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**White Paper on the Conservation and Sustainable Use of South Africa's
Biodiversity as approved by Cabinet**

Department of Forestry, Fisheries and the Environment

STEPS ON THE POLICY FORMULATION PROCESS

In 2021, the Department of Forestry, Fisheries and the Environment (DFFE) initiated a process to review, update and build on the 1997 Draft White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity. The 1st draft of this new White Paper was developed through internal government processes that involved a technical workshop held on 27 October 2021, comprised of participants from the Ministerial Technical Committee on Environment (MinTech), relevant MinTech Working Groups, Management Authorities and Conservation Agencies. The DFFE convened further technical workshops on 4, 11 and 18 November 2021, involving the Management Authorities and Conservation Agencies for the purpose of soliciting inputs on this 1st draft. The refined draft White Paper, incorporating inputs received through a series of technical workshops, was processed through the intergovernmental structures (Working Groups, MinTech and MINMEC) and recommended to Cabinet for approval for publication for public comment.

Following Cabinet's approval on 22 June 2022, the draft White Paper was gazetted for public comment in Government Gazette No. 46687, Government Notice No. 2252 on 8 July 2022. The call for public comment was also published in two newspapers, the Business Times and the Sowetan on the same day. Although the public were initially given a period of 60 (sixty) days in which to submit comment, this public comment period was extended by notice in the Government Gazette No. 46908 on 14 September 2022 until 26 September 2022, in order to provide an additional opportunity to members of the public to provide further inputs, either through physical or virtual workshops or written submissions.

The DFFE, together with the Management Authorities and Conservation Agencies, conducted a further extensive consultation process involving both virtual and physical engagements, in all nine provinces to gather input and comment on the draft White Paper.

Virtual consultation sessions included:

- The DFFE: 28 July 2022 (39 participants);
- National departments: 3 August 2022 (71 participants);
- Biodiversity and conservation sector: 4 August 2022 (93 participants);
- Academic and financial institutions sector: 5 August 2022 (35 participants);
- Provincial Management Authorities, Parks Boards and Entities: 10 August 2022 (59 participants);
- Wildlife sectors: 11 August 2022 (104 participants);
- Welfare sectors: 12 August 2022 (59 participants); and
- South African Local Government Association (SALGA): 8 September 2022 (107 participants).

In addition to the above, physical consultations were undertaken with different stakeholders, including, traditional leaders, traditional health practitioners and ordinary members of communities in all nine provinces. A total of 1 633 stakeholders participated in physical consultations across the nine provinces as follows:

- Eastern Cape: 22 – 23 August 2022
- KwaZulu-Natal: 23 – 24 August 2022
- Western Cape: 25 – 26 August 2022
- Mpumalanga: 25 – 26 August 2022
- Gauteng: 25 – 26 August 2022
- Limpopo: 24 – 25 August 2022 and 23 September 2022
- North West: 22 – 23 August 2022
- Free State: 23 August 2022, 09 September and 22 September 2022
- Northern Cape: 25 August and 01 September 2022

During this 1st round of public comment, 244 written submissions were received including approximately 5 200 petitions and 194 online comments. All of these comment were reviewed and considered and used to inform a revision of the draft White Paper. This 2nd draft White Paper was also gazetted for a further round of public comment on 28 October 2022 for a period of 14 days. During this period, two physical consultations were held on 7 and 8 November 2022 involving industry and the People and Parks National Steering Committee, respectively. In the process, 35 online written submissions were received which resulted in a further refinement of the draft White Paper.

In line with the Department of Planning, Monitoring and Evaluation (DPME) policy development guidelines, a final Socio-Economic Impact Assessment (SEIA) was submitted and approved by DPME. The approved SEIA together with the final draft White Paper will be submitted through Intergovernmental processes and Cabinet for approval for promulgation and implementation.

EXECUTIVE SUMMARY

South Africa is one of the most biodiverse countries in the world. This incredible wealth in biodiversity has been enhanced by South Africa's biodiversity management approach, which recognises the role of government, the private sector and communities in its conservation and sustainable use. South Africa is globally recognised as a leading authority in biodiversity management. South Africa's reputation for biodiversity conservation and sustainable use has been built on a well-developed system of protected areas, coupled with efforts to expand nature conservation functions to private and communal lands, through among others, conservancies, natural heritage sites, community conservation areas, and cooperative conservation models such as biodiversity stewardship sites and biosphere reserves.

Similarly, South Africa has a long history of conservation and sustainable use of resources in aquatic, estuarine and marine ecosystems. The country has relatively well-managed coastal, marine and fisheries resources and has over the years introduced a variety of management measures to control the use and over-exploitation of such resources.

Notwithstanding South Africa's biodiversity wealth and recognised management successes, the sustained flow of benefits from the country's biodiversity remains dependent on functioning ecosystems and healthy species populations with high genetic diversity. With this acknowledgment, it is also acknowledged that South Africa's biodiversity is under immense pressure with global changes, including climate change, habitat loss and modification, invasive species, pollution, freshwater flow modification, and illegal harvesting, resulting in the ongoing loss of biodiversity, ecological degradation, and the decline of the ecosystem services from biodiversity and ecological infrastructure.

The development and effective implementation of policy, reasonable legislation and other measures, is therefore required to guide government, the private sector, and traditional and indigenous communities, in the conservation and sustainable use of South Africa's biodiversity.

This *White Paper on Conservation and Sustainable Use of South Africa's Biodiversity* was developed to promote the conservation of the rich biodiversity and ecological infrastructure that supports ecosystem functioning for livelihoods and the well-being of people and nature. It is envisaged that this will set the country on a strong path of sustainable development, considering the historical, socio-economic, and environmental context of South Africa, including the aspirations and needs of the people.

In this regard, the following challenges that require policy intervention have been identified:

- 1) Fragmented conservation responsibilities, duplication of efforts and underfunded conservation mandates that hamper the effective conservation and sustainable use of South Africa's biodiversity;
- 2) Lack of transformation in the sector, where a majority of the population are disadvantaged and disenfranchised from contributing to conservation and sustainable use;
- 3) Inadequate efforts in addressing the global challenges of biodiversity loss, land degradation, and climate change in the context of sustainable development;
- 4) Proliferation of biodiversity and conservation legislation, uneven governance, limited capacity and declining allocation of resources in the management of biodiversity and inadequate revenue generation efforts; and
- 5) Practices within the sector that have brought the country into disrepute.

In addressing these challenges, the White Paper emphasises the importance of the biodiversity sector to South Africa's economy, underpinned by strengthened conservation, sustainable use and access, and fair and equitable sharing of benefits arising from the utilisation of biodiversity and its components.

At a strategic level, the White Paper will achieve the following high-level outcomes:

- a) Policy certainty and a strong policy base for biodiversity conservation, sustainable use, and equitable growth in the biodiversity economy;
- b) A requirement for coherent and effective biodiversity conservation and a duty of care for the benefit of current and future generations;
- c) An integration of environmental, social, and economic elements to advance sustainable development that secures sustainable use
- d) Repositioned protected and conservation areas as effective mechanisms to contribute to sustainable rural development;
- e) A required process of transformation of the sector, with sustainable nature-based access and benefit flows for equitable and inclusive socio-economic growth and development; and
- f) Enhanced South African leadership in biodiversity conservation and sustainable use which is internationally recognised and promoting of African coherence and unity.

The White Paper therefore sets forth the following vision: *“An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations.”* The White Paper is aspirational and advocates for a society where all people have a high quality of life, a voice, and a nurturing earth supporting them.

With this, the policy sets out the following impact statement: *“Thriving People and Nature”*.

The White Paper contains four Goals:

- **Goal 1: Enhanced Biodiversity Conservation:** All biological diversity and its components conserved;
- **Goal 2: Sustainable Use:** The sustainable use of biodiversity enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while a duty of care avoids, minimises, or remedies adverse impacts on biodiversity;
- **Goal 3: Equitable Access and Benefit Sharing:** Benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the national interests;
- **Goal 4: Transformed Biodiversity Conservation and Sustainable Use:** Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress, and promotes transformation;

As well as two cross-cutting Enablers:

- **Enabler 1: Integrated, Mainstreamed and Effective Biodiversity Conservation and Sustainable Use:** Integrated policy and practice across government and the effective implementation of Multilateral Environmental Agreements; and
- **Enabler 2: Enhanced Means of Implementation:** Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity.

The implementation of this White Paper will provide a significant contribution to the achievement of a broad range of the Sustainable Development Goals, as well as the aspirations of the National Development Plan 2030, the Africa Agenda 2063, and key relevant Multilateral Environmental Agreements that South Africa has ratified.

It is, therefore, considered 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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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|-----------|---|
| CBD | Convention on Biological Diversity |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| DFFE | Department of Forestry, Fisheries and the Environment |
| DPME | Department of Planning, Monitoring and Evaluation |
| IPBES | Intergovernmental Platform on Biodiversity and Ecosystem Services |
| IUCN | International Union for Conservation of Nature |
| 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: ICMA | National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008) |
| NEM: PAA | National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) |
| OECM | Other Effective area-based Conservation Measure |
| PDI | Previously Disadvantaged Individual |
| SEIA | Socio-Economic Impacts Assessment |
| SMME | Small, Medium and Micro Enterprise |
| SPLUMA | Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) |

1 INTRODUCTION AND BACKGROUND

1.1 Policy Issue Identification

The foundation for the conservation and sustainable use of South Africa's biodiversity is the Constitution of the Republic of South Africa, 1996 (the Constitution), which is the Supreme law of the country. Section 24 of the Constitution provides for an environmental right that emphasises, amongst others, the need for the environment to be protected for the benefit of present and future generations. It further emphasises the need to put in place reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and that secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development.

To give effect to the Constitutional mandate, the National Environmental Management Act, 1998 (Act No. 107 of 1998) was promulgated to serve as framework legislation on matters pertaining to the environment, and to inform specific environmental management acts and associated subordinate legislation, as well as relevant policies. South Africa enacts ratified international agreements concerning biodiversity conservation and sustainable use through national legislation and policy, and where such legislation and policy are not required, gives prominence to international agreements through strategies and guidelines.

South Africa is considered to be one of the world's megadiverse countries, with exceptional biodiversity, characterised by high species richness, high levels of species endemism, and a wide variety of ecosystems. South Africa's richness is not limited to biodiversity, but also includes diverse cultures and languages, and exceptional geological and climatic diversity within its borders.

South Africa has a well-established network of protected areas, both on land and in the sea, which comprises protected areas falling under the mandates of national, provincial and local spheres of government, supplemented by state, private and community areas that range from controlled environments, crop and rangelands, agro-ecosystems, extensive wildlife systems, to intact fully functioning wilderness. Similarly, aquatic and marine systems have a range of different types of use. Collectively, these protected and conservation areas serve to protect the biodiversity and ecological infrastructure of South Africa. In addition, there are diverse approaches to the sustainable use of the multiple valuable, and often indispensable or irreplaceable, attributes, products, services and benefits of biodiversity, in both state and particularly within the private sector, that form the basis for a dynamic and important biodiversity-based economy. Biodiversity-based enterprises must compete in their value proposition with less conservation-compatible uses, such as agriculture, mining, fishing, and housing, to be a preferred land or ocean use option.

This White paper seeks to provide a policy framework on issues relating to:

- 1) The conservation of biodiversity;
- 2) The sustainable use of biodiversity;
- 3) Access to biological or genetic resources and the fair and equitable sharing of benefits arising from their utilisation; and
- 4) The transformation of the country to ensure redress to previously disadvantaged individuals, equality, and equitable inclusion within the biodiversity-based economy.

Improvement in these four areas are identified as the four goals of this White Paper.

Transformation will require conservation and sustainable use that redresses discrimination and unfair disadvantage, and enables and capacitates previously disadvantaged individuals, such that "people living in harmony with nature" can be achieved. Partnerships need to be built that promote respect and dignity for people and nature.

Furthermore, there are a number of significant barriers to the efficient and effective implementation of conservation and the sustainable use of biodiversity that result in uneven governance effectiveness. Integration and, mainstreaming as well as enhanced capacity and knowledge, can enable the mitigation of these and other barriers.

1.2 Problem Statement

People and nature are part of a complex, composite, intricate and totally interdependent web of life. Although our quality of life and very survival depends on the health and wellbeing of this web of life, there are many ways in which people relate to and value nature. How we value nature is influenced by who and where we are; what we think and believe; our traditions and customs; what we treasure and respect; our principles, standards and personal values; and our hopes, fears and life goals. Sustainable use of biodiversity therefore implies the careful and equitable use of nature so that all current and future generations of people get the full benefit of what they value from nature.

As a signatory to the Convention on Biological Diversity (CBD), government supports and promotes both consumptive and non-consumptive sustainable use, with important economic activities and employment based on these, including within the ecotourism, hunting, fishing, harvesting, bioprospecting, customary use, and recreation industries. Furthermore, ecological infrastructure, strategic water source areas, and groundwater aquifers, all provide ecosystem services from which society and the economy benefits. Government therefore intends to strengthen this sustainable use approach while addressing challenges that confront the sector. Given the diversity of how people values nature, and the benefits and uses of components of biodiversity, a differentiated approach embedded in a duty of care is needed for different components or elements of biodiversity and its sustainable use.

Within the context of the four policy goals broadly covering conservation, sustainable use, fair and equitable benefit sharing, and transformation, this White Paper provides policy direction in respect of the following challenges:

1.2.1 ***Fragmented conservation responsibilities, duplication of efforts and underfunded conservation mandates hamper the effective conservation and sustainable use of South Africa's biodiversity.***

- Duplication and overlap in legislation, and ineffective integration across spheres of government, results in barriers and inefficiencies.

1.2.2 ***Lack of transformation in the sector, where a majority of the population are disadvantaged and disenfranchised from contributing to conservation and sustainable use.***

- The sector remains untransformed, limiting the full exercising of rights and inclusive participation by traditional leaders and traditional health practitioners, previously disadvantaged individuals (PDIs) and indigenous people and local communities in access to, and sharing of, benefits.
- Limited participation and access of traditional leaders and traditional health practitioners, PDIs and indigenous people and local communities to natural resources, and socio-economic opportunities.
- The sector has not reached its potential in terms of its contribution to the national economy or to equitable socio-economic development.
- Complicated processes and procedures, and lack of resources, access, and awareness, hinder the unlocking of the genetic potential of biodiversity, and associated traditional and indigenous knowledge, into biotechnology value chains.

1.2.3 ***Inadequate efforts in addressing the global challenges of biodiversity loss, land degradation, and climate change in the context of sustainable development.***

1.2.4 ***Proliferation of biodiversity and conservation legislation, uneven governance, limited capacity and declining allocation of resources in the management of biodiversity, and inadequate revenue generation efforts.***

1.2.5 ***Practices within the sector that have brought the country into disrepute.***

- Inappropriate and illegal practices, activities, or actions that compromise animal well-being and ecosystem and genetic integrity, have negatively affected South Africa's reputation as a world leader in biodiversity conservation.

1.3 Vision, Mission, and Impact Statement

1.3.1 ***The Vision***

An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations.

1.3.2 ***The Mission***

To conserve and manage South Africa's biodiversity, and ensure healthy ecosystems, ecological integrity and connectivity, with transformative socio-economic benefits to society for current and future generations through ecologically sustainable, and socially equitable use of what people values from nature.

1.3.3 ***Impact Statement***

Thriving People and Nature.

This statement recognises that:

- a) An integrative, collaborative, inclusive, and participatory 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" land- and seascapes, but will include abandoned crop fields, rangelands, near natural areas, extensive wildlife systems, and wilderness that provides ecosystem 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 economy;
- 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.

1.4 Scope of Application

This White Paper provides an overarching framework to inform policies, legislation and practices involving biodiversity within terrestrial, aquatic, and marine ecosystems, managed by the state, and within communal and on privately-owned land. This includes biodiversity in natural as well as in controlled environments.

The White Paper provides policy certainty and guidance in the conservation, sustainable use, and fair and equitable access and benefit sharing of South Africa's biodiversity, in order to contribute to the transformation of society, the well-being of people and nature, and to the prosperity of society.

The responsibility to give effect to the intent of this White Paper rests with a range of stakeholders, including, but not limited to, the state, traditional leaders, traditional health practitioners and communities, private landowners, industry, academia, non-government organisations, and civil society.

1.5 Background

With a landmass of 1.21 million km² and seas surrounding the mainland territory 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 36 biodiversity hotspots of the world (regions that are biologically rich and highly threatened) occur in South Africa – the Succulent Karoo, the Cape Floristic Region, and the Maputaland–Pondoland–Albany.

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, which are recognised globally.

South Africa's biodiversity provides people with 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, in turn, provides protection against natural hazards like floods and droughts, as well as protection against climate change impacts. This natural heritage is the basis of a vibrant tourism industry and offers natural spaces and a valued sense of place¹ for recreational, cultural, and traditional practices and activities.

The unique and diverse fauna and flora, together with the wide range of ecosystems, underpins, among others, South Africa's wildlife industries, culturally and economically important traditional medicine practices, informal farming systems, extensive livestock farming industry, and 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 environment 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 South Africa's national accounts including its contribution to livelihoods, the economy and job creation.

1.5.1 Status of Biodiversity

Almost half 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, with rivers and inland wetlands having 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 area network, leaving 31% in the Not Protected category. Approximately 99% of the estuarine area and 88% of the wetland area are threatened. Across all ecosystems, estuaries and inland wetlands are also the least protected ecosystem types, with less than 2% of their extent in the Well Protected category.

¹ Sense of place. The unique character of natural environments, and the value people derive from this.

Of the assessed living things taxa in South Africa (23 312 indigenous taxa from 11 taxonomic groups), 0.2% are extinct and 14% are threatened with extinction. Almost a quarter (22%) of endemic taxa are threatened with extinction. Estuaries have the highest proportion of threatened taxa (27%), and 19% of marine taxa are threatened.

The International Union for Conservation of Nature (IUCN) Red List Index, that tracks the changes in species threat status, shows an increased extinction risk for most of the eight taxonomic groups assessed (plants, reptiles, birds, mammals, amphibians, freshwater fishes, dragonflies, and butterflies), with freshwater species and butterflies at most risk.

In addition, species confined to inland aquatic ecosystems are declining more rapidly than those occurring in terrestrial ecosystems.

1.5.2 *Pressures and Drivers*

There are many pressures on biodiversity within the country, including climate change, habitat loss, freshwater flow modification, overfishing, overuse of some species, pollution, and biological invasions. Lack of public awareness around these issues contributes to their impacts.

Over-utilisation 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 contributing to a decrease in economic potential and 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 medicinal uses, and many also have important spiritual meanings. Much of this harvesting is unregulated, and overharvesting may lead to local extirpation of key species and the subsequent loss of contribution to the well-being of people.

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

In the marine environment, 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-scale, and illegal fishing) remains the biggest pressure on most inshore and offshore marine ecosystems, with greater impact on inshore resources than on the deep ocean systems. There are coastal threats from development, as well as from climate change, including abnormal storm surges, sea-level rise, and ocean acidification.

The past decade has seen a rise of international wildlife trafficking in species subject to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This has necessitated increased enforcement. For example, there has been large-scale investment by the South African government and private sector in rhino anti-poaching measures. Species such as cycads, succulent plants, pangolins, parrots, abalone, West Coast rock lobster 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, and much biodiversity conservation takes place in human dominated land- and seascapes. 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.

1.5.3 ***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. South Africa supports the sustainable use of all that is valued in nature. South Africa promotes a diverse biodiversity-based economy that includes both non-consumptive and consumptive uses of all the benefits and services of biodiversity.

These uses include, amongst others, ecotourism, hunting, fishing, harvesting, boating, hiking, as well as cultural and spiritual uses, and their associated value chains. There are diverse successful approaches and enterprises associated with the biodiversity economy, many of which leverage value from otherwise marginal production land- and seascapes, and this diversity enhances the resilience and offers further potential for growth. Biodiversity-related jobs number approximately 418 000 and the biodiversity-based tourism industry is worth over R30 billion per year. Biodiversity-based jobs are prevalent in sectors such as fisheries, aquaculture, wildlife ranching, indigenous flora production industries, traditional medicine, indigenous tea production and biodiversity-based tourism.

Intact ecosystems and high species diversity are essential for agricultural production, providing healthy populations of crop pollinators and natural predators of agricultural pests.

Intact catchments, wetlands, and riparian systems help clean water supplies, attenuate floods, and store water for times of drought, thereby increasing water security and contributing to resilience to the impacts of a 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 Africa's 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) of reducing poverty and inequality in South Africa through stimulating the economy, improving employment figures, building an inclusive rural economy, and providing affordable health care. All of these goals 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 providing an enabling environment for, and 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.

Sustainable use of biodiversity plays an important role in ensuring continued benefits from biodiversity for the present and future generations. Benefits derived from such use can promote sustainable biodiversity-based land and sea uses, which, in turn, contribute strongly to increasing land and sea under conservation, and improved conservation outcomes. The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

*Thematic Assessment Report on the Sustainable Use of Wild Species*² identified seven key elements and policy options to strengthen the sustainable use of wild species:

- a) Strengthen inclusive and participatory decision-making;
- b) Recognise and support multiple forms of knowledge;
- c) Ensure fair and equitable distribution of costs and benefits;
- d) Tailor policies to specific context;
- e) Monitor wild species and practices;
- f) Align policies at international, national, regional, and local levels; and
- g) Support strong institutions, including customary institutions.

1.6 Policy and Legal Context

1.6.1 International Policy Context

South Africa has ratified the following Multilateral Environmental Agreements in relation to biodiversity:

- a) The Convention on Biological Diversity, 1996 (CBD) which has three main objectives: (i) the conservation of biodiversity, (ii) the sustainable use of the components of biodiversity, and (iii) the fair and equitable sharing of the benefits arising from the utilisation of genetic resources.
- b) 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);
- c) The Nagoya Protocol to the Convention on Biological Diversity (Nagoya Protocol) on access to genetic resources and the fair and equitable sharing of benefits arising from their use (ratified by South Africa in 2014);
- d) The United Nations Convention to Combat Desertification (UNCCD, ratified by South Africa in 1997);
- e) The United Nations Framework Convention on Climate Change (UNFCCC, ratified by South Africa in 1997);
- f) The United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, ratified by South Africa in 1975);
- g) The International Plant Protection Convention (IPPC, ratified by South Africa in 1952);
- h) The Convention on Wetlands of International Importance (Ramsar, ratified by South Africa in 1971);
- i) The World Heritage Convention (WHC, ratified by South Africa in 1972);
- j) The Convention on the Conservation of Migratory Species of Wild Animals (CMS, ratified by South Africa in 1991);and
- k) The African-Eurasian Migratory Waterbirds Agreement (AEWA, ratified by South Africa in 2002).

Other international agreements and programmes:

- i. The United Nations Agenda 2030 for Sustainable Development and the Sustainable Development Goals (SDGs);
- ii. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Man and Biosphere Programme;
- iii. The United Nations Environment Programme (UNEP);

² IPBES. 2022. *Thematic Assessment Report on the Sustainable Use of Wild Species of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (1499 pages). Fromentin, J. M., Emery, M. R., Donaldson, J., Danner, M. C., Hallosserie, A., and Kieling, D. (eds.). IPBES secretariat, Bonn, Germany. <https://ipbes.net/sustainable-use-assessment>.

- iv. Commission on Genetic Resources for Food and Agriculture, noting that Cabinet has approved and recommended to parliament to ratify (30 August 2022) the International Treaty on Plant Genetic Resources for Food and Agriculture ;
- v. The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES); and
- vi. The International Union for Conservation of Nature (IUCN).

Africa's regional economic communities also play a significant role in co-ordinating 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 , as well as the Southern African Development Community (SADC), under which there are agreed biodiversity protocols. South Africa subscribes to the African Union Agenda 2063 for a prosperous Africa, which is Africa's plan for sustainable development on the continent.

1.6.2 **National Policy and Legislative Context**

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

24. *Everyone has the right –*

- a) *to an environment that is not harmful to their health or well-being; 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 for South Africa* was implemented in 1998. This served as the basis for South Africa's environmental law framework, the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). NEMA, amongst others, guides environmental decision-making in South Africa, and provides mechanisms for monitoring compliance and enforcing environmental laws. All spheres of government and individuals have obligations and roles in terms of NEMA.

A draft *White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity* was developed in 1997. Although the 1997 draft policy was not adopted, it informed the content of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEM: PAA). While the 1997 draft White Paper can still be drawn on as a reference document, the current White Paper replaces the 1997 draft White Paper in terms of providing policy guidance.

The objective of the NEM: BA 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.

NEM: PAA has the overarching goal of providing for the protection and conservation of ecologically viable areas representative of biological diversity, and natural landscapes and seascapes, including providing for both terrestrial and marine protected areas. NEM: PAA 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, 1999 (Act No. 49 of 1999) 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) 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 includes: the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (NEM: ICMA); the National Water Act, 1998 (Act No. 36 of 1998); 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).

The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA) provides for control over the utilisation of natural agricultural resources in order to promote the conservation of the soil, water sources and vegetation, and the combating of weeds and invader plants. The Preservation and Development of Agricultural Land Bill (B8-2021, 2021-04-22) provides for conservation agriculture, agro-ecosystem management, agro-ecosystem authorisations, the listing and delisting of activities or areas within agro-ecosystems and the identification of competent authorities. Activities under the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) may adversely impact conservation and sustainable use of biodiversity.

There is also national legislation that has implications for conservation and sustainable use despite not having those explicit purposes. These include the Broad-based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003) which establishes a legislative framework for the promotion of black economic empowerment. The Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA) 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 the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), 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 is required in terms of the CBD and sets out a strategy and action plan to fulfil the objectives of the CBD; 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:

- a) The National Protected Areas Expansion Strategy, which guides decisions on the declaration of protected areas in terms of NEM: PAA and other legislated forms of protection;
- 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 United Nations Convention to Combat Desertification. in South Africa;
- d) The National Spatial Development Framework and its National Ecological Infrastructure Framework, which incorporates strategic water source areas, protected areas, and Critical Biodiversity Areas. It also includes National Natural Resource Risk Areas as one of the categories of National Spatial Action Areas;
- e) The National Biosafety Framework comprised of biosafety policies, a regulatory regime, a system to handle notifications, systems for monitoring and inspections, and systems for public information and participation, for the implementation of the Cartagena Protocol on Biosafety in South Africa; and
- f) The National Strategic Action Plan for the Conservation and Sustainable Use of Crop Wild Relatives, which is a strategy for in-situ conservation of crop wild relatives.

1.6.3 *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, which need to be conserved and used sustainably.

Local government/municipalities enact municipal by-laws in pursuance of their legislative mandate. In terms of 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.

2 DEFINITIONS

For the purpose of this White Paper, definitions have been compiled using sources such as existing legislation, language commonly used within the sector, and Multilateral Environmental Agreements ratified by South Africa. 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.

Adaptive management: An iterative process of interventions to achieve management plan objectives in the face of uncertainty through formulating an expectation of how the system may respond to a considered and planned intervention, including implementation, monitoring the outcomes, maximizing learning, and then adapting management interventions and/or expectations, for continuous improvement.

Animal well-being: The holistic circumstances and conditions of an animal or population of animals which are conducive to their physical, physiological and mental health and quality of life, including their ability to cope with their environment.

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.

Biological invasions: The phenomenon of, and suite of processes that are involved in determining, the transport of organisms to sites outside their indigenous range by human activities and the fate of the organisms in their new ranges.

Biological resources: Include indigenous genetic resources, organisms, or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

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

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

Conservation: Protection, management, care, sustainable use, maintenance, rehabilitation, restoration, and recovery of ecological and evolutionary processes, biological diversity and its components, for their intrinsic and instrumental value, to improve the well-being of people and nature.

Conservation areas: Areas that are managed for conservation outcomes and which are not protected areas.

Domestication: A process whereby wild plants and animals are subject to human-controlled directional selection over time to alter reproductive, physical, physiological or behavioural characteristics for human use, potentially leading to maladaptation to natural environments and dependency on humans for survival.

Ecological infrastructure: Natural or semi-natural ecosystems that generate or deliver valuable services and benefits to people and the economy.

Ex-situ collections: Collections of genetic material, reproductive material, and living wildlife for conservation and/or use, including, but not limited to gene banks, microbial collections, seed banks, botanical gardens, zoological gardens, and aquaria.

Humane: Any activities, methods, or actions involving wild animals that avoid or minimise pain, stress, suffering, or distress, and consider their well-being.

In-situ conservation: The conservation of biological diversity and functional ecosystems, natural habitats and the maintenance and recovery of viable populations of species in their natural habitats.

Marine: 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, management options, and the designation of categories for conservation, to achieve ecological, economic, and social objectives.

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.

Protected area: A geographically defined area, declared or recognised under NEM: PAA, which is regulated and managed to achieve specific conservation objectives.

Rehabilitation: The process of intervention to repair the ecological processes, ecosystem services and productivity of ecosystems and/or ecological infrastructure, not necessarily to its former natural composition and state.

Restoration: The process of assisting the repair of ecosystems and ecosystem processes that have been degraded, damaged, or destroyed to, its pre-existing condition.

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.

Sustainable use: The use of any component of biodiversity in a manner that:

- a) Is ecologically, economically, and socially sustainable;
- b) Does not contribute to its long-term decline in the wild or disrupt the genetic integrity of the population;
- c) Does not disrupt the ecological integrity of the ecosystem in which it occurs;
- d) Ensures continued benefits to people in a manner that is fair, equitable, and meet the needs and aspirations of present and future generations; and
- e) Ensures a duty of care towards all components of biodiversity for thriving people and nature.

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

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.

Transformation: The redress of discrimination and unfair disadvantage of previously disadvantaged individuals and communities through the promotion of inclusivity, access, empowerment, dignity, respect, ownership, and the equitable sharing of benefits.

Ubuntu: Ubuntu is a traditional unifying way of life that recognises the importance of interdependent and respectful relationships among the human, natural and spiritual elements, taking into consideration dignity, compassion, co-operation, communalism, sharing, caring, and responsiveness that individuals and groups display for one another and for the environment.

Wildlife: All organisms, including micro-organisms, plants and animals that exist as wild in nature and are not domesticated.

3 GUIDING PRINCIPLES

Several broad principles have guided the development of this White Paper. These principles, in addition to the principles included in Section 2 of NEMA, are applicable in the context of the conservation and sustainable use of South Africa's biodiversity and should be considered in applicable activities and practices, and in the development of all legislation and policy. The additional principles underpinning the White Paper are the following:

- a) **Transformation:** Safeguarding, protecting and promoting the rights, ownership, and responsibilities of all role players in the biodiversity sector to ensure respect for dignity, inclusive participation, and fair and equitable sharing of benefits and growth, particularly for those that were previously disadvantaged. Important considerations should include aspects such as equality and freedom; inclusive economy; indigenous and traditional knowledge and practices; and rights of local and indigenous communities.
- b) **Sustainable development:** The integration of social, economic and environmental factors in a governance system to ensure that development serves present and future generations.
- c) **Good governance:** A government that is accessible, responsive, supportive, and accountable through effective and efficient intergovernmental co-ordination, harmonised legislation and inclusive and participatory engagement of stakeholders in decision-making in the conservation and sustainable use of biodiversity.
- d) **Evidence-based decision making:** Decision making that takes into account context and complexities and integrates science, indigenous and local knowledge systems and practices, with ongoing monitoring and evaluation, learning and adaptive management.
- e) **Duty of care:** Reasonable measures to be taken to prevent harm from occurring to biodiversity within the environment and ecosystems that they are part of, allowing consideration and various options when harms that cannot reasonably be avoided or stopped, be minimised and rectified.

4 GOALS AND ENABLERS

Based on the Policy Issues Identified, and the Problem Statement, four goals and two cross-cutting enablers are identified. The basis for each of these is provided below:

4.1 Goal 1: Enhanced Biodiversity Conservation

The intention of this goal is to improve the conservation of South Africa's unique, rich biodiversity, including the diversity of land- and seascapes, ecosystems, habitats, ecological communities, species, populations, and genes.

South Africa is one of the world's megadiverse countries and has high levels of endemism, with species that occur only in South Africa and nowhere else. The country still retains much of its biodiversity, with large natural areas that provide the opportunity to conserve this biodiversity. Such areas 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, resulting in these areas being identified as threatened ecosystems and species.

Protected and conservation areas need to be expanded, with consideration to the increasing human population and resultant pressures and threats. Progressive and diverse approaches to biodiversity conservation and sustainable use provide opportunities 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 a step change in rural socio-economic development in South Africa. This is critical for a developmental state such as South Africa. Notwithstanding this potential, there are massive global change influences that threaten biodiversity and the ecosystem services provided, making South Africa less resilient and more vulnerable to future shocks. These include risks from climate change and invasive species, which require consideration of risk-based assessments of ex-situ conservation and the use of species/biodiversity.

This complex and dynamic context requires strong governance mechanisms for biodiversity conservation and sustainable use.

4.2 Goal 2: Sustainable Use

The intention of this goal is to ensure that the sustainable use of all that is valued in nature avoids, or minimises and remedies, adverse impacts on biodiversity, and enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being.

South Africa relies on industries or economic activities which directly use or impact on components of biodiversity 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. Identified biodiversity areas, including, inter alia, Critical Biodiversity Areas, protected areas, threatened ecosystems, strategic water source areas, estuaries, and identified marine and coastal environments must be protected from the consequences of such development and changing land and ocean use.

Activities which provide socio-economic gains from the use of biological resources and ecosystems may result in the loss of biodiversity, including the impairment of ecosystem functioning. Decision making should be based on the real costs and benefits for the conservation and sustainable use of biodiversity, which 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. Such holistic costing would further ensure that adverse impacts on biodiversity are minimised. In addition to these economic benefits, there is a wide range of other value and benefits that people derive from nature, including existence value, sense of place, cultural value, and spiritual value. 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 this multiplicity of use, 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 three categories of economic sectors that:

- 1) Directly use indigenous biological resources, and are dependent upon the renewal of such resources, and which, by overuse, may impact on biodiversity;
- 2) Are less dependent upon the direct use of indigenous biological resources and include 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; and
- 3) 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. This includes industrial sectors dependent upon extractive use of non-renewable resources, such as mining and fossil fuel 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 impact on 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. Sufficient ecological reserve and ecosystem health needs to be maintained. Sustainable national and international trade of components of biodiversity must be premised on evidence-based decision making and consistent with domestic and international trade rules, protocols and legislations.

Following Ubuntu, this goal emphasises the environmental duty of care principle. In accordance with our custodial responsibilities in guarding the interests of animals, any conservation and sustainable use activities, methods, or actions should be humane and ensure quality of life within its environment. This does not imply that natural processes such as predation or competition should be prevented or interfered with, but rather that anthropogenic interventions and activities must consider animal well-being. In addition, in a conservation or use context, it is necessary to consider not only the well-being of individual animals, but also of groups of animals for social species,

and of populations of animals. It is acknowledged that the conservation of wild animals and their well-being are intertwined values, and where relevant, decisions need to take this into account. In this regard, the well-being of individual and populations of wild animals needs to be integrated into biodiversity policy and legislation, as well as conservation and sustainable practices.

4.3 Goal 3: 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 are shared equitably and serve national interests.

As one of the world's megadiverse countries, South Africa has high levels of endemism and biodiversity, with a comprehensive local or indigenous knowledge base about the fauna and flora. In this regard, such indigenous and local knowledge of the benefits that can be derived from the use of natural resources needs to be protected and commercialised where possible so that knowledge holders derive benefit from sharing such knowledge. South Africa is therefore a favoured destination for bioprospecting companies seeking potential new biological and genetic resources for food, cosmetic and phytopharmaceutical products for local and international markets.

Biotrade of terrestrial, aquatic and marine species is emerging as a significant industry which promotes the sustainable use of 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 local and indigenous knowledge of communities with modern manufacturing and the emerging market demand of consumer economies. South Africa has scientific capacity, developed research and development infrastructure, recognition and support for local and indigenous knowledge systems, conservation areas and other open land systems and living collections, which enables the reliable sourcing of materials.

4.4 Goal 4: Transformed Biodiversity Conservation and Sustainable Use

The intention of this goal is to give effect to Section 24 of the Constitution, the environmental right, and other human rights, facilitate redress, and promote transformation. Furthermore, the intention of this goal is to capitalise and leverage on South Africa's rich biodiversity, key biophysical attributes, and wild landscapes and seascapes to drive rural socio-economic development.

It is important to indicate that there has been slow progress with the transformation of the sector over the years and across many areas within the biodiversity sector and the following challenges remain:

- 1) Access to land by PDIs, youth, women, and people with disabilities, for conservation and sustainable use;
- 2) Access to the means of production (capital, assets, know-how etc.) by PDIs, youth, women, and people with disabilities;
- 3) Barriers to accessing and benefiting from protected and conservation areas by adjacent communities; and
- 4) Limited biodiversity-based value chains in communal land, as well as from land acquired through land reform processes, for conservation and sustainable use.

Addressing these challenges has the potential to unlock meaningful access and equitable benefit sharing for designated groups, as well as for the empowerment of individuals as owners of land and operators of their own businesses. There is a limited awareness within the African community, as well as broadly across government, of the wildlife sector and its potential. Traditional authorities and local communities living around protected and conservation areas should be seen to be part of the success and failures of protected and conservation areas and their role should be integrated in the management of these areas.

Building working partnerships through sharing of information, activities, and opportunities could go a long way toward addressing their problems. Establishing a bond with communities would make it easier to jointly manage challenges, such as damage-causing animals, but also assist in opening up an array of occasional or periodic

business opportunities that could be made available by Management Authorities. Keeping communities informed through regular communications could go a long way towards ameliorating challenges besetting protected and conservation areas. Transformation will also advance the meaningful participation and active involvement of communities and co-operatives of PDIs to participate in the biodiversity value chain. When communities are involved, they would find it worthwhile to share the risks and the benefits associated with the management of protected and conservation areas. This necessitates a government that is accessible, responsive, supportive, and accountable.

Another very important element in transforming the biodiversity sector is the need to build strong partnerships between communities and the private sector, in particular the biodiversity sector industry players.

This would not only assist in bringing much needed skills to communities through mentorship programmes, but could further establish community-private partnerships in areas with bankable projects and initiatives.

4.5 Enabler 1: Integrated, Mainstreamed and Effective Biodiversity Conservation and Sustainable Use

Mainstreaming biodiversity conservation and sustainable use into the legislation, policy and the work of other sectors has been promoted as an important means of achieving sustainable development. While strides have been made in this regard, there are areas that need significant improvement. The intention of this enabler is to further integrate and mainstream biodiversity conservation and sustainable use across all spheres of government and society. This will enable and ensure biodiversity contributes more meaningfully to sustainable development, but also ensure 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. However, sector-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, for which an integrated multi-sectoral approach is the only way to respond to conservation and sustainable use effectively and collectively.

Improved governance requires horizontal and vertical strategic partnership for effective and efficient biodiversity conservation and sustainable use, mainstreaming of biodiversity across and within sectors, and leveraging on existing resources and capabilities. Importantly, the need to improve compliance with biodiversity legislation can be addressed through better governance.

South Africa has a substantial body of legislation in place governing the conservation and use of natural resources. As is the case for other countries, these “command and control” mechanisms have not been adequate in addressing the underlying forces resulting in the loss of biodiversity. Aspects of legislation and practices may need to be revised and aligned to respond to this White Paper. Legislation needs to be strengthened to include inclusive approaches such as community-led structures, partnerships, and co-management. Such improvements will enhance the sustainability, attractiveness, and relative competitive edge of biodiversity-based enterprises, including through market-based mechanisms.

South Africa is committed to playing a role globally, recognising that the conservation and sustainable use 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 Multilateral Environmental Agreements to which the country is a party, and in numerous other scientific and technical collaborations. South Africa must continue to strengthen efforts to co-operate on environmental matters at the international level. In addition to global co-operation, South Africa will continue to work as a member of the African Group in international forums, the African Union, and the Southern African Development Community, to address the challenge of biodiversity loss, drought, desertification and land degradation to advance national, regional and continental interests internationally.

4.6 Enabler 2: Enhanced Means of Implementation

Currently there are challenges in meeting state obligations in terms of biodiversity conservation and sustainable use, and while efficiencies may need to be identified, additional resources and investment will be required in order to facilitate achieving the goals within this policy. Resource constraints also hinder the meaningful participation of communities' and PDIs in the sector. New and innovative approaches and mechanisms need to be identified and developed, including exploring fiscal reform, and aspects that incentivise conservation and sustainable use. The intention of this enabler is to expand and develop implementation mechanisms to conserve biodiversity, to manage its use, and to address factors threatening it, in order to meet South Africa's national priorities and requirements under the CBD.

Effective implementation of the White Paper requires implementation support mechanisms commensurate with the ambition set out in the goals and transformative changes required to reach them. These include:

- a) Mobilising sufficient and accessible resources required for the transformative, inclusive, and equitable change identified in the goals, across the economy and society;
- b) Capacity development by increasing public awareness and championing of the value and importance of biodiversity, and public involvement in its conservation and sustainable use; enhancing knowledge of biodiversity through conducting research, improving biological inventories, establishing, and maintaining monitoring systems, sharing information, and incorporating traditional knowledge; and strengthening existing management capacity through appropriate training;
- c) Knowledge generation, management and sharing for effective biodiversity planning, policy development, decision-making, implementation, and transparency and responsibility, including greater protection of traditional knowledge and recognition of its contributions to the conservation and sustainable use of biodiversity; and promotion of biodiversity science, education and organisational learning; and
- d) New approaches, such as those embraced by the CBD, 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 subsidies and incentives that discourage or have a negative impact on 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.

5 STRATEGIC LINKAGES AND IMPACT

As the supreme law of the country, the Constitution is a deliberate starting point for this policy White Paper. Although, all components of the environmental right set out in Section 24 of the Constitution informed the content of the White Paper, other rights such as dignity, equality, culture, property, and the principle of redress were also fully considered. The White Paper takes cognisance of other legislation across sectors and spheres of government, with consideration of the role of municipalities, as well as international commitments and obligations.

The White Paper is aligned with Chapter 5 of the National Development Plan 2030, which is about ensuring environmental sustainability and an equitable transition to a low-carbon economy, and responds to all the Medium-Term Strategic Framework priorities.

This White Paper compliments the *White Paper on Environmental Management Policy for South Africa* (1998), in that it specifically provides additional detail required to provide policy direction in promoting the conservation and sustainable use of biodiversity. The absence of such a White Paper creates a policy vacuum, resulting in a lack of coherence or integration within the biodiversity sector, and the increased likelihood of poor practices to prevail 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 modification, invasive species, pollution, freshwater flow modification, overharvesting and illegal harvesting, results in ongoing loss of our biodiversity, ecological degradation, and the decline of the ecosystem services from our biodiversity and ecological infrastructure. For this reason, the White Paper addresses these pressures, including working towards related international obligations and collaboration.

The Policy Objectives and Expected Outcomes provide direction for the future of the sector and the country, highlighting the need for a new approach with a strong localised context based on the principles of Ubuntu.

As such, the White Paper emphasises the importance of people living in harmony with nature, and sets forth the vision of *“An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations”*. The White Paper is aspirational in that it takes the concept of sustainability further, highlighting activities that enhance the well-being of both people and nature at the same time. The policy is intended to encompass a mission that represents our path towards sustainable practices and 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 of *“Thriving People and Nature”*.

The White Paper will achieve the following high-level strategic outcomes:

- a) Policy certainty and a strong policy base for biodiversity conservation, sustainable use, and equitable growth in the biodiversity economy;
- b) A requirement for coherent and effective biodiversity conservation and environmental a duty of care for the benefit of current and future generations;
- c) An integration of environmental, social, and economic elements of sustainable use to advance sustainable development;
- d) Repositioned protected and conservation areas as effective mechanisms to contribute to sustainable rural development;
- e) A required process of transformation of the sector, with sustainable nature-based access and benefit flows for equitable and inclusive socio-economic growth and development; and
- f) Enhanced international recognition of South African leadership in biodiversity conservation and sustainable use, and promoting of African coherence and unity.

This policy White Paper sets South Africa on a strong path towards sustainable development based on its rich biodiversity and the valuable ecosystem services that biodiversity provides. The sector will contribute to improving the livelihoods and well-being of people by strengthening the conservation of biodiversity heritage, restoration, and rehabilitation of natural land- and seascapes, and effective decisions on sustainable use practices. The outcomes 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.

6 THEORY OF CHANGE

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| Vision | An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations. | | | Impact statement Thriving People and Nature |
| Mission | To conserve and manage South Africa's biodiversity, and ensure healthy ecosystems, ecological integrity and connectivity, with transformative socio-economic benefits to society for current and future generations through ecologically sustainable, and socially equitable use of its components. | | | |
| Strategic outcomes | <ul style="list-style-type: none"> a) Policy certainty and a strong policy base for biodiversity conservation, sustainable use, and equitable growth in the biodiversity economy. b) A requirement for coherent and effective biodiversity conservation and duty of care for the benefit of current and future generations. c) Integrated environmental, social, and economic elements of sustainable use to advance sustainable development. d) Repositioned protected and conservation areas as effective mechanisms to contribute to sustainable rural development. e) A required a process of transformation of the sector, with sustainable nature-based access and benefit flows for equitable and inclusive socio-economic growth and development. f) Enhanced South Africa's leadership in biodiversity conservation and sustainable use, and promoting of African coherence and unity. | | | |
| Goals, enablers and policy objectives | ENABLER 1: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Integrated policy and practice across government and effectively implemented Multilateral Environmental Agreements. | | | |
| | <ul style="list-style-type: none"> - Mainstream biodiversity across government and sectors of society. - Strengthen mechanisms to conserve biodiversity, inside and outside of protected areas. | | <ul style="list-style-type: none"> - Improve compliance with biodiversity legislation. - Effective implementation of Multilateral Environmental Agreements. | |
| | ENABLER 2: ENHANCED MEANS OF IMPLEMENTATION: Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity. | | | |
| | <ul style="list-style-type: none"> - Increase public education, awareness and involvement in conservation and sustainable use. - Enhance knowledge to inform effective decision-making, management, and practice. - Enhanced scientific cooperation to strengthen evidence based policy making and implementation - Indigenous or traditional knowledge and practice recognised and contribute to conservation and sustainable use and provide localised solutions. | | <ul style="list-style-type: none"> - Data and information form the basis of decision making and practice. - Enhance the capacity necessary to conserve and sustainably use South Africa's biodiversity. - Mobilise resources and innovative financial mechanisms, to promote financial sustainability. | |
| <p data-bbox="208 855 768 951">GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components Conserved.</p> <ul style="list-style-type: none"> - Expand representative protected and conservation areas. - Integrate conservation areas into broader land- and seascapes. - Restore degraded ecosystems and implement threatened species recovery. - Identify and manage harmful invasive alien species. - Minimise the risks of genetically modified organisms. - Promote humane practices towards wild animals. - Support in-situ conservation through ex-situ practices. - Adopt climate resilient approaches to biodiversity conservation. | <p data-bbox="768 855 1169 1078">GOAL 2: SUSTAINABLE USE: The sustainable use of biodiversity enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while a duty of care avoids, minimises, or remedies adverse impacts on biodiversity</p> <ul style="list-style-type: none"> - Enhance sustainable use of biodiversity. - Maintain ecological infrastructure. - Ensure sustainable use of marine, estuarine, and coastal ecosystems. - Prevent ecological degradation. - Promote duty of care towards all components of biodiversity. | <p data-bbox="1169 855 1496 1078">GOAL 3: EQUITABLE ACCESS AND BENEFIT SHARING: Benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the nation's interests</p> <ul style="list-style-type: none"> - Access and benefit sharing from the use of indigenous biological resources. - Promote biodiversity-based food security for agriculture. | <p data-bbox="1496 855 2168 983">GOAL 4: TRANSFORMED BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Effect is given to the environmental right as contained in Section 24 of the Constitution, facilitates redress, and promotes transformation.</p> <ul style="list-style-type: none"> - Empower the designated groups to own businesses in the biodiversity economy. - Position protected and conservation areas as catalysts of development. - Promote use that is sustainable and inclusive. - Promote participation of designated groups in biodiversity conservation and sustainable use. - Mechanisms and interventions drive equitable sustainable development. - Adopt an integrated conservation approach in line with Ubuntu. - Institutionalise biodiversity conservation within Traditional Authorities. | |
| Problem statement | <ol style="list-style-type: none"> 1) Fragmented conservation responsibilities, duplication of efforts and underfunded conservation mandates hamper the effective conservation and sustainable use of South Africa's biodiversity; 2) Lack of transformation in the sector, where a majority of the population are disadvantaged and disenfranchised from contributing to conservation and sustainable use; 3) Inadequate efforts in addressing the global challenges of biodiversity loss, land degradation, and climate change in the context of sustainable development; | | | |

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| | 4) Proliferation of biodiversity and conservation legislation, uneven governance, limited capacity and declining allocation of resources in the management of biodiversity and inadequate revenue generation efforts. 5) Practices within the sector that have brought the country into disrepute. |
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7 POLICY OBJECTIVES AND EXPECTED OUTCOMES

The following table is structured around the four goals and the two enablers. For each goal and enabler, there are stated policy objectives, with their associated outputs (what will be achieved) and outcomes (what will this deliver). The outputs and outcomes are numbered for convenience, but the numbers do not align across outputs and outcomes.

| GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components conserved | | |
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| Policy Objective | Expected Output | Expected Outcome |
| 1.1. Expand a representative system of protected and conservation areas that are effectively and efficiently managed. | <ol style="list-style-type: none"> 1. A national co-operative programme, and prioritised plan of action, identifies terrestrial, freshwater, marine and coastal areas that support land- and seascapes, ecosystems, habitats, species and populations which contribute, or could contribute, to South Africa's system of representative protected and conservation areas. 2. Connected, new, or extended protected and conservation areas, including through creating larger contiguous areas, as a means of improving the representation of terrestrial and marine ecosystem types, thereby enabling meeting national and international targets. 3. Improved governance of state protected areas. 4. Species of special concern identified, with viable populations effectively managed, and protected, including within protected and conservation areas. 5. Effective participation of landowners, business, traditional leaders, local communities and other interested and affected parties in expansion, management and custodianship of protected and conservation areas. 6. Measures established to incorporate appropriate agro-ecosystems, agro-ecosystem management, agro-ecosystem authorisations, and Protected Agricultural Areas into conservation planning for OECMs. | <ol style="list-style-type: none"> 1. Expanded, connected, thriving, representative, inclusive, and effectively managed protected and conservation areas, including co-ordinated partnerships. 2. Species of special concern, including their genetic diversity, conserved, and viable populations maintained. 3. Contributions to global biodiversity conservation targets. |
| 1.2. Better integrate conservation areas into broader ecological and social land- and seascapes. | <ol style="list-style-type: none"> 1. Strategies, guidelines, mechanisms and incentives integrate protected areas within the broader ecological and social land- and seascapes and encourage conservation in adjacent private and communal buffer zones. 2. Biosphere reserves, natural world heritage sites, conservation land- and seascape initiatives, and conservation agriculture, entrench conservation land use and sea use outside of protected areas. 3. Natural cultural sites of expression and world heritage sites recognised and incorporated within conservation area attributes. | <ol style="list-style-type: none"> 1. Increased conservation viability and connectivity of land adjacent to protected and conservation areas, with effective mitigation of human-wildlife conflict, and increased socio-economic development. 2. Conservation-compatible land use and sea use, and sustainable development, promote thriving land- and seascapes inside and outside protected and conservation areas. |

| GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components conserved | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | <ol style="list-style-type: none"> 4. Activities in buffer zones adjacent to protected and conservation areas are compatible with and complement the area objectives. 5. Wildlife on rangelands and conservation agriculture promoted to enhance species conservation, ecological connectivity and resilience, restore and maintain ecological infrastructure, and improve ecosystem services. 6. Mitigation and/or biodiversity offsets from land modification as a result of, among others, mining and hard infrastructure, supports broader conservation outcomes. 7. Local communities and affected stakeholders empowered and capacitated to respond to human-wildlife conflict through an integrated, systems approach. | <ol style="list-style-type: none"> 3. Expanded conservation areas through multiple means and approaches improves conservation practice and sustainable use. |
| 1.3. Restore and rehabilitate degraded ecosystems and land- and seascapes and strengthen and implement threatened species recovery. | <ol style="list-style-type: none"> 1. A strategy and action plan to restore and rehabilitate degraded systems of national concern identifies key sites based upon biological and socio-economic criteria, links remedial action to jobs and skills, monitors effectiveness, and regulates and minimises adverse impacts of harmful activities on biodiversity. 2. Threatened species and populations are conserved and restored through necessary legislative and other tools and measures. 3. Loss of natural genetic variation within populations and species reduced. 4. Restoration and rehabilitation are appropriate and do not cause unintended biodiversity and social impacts. | <ol style="list-style-type: none"> 1. An integrated and prioritised national approach to rehabilitation restores biodiversity and ecological infrastructure, with improved flow and quality of ecosystem services. 2. Resilience and adaptive potential of indigenous species maintained, and threatened species and populations protected. |
| 1.4. Identify and manage harmful, and potentially harmful, invasive alien species, their potential and existing introduction pathways and biological invasions. | <ol style="list-style-type: none"> 1. Consistent, streamlined and strengthened legislation and enforcement promotes compliance, and controls the introduction and spread of potentially harmful alien organisms. 2. Proactive, preventative, and precautionary approach to control the introduction and spread of invasive alien species implemented. 3. Proactive, comprehensive assessment of risks of introduction of alien organisms into South Africa against intended benefits. 4. Holistic, integrated, and prioritised control, management and eradication programmes for invasive species. 5. 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. | <ol style="list-style-type: none"> 1. Indigenous species, ecosystem services, ecological infrastructure, and sustainable use of biodiversity not threatened by invasive alien species. 2. Ecosystems are resilient to biological invasions. |

| GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components conserved | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | <ul style="list-style-type: none"> 6. Incursions of identified high-risk alien species new to South Africa are rapidly treated upon detection through the development and implementation of emergency response plans. 7. A national policy on the overall management of biological invasions developed, including for movement and transfer of species. 8. Landowners incentivised to control or eradicate invasive species. 9. Biological and other control methods for invasive species improved and expanded, including enhancing socio-economic benefits. 10. Strong public education and awareness of alien and invasive species. 11. 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. 12. Integrated cross-sector approach, mechanisms, and practices to alien and invasive species that threaten biodiversity. | |
| 1.5. Minimise the potential risks associated with the release of genetically modified organisms into the environment, taking into account risks to human health. | <ul style="list-style-type: none"> 1. Strong capacity, legislation, biosafety protocol, guidelines, effective management, monitoring, and control measures, regulates the transfer, handling, use and release of genetically modified organisms into the environment. | <ul style="list-style-type: none"> 1. Risks of genetically modified organisms to biodiversity minimised, considering risks to human health. |
| 1.6 Promote well-being and humane practices, actions, and activities towards wild animals. | <ul style="list-style-type: none"> 1. Well-being of individual animals and populations of animals integrated into biodiversity policy, legislation, tools, and practice. 2. Ethical practices and standards incorporated into wildlife management and use in South Africa. 3. Education, capacity building, and awareness of animal well-being and associated concerns builds collaboration across the sector. | <ul style="list-style-type: none"> 1. Well-being of individual animals and populations of animals is realised and considered in biodiversity conservation and sustainable use practice and activities. |
| 1.7 Support, complement, and enhance in-situ biodiversity conservation through sustainable ex-situ practices. | <ul style="list-style-type: none"> 1. Ex-situ institutions and collections promote and participate in conservation and use of local biodiversity, plant genetic resources, and micro-organisms suitable for agricultural, medicinal, industrial, horticultural, or other commercial benefits. | <ul style="list-style-type: none"> 1. Tangible in-situ biodiversity conservation and sustainable use benefits provided through indigenous species biobanks, botanical and zoological gardens . 2. Threatened species successfully conserved and protected through ex-situ conservation interventions . |

| GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components conserved | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | <ol style="list-style-type: none"> 2. 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. 3. Collection of biological resources from natural habitats for ex-situ purposes avoids or minimises threats to ecosystems and in-situ populations of species. 4. Botanical gardens play a role in supporting conservation plans for indigenous plant species through ex-situ conservation. 5. A <i>National Botanical Gardens Expansion Strategy</i> creates an expanded network of botanical gardens across South Africa, strengthens biodiversity education, and enhances awareness. 6. Zoological gardens and aquaria play a role in supporting species conservation plans for indigenous animals through ex-situ conservation. 7. Where necessary and appropriate, species conservation plans adopt measures of ex-situ conservation for the recovery of threatened species, and for their re-introduction into natural habitats. 8. Risk of domestication of wild animals assessed and mitigated. 9. Impacts of selective cultivation for specific traits on wild populations of plants is mitigated. 10. Educational role of ex-situ conservation facilities strengthened to make demonstrable contribution to in-situ conservation. 11. Regulated ex-situ propagation and breeding for commercial purposes should also have a demonstrable conservation benefit, or, must at the least, advance sustainable use. | <ol style="list-style-type: none"> 3. Risks to in-situ conservation of ex-situ activities contributing to socio-economic benefits minimised. 4. Negative impacts of cultivation and domestication of plants and animals on biodiversity reduced. |
| 1.8 Adopt climate resilient approaches to biodiversity conservation and management to restore and maintain ecological infrastructure. | <ol style="list-style-type: none"> 1. Inclusive sector-wide strategies and approaches implemented to enhance South Africa's ecosystems, land- and seascapes and species' responses that are most vulnerable to climate change impacts. 2. Biodiversity attributes are incorporated into integrated climate change risk and vulnerability assessments, to ensure intact and resilient ecological infrastructure through effective conservation areas and other identified interventions. 3. Adaptation options for resilience and reduced vulnerability of species and of ecosystems in the face of climate change are developed and adopted. | <ol style="list-style-type: none"> 1. Enhanced climate change resilience of species, ecosystems, ecological infrastructure, and people. 2. Biodiversity- and ecosystem-based approaches serve as response mechanisms to climate change. |

| GOAL 1: ENHANCED BIODIVERSITY CONSERVATION: All biological diversity and its components conserved | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | <ol style="list-style-type: none"> 4. Integrated spatial planning acknowledges areas important for ecological resilience and ecological infrastructure in the face of climate change. 5. Exacerbated risk of invasive alien species from climate change mitigated. | |

| GOAL 2: SUSTAINABLE USE: The sustainable use of biodiversity enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while a duty of care avoids, minimises, or remedies adverse impacts on biodiversity. | | |
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| Policy Objective | Expected Output | Expected Outcome |
| 2.1. Enhance sustainable use of components of biodiversity in terrestrial, freshwater, marine and coastal ecosystems. | <ol style="list-style-type: none"> 1. Interventions and practices that support conservation and sustainable use encouraged and promoted, for terrestrial, freshwater, marine and coastal ecosystems. 2. Mechanisms and tools mainstream biodiversity conservation and sustainable use, and priority biodiversity economy interventions, into national, provincial, and municipal socio-economic development plans, and the District Development Model. | <ol style="list-style-type: none"> 1. Practices and activities that promote sustainable use and harvesting of components of biodiversity, and ecological integrity and resilience, are promoted, and harmful ones prevented and/or avoided. |
| 2.2. Promote the conservation, sustainable use, and prevent further loss and degradation of wetlands, strategic water source areas, groundwater aquifers, and other ecological infrastructure. | <ol style="list-style-type: none"> 1. A national framework for the conservation, management, and protection of wetlands, strategic water source areas, groundwater aquifers, and other ecological infrastructure in South Africa. 2. Drivers of loss and degradation of wetlands, strategic water source areas, and other ecological infrastructure prevented and/or avoided and mitigated. 3. Biodiversity of aquatic areas and wetlands, strategic water source areas, ecological infrastructure, and seascapes adequately incorporated into the national policy on integrated pollution control and waste management. 4. Control measures for the use and protection of vleis, marshes, water sponges, water courses and water sources, and regulating the flow pattern of water runoff, including soil conservation work, established under the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983), integrated into conservation and use of components of biodiversity. 5. Wetlands, strategic water source areas, and ecological infrastructure provide ecosystem services for the benefit of the environment and people. | <ol style="list-style-type: none"> 1. Wetlands, strategic water source areas, and ecological infrastructure secured and sustainably used. 2. Society and government sectors understand the critical role, function, and ecological services of wetlands, strategic water source areas, and ecological infrastructure. |

GOAL 2: SUSTAINABLE USE: The sustainable use of biodiversity enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while a duty of care avoids, minimises, or remedies adverse impacts on biodiversity.

| Policy Objective | Expected Output | Expected Outcome |
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| 2.3. Ensure the protection, conservation, and sustainable use of marine, estuarine, and coastal ecosystems and their natural resources. | <ol style="list-style-type: none"> 1. Conservation and sustainable use of marine, estuarine and coastal biodiversity mainstreamed into national policies and practices affecting these ecosystems. 2. National policy on coastal zone management developed and implemented. 3. Legislation, enforcement, and compliance strengthened to control the use or extraction of marine, estuarine and coastal resources, and prevent inappropriate activities and development. 4. Fisheries, small-scale fisheries, and aquaculture management follow an approach that promotes conservation and sustainable use of the whole ecosystem. 5. Effective marine protected areas zonation and regulation mitigates pressure on key marine ecosystems and species, incorporating marine spatial planning. | <ol style="list-style-type: none"> 1. Sustainable use of marine, estuarine, and coastal ecosystems support sustainable livelihoods, well-being, and inclusive socio-economic development. 2. Marine protected areas buffered from adverse economic activities, and impacts mitigated for threatened marine ecosystems and threatened or overexploited species, and recovery supported. |
| 2.4. Prevent ecological degradation, through enhancing ecological integrity and resilience. | <ol style="list-style-type: none"> 1. Threats, such as from global change or over-exploitation, to biodiversity, ecological integrity and resilience, identified and avoided and/or minimised and remedied, and, where possible, biodiversity restored. 2. Ecological integrity and resilience enhanced through inter alia linkages, corridors, and connectivity, rehabilitated and restored systems, including through adaptive management. 3. Conservation of soils and abiotic processes enhanced and promoted through regenerative processes, including conservation and regenerative agriculture. | <ol style="list-style-type: none"> 1. Ecological degradation and biodiversity loss prevented or minimised. 2. Increased ability of natural land- and seascapes to withstand anthropogenic disturbances and natural disasters and continue to provide benefits to present and future generations. |
| 2.5. Promote duty of care towards all components of biodiversity. | <ol style="list-style-type: none"> 1. The environmental duty of care for practices, actions and activities affecting components of biodiversity integrated into legislation and other measures. | <ol style="list-style-type: none"> 1. Improved well-being of nature. |

GOAL 3: EQUITABLE ACCESS AND BENEFIT SHARING: Benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the nation's interests.

| Policy Objective | Expected Output | Expected Outcome |
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| 3.1. Promote and regulate access to, and benefit sharing from, the use and development of South | <ol style="list-style-type: none"> 1. Streamlined and simplified legislation, regulations, and guidelines promote access to all indigenous genetic and biological resources for bioprospecting and biotrade, ensure fair and equitable sharing of benefits arising from the use and development of indigenous genetic and biological resources, their information | <ol style="list-style-type: none"> 1. South Africa's genetic and biological resources are sustainably leveraged for national and global benefits. |

| GOAL 3: EQUITABLE ACCESS AND BENEFIT SHARING: Benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the nation's interests. | | |
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| Policy Objective | Expected Output | Expected Outcome |
| Africa's indigenous genetic or biological resources, their information and data. | <p>and data, and their associated traditional or indigenous knowledge, where applicable.</p> <ol style="list-style-type: none"> Benefit-sharing arrangements contribute to biodiversity conservation, drive transformation and redress, and promote indigenous communities' rights, and benefit the holders of indigenous or traditional knowledge. Scientific and technical co-operation for use and development of indigenous genetic and biological resources, and their information, and data, are co-ordinated, strengthened, and promoted. | <ol style="list-style-type: none"> Providers of genetic and biological material, and associated indigenous or traditional knowledge, benefit fairly and equitably. |
| 3.2. Promote biodiversity-based food security through the use and development of genetic and biological material for agriculture. | <ol style="list-style-type: none"> The <i>International Treaty on Plant Genetic Resources for Food and Agriculture</i> harmonised with other biodiversity-related agreements. Farmers' intellectual property rights to genetic and biological material incorporated into policy and legislation. "Crop wild relatives" identified and encouraged for genetic use and development for commercial crop production, especially for small-holder farmers. | <ol style="list-style-type: none"> Structured and uniform access to genetic resources that are used and developed for crop production. Thriving food systems promoted through sustainable use and development of biodiversity assets. |

| GOAL 4: TRANSFORMED BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress and promotes transformation | | |
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| Policy Objective | Expected Output | Expected Outcome |
| 4.1. Empower the designated groups (PDIs, youth, women, and people with disabilities) to become owners and operators of their own businesses within the biodiversity economy value chain. | <ol style="list-style-type: none"> The designated groups capacitated on the creation of business ventures, including workshops on how to participate in public sector supply chain opportunities. Information shared with the designated groups on various opportunities available in the public and private sector. Successful land claimants engaged on post settlement support to ensure that their acquired land remains productive and the biodiversity land use continues or improves. Information and opportunities shared with the designated groups on areas that could benefit them and their children. | <ol style="list-style-type: none"> PDIs, youth, women, and people with disabilities become owners and operators of their own businesses within the biodiversity economy value chain. |

| GOAL 4: TRANSFORMED BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress and promotes transformation | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | 5. A biodiversity economy empowerment fund established with commercial and development finance institutions to support new entrants in the biodiversity sector. | |
| 4.2. Position protected and conservation areas as catalysts of inclusive socio-economic development. | <ol style="list-style-type: none"> 1. A strategy and action plan for state-owned and other protected areas promotes economies of scale and enhances socio-economic outcomes. 2. Institutional arrangements for state protected areas promote effective governance, and more equal and balanced partnerships with the private sector and communities. 3. Co-management arrangements with communities, and arrangements for incorporation of community-owned land are more equitable, balanced, and promote holistic outcomes. 4. Biodiversity economy strategy promotes access to, and unlocks ecotourism and hunting benefit streams from, protected areas to adjacent communities, with increased net benefit flows to people in and beyond protected and conservation areas. | <ol style="list-style-type: none"> 1. Improved governance and management of protected areas, and contribution to the biodiversity economy, with meaningful community participation, influence and benefit from protected areas. 2. Protected and conservation areas provide access and benefit flows to communities, redressing past injustices, reducing dis-services, and promoting support for protected and conservation area persistence over alternative land uses. |
| 4.3. Promote and enable use that is sustainable, and socially and economically inclusive. | <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. Legislation, mechanisms and tools enable transformative and inclusive use of components of biodiversity along the whole value chain. 3. Mechanisms promote 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. 4. Mechanisms and tools for traditional leaders of rural communities to lead their communities in accessing nature, biodiversity, and heritage sites, and facilitate sustainable traditional practices. 5. Mechanisms for local community and PDI entrepreneurship, to ensure meaningful participation, and their entry into local biodiversity-based value chains. | <ol style="list-style-type: none"> 1. Sustainable use ensures inclusive and meaningful participation in the biodiversity economy, and catalyses rural socio-economic development. 2. Improved livelihoods and well-being of previously disadvantaged communities, through meaningful participation and increased access and benefit sharing. |
| 4.4. Promote participation and influence of designated groups (PDIs, youth, women, and people with | <ol style="list-style-type: none"> 1. Perspectives, approaches, needs and aspirations of designated groups incorporated into biodiversity conservation and sustainable use. 2. A baseline of the current status of designated groups in biodiversity conservation and sustainable use conducted. | <ol style="list-style-type: none"> 1. The broad values of ecosystem services are realised and enhanced for designated groups. 2. The integrity and importance of a gender sensitive and responsive approach, and female and youth perspective of |

GOAL 4: TRANSFORMED BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress and promotes transformation

| Policy Objective | Expected Output | Expected Outcome |
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| <p>disabilities) in biodiversity conservation and sustainable use.</p> | <p>3. A <i>National Biodiversity Transformation Framework</i> developed and implemented, with key interventions across the biodiversity sector that ensure:</p> <ul style="list-style-type: none"> (a) Access to opportunities by designated groups for conservation and sustainable use; (b) Protected and conservation areas are sustainably used for the benefit of people and nature, especially by communities surrounding protected areas; (c) Communities participate meaningfully in the full biodiversity-based value chains from their communal land, as well as from adjacent protected and conservation areas; and (d) Communities owning biodiversity and land acquired through land reform processes fully develop biodiversity-based opportunities from their land, complimented by support from government, industry, and other role players. | <p>nature as a key component of social cohesion and society, is restored.</p> <p>3. Designated groups are empowered as equal and influential participants, leading transformation of the biodiversity sector.</p> |
| <p>4.5. Secure socio-economic mechanisms and interventions that drive equitable sustainable development.</p> | <ul style="list-style-type: none"> 1. Innovative mechanisms and interventions, with stakeholder partnerships, including communities co-operatives and SMMEs, drive key components of the biodiversity economy. 2. Traditional and other communities are empowered to address socio-economic challenges, reduce environmental vulnerability, and promote co-existence. 3. Protected and conservation areas leveraged for transformation of rural communities through strategic investments and promoting ownership by, and access to, PDIs. 4. Sustainable use of marine and freshwater biodiversity for driving socio-economic development, including co-operatives and small medium and micro enterprise (SMME) value chains based on subsistence fishing and harvesting, where appropriate. 5. A strategy and action plan for growing freshwater and marine biodiversity-based ecotourism, integrating better with terrestrial ecotourism, and targeting transformation opportunities, with localised co-operatives and SMMEs. | <ul style="list-style-type: none"> 1. A prosperous and equitable society living in harmony with nature. 2. Inclusive and equitable biodiversity economy with redress, full access, and beneficiation of ecosystem services. 3. Barriers to entry and participation in the biodiversity economy significantly reduced. |
| <p>4.6. Adopt an integrated conservation approach that is in line with the principles of Ubuntu.</p> | <ul style="list-style-type: none"> 1. Biodiversity conservation linked to improvement in the well-being of people and nature. 2. Ubuntu integrated into conservation and sustainable use, emphasising a localised approach that is in line with the traditions, culture, knowledge and aspirations of African people. | <ul style="list-style-type: none"> 1. Clear understanding of the intent and aspirations of South Africa, in promoting conservation for the well-being of people and nature. 2. The value and integrity of nature as a key component of African traditional culture is restituted and restored. |

GOAL 4: TRANSFORMED BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress and promotes transformation

| Policy Objective | Expected Output | Expected Outcome |
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| | <ol style="list-style-type: none"> 3. African perspectives, approaches, needs, and aspirations advocate conservation and sustainable use. 4. Culture, local knowledge and traditional practices associated with conservation and sustainable use enhance the spiritual and sacred contribution of nature to people. 5. The close connection of African people with nature and of living in harmony with nature is promoted through cultural, traditional and spiritual practices. | <ol style="list-style-type: none"> 3. African traditional leaders and healers are empowered and respected as influential custodians, leading transformation of the biodiversity sector. |
| 4.7. Institutionalise biodiversity and conservation within institutions of Traditional Authorities. | <ol style="list-style-type: none"> 1. Traditional Authorities empowered to look after biodiversity within their areas of jurisdiction. 2. Traditional Authorities empowered to adjudicate certain biodiversity cases related to violation of biodiversity prescripts in line with the Traditional and Khoisan Leadership Act, 2019 (Act No. 3 of 2019). | <ol style="list-style-type: none"> 1. Traditional Authorities are empowered to run the affairs of biodiversity within their area of jurisdiction in line with provincial and national legislative provisions. |

ENABLER 1: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Integrated policy and practice across government and the effective implementation of Multilateral Environmental Agreements.

| Policy Objective | Expected Output | Expected Outcome |
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| E1.1. Integrate and mainstream the conservation and sustainable use of biodiversity into all sectoral and cross-sectoral work across government and sectors of society. | <ol style="list-style-type: none"> 1. Integrated, coherent, cross-sectoral strategies for effective and efficient biodiversity conservation and sustainable use, including approaches, learning, experience, and practice, at intra- and intergovernmental level. 2. Mechanisms and tools for effective intergovernmental co-ordination across sectors and levels of government. 3. All policy instruments and tools integrate and mainstream conservation and sustainable use across government and sectors of society. 4. All organs of state and sectors of society responsible for activities affecting biodiversity, biodiversity conservation, or sustainable use, implement sector-specific plans. 5. Full cost-accounting, including cumulative and climate change effects, incorporated into tools and measures for conservation and sustainable use. | <ol style="list-style-type: none"> 1. Biodiversity mainstreamed across government and sectors for effective governance of conservation and sustainable use. |

| ENABLER 1: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Integrated policy and practice across government and the effective implementation of Multilateral Environmental Agreements. | | |
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| Policy Objective | Expected Output | Expected Outcome |
| | <ol style="list-style-type: none"> 6. Biodiversity conservation and ecological integrity integrated into land-use planning and implementation, including municipal biodiversity by-laws as appropriate. 7. Ecosystem-based approaches, mitigation, and disaster risk reduction measures mainstreamed into land-use planning. | |
| E1.2. Strengthen integrated mechanisms and tools to conserve biodiversity, both inside and outside of protected areas. | <ol style="list-style-type: none"> 1. Biodiversity legislation, mechanisms and tools across all spheres of government reviewed and aligned to eliminate gaps, duplications, and conflicts. 2. Appropriate measures and tools developed and implemented to prevent, avoid, mitigate and/or manage human-wildlife conflict. 3. OECMs such as conservancies, natural heritage site buffers, biosphere reserves, biodiversity easements and servitudes, and biodiversity agreements through biodiversity stewardship programmes are scaled and resourced. 4. Mechanisms and tools developed across spheres of government and sectors of society for biological management for survival of species in the wild. | <ol style="list-style-type: none"> 1. Enhanced conservation, ecological infrastructure and human-biodiversity co-existence promote living in harmony with nature. |
| E1.3. Improve compliance with biodiversity legislation. | <ol style="list-style-type: none"> 1. Cross-sectoral collaboration all with law enforcement agencies, for integrated compliance and enforcement of biodiversity legislation. 2. Effective inspections to monitor and assess compliance with biodiversity legislation. 3. Strong enforcement responses to incidents of non-compliance with biodiversity legislation, including investigations and prosecutions of offenders. 4. Compliance and enforcement activities undertaken at a level which deters the illegal harvesting of, and trade in, South Africa's biodiversity. 5. Effective implementation of the <i>National Integrated Strategy to Combat Wildlife Trafficking</i>. 6. Improved collaboration, training, and support for the National Prosecuting Agency for effective prosecution of wildlife crimes. 7. Establishment of environmental committees linked to Traditional Councils for effective implementation, compliance, and monitoring of biodiversity legislation, including through use of community rangers. | <ol style="list-style-type: none"> 1. Improved conservation status of threatened species and ecosystems, and sustainable use thereof. |
| E1.4. Effective participation in, and implementation of, Multilateral | <ol style="list-style-type: none"> 1. South Africa's participation in bilateral and Multilateral Environmental Agreements maintained, strengthened and harmonised. | <ol style="list-style-type: none"> 1. Strengthened multilateralism and advocacy in global biodiversity governance enhance thriving biodiversity in Africa with a positive contribution to improve planetary health. |

ENABLER 1: INTEGRATED, MAINSTREAMED AND EFFECTIVE BIODIVERSITY CONSERVATION AND SUSTAINABLE USE: Integrated policy and practice across government and the effective implementation of Multilateral Environmental Agreements.

| Policy Objective | Expected Output | Expected Outcome |
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| Environmental Agreements. | <ol style="list-style-type: none"> 2. Effective participation, enactment, and implementation of international biodiversity instruments and their obligations, across the national, provincial, and local levels. 3. New agreements and arrangements that are relevant to the conservation, sustainable use of biodiversity, and equitable benefit sharing negotiated, signed and/or ratified, in line with the country's international relations framework. 4. South Africa's participation in appropriate southern African and African biodiversity fora strengthened for a synergistic approach for African empowerment and leadership. 5. National strategy for international trade in species and their parts and derivatives promotes biodiversity conservation, sustainable use and equitable socio-economic transformation. 6. Strategic positioning and engagement in domestic and international trade promotes and enhances cohesive trans-Africa approach to international trade in Africa's biodiversity. | |

ENABLER 2: ENHANCED MEANS OF IMPLEMENTATION: Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity.

| Policy Objective | Expected Output | Expected Outcome |
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| E2.1. Increase public education, awareness, capacity building, and championing of the value and importance of biodiversity, and improve participation and public involvement in its conservation and sustainable use. | <ol style="list-style-type: none"> 1. Public support, commitment, and participation programmes for biodiversity conservation and sustainable use. 2. Duty of care towards biodiversity, its conservation and sustainable use improved and enhanced. 3. Protected areas are promoted and accessible to all South Africans. 4. Biodiversity conservation and sustainable use integrated into formal and informal education and training. | <ol style="list-style-type: none"> 1. Integrated and strengthened awareness for people to value, appreciate, and care for biodiversity conservation and sustainable use. |
| E2.2. Enhance knowledge of South Africa's | <ol style="list-style-type: none"> 1. Targeted, strategic, and facilitated biodiversity research and evidence enhances knowledge and improves conservation and sustainable use. | <ol style="list-style-type: none"> 1. Evidence-based best practice in conservation and sustainable use, with effective translation of knowledge into practice. |

ENABLER 2: ENHANCED MEANS OF IMPLEMENTATION: Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity.

| Policy Objective | Expected Output | Expected Outcome |
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| biodiversity to inform effective decision-making, management, and practice. | <ol style="list-style-type: none"> 2. Partnerships and collaboration in scientific biodiversity research and indigenous and traditional knowledge and practice. 3. Enhanced scientific cooperation to strengthen evidence based policy making and implementation | <ol style="list-style-type: none"> 2. Scientific cooperation provides the basis for policy decision-making |
| E2.3. Indigenous or traditional knowledge and practice provide localised solutions to biodiversity conservation and sustainable use. | <ol style="list-style-type: none"> 1. Strengthened mechanisms and tools for identification and protection of indigenous, traditional, and local knowledge, innovation and practices associated with nature and biodiversity. 2. Mechanisms and tools for ethical collection and curation of indigenous, traditional, and local knowledge, innovation and practices associated with nature and biodiversity co-developed with knowledge holders. 3. Indigenous, traditional, and local knowledge informs and strengthens biodiversity policy development and decision-making. 4. Transmission of indigenous, traditional, and local knowledge and practices by training the next generation. 5. Any use or benefit that derives from traditional knowledge or practices includes fair and equitable sharing with holders of knowledge and practices. 6. Multi-sectoral partnerships leverage indigenous knowledge and practices for biodiversity conservation and benefits. | <ol style="list-style-type: none"> 1. Indigenous, traditional, and local knowledge, innovations and practices curated for effective protection, recognition, and use. 2. Traditional leaders, traditional health practitioners, and practitioners, are recognised and treated with dignity and respect as the custodians of traditional knowledge, innovation, and practices. |
| E2.4. Data and information form the basis of decision making and practice. | <ol style="list-style-type: none"> 1. Co-ordinated and integrated national biodiversity monitoring, data collection, information and knowledge management, evaluation, and reporting framework, with implementation at the appropriate spatial and temporal scales, in partnership with data custodians. 2. Biodiversity monitoring and evaluation informs planning and adaptive management for biodiversity conservation and sustainable use. 3. Key real-time biodiversity indicators enable reporting and evaluation, with identification of biodiversity and ecological integrity threats and risks. | <ol style="list-style-type: none"> 1. Enhanced and effective biodiversity reporting and trend analysis enhances biodiversity conservation and sustainable use and prevents or mitigates threats. |
| E2.5. Enhance the capacity necessary to conserve and sustainably use South Africa's biodiversity. | <ol style="list-style-type: none"> 1. Effective sector-wide <i>Human Capital Development and Deployment Strategy</i>, with streamlining and transformation. 2. Development of transformative biodiversity qualifications and curricula influenced, with multidisciplinary approaches, for effective biodiversity education and training at all levels. | <ol style="list-style-type: none"> 1. Streamlined, appropriate, representative, and transformed human capacity underpin effective and improved management and conservation of biodiversity and its use. |

ENABLER 2: ENHANCED MEANS OF IMPLEMENTATION: Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity.

| Policy Objective | Expected Output | Expected Outcome |
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| | <ol style="list-style-type: none"> 3. Skills development, retention, and transfer, and staff retention strategy across the sector enhanced. 4. Enhanced biodiversity content expertise within mandated state agencies. 5. Efficient and funded organisational design for mandated agencies enhance biodiversity service delivery outcomes. | |
| <p>E2.6. Mobilise resources from all sources, including identification of innovative financial mechanisms, to promote financial sustainability of the sector.</p> | <ol style="list-style-type: none"> 1. Provision of financial support and incentives, within available financial resources, in respect of activities which are intended to achieve the goals, objectives, and outcomes of the White Paper. 2. Enhanced financial sustainability of state biodiversity conservation, including for sustaining and expanding state protected areas. 3. Integrated and innovative mechanisms, funding and investment models, and resource mobilisation, including internationally, to support biodiversity conservation and sustainable use. 4. Mechanisms and tools, developed in partnership with the private sector, to facilitate access to capital, and financial training and support, for new entrants to the biodiversity sector. 5. Fiscal instruments in place that promote and incentivise biodiversity conservation and growing the biodiversity economy. 6. Innovative approaches, with mechanisms for reinvestment, change business practices to reduce biodiversity loss, adding net value, or at least ensure no net biodiversity loss. 7. Market instruments, such as certification schemes, enhance reputation and market share of high-standard sustainable use products and practices. 8. External financing sources pursued through bilateral and multilateral agencies, and the private sector, to secure funding for priority programmes and projects. 9. Biodiversity offsets enhance affected biodiversity, or at least ensure no net biodiversity loss. 10. Regulatory certainty created for implementation of innovative biodiversity offsetting instruments, such as strategic biodiversity offsets and biodiversity offset banking. | <ol style="list-style-type: none"> 1. Financial support and incentives are harnessed and leveraged from all sources to ensure the biodiversity sector is adequately resourced, and transformed. |

8 IMPLEMENTING THE POLICY

The following activities will be undertaken in developing the implementation plan:

1. The development of a detailed implementation plan based on engagements with relevant stakeholders, including broad consultation with key stakeholder groupings and the general public, to develop the programme of work. To this end, the following activities will be undertaken:
 - 1.1. Identification of key stakeholders.
 - 1.2. Engagements with relevant stakeholders.
 - 1.3. Intergovernmental consultation to discuss implementation modalities.
 - 1.4. Develop a programme of work.
 - 1.5. Costing of the implementation roadmap.
 - 1.6. Finalise and adopt the implementation roadmap.
 - 1.7. Implement the roadmap.
 - 1.8. Mainstream the roadmap across spheres of government.
2. The implementation plan will set out and provide the basis for monitoring and evaluation of the plan's implementation in partnership with stakeholders, while the outcomes of such monitoring and evaluation will be used to update the programme of work as necessary. Consequently, the implementation plan will require or enable the following:
 - 2.1. Agreed collaborative and facilitator structures and arrangements that promote collaboration, inclusivity, and partnerships to realise effective and efficient implementation.
 - 2.2. Review and reform of key legislation and strategies to align with the goals and objectives of the White Paper.
 - 2.3. Improved co-operative governance and reduced inefficiencies across implementing authorities in line with goals and objectives, building on current initiatives underway within the environmental sphere of government.
 - 2.4. Development and implementation of co-operative governance tools such as Memoranda of Understanding with organs of state and key strategic partners on policy support and implementation mechanisms.
 - 2.5. Development of a sector transformation framework.
 - 2.6. Review and reallocation of financial and human resources to cover identified gaps, and new areas of operation required for implementation.
 - 2.7. Development of a South African model for conservation management strategy which will lay down a protocol for efficient and effective governance.