal well-being in context

The following gives additional clarity for interpretation of the definition of well-being, meaning *that the holistic circumstances and conditions of an animal are conducive to its physical, physiological, and mental state and quality of life, and its ability to cope with its environment*. This requires consideration of its welfare in relation to how it is coping with its environment, including the humans that are part of that environment. Conservation, management, and use of animal populations should be humane, socially responsible, and scientifically prudent. Animals shall be treated with respect and dignity throughout their lives and, when necessary, provided a humane death. In line with our custodial responsibilities in guarding the interests of animals, interventions should be humane, prevent unnecessary suffering, and ensure quality of life within its environment. This does not imply that natural processes such as predation should be prevented or interfered with, but rather that anthropogenic interventions and activities must consider these aspects.

Furthermore, anthropogenic activities must be regulated by legislation, international conventions, and best practice. The broader Agricultural legislation applicable to wild animals, for example, the Animals Protection Act governs animal welfare in South Africa, and the Meat Safety Act humane slaughter of listed animals. The International World Organisation for Animal Health (OIE), to which South Africa is a signatory, vision, as per the adopted OIE Global Animal Welfare Strategy, is “a world where the welfare of animals is respected, promoted and advanced, in ways that complement the pursuit of animal health, human well-being, socioeconomic development and environmental sustainability.” “Animal welfare is closely linked to animal health, the health and well-being of people, and the sustainability of socio-economic and ecological systems.” “[...] associated ethical responsibility to ensure any such use is humane, as defined through the OIE’s international standards for animal welfare, in recognition of the sentience of animals”⁵².

Many still perceive animal welfare as a cost rather than a benefit. In a similar way to the relationship between animal and human health, there is a strong link between good animal and human welfare.⁵³ “Animal welfare is a common good and, as such, a shared responsibility and an ethical obligation. A common good is typically achieved through actions of a community that result in uplifting the well-being of its members. It can be manifested through a sense of shared values such as the welfare of animals.”⁵⁴

There is a need to harmonise animal ethics and conservation within a single framework rather than having them as separate or competing interests, rather than trying to classify a problem as a conservation problem or an animal welfare problem, they are different levels from which to look at the same problem⁵⁵. This is why Fraser’s “practical” ethic requires us to act at the level of the individual animal (to provide good lives for animals in our care and to treat suffering with compassion, to be mindful of unseen harm (to individuals)), but also more broadly to be mindful of unseen harm (to others), and to protect the life-sustaining processes and the balances of nature⁵⁶.

Fraser, in developing his practical ethic for animal welfare⁵⁷ identified the need to find common ground between the concerns of conservation biologists and animal welfare scientists. Besides considering the animal directly, and its well-being, he emphasised that it is also important to be mindful of unseen harm (unintended consequences), and to protect life sustaining processes and balances of nature. He noted a recognition that human behaviour impacts animals, both intentionally and unintentionally, as well as the limitations of commonly taught ethical frameworks and concerns about their applicability to practice. By applying each principle to our interactions with

slaughtered or intended to be slaughtered, and includes areas in or adjacent to such facilities [...]; see also prohibited hunting methods in the TOPS regulations, permissible methods for killing damage causing animals, and Norms and Standards for the Management of Elephants in South Africa.

⁵² <https://www.oie.int/app/uploads/2021/03/en-oie-aw-strategy.pdf>.

⁵³ Garcia Pinillos, R. Appleby, M.C., Scott-Park, F. & Smith, C.W. 2015. One Welfare. *Veterinary Record* 629-630. doi: 10.1136/vr.h6830

⁵⁴ Keeling, L., Tunón, H., Olmos Antillón, G., Berg, C., Jones, M., Stuardo, L., Swanson, J., Wallenbeck, A., Winckler, C. & Blokhuis, H. 2019. Animal Welfare and the United Nations Sustainable Development Goals. *Frontiers in Veterinary Science* 6:336. doi: 10.3389/fvets.2019.00336

⁵⁵ Fawcett, A., Mullan, S. & McGreevy, P. 2018. Application of Fraser’s “Practical” Ethic in Veterinary Practice, and Its Compatibility with a “OneWelfare” Framework. *Animals*, 8, 109; doi:10.3390/ani8070109

⁵⁶ Fawcett et al. *ibid*.

⁵⁷ Fraser, D. 2012. A “Practical” Ethic for Animals. *J Agric Environ Ethics* (2012) 25:721–746. DOI 10.1007/s10806-011-9353-Z

animals, Fraser's approach requires us to consider the welfare of individual animals that are directly involved, the well-being of human stakeholders (both direct, such as animal owners, and indirect, such as members of the community), and the environment. Thus, it elegantly gels with the one welfare framework.

The 'One Welfare' concept builds upon and complements the development of the 'One World, One Health' concept to achieve fully comprehensive approaches in support of global sustainable development⁵⁸. "Similar to One Health, One Welfare looks at issues from a wider, national, global and holistic perspective. ... refers to not only animal welfare but includes human welfare and societal mental health, as well as environmental conservation. It uses One Health concepts and ideas and applies them to welfare and environmental issues."⁵⁹ "Complex issues of human and animal welfare, and environmental conservation will only become more important in global society. One Welfare will promote not only animal welfare but human and societal well-being."⁶⁰

"One Welfare serves to highlight the interconnections between animal welfare, human well-being and the environment. It fosters interdisciplinary collaboration to improve human and animal welfare internationally. "One Welfare' is not intended as a replacement for 'animal welfare' but as a tool to mainstream animal welfare more effectively into wider policy frameworks and projects globally to help improve communication, coordination and collaboration. Integrating 'One Welfare' with 'One World, One Health' can strengthen and help to better integrate stakeholder liaison by capturing all relevant issues involving animals and our society in a holistic way."⁶¹

⁵⁸ Garcia, R. 2017. 'One Welfare': a framework to support the implementation of OIE animal welfare standards. OIE Bulletin 2017: 1-8. Available at: https://www.onewelfareworld.org/uploads/9/7/5/4/97544760/bull_2017-1-eng.pdf

⁵⁹ Bourque, T. 2017. President's Message: One Welfare. Canadian Veterinary Journal 58: 217-218. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5302194/>

⁶⁰ Bourque, T. 2017. Ibid.

⁶¹ Garcia, R. 2017. Ibid

10.5 POLICY OBJECTIVES AND EXPECTED OUTCOMES (TABLE 1)

GOAL 1: BIODIVERSITY CONSERVATION AND SUSTAINABLE USE IS TRANSFORMATIVE: gives effect to Section 24, the environmental right, and other human rights, facilitates redress, and promotes transformation.		
Policy Objective	Expected Output	Expected Outcome
1.1. Enable transformation of biodiversity conservation in an African context.	<ol style="list-style-type: none"> 1. An understanding of biodiversity conservation which emphasises the constitutional imperatives within the environmental right, in line with the principles of Ubuntu. 2. Biodiversity conservation and sustainable use plans and practices shifts from inputs to outcomes based approach, prioritising delivery on key elements. 3. Conservation and sustainable use approaches and practices that harm our standing, image and reputation ended or revised. 4. Conservation and sustainable use plans and practices respond strongly to global change, biodiversity relevant UN Sustainable Development Goals, and Africa Agenda 2063. 5. Biodiversity conservation secures ecologically sustainable use to drive transformative socio-economic development in South Africa. 	<ol style="list-style-type: none"> 1. Clear understanding of the intent and aspirations of South Africa, in promoting conservation in order to achieve protection of the environment for present and future generations. 2. The constitutional outcome of protecting the environment for present and future generations through promoting conservation becomes the guiding star for all biodiversity sector policy, legislation, regulation, and practice. 3. Effective conservation practice and resource allocation delivers identified outcomes. 4. Progressive conservation practice becomes a catalyst for growing a globally respected biodiversity sector that drives rural economic development. 5. South Africa is highly respected, greatly influences and leads African and global biodiversity agendas.
1.2. Enable sustainable use for ecological sustainability and inclusive socio-economic development.	<ol style="list-style-type: none"> 1. An understanding of sustainable use that protects biodiversity and sustains livelihoods, and clarifies the responsibilities incumbent on use. 2. A framework for ecologically sustainable use enables transformative, inclusive, and responsible use of biological resources along the whole value chain. 	<ol style="list-style-type: none"> 1. Clear understanding of the intent and aspirations of South Africa, and the world, in terms of securing ecologically sustainable use to promote justifiable economic and social development. 2. Responsible sustainable use ensures ecological sustainability, inclusive and meaningful participation in the biodiversity economy, and catalyses rural socio-economic development. 3. The constitutional outcome of protecting the environment for present and future generations through securing ecologically sustainable use becomes the guiding star for all biodiversity sector policy, legislation, regulation, and practice.

<p>1.3. Adopt an integrated Conservation Philosophy that is in line with the principles of Ubuntu.</p>	<p>1. A strategy for adopting a philosophical framing of Ubuntu for conservation and ecologically sustainable use, emphasizing a localised approach that is in line with the traditions, culture, knowledge and aspirations of African people in terms of defining their well-being.</p> <p>2. African perspectives, approaches, needs, and aspirations inculcate and pervade the philosophy and approach to biodiversity conservation and sustainable use, empowering traditional leaders and healers as influential and impactful leaders of the sector, and as equal and meaningful participants.</p> <p>3. A strategy for preservation of culture and traditional practices associated with biodiversity, ensuring and enhancing the spiritual and sacred contribution of nature to people, especially for fronting the close connection of African people with nature and the environment, and of living in harmony with nature.</p> <p>4. Promoting connectedness with ancestors and previous generations through cultural, traditional and spiritual practices based on biodiversity and nature.</p> <p>5. Participatory and consensus approaches throughout the biodiversity sector promote stakeholder influence, and communal rather than individual outcomes.</p> <p>6. Processes and practices draw on evidence-base and specialised expertise in an adaptive manner that includes monitoring, assessment, evaluation and reflection.</p>	<p>4. Biodiversity contributes substantially to National GDP and to addressing SA's triple challenges of poverty, unemployment, and inequality.</p> <p>1. The majority of South Africans shape the future of South African biodiversity sector and sustainable use.</p> <p>2. The broad values of ecosystem services are realised and enhanced for the majority of South Africans.</p> <p>3. The integrity and importance nature as a key component of African traditional culture is restituted and restored.</p> <p>4. Evidence base, whether scientific, traditional, or other sources, underpins integrated conservation outcomes.</p> <p>5. African traditional leaders and healers are empowered and respected as influential participants, leading transformation of the biodiversity sector.</p> <p>6. Lead globally to inculcate an African approach to biodiversity conservation and sustainable use, including into multilateral engagements and agreements.</p>
<p>1.4. Adopt practices that do not harm biodiversity.</p>	<p>1. Animal well-being, based on approaches such as one welfare, integrated into biodiversity policy, tools, and practice.</p> <p>2. Humane and responsible standards and practices, including for animal welfare and well-being, incorporated into the ethos and regulation of wildlife management and use in South Africa.</p> <p>3. Legislation and practices aligned with an integrated animal well-being approach.</p> <p>4. Education, capacity building, and awareness of animal well-being and associated concerns builds collaboration across the sector.</p>	<p>1. Biodiversity sector gives effect to s24 of the Constitution.</p> <p>2. Animal well-being is considered and achieved in biodiversity conservation and sustainable use practice and procedures.</p> <p>3. Collective and common understanding of animal welfare and well-being across the biodiversity sector.</p> <p>4. Strong global reputation for responsible and humane biodiversity conservation and sustainable use of biodiversity.</p>

<p>1.5. Promote participation and influence of previously disadvantaged individuals in biodiversity conservation and sustainable use.</p>	<p>1. Perspectives, approaches, and women and youth needs, and aspirations inculcate and pervade the philosophy and approach to biodiversity conservation and sustainable use.</p> <p>2. A shift from the current militarised, fortress, command and control, neo-protectionist based on prioritising the biophysical and economic aspects over the social and societal components of nature, and ecosystem services.</p> <p>3. A baseline of the current status of women and youth in biodiversity conservation and sustainable use enables strong transformative trajectory.</p> <p>4. Mechanisms and tools adequately, effectively, and efficiently include and empower women and youth in biodiversity conservation and sustainable use.</p>	<p>1. The broad values of ecosystem services are realised and enhanced for women and young South Africans.</p> <p>2. The integrity and importance a gender sensitive and responsive approach, and female and youth perspective of nature as a key component social cohesion and society, is restituted and restored.</p> <p>3. Women and youth are empowered as equal and influential participants, leading transformation of the biodiversity sector.</p> <p>4. Inclusive conservation model that is cognisant of traditional rights, women, and youth.</p> <p>5. Lead globally to inculcate a gender sensitive and responsive approach to conservation, that forefronts social cohesion and societal integrity, and to champion this into multilateral engagements and agreements.</p>
<p>1.6. Create large, contiguous, connected terrestrial conservation landscapes that enhance naturalness and wildness</p>	<p>1. Massive, well-functioning conservation areas with enhanced wild sense of place, with free-roaming wildlife and their habitats, and including communal and private lands.</p> <p>2. Protected area expansion through creating larger contiguous areas by dropping fences and creating corridors, reducing management interventions.</p> <p>3. Human wildlife co-existence enhances human well-being.</p> <p>4. Transfrontier planning increase scaling with neighbouring countries, leveraging regional socio-economic development.</p> <p>5. African countries to partner for synergistic approach for empowerment and ownership of the wildlife sector by Africa</p>	<p>1. Increased wildness, naturalness, and well-being of fauna.</p> <p>2. Enhanced sense of place and wildness of natural areas.</p> <p>3. Sufficient, representative, and cohesive area protected.</p> <p>4. Communities in traditional authority areas embrace nature and wildlife in the manner envisaged by "living in harmony with wildlife".</p> <p>5. South Africa a destination of choice for international tourists to drive step-change in bio-economy.</p>
<p>1.7. Ensure protected areas as effective drivers of inclusive socio-economic development.</p>	<p>1. A Strategy and Action Plan for State and other protected areas to promote conservation scaling and enhance socio-economic outcomes.</p> <p>2. National Protected Area Expansion Strategy enhances rationalisation and linkages.</p> <p>3. Institutional arrangements for State protected areas promote consolidating governance and operational costs.</p>	<p>6. South Africa leads in bringing Africa together behind an African approach to protection of the environment, and securing beneficiation from ecosystem services.</p> <p>1. Expanded area under protection and conservation.</p> <p>2. Improved governance and management of protected areas.</p> <p>3. Step-change in biodiversity economy driven by State protected areas.</p>

<p>4. State agencies' partnerships with privately owned areas more equal, balanced, and promote holistic outcomes.</p> <p>5. Co-management arrangements with communities, and arrangements for incorporation of community owned land, more equal, balanced, and promote holistic outcomes.</p> <p>6. Biodiversity economy strategy promotes access and unlocks ecotourism and hunting benefit streams from protected areas to adjacent communities.</p>	<p>4. Meaningful community participation, influence and benefit from protected areas.</p> <p>5. Protected areas provide localised community-based wildlife economic value chains.</p>
<p>1.8. Secure socio-economic interventions that drive equitable sustainable development.</p>	<p>1. A prosperous and equitable society living in harmony with our natural resources.</p> <p>2. Inclusive and equitable biodiversity economy with redress, full access, and beneficiation of ecosystem services.</p> <p>3. Previously disadvantaged individuals, including women, youth, and those with disabilities, gain full access to participate and contribute to the biodiversity economy.</p> <p>4. Both freshwater and marine ecosystems more highly valued, with associated increased protection and remediation.</p> <p>6. The values and benefits of biodiversity well established and integrated into South African society.</p> <p>7. Terrestrial, freshwater and marine biodiversity components form integrated unique selling point for socio-economic development and transformation.</p> <p>8. Localised interpretation of biodiversity unique selling point influence municipal development plans, and District Development Model.</p> <p>9. The biodiversity economy, expanded and driven by international tourism, drives rural socio-economic development, with step change in national GDP.</p>
<p>4. State agencies' partnerships with privately owned areas more equal, balanced, and promote holistic outcomes.</p> <p>5. Co-management arrangements with communities, and arrangements for incorporation of community owned land, more equal, balanced, and promote holistic outcomes.</p> <p>6. Biodiversity economy strategy promotes access and unlocks ecotourism and hunting benefit streams from protected areas to adjacent communities.</p> <p>1. Innovative mechanisms and tools with stakeholder partnerships, including communities, drive key components of the biodiversity economy.</p> <p>2. Traditional and indigenous methods, approaches, and uses of the wildlife estate (Ubuntu - living in harmony with nature), reinstated</p> <p>3. Traditional and other communities empowered to support addressing socio-economic challenges, reduce environmental vulnerability, and promote coexistence.</p> <p>3. Enhanced ecotourism based wildlife economy nodes integrated into municipal development plans and schemes.</p> <p>4. Wildlife estate leveraged for transformation of rural communities through strategic investments, including rewilding, and promoting ownership of and access to by previously disadvantaged individuals.</p> <p>5. Integrated wildlife estate land-reform programme using a range of socially responsible, economically viable, and ecologically sustainable models, provides access to the full value chain for African entrepreneurs, women and youth.</p> <p>6. Advocacy, education, and awareness strategy mainstreams the values and benefits of biodiversity conservation and sustainable use into government and society.</p> <p>8. Ecologically sustainable use of marine and freshwater biodiversity for driving socio-economic development, including SMME value chains based on subsistence fishing and harvesting, where appropriate.</p>	<p>4. State agencies' partnerships with privately owned areas more equal, balanced, and promote holistic outcomes.</p> <p>5. Co-management arrangements with communities, and arrangements for incorporation of community owned land, more equal, balanced, and promote holistic outcomes.</p> <p>6. Biodiversity economy strategy promotes access and unlocks ecotourism and hunting benefit streams from protected areas to adjacent communities.</p> <p>1. Innovative mechanisms and tools with stakeholder partnerships, including communities, drive key components of the biodiversity economy.</p> <p>2. Traditional and indigenous methods, approaches, and uses of the wildlife estate (Ubuntu - living in harmony with nature), reinstated</p> <p>3. Traditional and other communities empowered to support addressing socio-economic challenges, reduce environmental vulnerability, and promote coexistence.</p> <p>3. Enhanced ecotourism based wildlife economy nodes integrated into municipal development plans and schemes.</p> <p>4. Wildlife estate leveraged for transformation of rural communities through strategic investments, including rewilding, and promoting ownership of and access to by previously disadvantaged individuals.</p> <p>5. Integrated wildlife estate land-reform programme using a range of socially responsible, economically viable, and ecologically sustainable models, provides access to the full value chain for African entrepreneurs, women and youth.</p> <p>6. Advocacy, education, and awareness strategy mainstreams the values and benefits of biodiversity conservation and sustainable use into government and society.</p> <p>8. Ecologically sustainable use of marine and freshwater biodiversity for driving socio-economic development, including SMME value chains based on subsistence fishing and harvesting, where appropriate.</p>

<p>9. A strategy and action plan for growing freshwater and marine biodiversity based ecotourism, integrating better with terrestrial ecotourism, and targeting transformation opportunities, with localised SMMEs where there is high yield potential and low biodiversity risk.</p>	
<p>GOAL 2: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Policy and practice is integrated across government sectors and levels of government to ensure biodiversity contributes more meaningfully to justifiable sustainable development, but that development does not compromise the conservation and sustainable use of biodiversity for present and future generations.</p>	
<p>Policy Objective</p>	<p>Expected Outcome</p>
<p>2.1. Enhance co-operative governance across spheres of government.</p>	<p>1. Develop integrated and coherent cross sectoral strategies for effective and efficient biodiversity conservation and sustainable use, including approaches, learning, experience and practice across, for example:</p> <ul style="list-style-type: none"> (a) Terrestrial, Freshwater, Marine, and Forest components of DFFE; (b) Mandated National and Provincial Conservation authorities and agencies; and (c) Terrestrial Biodiversity (historical DFFE), Marine, Forestry, Agriculture, Rural Development, Land Reform, Water Affairs, Tourism, Small Business Development, and Social Development.
<p>2.2. Integrate and mainstream the conservation and sustainable use of biological diversity into all sectoral and cross-sectoral work at all levels of government and in society.</p>	<p>1. National Biodiversity Framework (NBF) integrates all existing biodiversity documentation into an integrated framework with targeted national strategic objectives.</p> <p>2. Mechanisms and tools inculcate biodiversity conservation and sustainable use into National, Provincial, and Municipal socio-economic development plans, and District Development Model.</p> <p>3. All organs of state responsible for activities affecting biodiversity, biodiversity conservation, or sustainable use, implement sector-specific plans, and mainstream and integrate into relevant sectoral budgets.</p> <p>4. National intersectoral mechanisms coordinate, and integrate government policies and actions that directly or indirectly affect biodiversity.</p> <p>5. Measures account for the full environmental, social, and economic costs and benefits of conserving and using biodiversity sustainably, developed and implemented.</p>
	<p>1. Streamlined, effective, and efficient practice and approaches across sectors and levels ensure service delivery to the people of South Africa.</p> <p>2. Coherent and simplified tools for different sectors to easily incorporate (mainstream) biodiversity conservation and sustainable use.</p>
	<p>1. South African domestic and foreign policies, plans and programmes support biodiversity conservation and sustainable use.</p> <p>2. Streamlined and simplified policies and plans enable effective and efficient deployment of limited resources to deliver on common purpose.</p> <p>3. Biodiversity impacts and ecological integrity considered by all sectors in planning and implementing respective mandates.</p> <p>4. Increased sustainability, such that socio-economic development enriches rather than degrades biodiversity.</p> <p>5. Justification for ecologically sustainable use for socio-economic development given stronger effect.</p> <p>6. Policy coherence across the sector for biodiversity conservation and sustainable use.</p>

<p>2.3. Strengthen arrangements to conserve biodiversity, both inside and outside of protected areas.</p>	<p>6. Integrated conservation planning framework across spheres of government to create common purpose, priorities, tools and indicators for effective and efficient resource use.</p> <p>1. New and updated mechanisms such as legislation, regulations, planning controls, guidelines, incentives, and protected area designations, give priority to components of biodiversity requiring urgent protective measures;</p> <p>2. Integrated legislation, regulations and procedures eliminate duplication, avoid conflicting interpretations and implementation, and provide uniform legal coverage for the protection of threatened species, habitats, and the regulation of international and domestic trade.</p> <p>3. Appropriate measures and tools developed and implemented to prevent, avoid, mitigate and/or manage human-wildlife conflict arising from biodiversity conservation and sustainable use.</p> <p>4. Appropriate measures and tools developed and implemented to prevent, avoid, mitigate and/or manage conflict and impacts arising from use of natural resources on biodiversity conservation and sustainable use.</p>	<p>1. Integrated approach to conservation of biodiversity, with coherence across tools.</p> <p>2. Priority biodiversity components afforded bespoke protective measures.</p> <p>3. Ecological integrity and resilience enhanced across protected and non-protected areas.</p> <p>4. Evidence-base promotes communication and collaborative win-win outcomes.</p> <p>5. Improved human-biodiversity co-existence promotes living in harmony with nature.</p> <p>6. Human perception and benefit of living with wildlife improves in priority areas.</p> <p>7. Reduced threats from natural resource use to biodiversity conservation and sustainable use.</p>
<p>2.4. Identify and implement resource mobilisation, with innovative financial solutions to fund transformation and promote financial sustainability.</p>	<p>1. Integrated resource mobilisation strategy developed and implemented.</p> <p>2. Innovative international funding opportunities contribute to conservation area expansion.</p> <p>3. The financial incentives provided for in the Rates Act and Income Tax Act promoted and widely implemented.</p> <p>4. Innovative mechanisms and tools to value ecosystem services, and restoration benefits, including offset, subsidy, and compensation schemes.</p> <p>5. Fiscal instruments to promote biodiversity conservation and growing the biodiversity economy developed, including subsidies, compensation schemes, and implemented when needed</p>	<p>1. The challenge of transforming the biodiversity sector is no longer postponed because of argument of lack of funding.</p> <p>2. Innovative environmental fiscal tools promote sustainable conservation and support nature positive goals and targets.</p> <p>3. South Africa is a global leader in innovative solutions to sustainable biodiversity conservation.</p>

	<p>6. State and private beneficiaries of sustainable use, including from ecotourism, hunting, and trade, ensure benefits flow to communities through innovative mechanisms and tools.</p> <p>7. Pursue external financing sources through bilateral and multilateral agencies, and the private sector, to secure funding for priority programmes and projects.</p> <p>8. Create regulatory certainty for implementation of innovative biodiversity offsetting instruments, such as strategic biodiversity offsets and biodiversity offset banking.</p>	
<p>GOAL 3: BIODIVERSITY CONSERVATION PROMOTED: Conserve the diversity of land- and sea-scapes, ecosystems, habitats, ecological communities, species, populations, and genes in South Africa.</p>		
<p>Policy Objective</p> <p>3.1. Evidence-based conservation priorities.</p>	<p>Expected Output</p> <p>1. Key components, based on biological, social, and economic criteria of biodiversity identified in terms of importance, threat, risk, or opportunity for biodiversity conservation and sustainable use.</p> <p>2. Activities and threatening processes with likely significant adverse impacts on biodiversity and ecosystem services identified, understood, and monitored.</p> <p>3. Assessment, evaluation, and documentation of the structure, function and composition of South Africa's terrestrial, aquatic, marine, and coastal ecosystems improved, especially of poorly known groups such as invertebrates, fungi and microorganisms.</p> <p>4. Data and information on biodiversity components and threatening processes are available in the public domain.</p> <p>5. Risk register identifies threats to biodiversity, prioritises controls, and is implemented.</p>	<p>Expected Outcome</p> <p>1. Important components of biodiversity be protected, conserved, and/or restored through transparent evidence-based decision-making and action.</p> <p>2. Biodiversity information documented, understood, integrated, available and strategically used.</p> <p>3. Critical gaps in biodiversity knowledge addressed.</p> <p>4. Priority threats to biodiversity and ecosystem services mitigated where feasible.</p>
<p>3.2. Establish a representative system of protected and conservation areas that are effectively and efficiently managed.</p>	<p>1. A national cooperative programme identifies terrestrial, freshwater, marine and coastal areas that support landscapes, ecosystems, habitats, species and populations which contribute, or could contribute, to South Africa's system of representative protected and conservation areas.</p> <p>2. New, or extended, protected and conservation areas as a means of improving the representation of terrestrial and marine ecosystem types.</p>	<p>1. Under-protected ecosystem types increase in representation in formal protected areas as part of a planned network.</p> <p>2. Protected and conservation area management is properly coordinated among responsible authorities.</p> <p>3. A strengthened, rationalized and representative protected and conservation area system.</p>

<p>4. Ensure a diversity of categories of protection, ranging from strict protection through to controlled and sustainable resource harvesting.</p> <p>5. Increased ecological integrity and resilience.</p> <p>6. Strong partnerships across State, private and community stakeholders enhance conservation and sustainable use outcomes.</p>	<p>3. A comprehensive prioritised plan of action to strengthen South Africa's conservation area system, expansion mechanisms, appropriate levels of control, effective management plans, and identified funding streams.</p> <p>4. Effective participation of local communities and other interested and affected parties in decisions on revised or new protected areas, and their management.</p> <p>5. Landowners and communities participate in biodiversity stewardship initiatives, such as the declaration of protected areas and the establishment of other effective area-based conservation mechanisms (OECMs), including biodiversity agreements, biodiversity management agreements, conservation servitudes and conservancies.</p>	<p>3.3. Conservation areas better integrated into broader ecological and social landscapes.</p>
<p>1. Areas adjacent to protected and conservation areas increase area viability.</p> <p>2. Connectivity, scaling and ecological processes protected and enhanced.</p> <p>3. Nature based/compatible sustainable development in buffer areas adjacent to protected areas is promoted.</p> <p>4. Wildlife shifts from conflict to co-existence, with community benefits.</p> <p>5. Equitable and fair socio-economic development outside protected and conservation areas.</p> <p>6. Protected and conservation area persistence and expansion is promoted, and enhances sustainable land reform.</p> <p>7. Conservation compatible land-use halts and reverses degradation outside protected areas.</p> <p>8. Protected and conservation areas provide access and benefit flows to communities, redressing past injustices, reducing dis-persistence over alternative land-uses.</p>	<p>1. Strategies, guidelines, mechanisms and incentives integrate protected areas within the broader ecological and social landscape, and encourages conservation in adjacent private and communal buffer zones.</p> <p>2. Activities in buffer zones adjacent to protected and conservation areas are compatible with and complement the area objectives.</p> <p>3. Community-based biodiversity conservation initiatives included into land-use planning and local sustainable development strategies.</p> <p>4. Partnerships and co-management arrangements between conservation agencies, community organisations, NGOs, and private entrepreneurs optimise biodiversity use within and outside of protected and conservation areas.</p> <p>5. Communities residing in or adjacent to protected and conservation areas capacitated to participate in area management through training and education, and recognizing local expertise and traditional institutions.</p> <p>6. National Human-wildlife Coexistence Strategy promotes human-wildlife co-existence through bespoke practice revisions and innovative implementation of legislation, empowering and capacitating local communities, and an integrated, systems approach to human-wildlife conflict.</p> <p>7. Net benefit flows to people in and beyond protected and conservation areas improved, through profiling protected and conservation areas for economic development, promoting access and local value chains and social development, and innovative beneficiation agreements.</p>	

<p>3.4. Rehabilitate and restore degraded ecosystems, and strengthen and promote threatened species recovery where practical.</p>	<p>8. Advocate for land reform programme to enhance outcomes aligned with biodiversity conservation and sustainable use.</p> <p>1. Strategy and action plan to rehabilitate and restore degraded systems of national concern, identifying key sites based upon biological and socio-economic criteria, linking remedial action to jobs and skills, monitors effectiveness, and regulates and minimize adverse impacts of harmful activities on biodiversity.</p> <p>2. Conserve and restore populations of threatened species by, bespoke legislation, tools, and, where necessary, implement ex-situ conservation measures in line with recognised guidelines.</p> <p>3. An incentives framework promotes investment in ecosystem restoration and species recovery.</p> <p>4. Rehabilitation measures integrated in environmental impact assessments to minimise potential negative impacts and to enhance possible positive impacts on biodiversity.</p> <p>5. Genetic contamination and loss of genetic variability amongst populations halted and reversed.</p>	<p>1. Rehabilitation actions prioritised on the basis of the contribution that restored areas can make to biodiversity conservation and sustainable use.</p> <p>2. An integrated national approach to rehabilitation which aims to restore ecosystem functioning and biodiversity.</p> <p>3. South Africa contributes meaningfully to the achievement of the goals of the UN decade of restoration</p> <p>4. Decrease in % of degraded habitats and level of degradation.</p> <p>5. Improvement in the flow and quality of ecosystem services in South Africa.</p> <p>6. Degraded habitat restoration and species recovery funded.</p> <p>7. Genetic resilience of indigenous species enhanced.</p>
<p>3.5. Prevent the introduction, establishment, and spread of potentially harmful alien species, and control and eradicate, where feasible, invasive species which threaten ecosystems, habitats and species.</p>	<p>1. Consistent, streamlined and strengthened legislation and enforcement promotes compliance, and controls the introduction and spread of potentially harmful alien organisms.</p> <p>2. Proactive, comprehensive assessment of risks of introduction of alien organisms into South Africa against intended benefits.</p> <p>3. Holistic, integrated, and prioritised control, management and eradication programmes for invasive species.</p> <p>4. Unintended introduction of alien and invasive species to South Africa and the sub-Antarctic islands, and early establishment of invasive alien species, detected and prevented where possible.</p> <p>5. National policy on the inter- and intra-provincial translocation and inter-basin transfer of species, with updated lists of prohibited and approved taxa.</p> <p>6. Local indigenous species used in rehabilitation and revegetation programmes and projects.</p>	<p>1. A proactive, preventative, and precautionary approach to control the introduction and spread of alien and invasive species.</p> <p>2. Risks from deliberate introduction of alien and invasive species mitigated.</p> <p>3. Integrated invasive species control and eradication programmes deliver environmental, social, and economic outcomes, with full participation from landowners and managers.</p> <p>4. An integrated cross-sectoral approach to alien and invasive species.</p>

<p>3.6. Minimise the potential risks associated with the release of genetically modified organisms into the environment, taking into account risks to human health.</p>	<p>7. Landowners incentivised to control or eradicate invasive species.</p> <p>8. Biological and other control methods for invasive species improved and expanded.</p> <p>9. Strong public education and awareness of alien and invasive species.</p> <p>10. Integrated approach with neighbouring countries to maximise commonalities and minimise conflicts among policies, legislation, and practices relating to alien and invasive species that threaten biodiversity.</p> <p>11. Integrated cross sector approach, mechanisms, and practices to alien and invasive species that threaten biodiversity.</p>	<p>1. Risks of genetically modified organisms to biodiversity minimised, and taking into account risks to human health.</p> <p>2. Proactive and precautionary approach to the transfer, handling, use and release of genetically modified organisms.</p> <p>3. Economic and environmental benefits associated with GMOs optimised through evidence based best-practice.</p>
<p>3.7. Support, complement, and enhance in-situ biodiversity conservation and ecologically sustainable use, through ex-situ practices.</p>	<p>1. Strong capacity, legislation, Biosafety Protocol, guidelines, effective management, and control measures, regulate the transfer, handling, use and release of genetically modified organisms.</p> <p>2. Understanding of the potential ecological, social, and economic impacts of genetically modified organisms, and emerging techniques.</p> <p>3. Public educated and aware of risks and benefits of biotechnology.</p> <p>4. Regional Engagement Strategy for Biosafety implemented, and capacity strengthened.</p>	<p>1. Indigenous species Biobanks, botanical and zoological gardens provide tangible in situ biodiversity conservation and sustainable use benefits.</p> <p>2. Ex-situ conservation interventions successfully conserve and protect threatened species.</p> <p>3. Risks to in-situ conservation of ex-situ activities contributing to socio-economic benefits minimised.</p> <p>4. Risks of cultivation and domestication of plants on natural habitat and populations minimised.</p>
<p>1. Where necessary and appropriate, ex-situ institutions participate in in-situ conservation.</p> <p>2. Ex-situ collections promote conservation and use of local biodiversity, plant genetic resources, and microorganisms suitable for agricultural, medicinal, industrial, horticultural, or other commercial purposes.</p> <p>3. The Biodiversity Biobank South Africa National Research Infrastructure enables the development of a comprehensive national strategy to characterise, evaluate, curate to international standards, and cost-effectively manage and utilise South Africa's indigenous ex-situ genetic resource collections.</p> <p>4. Collection of biological resources from natural habitats for ex-situ purposes avoids or minimises threats to ecosystems and in-situ populations of species.</p>	<p>1. Where necessary and appropriate, ex-situ institutions participate in in-situ conservation.</p> <p>2. Ex-situ collections promote conservation and use of local biodiversity, plant genetic resources, and microorganisms suitable for agricultural, medicinal, industrial, horticultural, or other commercial purposes.</p> <p>3. The Biodiversity Biobank South Africa National Research Infrastructure enables the development of a comprehensive national strategy to characterise, evaluate, curate to international standards, and cost-effectively manage and utilise South Africa's indigenous ex-situ genetic resource collections.</p> <p>4. Collection of biological resources from natural habitats for ex-situ purposes avoids or minimises threats to ecosystems and in-situ populations of species.</p>	<p>1. Indigenous species Biobanks, botanical and zoological gardens provide tangible in situ biodiversity conservation and sustainable use benefits.</p> <p>2. Ex-situ conservation interventions successfully conserve and protect threatened species.</p> <p>3. Risks to in-situ conservation of ex-situ activities contributing to socio-economic benefits minimised.</p> <p>4. Risks of cultivation and domestication of plants on natural habitat and populations minimised.</p>

	<p>5. The National Botanical Gardens promote in situ conservation of indigenous plants through ex situ conservation, in line with species conservation plans.</p> <p>6. National Botanical Gardens Expansion Strategy creates expanded network of botanical gardens across South Africa, strengthening biodiversity education, and awareness enhancement.</p> <p>7. The National Zoological Gardens promote in situ conservation of indigenous animals through ex situ conservation, in line with species conservation plans.</p> <p>8. Where necessary and appropriate, species conservation plans adopt measures of ex-situ conservation for the recovery and rehabilitation of threatened species, and for their re-introduction into natural habitats.</p> <p>9. Domestication of wild animals reversed.</p> <p>10. Mitigate the impacts of selective cultivation for specific trait on wild populations of plants.</p> <p>11. Educational role of ex-situ conservation facilities strengthened to make demonstrable contribution to in situ conservation.</p> <p>12. Collaborative ex-situ conservation programmes within the southern African region maximise conservation of the region's genetic and species diversity.</p> <p>13. Responsible ex-situ propagation and breeding for commercial purposes should also have a demonstrable conservation benefit; or, must at the least, advance sustainable use.</p>	
<p>3.8. Adopt climate resilient approaches to biodiversity conservation and management to restore and maintain ecosystem goods and services.</p>	<p>1. Ecosystems and components of biodiversity vulnerable to climate change identified, and risks and impacts on biodiversity and biodiversity-based livelihoods assessed.</p> <p>2. Guidelines for adaptive capacity of species and the resilience of ecosystems in the face of climate change developed and implemented.</p> <p>3. Biodiversity Sector Climate Change Response Strategy enhances South Africa's most vulnerable ecosystems, landscapes and species' responses to climate change impacts.</p> <p>4. Ecosystem-based adaptation, mitigation, and disaster risk reduction measures mainstreamed in biodiversity conservation tools and mechanisms, and spatial</p>	<p>1. Climate change integrated in provincial and local government biodiversity programmes and projects.</p> <p>2. Species level climate change resilience enhanced.</p> <p>3. Ecosystem based adaptation enhances climate change resilience.</p> <p>4. Local community climate change resilience enhanced and vulnerability reduced.</p>

<p>3.9. Prevent where possible, or minimise risk of animal-human transmission, and further evolution, of Zoonotic diseases associated with wild animals.</p>	<p>planning at local government level, deliver multiple benefits, and livelihoods and well-being buffered against climate change.</p> <p>5. Climate vulnerable community resilience enhanced by ecosystem services from expanded and connected biodiversity conservation areas.</p> <p>6. Evidence base supports climate change adaptation and mitigation, and climate change response strategy, with robust monitoring and reporting.</p> <p>7. Knowledge of biodiversity and climate change at community level enhanced.</p>	<p>5. Indigenous and local community knowledge and practices integrated in measures to enhance resilience of ecosystems.</p> <p>6 Climate change science policy implementation interface strengthened.</p>
<p>3.9. Prevent where possible, or minimise risk of animal-human transmission, and further evolution, of Zoonotic diseases associated with wild animals.</p>	<p>1. Integrated approach, such as One-Health/One Welfare, preventing or minimising the evolution and animal-human transmission of zoonotic diseases associated with biodiversity, and the unnecessary interaction of people with wild animals.</p> <p>2. Biodiversity sector informs regulations under the Meat Safety Act that promote the sustainable use of wild animals for meat and products, but that reduce the risk of transmission of zoonotic diseases.</p> <p>3. Engage with the Department responsible for agriculture to formulate regulations under the Meat Safety Act that promotes the sustainable use of wild animals killed through subsistence harvesting, for self or trade.</p> <p>4. Education and awareness identify of role of harvesting wildlife for household food security and importance of reducing risk of zoonotic transmission.</p> <p>5. Strengthened legislation, mechanisms and tools mitigate and reduce risk of zoonotic disease evolution or animal-human transmission, from biodiversity conservation or ecologically sustainable use practices, including from ex-situ housing of wild animals.</p> <p>6. Cross sectoral partnerships strengthen aspects regarding zoonotic disease transmission and further evolution from biodiversity conservation and sustainable use of indigenous wild animals, including in terms of multilateral agreements and other instruments.</p> <p>7. Greater understanding of zoonotic disease risks associated with specific species or contexts, through research and monitoring.</p>	<p>1. South Africa is seen as a global leader in integrating biodiversity conservation and ecologically sustainable use into a One Health/One Welfare approach to zoonotic risks from wild animals.</p> <p>2. The risk of zoonotic disease transmission and further evolution in South Africa is mitigated and reduced.</p>

<p>GOAL 4: RESPONSIBLE SUSTAINABLE USE: Ensure that sustainable use avoids or minimises and remedies adverse impacts on biodiversity, and, where possible, enhances thriving living landscapes and ecosystems, livelihoods, and human well-being.</p>		
<p>Policy Objective</p>	<p>Expected Output</p>	<p>Expected Outcome</p>
<p>4.1. Prevent ecological degradation, through enhancing ecological integrity and resilience.</p>	<p>1. A cross-sectoral framework, building on the National Biodiversity Assessment, for understanding, measuring, and enhancing ecological integrity and resilience, and avoiding or mitigating degradation of ecosystems and biodiversity loss.</p> <p>2. Where there is substantial benefit derived, identifying and implementing mechanisms for reinvestment to ensure net gain in biodiversity integrity.</p> <p>3. Threats, such as from global change or unsustainable use, to biodiversity, ecological integrity and resilience, identified and avoided and/or minimised and remedied, and, where possible, biodiversity enhanced.</p> <p>4. Enhance ecological integrity and resilience through inter alia linkages, corridors, and connectivity, and rehabilitated and restored systems.</p> <p>5. Link activities that promote ecological integrity and resilience to promote sustainable use opportunities.</p> <p>6. Use adaptive management in a responsible manner to achieve or enhance ecological integrity and resilience.</p>	<p>1. The environment protected through preventing ecological degradation and biodiversity loss.</p> <p>2. Ecological sustainability of biodiversity use enhanced.</p> <p>3. Increased ability of natural land and seascapes to withstand anthropogenic disturbances, and continue to provide benefits to present and future generations.</p> <p>4. Increased resilience to withstand natural disasters, including for the most vulnerable communities.</p> <p>5. Improved ecosystem structure and function, and resulting ecosystem services.</p> <p>6. Net gain in biodiversity integrity through reinvestments.</p>
<p>4.2. Avoid and/or minimise adverse impacts of development and use on biodiversity and ecosystem services.</p>	<p>1. Strengthened and streamlined policies, legislation, and other means, to avoid and/or minimise the adverse effects, including of cumulative impacts, of human activities on the biodiversity of terrestrial, freshwater, coastal and marine areas.</p> <p>2. Adopt proactive development planning such that there is strong understanding of biodiversity attributes, ecosystems services, and ecological resilience at the correct spatial and temporal scales, to then highlight appropriate development opportunities.</p> <p>3. Incorporation of Integrated Environmental Management principles and appropriate environmental management procedures into all planning controls and legislation.</p> <p>4. Effective implementation and enforcement of appropriate regulations concerning the control of activities which may have a detrimental effect on the environment, including sustaining rehabilitation actions.</p>	<p>1. Coherent policy framework promotes ecologically sustainable socio-economic development.</p> <p>2. An integrated environmental management approach.</p> <p>3. Adverse impacts avoided or minimised.</p> <p>4. Ecosystem functioning and services the point of departure for identifying development opportunities.</p>

	<p>5. Integrated Environmental Management systems, processes and implementation related to strategic planning and project planning, assessment, monitoring, evaluation and reporting, in all spheres of government directed towards achieving ecologically sustainable outcomes.</p> <p>6. Tools and mechanisms put in place to ensure sustainability of mitigation or restoration interventions.</p>	
<p>4.3. Enhance sustainable use of biological resources in terrestrial, freshwater, marine and coastal ecosystems.</p>	<p>1. Practices that support conservation and ecological sustainable use encouraged and promoted, and potentially harmful ones discouraged and reduced.</p> <p>2. Harvesting and use practices to improve environmental sustainability for biodiversity production land and seascapes.</p> <p>3. Indigenous/Traditional, and other, knowledge, practices, and innovations, strengthen management systems and use of terrestrial, aquatic, marine and coastal ecosystems.</p> <p>4. Rehabilitated and restored degraded ecosystems contribute to biodiversity conservation and sustainable use.</p> <p>5. Mechanisms and tools ensure effective and cooperative governance of sustainable use systems.</p>	<p>1. Practices and behaviours that promote ecological integrity and resilience are promoted and harmful ones prevented and/or avoided</p> <p>2. Mechanisms in place that promote sustainable use with local custodianship and stewardship of nature.</p> <p>3. Sustainable harvesting of natural resources.</p> <p>4. Strong governance of sustainable use.</p>
<p>4.4. Multisectoral plans, approaches and practices promote biodiversity conservation and enhance ecological integrity.</p>	<p>1. Integrated land-use planning approaches with multiple natural resource activities compatible with and complement the conservation and sustainable use of biodiversity.</p> <p>2. Multisectoral Framework for mainstreaming biodiversity conservation and habitat retention into plans and practices, including for agriculture, forestry, mining, water, and urban and built environment.</p> <p>3. Innovative approaches change business practices to reduce biodiversity loss, adding net value.</p> <p>4. Responsible biodiversity offsets enhance affected biodiversity, or at least ensure no net biodiversity loss.</p>	<p>1. Loss of biodiversity in terrestrial areas of South Africa from development across sectors avoided, minimised and/or mitigated.</p> <p>2. Development proceeds such that biodiversity is enhanced wherever possible.</p> <p>3. Biodiversity enhancement or responsible offsets, and nature-positive outcomes, ensure no net biodiversity loss.</p> <p>4. Conservation and development benefits are optimised and/or harmonised in development planning across sectors.</p> <p>5. Adverse impacts of development activities across sectors on terrestrial biodiversity minimised.</p> <p>6. Biodiversity mainstreamed across sectors to promote biodiversity conservation and habitat retention.</p>

<p>4.5. Promote the conservation, wise use, and prevent further loss and degradation of wetlands, strategic water source areas, and other ecological infrastructure</p>	<p>1. A national framework for the management, conservation and protection of wetland, strategic water source areas, and other ecological infrastructure in South Africa.</p> <p>2. Drivers of wetland, strategic water source areas, and other ecological infrastructure loss and degradation prevented and/or avoided and mitigated.</p> <p>3. Functions and values of wetlands, strategic water source areas, and ecological infrastructure mainstreamed into resource planning, management and decision-making.</p> <p>4. Biodiversity of aquatic areas and wetlands, strategic water source areas, and ecological infrastructure adequately incorporated into the national policy on integrated pollution control and waste management.</p> <p>5. Integrated catchment-specific partnerships and joint management plans.</p>	<p>1. Wetlands, strategic water source areas, and ecological infrastructure secured, with no net loss of wetlands.</p> <p>2. Society and government sectors understand the critical role, function, and ecological services of wetlands strategic water source areas, and ecological infrastructure.</p> <p>3. Enhanced cooperation across sectors impacting on wetlands, strategic water source areas, and ecological infrastructure.</p>
<p>4.6. Ensure the protection, conservation, and sustainable use of marine, estuaries, and coastal ecosystems and their natural resources.</p>	<p>1. Conservation and ecologically sustainable use of marine, estuarine and coastal biodiversity mainstreamed into national policies and practices affecting the marine environment.</p> <p>2. National policy on coastal zone management developed.</p> <p>3. Full cost accounting and responsibility for users of marine and coastal ecosystem services.</p> <p>4. Legislation, enforcement, and compliance strengthened to control the use or extraction of marine, estuarine and coastal resources, and prevent inappropriate activities and development.</p> <p>5. Fisheries, small scale fisheries, and aquaculture management follow an ecosystem approach that promotes conservation and sustainable use of the whole ecosystem.</p> <p>6. Effective marine protected areas zonation and regulation mitigates pressure on key marine ecosystems and species, incorporating marine spatial planning.</p> <p>7. Marine, estuarine and coastal spatial planning coordinates multiple use interests across different marine sectors and balances social, economic and ecological objectives.</p>	<p>1. Responsible use of the ocean supports sustainable development.</p> <p>2. Marine Protected areas buffered from adverse economic activities.</p> <p>3. Impacts mitigated for threatened marine ecosystems and threatened or overexploited species.</p> <p>4. Overexploitation of marine stocks halted and recovery supported.</p>

<p>4.7. Integrate biodiversity conservation and ecological integrity into landuse planning and implementation.</p>	<p>8. Evidence-base, monitoring, and evaluation enhances sustainability of marine, estuarine, and coastal resource use.</p> <ol style="list-style-type: none"> 1. Integrated bioregional planning for terrestrial, aquatic, marine and coastal areas forms a fundamental component of National, Provincial and Municipal land-use plans, and Municipal Schemes. 2. Integrated environmental management principles, and appropriate environmental procedures, incorporated into all planning controls and legislation. 3. Impacts of projects, programmes, plans and policies on biodiversity are assessed, and reflected in planning processes and environmental assessments. 4. Regional planning processes and environmental impact assessment procedures consider cumulative and indirect impacts on biodiversity. <ol style="list-style-type: none"> 1. Cross-sectoral legislation, regulations, prevention, enforcement, compliance, prosecution, and effective governance, prevents illegal harvesting of and trade in South Africa's biodiversity. 2. National strategy for international trade in species and their parts and derivatives promotes biodiversity conservation and sustainable use, and equitable socio-economic transformation. 3. Strategic positioning and engagement by South Africa at CITES promotes and enhances cohesive trans-Africa approach to international trade in Africa's biodiversity. 4. Continental African threatened species conservation plans promoted by collaborative in situ trade and skills and technology transfer, following recognised guidelines. 5. Legislation, enforcement, and compliance prevents live export ex situ of indigenous species, other than to promote in situ conservation or socio-economic development in range states. 6. Legislated national framework for importation, keeping, breeding and propagation, handling, and use, of non-indigenous plants and animals prevents or mitigates threats or risks to indigenous biodiversity, ecological integrity, or ecosystem services, and risk of zoonotic diseases. 	<p>1. Bioregional approach to land use planning integrates biodiversity conservation and development needs.</p> <p>2. Integrated Environmental Management and best practice environmental impact assessment inform landuse decisions, ensuring conservation compatible development and landuse change.</p>
<p>4.8. International trade in biodiversity promotes equitable socio-economic development and protects biodiversity heritage.</p>	<p>1. Leadership for conserving the key elements of Africa's diversity across their range.</p> <p>2. Preventing illegal exploitation of South Africa's biodiversity, and threats to these species.</p> <p>3. Ecologically sustainable international trade in biodiversity promotes equitable socio-economic development.</p> <p>4. Preventing exploitation of South Africa's biodiversity heritage by non-range states.</p> <p>5. Risk of non-indigenous plants and animals to indigenous biodiversity and sustainable use of indigenous biodiversity mitigated.</p> <p>6. South Africa abides by Nagoya Protocol and ensures fair and equitable sharing of benefits from the use of genetic resources and their associated indigenous or traditional knowledge of other countries by end-users in South Africa.</p> <p>7. South Africa promotes fair and equitable sharing of benefits from use of all biodiversity resources, and biodiversity heritage.</p>	<p>1. Leadership for conserving the key elements of Africa's diversity across their range.</p> <p>2. Preventing illegal exploitation of South Africa's biodiversity, and threats to these species.</p> <p>3. Ecologically sustainable international trade in biodiversity promotes equitable socio-economic development.</p> <p>4. Preventing exploitation of South Africa's biodiversity heritage by non-range states.</p> <p>5. Risk of non-indigenous plants and animals to indigenous biodiversity and sustainable use of indigenous biodiversity mitigated.</p> <p>6. South Africa abides by Nagoya Protocol and ensures fair and equitable sharing of benefits from the use of genetic resources and their associated indigenous or traditional knowledge of other countries by end-users in South Africa.</p> <p>7. South Africa promotes fair and equitable sharing of benefits from use of all biodiversity resources, and biodiversity heritage.</p>

<p>4.9. Sustainable lifestyles promote socially and ecologically sustainable development.</p>	<p>7. Compliance with the Nagoya Protocol for use of genetic resources and their associated indigenous or traditional knowledge of other nations.</p> <ol style="list-style-type: none"> 1. Conservation and sustainable use of biodiversity incorporated into the national policy on population, youth and human development. 2. Collaborate with the Department of Social Development for sustainable development to address impacts of population, production and consumption patterns on biodiversity and environmental sustainability. 3. Resource consumption reduced by promoting localised value chains, the circular economy, and elimination or reduction of waste at source, and its re-use, recycling, and recovery. 4. Sustainable lifestyles promoted through increased education and awareness of impact of human population growth, resource consumption, and lifestyle choices, on biodiversity, ecological integrity and human well-being. 	<ol style="list-style-type: none"> 1. Production and consumption patterns shift to enhance ecological sustainability. 2. Biodiversity conservation a strong consideration in national demographic and human settlement planning. 3. Wasteful overconsumption of natural resources reduced, and waste elimination enhanced.
<p>GOAL 5: EQUITABLE ACCESS AND BENEFIT SHARING: Ensure that benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising national interests.</p>		
<p>Policy Objective</p> <p>5.1. Regulate access to, and benefit sharing from, the use and development of South Africa's indigenous genetic and biological resources, their information and data.</p>	<p>Expected Output</p> <ol style="list-style-type: none"> 1. Streamlined and simplified legislation, regulations, and guidelines promote access to indigenous genetic and biological resources for bioprospecting and biotrade, including fair and equitable sharing of benefits arising from the use and development of indigenous genetic and biological resources, their information and data, and their associated traditional or indigenous knowledge, where applicable. 2. National and Provincial issuing authorities regulate and administer use and development of indigenous genetic and biological resources. 3. Efficient permitting system to regulate and promote bioprospecting and biotrade, while protecting biodiversity and ecosystem services. 4. Benefit-sharing arrangements contribute to biodiversity conservation, drives transformation and redress, and promotes indigenous communities rights, and benefit the holders of indigenous or traditional knowledge. 	<p>Expected Outcome</p> <ol style="list-style-type: none"> 1. South Africa's genetic and biological resources are both regulated and facilitated, in line with agreed Access and Benefit Sharing Principles under the Convention on Biological Diversity and the Nagoya Protocol. 2. South African genetic and biological resources are leveraged for national and global benefits. 3. Providers of genetic and biological material, and associated indigenous or traditional knowledge, benefit fairly and equitably.

<p>5.2. Use and development of genetic and biological material for agriculture promote biodiversity-based food security.</p>	<p>5. Scientific and technical cooperation for use and development of indigenous genetic and biological resources, and their information, and data, are coordinated, strengthened, and promoted.</p> <p>1. The International Treaty on Plant Genetic Resources for food and agriculture harmonised with other biodiversity related agreements.</p> <p>2. Farmers' intellectual property rights to genetic and biological material incorporated into policy and legislation.</p> <p>3. "Crop wild relatives" identified and encouraged for genetic use and development for commercial crop production, especially for small-holder farmers.</p> <p>4. Uniform, agreed, principles guide access to genetic resources that are used and developed for crop production.</p>	<p>1. Structured and uniform access to genetic resources that are used and developed for crop production.</p> <p>2. Increased contribution of indigenous crop wild relatives to food security and productive agriculture.</p> <p>3. Common understanding for ensuring equitable access and benefit sharing for genetic resources, their information and data, for enhancing agricultural production.</p> <p>4. Thriving food systems promoted through sustainable use and development of biodiversity assets.</p>
<p>GOAL 6: ENHANCED CAPACITY: Expand and develop capacity to conserve biodiversity, to manage its use, and to address factors threatening it.</p>		
<p>Policy Objective</p> <p>6.1. Increase public education, awareness and stewardship of the value and importance of biodiversity, and public involvement in its conservation and sustainable use.</p> <p>6.2. Data and information forms the basis of decision making and practice</p>	<p>Expected Output</p> <p>1. Integrated and strengthened awareness programmes for people to understand, value and appreciate biodiversity, and its ecologically sustainable use.</p> <p>2. Biodiversity information collated, popularised and disseminated.</p> <p>3. Protected areas are promoted and accessible to all South Africans.</p> <p>4. Biodiversity conservation and sustainable use integrated into national curricula, with training and professional development for teachers.</p> <p>5. Trans-disciplinary research and practice promoted, including local communities and civic society.</p> <p>1. National biodiversity information system provides accurate, curated and accessible data.</p> <p>2. Natural Science Collections Facility a dynamic network that promotes, upgrades and makes accessible natural science collections and data for research and services.</p> <p>3. Collaboration and partnering effectively shares and curates biodiversity data across user groups and sectors.</p>	<p>Expected Outcome</p> <p>1. Support, commitment and participation of all South Africans for biodiversity conservation and sustainable use.</p> <p>2. Enhanced public understanding, appreciation and awareness of the value and importance of biodiversity conservation and its sustainable use.</p> <p>3. Enhanced understanding of the importance of nature, biodiversity and sustainable use to socio-economic development and human well-being.</p> <p>4. Societal value system recognises the importance of biodiversity, ecosystem services, and intergenerational sustainability.</p> <p>1. Robust biodiversity reporting and trend analysis.</p> <p>2. Data enables threats to biodiversity to be proactively prevented and/or mitigated.</p> <p>3. Quality biodiversity data effectively and efficiently available.</p>

<p>4. Biodiversity data governance, ownership, collection, storage, standards, access, and sharing promote quality decision-making and practice.</p> <p>5. Key real-time biodiversity indicators enable robust and scalable reporting with identification of biodiversity and ecological integrity risks.</p> <p>6. Integrated approach to identifying and filling data gaps.</p>	<p>4. Responsive and adaptive management enhances biodiversity conservation and sustainable use.</p>
<p>6.3 Knowledge and understanding of South Africa's biodiversity informs effective decision-making and practice.</p>	<ol style="list-style-type: none"> 1. Improved understanding of biodiversity and how biodiversity contributes to improved Human well-being; 2. Evidence-based best practice in conservation and sustainable use, with effective translation of knowledge into practice. 3. Interactions between biological and social, economic and development processes better understood.
<p>6.4. Monitoring and evaluation informs biodiversity conservation, management, and sustainable use.</p>	<ol style="list-style-type: none"> 1. Robust biodiversity reporting and trend analysis. 2. Monitoring and evaluation with responsive and adaptive management enhances biodiversity conservation and sustainable use. 3. Monitoring and evaluating threats to biodiversity proactively, enables prevention and or mitigation.
<p>4. Biodiversity data governance, ownership, collection, storage, standards, access, and sharing promote quality decision-making and practice.</p> <p>5. Key real-time biodiversity indicators enable robust and scalable reporting with identification of biodiversity and ecological integrity risks.</p> <p>6. Integrated approach to identifying and filling data gaps.</p>	<p>4. Biodiversity data governance, ownership, collection, storage, standards, access, and sharing promote quality decision-making and practice.</p> <p>5. Key real-time biodiversity indicators enable robust and scalable reporting with identification of biodiversity and ecological integrity risks.</p> <p>6. Integrated approach to identifying and filling data gaps.</p>
<p>6.3 Knowledge and understanding of South Africa's biodiversity informs effective decision-making and practice.</p>	<ol style="list-style-type: none"> 1. Mainstreamed National Biodiversity Research and Evidence Strategy, and of relevant provincial and sector strategies. 2. Targeted research and knowledge generation addresses knowledge gaps, and enhances evidence-based decision-making for biodiversity conservation and sustainable development. 3. Strategic biodiversity inventories underpin biodiversity evidence-base for planning, practice, and the biodiversity economy. 4. National Framework for National, Provincial, Thematic and Rapid Biodiversity Assessments to support biodiversity conservation, ecologically sustainable use, and socio-economic development. 5. Research and inventory partnerships effective in identifying and reducing biodiversity knowledge gaps. 6. Encourage and enhance regional, continental, and international collaboration in scientific and technical research related to biodiversity. 7. Barriers and impediments to effective biodiversity research, such as inappropriate permitting requirements, removed.
<p>6.4. Monitoring and evaluation informs biodiversity conservation, management, and sustainable use.</p>	<ol style="list-style-type: none"> 1. Coordinated and integrated national biodiversity monitoring, evaluation and reporting framework, with implementation at the appropriate spatial and temporal scales. 2. Biodiversity monitoring and evaluation informs biodiversity conservation and sustainable use planning and adaptive management. 3. Monitoring and evaluation provides for robust, transparent and accountable reporting.

<p>4. Adaptive and reflective practice improves efficiency and effectiveness.</p>	<p>4. Efficient monitoring enhances responsive management, and effective evaluation ensure value for money and impact.</p> <ol style="list-style-type: none"> 1. Legislation and frameworks for identification and protection of indigenous/traditional knowledge and practices associated with nature and biodiversity 2. Mechanisms for recording indigenous/traditional knowledge and practices associated with nature and biodiversity co-developed with knowledge holders. 3. Indigenous/traditional knowledge informs biodiversity policy development and decision-making. 4. Mechanisms and tools for traditional healers or practitioners to access nature and biodiversity promote sustainable indigenous/ traditional practices. 5. Transmission of knowledge and practices by training next generation. 6. Mechanisms and tools for traditional leaders of rural communities to lead their communities in accessing nature and biodiversity, and in facilitating the conducting of sustainable traditional practices. 7. Any use or benefit that derives from traditional knowledge or practices includes fair and equitable sharing with holders of knowledge and practices. 8. Multisectoral partnerships leverage indigenous knowledge and practices for biodiversity conservation and beneficiation. 9. Mechanisms and tools for effective regulation and control of harvesting for commercialised traditional use, including through partnership with traditional leaders and healers. 	<ol style="list-style-type: none"> 1. Indigenous/Traditional knowledge and practices associated with biodiversity conservation and sustainable use is identified, collected, collated, and translated into enhanced conservation practice. 2. Practitioners of traditional knowledge of biodiversity conservation and sustainable use, such as traditional healers, are able to conduct their practices, and train the next generation of users. 3. Holders of traditional knowledge and practices of biodiversity conservation and sustainable use benefit equitably from the use of such knowledge. 4. Traditional leaders, healers, and practitioners, are recognised and treated with the dignity and respect due to the custodians of traditional knowledge and practices 5. Incorporating indigenous knowledge and practices of biodiversity conservation and sustainable use based on Ubuntu, enriches and facilitates a shift to a local conservation approach.
<p>6.5. Indigenous/ Traditional knowledge and practice provides localised solutions to biodiversity conservation and sustainable use.</p>	<p>1. Effective Sector wide Human Capital Development and Deployment Strategy.</p> <p>2. Transformative curricula, with multidisciplinary approaches, for effective biodiversity education training at all levels.</p> <p>3. Skills development, skills transfer, and skills retention strategy across the sector.</p> <p>4. Enhanced biodiversity content expertise within mandated State agencies to fulfil the intent of this policy.</p>	<ol style="list-style-type: none"> 1. Appropriate human and financial capacity underpins improved management and conservation of biodiversity. 2. The biodiversity workforce is fully representative of race, gender, and youth as effective sector leaders. 3. Mandated agencies capacitated for effective biodiversity conservation and sustainable use.
<p>6.6. Enhance the capacity necessary to conserve and use South Africa's biological diversity sustainably.</p>		

	<p>5. Fit for purpose and funded organisational design for mandated agencies enhance biodiversity service delivery outcomes.</p> <p>6. Support and encourage a culture of entrepreneurship to harness sustainable opportunities of the Biodiversity economy.</p> <p>7. Promote and support the development of educational and training courses, workshops, and other professional development exercises on biodiversity management of relevance to the southern African region, and other developing countries.</p>	
<p>GOAL 7: BIODIVERSITY ECONOMY TRANSFORMED: Create conditions and mechanisms that support transformative conservation and sustainable use of biodiversity.</p>		
<p>Policy Objective</p> <p>7.1. Promote and develop inclusive economic opportunities that are compatible with and which complement the conservation and sustainable use of biodiversity.</p>	<p>Expected Output</p> <p>1. The value of South Africa's rich biodiversity is leveraged for all users, and sectors, in an ecologically sustainable manner.</p> <p>2. Legislation and other tools that provide meaningful participation of PDIs in the biodiversity sector in order to transform the sector.</p> <p>3. South Africa's biodiversity conservation and sustainable use standing and reputation enhanced through responsible and humane practices.</p> <p>4. Mechanisms for promotion of access, and benefit sharing, in a fair and equitable manner, for local communities living with biodiversity, particularly for those removed from, and adjacent to, conservation areas.</p> <p>5. Mechanisms for local community and PDI entrepreneurship, to ensure meaningful participation of PDIs, and their entry into local biodiversity-based value chains.</p>	<p>Expected Outcome</p> <p>1. Global leader in progressive conservation and sustainable use approaches.</p> <p>2. Ecologically sustainable use drives socio-economic growth, with increased national GDP contribution.</p> <p>3. Meaningful community participation, influence and benefit.</p> <p>4. Thriving localised value chains from the local resource base, and its geographical advantage.</p> <p>5. Improved livelihoods and well-being of previously disadvantaged communities, from increased access and benefit sharing.</p>
<p>7.2. Create and implement mechanisms that support the conservation and sustainable use of biodiversity.</p>	<p>1. Integrated and innovative funding and investment models, and resource mobilisation to support biodiversity conservation and sustainable use.</p> <p>2. Mechanisms for investment in transformative biodiversity conservation and biodiversity economy initiatives that grow our natural and social capital, including for Global Change mitigation and adaptation activities.</p> <p>3. Barriers to entry and participation in the biodiversity economy significantly reduced.</p>	<p>1. Sustainable representative and expanded conservation estate.</p> <p>2. Restituted owners and previously disadvantaged individuals empowered to drive and meaningfully participate in the biodiversity economy.</p> <p>3. Local biodiversity-based benefits drive thriving community livelihoods and well-being.</p>

	<p>4. Priority biodiversity conservation and biodiversity economy interventions within the District Development Model developed through effective multisectoral partnership.</p> <p>5. Eco-labels are developed, regulated and promoted to enhance market share of improved sustainable products and practices, including registered geographic indicators, for biodiversity economy growth.</p>	
GOAL 8: PROMOTE THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY GLOBALLY		
Policy Objective	Expected Output	Expected Outcome
<p>8.1. Develop an integrated, coordinated, and effective approach to international and multilateral engagements on biodiversity conservation, sustainable use, and equitable benefit sharing.</p>	<p>1. South Africa's participation in all bilateral and multilateral biodiversity agreements mutually supportive and harmonised.</p> <p>2. Effective implementation of international biodiversity agreements.</p> <p>3. Negotiate, sign, and/or ratify new agreements and arrangements that are relevant to the conservation, sustainable use of biodiversity, and equitable benefit sharing, in line with the country's international relations framework.</p> <p>4. Strengthen South Africa's participation in appropriate southern African and African fora to consider biodiversity issues of relevance to the region.</p> <p>5. Maintain and strengthen South Africa's participation in multilateral agreements, arrangements, and programmes related to the conservation, sustainable use of biodiversity, and equitable sharing of benefits.</p> <p>6. Ensure strong evidence base to inform and support South African involvement and positions in multilateral agreements and engagements, taking into account national priorities.</p> <p>7. Encourage the co-ordinated participation of civil society organisations in international fora relating to the conservation and sustainable use of biodiversity.</p>	<p>1. South Africa participates and influences biodiversity matters at the international level.</p> <p>2. South Africa one of the leading countries in addressing biodiversity loss in the region and internationally, and advances thriving biodiversity in Africa.</p> <p>3. South Africa's national interests guide negotiations on biodiversity conservation, sustainable use, and equitable benefit sharing, in multinational engagements.</p> <p>4. Positive contribution to improve planetary health.</p>

11 IMPLEMENTING THE POLICY

11.1 INTRODUCTION

The implementation of the Constitutional Environmental Right, sustainable socio-economic development, and meeting obligations, such as under the CBD, through this White Paper, lies in the sphere of responsibility of a variety of agencies, from national, provincial, and local level. In terms of South Africa's Constitution, most functions of relevance to biodiversity conservation are a concurrent legislative competence of national and provincial government. This means that cooperative governance within national, provincial, and local spheres is necessary for the effective implementation of this policy. Cross-sectoral cooperation within each sphere of government will also be crucial, given that biodiversity issues are of relevance to virtually every government institution. Many of the actions required by this policy are already being financed and implemented by the DFFE, by the provincial departments, or organs of state responsible for the environment and conservation, and by various other national and provincial departments. Effect is given to local interventions through Municipal Integrated Development Plans, and their associated budgets, including funding for municipal projects through various provincial and national departments. Coordination of this is undertaken through COGTA, in partnership with the municipalities and various departments.

Understanding the budget constraints facing South Africa and giving cognisance to the ambitious transformation of the sector envisaged within this White Paper, it is essential that close and urgent attention and planning be given to financing and implementing the policy objectives. This will require integrated planning approaches across government levels (national, provincial, and local), as well as across sectors), as envisaged, for example, in the District Development Model, or the Sukuma Sakhe approach of the Province of Kwazulu-Natal. Such integrated planning will necessitate new approaches as to how biodiversity conservation and sustainable use are incorporated into National, Provincial and Municipal Spatial Development Plans. Biodiversity resources and ecosystem services should no longer be seen as inviolable green zones on maps, but, rather, be envisaged as core and vital contributors to local socio-economic development, especially as key drivers of rural economies and livelihoods.

This will require introspection, reflection, and courageous discussions among all stakeholders, and which should be driven by the biodiversity sector at all levels. Given the fiscal constraints, focus has to be given to interventions and change in practices and behaviours, in order to achieve efficiencies and to increase effectiveness. Innovations will be required, to develop new funding models, including an emphasis on public-private partnership that incorporate local rural communities in meaningful ways as leaders and full beneficiaries. This is a form of investment by all spheres of government in the future biodiversity economy.

Key to this will be the incorporation of policy outputs into implementation plans by relevant government institutions, based upon guidelines to be developed by the DFFE. In doing so, development plans and their associated projects, should reflect the integration of biodiversity considerations in relevant sectoral budgets. A political commitment to achieving this, through the allocation of necessary budgets, is fundamental to the successful implementation of this policy. Such plans should also make provision for, and include funding models that incorporate the private sector and local communities.

By implementing this White Paper, Government commits itself to a biodiversity policy and strategy that will promote the development, growth, and systemic transformation of South Africa through:

- (a) Ensuring that the essential ecosystem services and biological resources required that meet basic human needs are protected for current and future generations, and their conservation promoted;
- (b) securing ecologically sustainable development and use of natural resources while promoting justifiable economic and social development, i.e., not restricting economic development unnecessarily, but ensuring that such development is ecologically sustainable;
- (c) enhancing the provision of jobs and livelihoods related to the conservation of biodiversity and sustainable use of biological resources;
- (d) ensuring that opportunities derived from the conservation of biodiversity and sustainable use of biological resources favour previously disadvantaged individuals;
- (e) enhancing human capital necessary to conserve biodiversity and use biological resources sustainably;

- (f) partnering with private industry and local communities living in and adjacent to conservation areas to grow the sector, especially in traditional authority areas;
- (g) increasing participation in the institutions of civil society engaged in conserving and using biodiversity;
- (h) increasing participation and involvement of indigenous peoples and indigenous communities embodying traditional lifestyles relevant for the conservation of biodiversity and sustainable use of its components; and
- (i) Enhancing South Africa's international reputation and leadership in biodiversity conservation and sustainable use, including growing South Africa as an international destination of choice for responsible and humane sustainable use of biodiversity.

11.2 ROLES OF THE KEY PLAYERS

11.2.1 THE ROLE OF GOVERNMENT

11.2.1.1 NATIONAL GOVERNMENT

The Department of Forestry, Fisheries and the Environment

As the institution responsible for administering the Convention on Biological Diversity, the DFFE plays a strong leadership role in ensuring that the provisions of this policy are implemented effectively. Through its Branch: Biodiversity and Conservation, the Department is already actively engaged in implementing many of the provisions required by the Convention. New actions articulated by this policy will, however, require the Department to be strengthened, existing priorities to be realigned, and new and additional financial resources to be committed to and by the Department. As the "champion" of biodiversity, the Department will play a proactive role in:

- (a) Promoting global, regional, and national cooperation and coordination with regard to the conservation of biodiversity;
- (b) formulating and reviewing policy;
- (c) strengthening communication networks with the provinces, and other national government departments and institutions;
- (d) promoting and facilitating the integration of biodiversity considerations into sectoral and cross-sectoral plans, programmes, and policies;
- (e) establishing, administering, and managing required coordinating structures; and
- (f) organising the participation of national and provincial government in relevant international fora.

Other national government departments

Because of the cross-sectoral nature of biodiversity, several other national government departments will play a vital role in the implementation of this policy. These include the DLRRD, Water and Sanitation; Trade and Industry; Human Settlements; Health; Mineral Resources and Energy; Transport; Sports, Arts and Culture, Social Development; Science and Innovation; Finance; as well as the South African National Defence Force. Of crucial importance will be their commitment to cooperating with one another, and to developing sectoral-specific plans and budgets to reflect how biodiversity considerations will be incorporated, integrated, and mainstreamed into the activities of their respective departments.

National statutory bodies

The three national statutory bodies directly affected by the provisions of this policy are the SANBI, SANParks, and ISimangaliso. These agencies will continue to play a crucial role in ensuring that South Africa's biological heritage is conserved and used sustainably. To achieve the goals of this policy, this may require in some instances that existing priorities be reassessed. An important task will be to strengthen cooperation between the SANParks and provincial conservation agencies, to enable an effective and representative protected area system to be developed.

11.2.1.2 PROVINCIAL GOVERNMENT

In many respects, the functions of the provincial government with regard to the implementation of this policy will be similar to those of national government, although emphasis at provincial level will be on formulating policies and strategies which are locally applicable, responsive to the climate, biodiversity, and particular challenges of the province, and that are in accordance with national biodiversity objectives. Furthermore, the provinces will play a far greater role in undertaking the execution of the policy. Many of the actions required by the policy are already being undertaken by the provincial environment and conservation departments. It is accepted that such departments and provincial statutory bodies are resource constrained, and their execution of new tasks will require considerable capacity to be built and additional financial resources to be provided. Through the provincial legislature and necessary coordinating structures, environment and conservation departments in each province will play an important role in developing strong collaboration between other departments responsible for activities concerning the conservation and use of biodiversity within the province. Other provincial departments will also be affected by the provisions of this policy through measures introduced by their national departments, and by legislation. In addition to these roles, provincial environment and conservation departments will continue to play an essential function throughout the provinces in terms of providing conservation extension services, regulating and monitoring the use of biological resources, preventing the loss of biodiversity, and developing and managing protected areas. Their primary function will be to conserve the country's biodiversity, and to participate in and coordinate efforts to ensure the development and management of an effective and representative protected area system. An additional function of conservation agencies will be to promote sustainable development outside protected areas, through the forging of appropriate partnerships with communities, non-governmental organisations (NGOs), the private sector, and other government departments. Building such partnerships may require the involvement of communities in the management of protected areas.

11.2.1.3 LOCAL GOVERNMENT

Local government will be faced with difficulties in implementing this policy. In rural areas especially minimal capacity, infrastructure, or resources exist to enable many of the provisions of this policy to be implemented effectively. According to local circumstances and capacity, some functions of local government will be to:

- (a) Ensure that biodiversity considerations are effectively integrated and mainstreamed into local strategies, plans and programmes;
- (b) institute and participate in public education, awareness and training programmes;
- (c) develop management plans for local resources that are under pressure;
- (d) ensure that biodiversity considerations are integrated into land-use planning procedures for rural and urban areas; and
- (e) encourage and prepare municipal open space systems which play a positive role in conserving and using biological resources sustainably.

11.2.2 THE ROLE OF OTHER KEY PLAYERS

Strong partnerships will be required not only between government agencies, but between non-governmental organisations, community-based organisations, women's groupings, holders of traditional knowledge, the private sector, the scientific community, and private individuals.

This support is especially needed in light of the limited capacities of government to implement the required steps. Government's policy will be to enter into partnership arrangements wherever necessary with different groupings, and to ensure that mechanisms and procedures are in place which facilitate this cooperation.

11.2.2.1 THE SCIENTIFIC COMMUNITY

The knowledge and expertise contained within South Africa's universities, museums, conservation and other government agencies, parastatals, non-governmental organisations, and other research institutions is fundamental to implementing this policy. The primary role of the scientific community will be to provide the information and the necessary scientific evidence required to achieve the goals and objectives of this policy. It is the intention of Government to build on this body of excellence to improve knowledge and understanding of South Africa's biodiversity, and to draw upon available capacity to provide guidance to policy and decision makers and resource managers.

11.2.2.2 BUSINESS AND INDUSTRY

Business and industry will play several important roles in the implementation of the policy. Among others these will include full engagement and compliance with the environmental and biodiversity legislation enacted by government; the acceptance of social responsibility for biodiversity by adopting additional voluntary measures wherever possible and appropriate; and the development of economic activities that support the conservation and sustainable use of biodiversity.

11.2.2.3 NON-GOVERNMENTAL ORGANISATIONS

Many successful efforts in South Africa to conserve and sustainably use biodiversity have come about through the commitment of conservation and development of NGOs. Such organisations will continue to play a crucial role in realising the goals and objectives of this policy, through the implementation of specific projects and programmes. NGOs will also provide an essential independent monitoring and "watchdog" role, to ensure adherence to the commitments articulated in this policy. Those with insights into the implementation of specific aspects of the policy will be invaluable in providing advice and expertise to Government. A particularly crucial role will be played by those NGOs engaged in development work, and in capacity building and environmental educational and training programmes.

11.2.2.4 COMMUNITIES

Communities, hitherto excluded from policy discussions concerning biodiversity conservation, are also expected to play a vital role in the conservation and sustainable use of biodiversity. How this is effected will vary from community to community. In some instances, communities will play an important role in managing and using local resources to ensure their conservation and sustainable use. In other cases, local knowledge and skills will be invaluable in assisting monitoring and inventory work, such activities also providing jobs for people. And in certain circumstances, communities have a key role to play in rehabilitating degraded ecosystems.

Fulfilling such actions will require increased and improved training opportunities to be created, and the creation of related economic opportunities to allow for skills to be used. This includes mainstreaming of project-based employment schemes into sustainable careers and livelihoods.

11.2.2.5 TRADITIONAL HEALERS, FARMERS AND OTHERS HOLDING TRADITIONAL KNOWLEDGE

Traditional healers, farmers, and others holding traditional knowledge will play an especially important role in developing guidelines for the protection and use of traditional knowledge, and procedures for benefit-sharing. In addition, these groups will play a vital monitoring role to ensure that provisions of this policy concerning traditional knowledge and benefit-sharing are implemented satisfactorily. This will require improved coordination and mobilisation between relevant organisations and individuals, and support to enable such actions to occur.

11.2.2.6 WOMEN AND YOUTH

Women, and rural women, play a vital role in the conservation and sustainable use of biodiversity. Often being responsible for gathering fuel wood, building materials, medicines, food, and water, they are frequently most directly affected by a local loss in biodiversity. Their involvement in the implementation of this policy and strategy will be key to ensuring that the use of resources for subsistence purposes is sustainable, and that livelihoods are secured. As mothers and educators, women, together with men, also have a central role to play in raising awareness amongst future generations as to the importance and value of conserving and sustainably using the country's biodiversity. Their role in decision-making requires particular emphasis, given the fact that women have thus far been largely marginalised from decisions concerning the conservation and sustainable use of South Africa's biodiversity. Similarly for youth, which represent the future, and their voice, perspectives, and aspirations need to inform the implementation of this White Paper.

11.3 LEGISLATION

11.3.1 INTERNATIONAL FRAMEWORK

South Africa ratified the CBD on 2 November 1995. As a contracting Party to the negotiations for the adoption of the Global Biodiversity Framework in 2022, several legal implications will need to be considered within the framework of the country's domestic legislation. In terms of the Constitution, South Africa is bound by international agreements. However, because of the nature of the Convention, which sets out broad principles rather than specific legally binding provisions, a further process is required to give the agreement full effect. This would determine the extent to which existing domestic legislation meets the specific requirements of the Convention, and the need for new or amended domestic legislation to be enacted.

11.3.2 CONSTITUTIONAL IMPLICATIONS

11.3.2.1 THE CONSTITUTIONAL SCHEME

The proposals articulated in this policy and strategy cut across most national government departments and impact on national, provincial, and local government. It is therefore necessary to consider the policy in the context of the Constitution, and specifically with regard to the allocation of powers and functions entrenched therein. The Constitution provides for a single sovereign State in which the national government has full powers to pass legislation on matters other than those which fall within a functional area of the exclusive competence of the provinces. National government also has powers to pass legislation on matters which are not expressly assigned. The provinces have only those powers and functions allocated to them by the Constitution.

The Constitution allocates certain powers concurrently to national and provincial spheres of government, and certain powers exclusively to the provinces, described in Schedules 4 and 5 respectively of the Constitution.

11.3.2.2 CONCURRENT COMPETENCES OF NATIONAL AND PROVINCIAL GOVERNMENT

With some exceptions, most functional areas of relevance to the conservation and use of biodiversity are set out in Schedule 4 of the Constitution, which describes functional areas of concurrent national and provincial legislative competence. These include areas such as agriculture, environment, nature conservation, pollution control, regional planning and development, soil conservation, urban and rural development, and tourism. Concurrent competence means that both national and provincial spheres of government are empowered to pass and implement legislation relating to specific functional areas. Where there are conflicts between national and provincial government concerning a functional area listed within Schedule 4, certain rules are provided to resolve such conflicts. Of relevance is a "national override" provision which states that national legislation would prevail over provincial legislation if:

(a) The national legislation deals with a matter that cannot be regulated effectively by legislation enacted by the respective provinces independently;

(b) the interests of the country as a whole require that a matter be dealt with uniformly across the nation (e.g., the setting of national norms and standards); or

(c) the national legislation is necessary for matters such as the protection of the environment.

11.3.2.3 EXCLUSIVE PROVINCIAL COMPETENCE

Schedule 5 of the Constitution sets out those functional areas in which the provincial government enjoys exclusive competence. Although the bulk of functional areas relevant to the conservation and use of biodiversity are of concurrent national and provincial competence, some relevant functional areas, including provincial planning, are included in Schedule 5.

Where power has been allocated to the exclusive competence of provincial government, national government may intervene and pass legislation, but only where such legislation fulfils certain constitutionally mandated purposes (e.g. the setting of national standards). The Constitution empowers provincial government to legislate on any matter outside of the functions already listed in the Schedules where that matter is expressly assigned to the provinces by national legislation.

The executive authority of the provinces includes the authority to implement provincial legislation, implement national legislation within the functional areas listed in Schedules 4 and 5, develop and implement provincial policy, and coordinate provincial departments and administration. However, a province has executive authority only to the extent that it has the administrative capacity to assume effective responsibility. Pursuant to section 100 of the Constitution, the national executive enjoys a power of supervision over the provincial administration, enabling the national executive to intervene where the province cannot or does not fulfil an executive obligation. The national government is however required to assist provinces, by legislative and other measures, to develop the administrative capacity needed for the effective exercise of their powers and performance of their functions.

11.3.2.4 PROPERTY RIGHTS

The recognition of property rights has been a historical cornerstone of South African common law and has recently found expression in the Bill of Rights of the Constitution. Because much of South Africa's biodiversity falls within private ownership, it is crucial to consider the property clause of the Bill of Rights in the context of this White Paper. Historically, under South African common law, the State has had authority to regulate and control the manner in which any property, including biological resources, is conserved and used. The section on property in the Bill of Rights reinforces this common law position. Section 25(1) of the Constitution provides that no one may be deprived of property unless this is in terms of a law of general application and is not arbitrary. The section further stipulates that compensation is only payable if there is expropriation and does not refer to the situation where there is only deprivation. The State, through legislation, is, therefore, empowered to introduce regulations on property to achieve the conservation and sustainable use of biodiversity.

11.3.3 LIMITATIONS OF EXISTING LEGISLATION

11.3.3.1 FRAGMENTATION

South Africa has a substantial body of law regulating the conservation and use of biodiversity. However, as is the case for several other areas of environmental policy, biodiversity cuts across many diverse sectors and areas of public administration. The result is an extremely high degree of fragmentation, with legislation being spread across many different departments, at both national and provincial levels. Exacerbating the problem is the inadequate national norms and standards from which legislation for biodiversity can be harmonised.

11.3.3.2 CONFLICTING LEGISLATION

Also of concern is the fact that laws governing biodiversity conservation and sustainable use are often misaligned. There is, for instance significant misalignment between national and provincial legislation, which often makes coherent biodiversity governance and enforcement more difficult, for officials to navigate, and for the public to act in compliance with.

11.3.3.3 REGULATORY INDEPENDENCE

Some organs of state that are responsible for promoting activities that are likely to have negative impacts on biodiversity are also charged with the regulation of those activities. Such potential conflicts of interest have resulted in stakeholders calling for the creation of an independent inspectorate, similar to the Environmental Protection Agency in the USA, to monitor compliance with and enforce environmental laws. Regulatory independence was also one of the principles in the White Paper on Environmental Management Policy, on which NEMA is based.

11.3.3.4 INEFFECTIVE ENFORCEMENT

Although a substantial amount of environmental legislation is in place in South Africa, enforcement thereof is not effective. Compounding the problem penalties imposed for infringing legislation that are often insufficiently severe to "fit the crime", and the lack of capacity within organs of state to monitor compliance with environmental legislation. These constraints have serious implications for the effective implementation of the policies articulated in this document. An innovative approach to compliance monitoring and enforcement is needed.

11.3.4 GAPS WITHIN EXISTING LEGISLATION

11.3.4.1 LACK OF AN INTEGRATED AND HOLISTIC APPROACH TO BIODIVERSITY

The CBD sets out important new approaches to biodiversity which have yet to be uniformly reflected by South African legislation. Underpinning international thinking is the importance of an integrated and holistic approach to biodiversity, which considers the range of political, economic, and ecological levels at which actions need to be targeted, and supports sectoral and cross-sectoral interventions to achieve conservation and sustainable use outcomes. Similarly, the importance of integrating and mainstreaming biodiversity into all spheres of decision-making, and within and across different economic sectors is an ongoing process that requires elevation.

11.3.4.2 BIODIVERSITY OUTSIDE OF PROTECTED AREAS

A major gap in existing legislation relating to the conservation and use of biodiversity is the general lack of attention given to biodiversity outside of protected areas and specifically to landscapes and ecosystems outside of protected areas. Where legislation does exist, it is often fragmented or poorly applied and enforced. The approach adopted by this policy is one which is holistic and integrated, requiring the adoption of legal measures to ensure the protection of identified species, ecosystems, and habitat types outside of protected areas. This is considered fundamental to achieving the goals and objectives of this policy.

11.3.4.3 SECTORAL POLICIES

A major goal of this policy requires the conservation and sustainable use of biodiversity to be integrated into all sectoral and cross-sectoral plans, programmes and policies at all levels of government and in industry. The need for legislation to achieve this requires further consideration.

11.3.4.4 ACCESS TO GENETIC RESOURCES

The Bioprospecting, Access and Benefit Sharing (BABS) Regulations, 2008 made under NEMBA, entered into force on 1 April 2008 which have since been amended. The BABS Amendment Regulations 2015 came into force on 19 May 2015 and prescribe the notification process for the discovery phase of bioprospecting involving any indigenous genetic and biological resources contemplated in section 81A (2) of NEMBA and further prescribe the permit system set out in Chapter 7 of the Act insofar as that system applies to bioprospecting involving any indigenous genetic and biological resources or export from the Republic of any indigenous genetic and biological resources for the purpose of bioprospecting or any other kind of research. However, barriers may hinder organs of state from effectively documenting our biodiversity and developing biodiversity-based intellectual property for commercial development.

In addition, the BABS Amendment Regulations set out the form and content of, and requirements and criteria for benefit-sharing and material transfer agreements and the administration process of the Bioprospecting Trust Fund.

The Nagoya Protocol on Access and Benefit Sharing entered into force in 2014 to support the implementation of the third objective of the Convention on Biological Diversity: the fair and equitable sharing of benefits arising from the utilization of genetic resources. The objective of the Protocol intends to ensure that biodiversity-rich countries (e.g., South Africa) obtains a fair share of benefits arising from the use of their genetic resources by setting out a clear and transparent legal framework for ABS. South Africa ratified the Protocol in January 2013 and would need to implement the provisions of the protocol going forward.

11.3.4.5 BIODIVERSITY IS A COMMON HERITAGE FOR ALL

Biodiversity is a common heritage for all and should be protected, managed and used for the benefit of current and future generation and in and for the public interest. South Africa has progressive property rights legislation that affords ownership to components of biodiversity to private individuals or group of people. The private ownership for game has acted as an important incentive for conservation and has resulted in many successful conservation initiatives in the country. There is, however, also a need to ensure that the public interest is safeguarded, including for the welfare of wild animals in private ownership, and that private and public interests are fairly balanced. Further to this, where wild animals cause damage to properties, mechanisms have to be in place to address liability for such damage.

11.3.5 CRITERIA AND GUIDELINES

In considering the amendment of existing or introduction of new legislation to meet the goals and objectives of this policy, Government will be guided by the following criteria and guidelines which require:

- (a) Legislation to emphasise the importance of the national government as the custodian of South Africa's biological diversity, and to adopt necessary measures to emphasise this role;
- (b) uniform norms and standards to be established;
- (c) legislation to be reasonable and easily implementable;
- (d) effective conflict resolution mechanisms to be established to address conflict at all levels of governance;
- (e) new legislation to complement existing legislation;
- (f) socio-economic aspects of biodiversity (e.g., benefit sharing, compensation for local knowledge, biodiversity-driven ecosystem services as a basis for future sustainability) to be a crucial component of legislation;
- (g) legislation to recognise that those who conserve biodiversity should derive value from such actions;
- (h) legislation to be used to implement the development of incentives and effective deterrents;
- (i) legislation to be considered in conjunction with other tools;

- (j) clarification to be given with regard to the roles and responsibilities of different agencies, and the problem of fragmentation of public institutions; and
- (k) an integrated and holistic approach to be adopted which focuses predominantly on the in-situ conservation and restoration of ecosystems and natural habitats, and the maintenance and recovery of viable populations of species in their natural surroundings.

11.3.6 NATIONAL LEGISLATIVE STEPS

Stemming from these criteria and guidelines, as well as from the limitations and gaps of existing legislation identified above, the following actions will be undertaken by Government:

(a) As part of the legislative and institutional audit that will be undertaken to implement the general national environmental policy, an investigation will also be performed of the efficacy of existing and proposed biodiversity-related legislation. This will consider legislation governing the conservation and use of biodiversity, as well as the regulation of sectoral activities. It will also review South Africa's approaches to other international agreements of relevance to biodiversity and ensure that such approaches are consistent with the policies articulated in this White Paper. Such an investigation will lead either to the development of new legislation or the amendment of existing legislation and will indicate institutional changes required.

(b) Following this audit, framework biodiversity legislation will be developed/amended and implemented that is specific to achieving certain goals and objectives contained within this White Paper. It is envisaged that such legislation will rationalise and harmonise existing legislation, will articulate national norms and standards, and will embrace the holistic approach towards biodiversity that is presently absent in the law. Institutional arrangements for the effective realisation of the law will additionally be specified. The participation of both the national and provincial spheres of government will be ensured in this process so that the result is in keeping with the concurrent responsibilities held by these levels of government. This will further lead to the development or amendment of provincial legislation as appropriate.

(c) The purpose of the framework legislation described would largely be to give effect to goals of this White Paper, concerning the conservation and sustainable use of biodiversity. Government undertakes to develop such legislation as a matter of urgency.

11.4 INSTITUTIONAL CHANGES REQUIRED

11.4.1 EXISTING CONSTRAINTS

There are a number of major constraints hindering the effective implementation of this White Paper:

- (a) Inter-institutional fragmentation and conflicts of interest have resulted in strained intergovernmental relations concerning environmental matters. It is imperative to improve coordination and build understanding between institutions responsible for activities concerning the conservation and use of biodiversity;
- (b) the linking of conservation to other competencies such as tourism and agriculture has resulted in considerable competition in the allocation of funding. In addition, the establishment of new environmental departments in many of the provinces has resulted in a dwindling of the funds assigned for conservation, rather than new and additional funding being allocated from provincial and central government Treasuries;
- (c) there has been a perceptible drainage of essential expertise from government, as part of the rationalisation process. This has affected the ability of government to implement the provisions of this policy effectively;
- (d) the tendency of government departments to keep functions exclusive, and operate in a siloed approach, has thwarted many efforts to integrate biodiversity and environmental considerations cross-sectorally;
- (e) there has been a lack of government capacity to effectively monitor implementation and no structured mechanism to independently evaluate the performance of government and other sectors; and

- (f) there is considerable confusion, overlapping or competing mandates, and inefficiencies concerning the roles and responsibilities of different spheres of government in the context of the new Constitution, including from concurrent competencies.

11.4.2 INSTITUTIONAL STRUCTURES

Not all of these constraints can be easily addressed, but all point towards a number of institutional deficiencies requiring:

- (a) Improved coordination, integration, and communication between and across the different levels of government;
- (b) a structured mechanism, wherein input from non-governmental parties such as industry, NGOs, communities, holders of traditional knowledge, women, and the scientific community can be solicited to guide implementation;
- (c) an independent mechanism to monitor and evaluate government's performance with regard to the implementation of this policy;
- (d) clarification on the roles and responsibilities of the different spheres of government with regard to biodiversity management; and
- (e) a strengthening of government's role and capacity in biodiversity management.

Guiding the development of models to address such deficiencies is the principle that wherever possible, existing structures should be adapted or strengthened to undertake the required tasks, through the enhancement of existing capacity, the provision of adequate powers, and the allocation of sufficient budgets. In the interests of prudent administration, a proliferation of institutional structures should be guarded against, and new structures should be introduced only where appropriate and absolutely necessary.

11.5 FUNDING

The full and effective implementation of this policy will clearly not be possible without additional financial investments. Government will investigate possibilities for obtaining additional finances through continued State funding, pursuing private sector funding, the introduction of incentives and disincentives, revenue generation, and attaining international and donor funding.

11.5.1 GOVERNMENT FUNDING

Many of the actions required by this policy are already being financed and implemented by the DFFE, provincial departments of conservation and environment, and several other national, parastatal, and provincial agencies. Government will ensure adequate funding levels and endeavour to increase funding in areas articulated by this policy that are not well addressed by present arrangements. To optimise the present use of funds, Government will ensure accountable and effective expenditures on biodiversity. Attention will additionally be given to existing under-investments in biodiversity.

11.5.2 PRIVATE SECTOR FUNDING

The private sector has traditionally been a vital partner in contributing to financing of biodiversity initiatives in South Africa. Government will support the continued and increased involvement of the private sector in funding aspects of the policy, and in assisting through social responsibility programmes. It will be crucial to ensure that funding arrangements, and the development of agreements with the private sector be transparent and open to public scrutiny.

11.5.3 INCENTIVES, DISINCENTIVES AND REVENUE GENERATION

Government is also aware of the need to pursue innovative approaches to ensure implementation of this policy. Attention will be given to investigating and developing creative ways in which new finances can be generated to support the objectives of this White Paper through, for example:

- (a) The use of taxes, levies, and charges linked to activities directly using and/ or affecting biodiversity;
- (b) The generation of revenues from the sustainable development of biodiversity (e.g. tourism, animal and plant products);
- (c) The establishment of a Biodiversity Trust Fund;
- (d) Royalties generated through biodiversity prospecting activities; and
- (e) The introduction of conditions and incentives to strengthen the involvement of the private sector in the conservation and sustainable use of biodiversity. The introduction of such measures will be coordinated and streamlined with other similar initiatives to ensure that Government adopts a uniform, and rational approach to the introduction of incentives and disincentives.

11.5.4 INTERNATIONAL AND DONOR FUNDING

Increasing efforts will be made to obtain international and donor funding for appropriate projects that can be implemented immediately but which can be managed sustainably. In addition, mechanisms will be established as a matter of priority to coordinate donor funding, and a forum established to liaise with donors.

11.6 PRIORITY ACTION

All of the policy objectives articulated by this policy are important, but many are not immediately achievable, and others are dependent upon first putting in place the necessary building blocks and removing existing constraints. A priority action of this policy will be to draft an action plan through which detailed implementation strategies can be developed. This action plan will form an essential component of the NBSAP and the NBF. In singling out those issues requiring urgent attention in the action plan, consideration will be given to (a) the needs expressed by the consultative process; (b) those actions likely to achieve the greatest impact with regard to stemming the loss of biodiversity; and (c) obligations of the CBD which South Africa has not yet met, and for which there is a pressing need.

These include:

- (a) Obtaining a political commitment from all relevant ministers and provincial MECs towards achieving the objectives of this policy. This will be in the form of approved sectoral plans and budgets for all relevant central government departments and provincial institutions;
- (b) addressing concerns relating to the present degree of fragmentation amongst nature conservation agencies, and establishing the necessary institutional arrangements to accommodate such concerns and to ensure that effect is given to this policy;
- (c) the securing of necessary funding for implementation;
- (d) strengthening South Africa's protected area system, and improving governance effectiveness;
- (e) implementing legislative and administrative mechanisms to control access to South Africa's genetic resources;
- (f) instituting a national biodiversity education and awareness plan; and
- (g) actively participating and implementing the Biosafety Protocol, and instituting appropriate measures for biosafety, including the creation of sufficient capacity to manage risks and to undertake risk assessments.

Given the cross-sectoral and diffuse nature of many of these actions, it is not possible to provide an exact estimate of the costs involved in their implementation. What is clear is that a substantial investment will be required to achieve this policy.

By addressing the agenda articulated in this policy it *is* possible, and it *must* be possible, for South Africa to achieve its vision of a nation which derives lasting development and environmental benefits from the conservation and sustainable use of its rich biological diversity.