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Contents

No.		Gazette No.	Page No.
	GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS		
Forestry, Fisheries and the Environment, Department of / Bosbou, Visserye en die Omgewingsake, Departement van			
4492	National Environmental Management: Biodiversity Act (10/2004): Comments invited on the draft National Biodiversity Economy Strategy	50279	3

GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

NO. 4492 **8 March 2024**

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)

COMMENTS INVITED ON THE DRAFT NATIONAL BIODIVERSITY ECONOMY STRATEGY

I, Barbara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, hereby publish the draft National Biodiversity Economy Strategy for public comments as set out in the Schedule hereto.

Members of the public are invited to submit, within 14 days from the date of publication of this notice in the government Gazette or in newspapers, whichever is the later date of publication, written comments to any of the following addresses:

By post to: The Director-General: Department of Forestry, Fisheries and the Environment
Attention: Mr Khorommbi Matibe
Private Bag X447
PRETORIA
0001

By hand at: Reception, Environment House, 473 Steve Biko Road, Arcadia, Pretoria, 0083

By e-mail: nbes@dffe.gov.za

Any inquiries in connection with the draft National Biodiversity Economy Strategy, or in connection with obtaining a copy of the Socio-Economic Impact Assessment Study (SEIAS) on the draft National Biodiversity Economy Strategy, can be directed to Mr Khorommbi Matibe at KMatibe@dffe.gov.za

A copy of the draft National Biodiversity Economy Strategy can be accessed at:
https://www.environment.gov.za/legislation/gazetted_notices or www.gpwonline.gov.za

Comments received after the closing date may not be considered.

BARBARA DALLAS CREECY
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

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SCHEDULE

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REVIEWED NATIONAL BIODIVERSITY ECONOMY STRATEGY

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CONTENTS

1 EXECUTIVE SUMMARY 4

2 ACRONYMS 5

3 DEFINITIONS 6

4 INTRODUCTION 6

5 POLICY CONTEXT 8

5.1 THE CONVENTION ON BIODIVERSITY AND THE GLOBAL BIODIVERSITY FRAMEWORK 8

5.2 THE WHITE PAPER ON CONSERVATION AND SUSTAINABLE USE OF SOUTH AFRICA'S BIODIVERSITY 10

6 STRATEGIC GOALS, CROSS-CUTTING IMPERATIVES AND ENABLERS 12

6.1 Goal 1: Leveraging biodiversity-based features to scale inclusive ecotourism industry growth in seascapes and in sustainable conservation land-use. 13

6.2 Goal 2: Consumptive use of Game from extensive wildlife systems at scale that drives transformation and expanded sustainable conservation compatible land-use. 14

6.3 Goal 3: Consumptive use of wild and produced marine and freshwater resources that drives inclusive coastal socio-economic development. 15

6.4 Goal 4: Well structured, inclusive, integrated and formalised Bioprospecting, Biotrade, and Biodiversity-based Harvesting and Production Sector that beneficiates communities. 16

6.5 Cross-Cutting Imperative 1: Leverage the Biodiversity Economy to promote conservation and species and ecosystem management, thereby ensuring a positive feedback loop. 17

6.6 Cross-Cutting Imperative 2: Promote growth and transformation of the Biodiversity Economy. 18

6.7 Enabler 1: Effective and Efficient regulation and policy implementation 20

6.8 Enabler 2: Increased capacity, innovation and technological support 21

6.9 Enabler 3: Financial support sustains conservation and grows the Biodiversity Economy 22

6.10 Enabler 4: Market access for Previously Disadvantaged Individuals and Communities 23

7 MONITORING, EVALUATION AND REVIEW 24

8 APPENDIX: DRAFT Implementation plan 25

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1 EXECUTIVE SUMMARY

South Africa is a country with diverse cultures, remarkable geological wealth, and exceptional biodiversity, much of which is unique, and with high levels of endemism. With this rich endowment comes the responsibility and challenge of ensuring that all species and ecosystems are conserved and used sustainably for the benefit of current and future generations. The National Biodiversity Economy Strategy (NBES) is developed to optimise biodiversity-based business potentials across the terrestrial, fresh water, estuarine, and marine and coastal realms, and to contribute to economic growth with local beneficiation, job creation, poverty alleviation, and food security, whilst maintaining the ecological integrity of the biodiversity resource base, for thriving people and nature.

In reviewing the NBES, the Strategy has been broadened to respond to the White Paper on Conservation and Sustainable Use of South Africa's Biodiversity (the White Paper) as well as the Kunming-Montreal Global Biodiversity Framework (GBF), whilst incorporating the outcomes of the National Operation Phakisa Oceans and Biodiversity Labs, and addressing opportunities associated with all ecosystems.

In broadening the NBES beyond the original two elements (Wildlife Economy and Equitable Access and Benefit sharing/Biotrade) to include ecotourism and all ecosystems, and in responding to the White Paper and the GBF, the NBES has been completely reconceptualised as a broad strategy to guide the whole of the biodiversity economy. It is now framed to provide strategic direction to the sector over the next ten years.

Importantly, the NBES does not only focus on the White Paper Goal 2 (Sustainable Use) and Goal 3 (Equitable Access and Benefit Sharing), but the NBES includes two cross-cutting imperatives that respectively address the White Paper Goal 1 (Enhanced Biodiversity Conservation) and Goal 4 (Transformation) in a holistic manner. The NBES responds to GBF Goals by ensuring that the biodiversity foundation on which sustainable use is based is further and explicitly strengthened, including through the feedback envisaged in the NBES Cross-cutting Imperative 1. The NBES is explicitly about sustainable use, but also emphasises the linkage to ecosystem restoration, as well as the importance of ecological infrastructure. Importantly, the NBES includes enablers that are aligned with the Enablers contained within the White Paper, as well as speaking to implementation consistent with the GBF, including explicitly considering financing, capacity development, and the need for cooperation and partnership.

The National Biodiversity Economy Strategy is, therefore, underpinned by two cross-cutting imperatives:

- **Cross-cutting Imperative 1:** Leverage the Biodiversity Economy to promote conservation and species and ecosystem management, thereby ensuring a positive feedback loop;
- **Cross-cutting Imperative 2:** Promote growth and transformation of the Biodiversity Economy.

The National Biodiversity Economy Strategy sets out to achieve four Strategic Goals with their anticipated impacts:

- **Goal 1: Leveraging biodiversity-based features to scale inclusive ecotourism industry growth in seascapes and in sustainable conservation land-use.**

  Impact Statement: This will grow sustainable and inclusive eco-tourism-based businesses by 10% per annum through marine-based ecotourism activities and expansion of the conservation estate from 20 million ha to 34 million ha by 2040 (4,2 million ha from declared protected areas and 10 million ha from Other Effective area-based Conservation Measures-OECMs);

- **Goal 2: Consumptive use of Game from extensive wildlife systems at scale that drive transformation and expanded sustainable conservation compatible land-use.**

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Impact Statement: This will increase the GDP contribution for consumptive use of game from extensive wildlife systems from R4.6 billion (2020) to R27.6 billion by 2036;

- **Goal 3: Consumptive use of wild and produced marine and freshwater resources that drives inclusive coastal socio-economic development.**

  Impact Statement: Grow sustainable consumptive use of marine, coastal, estuarine and freshwater resources, including through aquaculture, by 10% per annum by 2036; and;

- **Goal 4: Well structured, inclusive, integrated and formalised Bioprospecting, Biotrade, and Biodiversity-based Harvesting and Production Sector that beneficiates communities.**

  Impact Statement: This will increase the GDP contribution of the bioprospecting/biotrade from R1,85 billion (2020) to R11,6 billion by 2036 through local beneficiation (finished pharmaceutical, cosmetics and food supplements products), and the development of SMME based production systems for restoration and sequestration.

In order to achieve these goals, the NBES requires implementation of four key enablers:

- **Enabler 1**: Effective and Efficient regulation and policy implementation
- **Enabler 2:** Increased capacity, innovation and technological support
- **Enabler 3:** Financial support sustains conservation and grows the Biodiversity Economy
- **Enabler 4**: Market access for communities and Previously Disadvantaged Individuals

Consistent with the policy context of the White Paper, the NBES is founded on the key pillars of conservation, sustainable use and beneficiation of biodiversity business value chains, and transformation, which will promote sustainable and inclusive socio-economic development. This requires growing and sustaining conservation land and seascapes while promoting and facilitating inclusive biodiversity based businesses that drive transformation of the biodiversity sector. Importantly, broadening the NBES in revision provides increased opportunity to contribute to achieving more elements of the National Development Plan and the Sustainable Development Goals. This emphasises the importance of sustainable use of biodiversity as key to inclusive socio-economic development, especially when effectively mainstreamed into cross sectoral planning.

2 ACRONYMS

ARC:	Agricultural Research Council,
BioPANZA:	BioProducts Advancement Network of South Africa
CBD:	Convention on Biological Diversity
CITES:	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
COGTA:	Department of Cooperative Development and Traditional Affairs
CONTRALESA:	Congress of Traditional Leaders of South Africa
CSIR:	Council for Scientific and Industrial Research
DALRRD:	Department of Agriculture, Land Reform and Rural Development
DFFE:	Department of Forestry, Fisheries and the Environment
DHET:	Department of Higher Education and Training
DOH:	Department of Health
DSBD:	Department of Small Business Development
DSI:	Department of Science and Innovation
DTIC:	Department of Trade Industry and Competition
EPWP:	Extended Public Works Programme

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GBF:	Kunming-Montreal Global Biodiversity Framework
GEF:	Global Environment Facility
GDP:	Gross Domestic Product
HLP:	High-Level Panel
HSRC:	Human Sciences Research Council
IKS:	Indigenous Knowledge Systems
KNP:	Kruger National Park
MEAs:	Multilateral Environmental Agreements
MINMEC:	Minister and Members of Executive Council responsible for Environment
NBES:	National Biodiversity Economy Strategy
NGOs:	Non-Governmental Organisations
NRF:	National Research Foundation
SARCHI:	South African Research Chairs Initiative
OECMs:	Other Effective area-based Conservation Measures
PDIs:	Previously Disadvantaged Individuals
PPPs:	Public Private Partnerships
SANBI:	South African National Biodiversity Institute
SANPARKS:	South African National Parks
SARIR:	DSI South African Research Infrastructure Roadmap
SMME:	Small, Medium and Micro Enterprise
TFCAs:	Transfrontier Conservation Areas
TOPS Regulations:	Threatened or Protected Species Regulations (2007)
WRC:	Water Research Commission

3 DEFINITIONS

Use of terms in this strategy should be understood in terms of the definitions contained within the White Paper, relevant legislation, or the general understanding of such terms. Definitions are not repeated here for sake of brevity.

4 INTRODUCTION

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.

The White Paper emphasises that South Africa supports and promotes both consumptive and non-consumptive sustainable use, with important economic activities and employment opportunities in the ecotourism, hunting, fishing, harvesting, production, bioprospecting, customary use, and recreation industries. Furthermore, South Africa intends to strengthen this sustainable use approach while addressing challenges that confront the sector. 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 resilience and offers further potential for growth.

Biodiversity forms part of South Africa's national identity, heritage, and indigenous knowledge. Natural ecosystems, plants and animals have also influenced cultural and spiritual development, and are woven into languages, place names, religion, culture, and folklore. Biodiversity is also an important national asset and makes a significant contribution to inclusive growth and job creation.

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South Africa has a diversity of wildlife-based land-uses, ranging from protected areas, extensive wildlife systems, semi-intensive management, intensive wildlife breeding facilities, sanctuaries, and rehabilitation facilities. The South African Wildlife Model has led to a range of conservation successes, including the increase in wild populations and range expansion of wild lion, elephant, and black and white rhinoceros. The game ranching economy makes a substantial contribution to the South African economy. Game ranching is an important land use for both socio-economic development and biodiversity conservation and can play an enhanced role in transformation. This can be done through removing barriers of entry into the game ranching economy for emerging black entrepreneurs and expanded sharing of benefits with previously disadvantaged individuals and rural communities.

The traditional harvesting of plants and animals (and honeycombs etc) from the wild is widely practised in South Africa and is particularly important as part of the informal rural economy. Many indigenous plant and animal species have documented traditional medicinal uses, and many also have important spiritual meanings, they are harvested for food, as a fuel source, as well as for building materials such as thatch and trunks. 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. However, there is much indigenous knowledge and practice, which, together with the expertise and practice can be leveraged for sustainably growing the contribution to localised economies. This has great potential to feed into the growing Bioprospecting and Biotrade industries, as well as into formalised plant production, such as for the horticulture and landscaping industries.

The marine environment provides South Africans with food and livelihoods by providing a basis for fishing (commercial, subsistence or recreational). 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. Similarly, freshwater fishing is an important recreational activity, but also an important local food source in some areas. Alien species, in particular, pose a major risk.

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-based jobs are prevalent in sectors such as fisheries, aquaculture, wildlife ranching, indigenous flora harvesting and production industries, bee product harvesting and apiculture, traditional medicine, indigenous tea production and biodiversity-based tourism. Of these, despite its high economic and social value, the traditional medicine sector is largely informal.

South Africa's biodiversity, also contributes to tourism and the presence of iconic African wildlife well beyond the "big five" gives it an advantage in attracting international tourists. More income from such tourism, based on the attraction of these iconic species, could help transform and build the biodiversity sector, and the South African economy more generally, in an inclusive manner.

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5 POLICY CONTEXT

Section 24 of the Constitution requires reasonable legislative and other measures be put in place to ensure that the environment is protected, for the benefit of present and future generations, including through promoting conservation and securing ecologically sustainable development and use of natural resources. This National Biodiversity Economy Strategy is one such measure, to ensure effective conservation and sustainable use of South Africa's biodiversity, with inclusive and equitable socio-economic development.

The Operation Phakisa Oceans Lab took place in 2014, and included amongst others, two critical areas pertinent to this strategy: Aquaculture, and Marine Protection Services and Ocean Governance (which resulted in improved Marine Spatial Planning and the proclamation of a range of Marine Protected Areas).

The Operation Phakisa Biodiversity Lab took place in 2016, and focused on two elements, Wildlife (game) ranching and associated value chain, with 15 initiatives and 6 recommendations, and Bioprospecting for commercial or industrial purposes, with five initiatives and recommendations. These were taken up in the Biodiversity Economy Strategy, which was intended to be the first step in an evolutionary process to expand the strategy to all sectors of the Biodiversity Economy. In 2020, the Minister established the High-Level Panel (HLP) to review policies, legislation and practices on matters related to the management, breeding, hunting, trade and handling of elephant, lion, leopard and rhinoceros. The HLP later produced a report with at least 60 recommendations which was subsequently adopted by Cabinet on 21 April 2021. The HLP recommended that the department should *recontextualise the National Biodiversity Economy Strategy to fully leverage the value of the iconic species as a unique selling point for South Africa, prioritising both responsible photo-tourism and hunting.*

Following the adoption of the HLP report by Cabinet, the Department of Forestry, Fisheries and the Environment (DFFE) initiated a process for the development of the White Paper, which was gazetted for implementation on 14 June 2023. The White Paper provides policy certainty and a strong policy base for biodiversity conservation and sustainable use, equitable growth in the biodiversity economy. The White Paper serves as a policy guiding tool for government, private sector, non-government organizations, academia, researchers, and communities to manage South Africa's biodiversity in a manner that promotes conservation, sustainable use, fair and equitable sharing of benefits, and transformation.

5.1 THE CONVENTION ON BIODIVERSITY AND THE GLOBAL BIODIVERSITY FRAMEWORK

South Africa has ratified the Convention on Biological Diversity (CBD), 1996 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. 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 was ratified by South Africa in 2014.

The Kunming-Montreal Global Biodiversity Framework (GBF), adopted by the 15th COP at Montreal, Canada in December 2022, aims to catalyze, enable and galvanize urgent and transformative action by Governments, and subnational and local authorities, with the involvement of all of society, to halt and reverse biodiversity loss, to achieve the outcomes it sets out in its Vision, Mission, Goals and Targets, and thereby contribute to the three objectives of the Convention on Biological Diversity and to those of its Protocols. Its purpose is the full implementation of the three objectives of the Convention in a balanced manner.

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The NBES provides one of the mechanisms for South Africa to domesticate the GBF. The revision of the NBES has been aligned with the broad context of the framework, the key relevant elements of which outlined below.

The GBF, including its Vision, Mission, Goals and Targets, is to be understood, acted upon, implemented, reported and evaluated, consistent with the following, amongst others:

(a) *Contribution and rights of indigenous peoples and local communities:* The Framework acknowledges the important roles and contributions of indigenous peoples and local communities as custodians of biodiversity and as partners in its conservation, restoration and sustainable use. The Framework's implementation must ensure that the rights, knowledge, including traditional knowledge associated with biodiversity, innovations, worldviews, values and practices of indigenous peoples and local communities are respected, and documented and preserved with their free, prior and informed consent, including through their full and effective participation in decision-making.

(b) *Different value systems*: Nature embodies different concepts for different people, including biodiversity, ecosystems, Mother Earth, and systems of life. Nature's contributions to people also embody different concepts, such as ecosystem goods and services and nature's gifts. Both nature and nature's contributions to people are vital for human existence and good quality of life, including human well-being, living in harmony with nature, and living well in balance and harmony with Mother Earth. The Framework recognizes and considers these diverse value systems and concepts, including, for those countries that recognize them, rights of nature and rights of Mother Earth, as being an integral part of its successful implementation;

(c) *Whole-of-government and whole-of-society approach*: This is a framework for all - for the whole of government and the whole of society. Its success requires political will and recognition at the highest level of government and relies on action and cooperation by all levels of government and by all actors of society;

(f) *Right to development*: Recognizing the 1986 United Nations Declaration on the Right to Development, the Framework enables responsible and sustainable socioeconomic development that, at the same time, contributes to the conservation and sustainable use of biodiversity;

(h) *Gender*: Successful implementation of the Framework will depend on ensuring gender equality and empowerment of women and girls, and on reducing inequalities;

(i) *Science and innovation*: The implementation of the Framework should be based on scientific evidence and traditional knowledge and practices, recognizing the role of science, technology and innovation;

(j) *Intergenerational equity*: The implementation of the Framework should be guided by the principle of intergenerational equity which aims to meet the needs of the present without compromising the ability of future generations to meet their own needs and to ensure meaningful participation of younger generations in decision-making processes at all levels;

The vision of the GBF is a world of living in harmony with nature where "by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."

The mission of the GBF for the period up to 2030, towards the 2050 vision is: To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity and by ensuring the fair and equitable sharing of benefits from the use of genetic resources, while providing the necessary means of implementation.

The GBF has four long-term goals for 2050 related to the 2050 Vision for biodiversity:

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GOAL A: The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; Human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential.

GOAL B: Biodiversity is sustainably used and managed and nature's contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050.

GOAL C: The monetary and non-monetary benefits from the utilization of genetic resources and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with indigenous peoples and local communities, and substantially increased by 2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments.

GOAL D: Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the Kunming-Montreal Global Biodiversity Framework are secured and equitably accessible to all Parties, especially developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of $700 billion per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for biodiversity.

The NBES responds to the GBF Goals by ensuring that the biodiversity foundation on which sustainable use is based is further and explicitly strengthened, amongst others through the feedback envisaged in Cross-cutting Imperative 1. The NBES is explicitly about sustainable use, but also emphasises the linkage to ecosystem restoration, as well as the importance of ecological infrastructure. There is an explicit goal within the NBES to ensure equitable access and benefit sharing of genetic resources. Importantly, the NBES includes enablers that speak to implementation, including explicitly considering financing, capacity development, and the need for cooperation and partnership.

The GBF has 23 action-oriented global targets for urgent action over the decade to 2030. Since the NBES is aligned with the broader framing of the GBF summarised above, the implementation plan for the NBES can, and should, be aligned with specific GBF targets, which will ensure delivery against those targets, as well as facilitate accounting on achievement of the GBF. These detailed linkages will be developed as part of the implementation process.

5.2 THE WHITE PAPER ON CONSERVATION AND SUSTAINABLE USE OF SOUTH AFRICA'S BIODIVERSITY

The White Paper was approved by Cabinet on 29 March 2023, and published under Government Notice No. 3537 in the Government *Gazette*, No. 48785, for implementation on 14 June 2023. The White Paper provides a foundation for conservation and sustainable use in terms of its four goals, namely:

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1) Enhanced Biodiversity Conservation (All biological diversity and its components conserved);

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);

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); and

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:

1) 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

2) 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 White Paper identified the following broad challenges:

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.

The White Paper, therefore, set out 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*", with 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.*"

This NBES is guided and informed by the detail provided in the White Paper Policy Objectives and outputs and is intended to provide strong direction for the growth and transformation of the biodiversity-based economy in South Africa. Importantly, the NBES does not only focus on the White Paper Goal 2 (Sustainable Use) and Goal 3 (Equitable Access and Benefit Sharing), but includes two cross-cutting imperatives that address Goal 1 (Enhanced Biodiversity Conservation) and Goal 4 (Transformation). Furthermore, in its revision, the NBES has been broadened to include additional ecosystems, and

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leverages the potential of ecotourism. This reframing and broadening allows the NBES to address a much wider range of Policy Objectives contained within the White Paper. Importantly, the NBES includes Enablers that are aligned with the Enablers contained within the White Paper.

Since the NBES is aligned with the broader framing of the White Paper, the implementation plan for the NBES can, and should, be aligned with specific White Paper Policy Outputs, which will ensure delivery against those, as well as facilitate accounting on achievement of the White Paper. These detailed linkages will be developed as part of the implementation process.

6 STRATEGIC GOALS, CROSS-CUTTING IMPERATIVES AND ENABLERS

The National Biodiversity Economy Strategy sets out to achieve four Strategic Goals, with their anticipated high-level impacts. These build on previous strategies, and take the approach of integrating and scaling for effectiveness and impact. In addition, the National Biodiversity Economy Strategy is more comprehensive by the inclusion of terrestrial, marine, coastal, estuarine and freshwater opportunities, and by emphasising a Goal on scaling Ecotourism and its benefits which was identified as missing from the previous Biodiversity Economy Strategy. Importantly, a more holistic approach is taken to access and benefit sharing, that includes biodiversity-based harvesting and production, such as nurseries or plantations for production of indigenous species, that is not based on IKS, as well as harvesting of products such as indigenous insects. This allows for scaling of opportunities by including elements that are not part of the Bioprospecting value chain as part of a Goal alongside bioprospecting and biotrade.

In order to sustain, grow, and transform the Biodiversity Economy, there are two cross-cutting imperatives. Both of these are foundational to success, and underpin actions and activities to achieve the Strategic Goals. The first recognises that the Biodiversity Economy is founded on the underlying biodiversity, and the land- and seascapes from which biodiversity-based value-chains derive. Growing the Biodiversity Economy, especially leveraging the opportunities from ecotourism, requires expansion and management of sustainable use of biodiversity and of the conservation estate, strong partnerships among stakeholders, and, importantly, fully funding, rather than being subsidised by, the land-use and ecosystem management that sustains the foundation. The second cross-cutting imperative recognises the urgent need for transformation of the Conservation Sector and the Biodiversity Economy. This requires new approaches such as amongst others, investment into community owned land for conservation compatible land-use with biodiversity-based enterprises, more inclusive processes, opening up of value chains, and ensuring equitable and inclusive access and benefit flows.

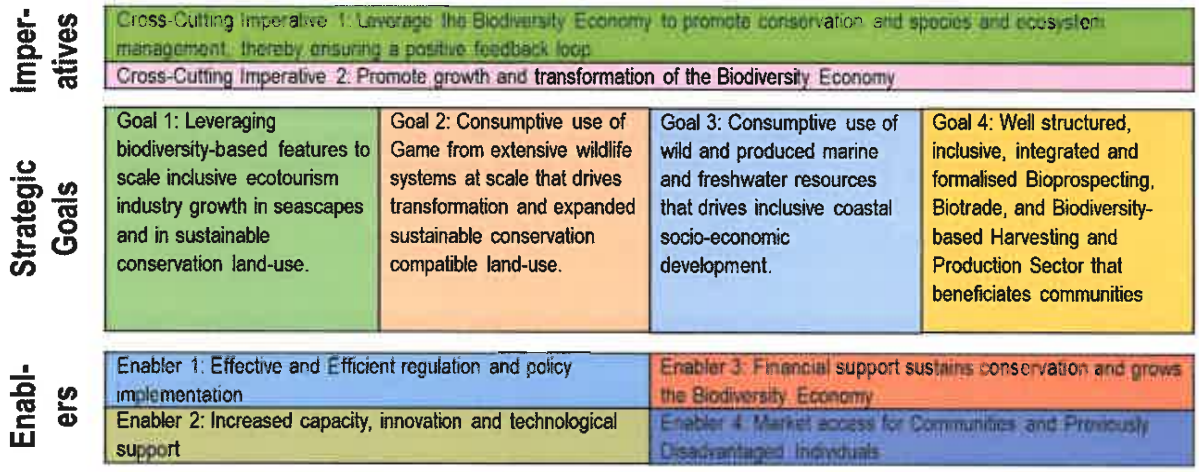


Figure 1: Summary of the components of the National Biodiversity Economy Strategy

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Each Goal, Cross-cutting Imperative, and Enabler have a set of Actions for Implementation that prioritise intervention to achieve the Strategic Goals and high-level outcomes. Brief context is provided for each of these actions.

The Draft Implementation Plan for these Actions is provided as an appendix, in which the targets to be achieved are detailed. Given that the National Biodiversity Economy Strategy is relatively long-term, the Implementation Plan will require reporting, monitoring and evaluation, and revision of the targets periodically in order to ensure progress towards the achievement of high-level outcomes.

6.1 Goal 1: Leveraging biodiversity-based features to scale inclusive ecotourism industry growth in seascapes and in sustainable conservation land-use.

Impact Statement: To grow sustainable and inclusive eco-tourism-based businesses by 10% per annum through marine-based ecotourism activities and expansion of the conservation estate from 20 million ha to 34 million ha by 2040 (4,2 million ha from declared protected areas and 10 million ha from Other Effective area-based Conservation Measures-OECMs).

Action 1.1.: Establish 5 mega living conservation landscapes through voluntary involvement of suitable state, private and Community areas.

There is a need to reimage conservation and conservation compatible land-use into the future through mega-living conservation landscapes – mosaic of conservation and productions systems under different legal and management arrangements. This should include integration of terrestrial, estuarine, coastal and marine elements, e.g. consideration of the "big seven". While there may be multiple sustainable use approaches (see Goal 2), in this context these will increase geographic spread and number of potential bed-nights in large Big-5 areas. These can build on the Biodiversity Nodes identified in the previous Biodiversity Economy Strategy, and there are a number of areas that have programmes for this underway, considered, or with potential, including Umkhanyakude/ iSimangaliso/ Ezemvelo; Waterberg/ Limpopo R/ Makapans Valley; Lekgalameetse/Wolkberg/Thabina, Addo Camdeboo Corridor; Grasslands National Park; North West (Dr Ruth Segomotsi); Northern Cape.

Action 1.2.: Prioritise infrastructure development and viable enterprises in community reserves and areas adjacent to faunal Big 5 areas such as Kruger Park, suitable state protected areas and Private Game Reserves

There are a large number of community owned reserves adjacent to big five areas including those fenced into the Greater Kruger Park area, with the same potential to drive conservation compatible socio-economic development as the incorporated private reserves such as Associated Private Nature Reserves and Sabi Sands. Successful ecotourism ventures in these (in addition to other use options (see Goal 2) require infrastructure investment, viable business plans and models, and capacity development for substantial ecotourism operations in community owned reserves, and in community land adjacent to Kruger Park. There is a need to engage with communities to co-develop large scale ecotourism infrastructure in ten community reserves/areas, for example in Makuleke, Letaba Ranch, Maseke, Manyeleti, Metsi-Metsi, Mjejane, and new areas that have expressed interest such as Giyani and Hazyview. There is also potential for such development in other nodes, such as around Addo, Hluhluwe-iMfolozi Park, etc.

Action 1.3.: Develop Ecotourism infrastructure in priority locations in existing and developing large terrestrial and marine conservation areas that are not based on big-five activities, and with high potential for community involvement.

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There is high potential for large-scale ecotourism large conservation areas that do not house big-five species, and where it may be inappropriate to reintroduce the big-five, as least in the short-term. Given their environmental sensitivity, development needs to be cautious, but there is large potential to leverage the potential of nature-based tourism. This requires infrastructure to facilitate access and accommodation. There is high potential to scale-up ecotourism by expanding available marine biodiversity activities along the coastal areas. Develop ecotourism infrastructure relevant for marine based ecotourism, for example, the building of boat launch areas, in the Eastern Cape and Northern Cape coastal areas. Some examples of potential terrestrial areas include Eastern Cape Drakensberg Grasslands; uKhahlamba; Eastern Free State; Wild Coast; Namaqualand (the latter two also having high potential to link with marine biodiversity activities).

Action 1.4.: Develop themed and packaged ecotourism infrastructure across small state and private conservation areas and community areas with high potential.

Leverage key market niches to drive non-"big 5" ecotourism through scaled packaging. Theme and package key biodiversity-based activities collectively: adventure tourism (for example, mountain biking, hiking, canoeing, boating, diving, bungee jumping); recreational fishing (freshwater/marine); birdwatching; that are linked to key community areas for targeted development and also to smaller provincial reserves.

Action 1.5.: Extend and develop infrastructure in four key TFCAs.

TFCAs provide key attractions to international tourists, as they can easily enter and leave through the same border post, visiting key features in other countries, but without having the transaction costs of doing so. They also provide marketing opportunities. Kgalagadi and Kruger have functioning systems like this, but the other TFCAs do not. Leverage Transboundary Parks to grow ecotourism. Lubombo; Mapungubwe; Richtersveld; N/W / Madikwe (a potential one to explore within the period of the NBES).

6.2 Goal 2: Consumptive use of Game from extensive wildlife systems at scale that drives transformation and expanded sustainable conservation compatible land-use.

Impact Statement: This will increase the GDP contribution of consumptive use of game from extensive wildlife systems from R4.6 billion (2020) to R27.6 billion by 2036.

Action 2.1.: Increase the number of Big five animals available for fair-chase trophy hunting, especially in community owned areas and larger contiguous privately owned land.

Expanded fair-chase Big five-based Trophy Hunting industry with strong global reputation. There are limited wild trophies available, especially of elephant and lion, and there is potential for additional hunting of leopard in a manner that promotes the thriving of the leopard species in the wild with pointed reduction of poaching. Larger, contiguous areas with populations of big five species, including adjacent to Kruger and other PAs, for sustainably harvesting animals to provide for a larger number of high-end trophy hunting packages in a manner compatible with other potential enterprises such as ecotourism. A key element for transformation, but also requiring focused interventions for enhanced global reputation. Opportunities created within the five mega-living landscapes (see Goal 1) will complement this action.

Action 2.2.: Formalise and expand sustainable recreational hunting, including for traditional use, especially into community owned areas.

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Expanded and more inclusive recreational hunting a key driver of conservation compatible land-use. There is potential for plains game to be introduced to community areas as a basis for ecotourism, recreational hunting, and feeding into the game meat industry, and other value chains. Traditional hunting could transition to recreational hunting, with added value.

Action 2.3. Formal, large scale enterprises harvesting and processing game meat from extensive wildlife systems, including from substantial plains game on community owned land, growing the collective game meat industry.

In line with the Game Meat Strategy, develop formalised and scaled Game Meat sector as key pillar of the wildlife economy. Formal commercial ventures (with economies of scale) focused on game meat production on extensive wildlife systems and the associated full value chain. Facilitate access by the informal sector (harvesting is secondary to hunting), to resultant infrastructure (e.g. abattoirs), marketing and distribution of the value chains for improved efficiencies and collective scaling. Develop larger extensive wildlife systems with plains game for harvesting, including in community areas where populations can be built up, for example through game donation programmes, to ensure sufficient continuous harvesting for persistent, scaled and viable value chains.

6.3 Goal 3: Consumptive use of wild and produced marine and freshwater resources that drives inclusive coastal socio-economic development.

Impact Statement: Grow sustainable consumptive use of marine, coastal, estuarine and freshwater resources, including through aquaculture, by 10% per annum by 2036.

Action 3.1.: Develop and implement an inclusive and transformative sustainable harvesting strategy for all components of the commercial marine fisheries.

Sustainable and transformed commercial Marine Fisheries. The marine fisheries are an important economic sector that is an important employer. However, the sector is largely untransformed, with barriers to entry for new players, as well as challenges with the allocation of fishing rights. There are a wide range of different species harvested, both open ocean and inshore, and over-exploitation, including from illegal harvesting, threatens stocks. It is possible to implement management measures to allow stocks to replenish to sustainable levels.

Action 3.2.: Develop and implement a small-scale sustainable harvesting strategy that addresses barriers to entry, ensures economies of scale, and promotes transformative value-chains.

Sustainable small-scale harvesting of estuarine and coastal fish and invertebrates promotes household livelihoods and food security. Estuarine and coastal fish and invertebrates have been traditionally harvested as an important food source for, as well as promoting livelihoods of adjacent communities. Ad hoc and unplanned development of the sector in general, and international demand for key species such as abalone and west coast rock lobster, has resulted in over-harvesting, illegal harvesting and trade, and missed opportunities of economic scaling from formalised value-chains. There is a need for transformation of the sector, which is hindered by barriers to entry, including in access to fishing rights , capital, capacity, and distribution.

Action 3.3.: Develop and implement a small-scale Aquaculture strategy that addresses barriers to entry, ensures economies of scale, and promotes transformative value-chains.

Formalised and enabled small-scale aquaculture sector a key pillar of the marine and freshwater biodiversity economy. Challenges include the regulatory environment, limited access to resources, lack of knowledge, access to production inputs, and achieving economies of scale. There are challenges with

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the use of alien species that have commercial value, as these require permits in terms of the Alien and Invasive Species Regulations. There are further challenges in developing local markets for certain products in South Africa.

Action 3.4.: Effective implementation of the National Freshwater (Inland) Wild Capture Fisheries Policy for a transformed and growing freshwater (inland) fisheries sector.

The absence of an equitable inland fishing governance framework with defined user-rights and socioeconomic goals excludes rural communities from the full potential of livelihood and economic opportunities linked to freshwater aquatic natural resources. The economic, social and food security value of inland recreational and small-scale fisheries are not recognised, nor are their socio-economic contributions formally recorded. The lack of clear social and economic goals for inland fisheries with defined user rights precludes the mandated government departments and stakeholders from governing resource use equitably.

6.4 Goal 4: Well structured, inclusive, integrated and formalised Bioprospecting, Biotrade, and Biodiversity-based Harvesting and Production Sector that beneficiates communities.

Impact Statement: This will increase the GDP contribution of the bioprospecting/biotrade from R1,85 billion (2020) to R11,6 billion by 2036 through local beneficiation (finished products, e.g. pharmaceutical, cosmetics and food supplements).

Action 4.1.: Develop a "virtual" institute for discovery phase bioprospecting that feeds into an inclusive Biotechnology value-chain.

Scale and integrate the discovery element of bioprospecting. A collective approach to discovery bioprospecting is needed that brings together key role-payers to develop an integrated strategy to scale this phase of bioprospecting. The DFFE is developing a Discovery Bioprospecting Research and Development Hub in Upington, which will catalyse Research and Development through facilities for researchers, and for small scale production. The BioProducts Advancement Network of South Africa (BioPANZA) developed after the Biodiversity Economy Phakisa provides an existing collaborative network to support the bioprospecting and biotrade sector. Together, these can form the core of a "virtual institute" that focuses on Discovery phase research, which can harness and direct efforts, and facilitate entry of potential products into Bioeconomy value chain. This should include, but not limited to DFFE, DSI, DTIC, CSIR, ARC, DSI SA Research Infrastructure Roadmap (SARIR) facilities (Natural History Collections Facility (SANBI), Biobanks of South Africa (SANBI), DIstributed PLatform in OMICS), IKS Centres (DSI-NRF Centre in Indigenous Knowledge Systems (University of KwaZulu-Natal), Indigenous Knowledge Systems Centre (North West University), Free State and Venda Indigenous Knowledge Systems Documentation Centres), DSI-NRF SARCHI Chairs in aligned areas, Traditional healers, Traditional harvesters. Link to the DSI Bioeconomy for development value chain.

Action 4.2.: Develop and implement a well-structured, inclusive, integrated and formalised, Biotrade Sector that beneficiates communities.

The Biotrade sector has developed some key products, but it is fragmented, and struggling to achieve scale. The benefit flows (include full participation in the industry) for communities and PDIs needs addressing. There are opportunities to scale and capacitate Biotrade through sustainable harvesting and production of key plant species, e.g. Aloe ferox, buchu, honeybush, insects (e.g., bee products), and Kelp and other Marine Products. Development and support of PDIS and SMMEs in communities with harvesting and production potential is essential

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Action 4.3.: Scale up PDI/community-based mass cultivation of indigenous plants for commercial use in large land restoration/ rehabilitation and carbon sequestration programmes, with a pipeline to commercial horticulture/landscaping industries.

Leverage potential for large-scale indigenous plant production for sale for use in restoration and carbon sequestration programmes. There have been initiatives for PDI led nurseries to produce indigenous seedlings for restoration and carbon sequestration projects, such as for the 2010 World Cup Buffelsdraai carbon offset project in Ethekwini, and such models can be scaled for broad socio-economic impact. Enterprise economies of scale can be enhanced by plants produced feeding into multiple economic pipelines, into the commercial horticulture and landscaping industries.

Acton 4.4.: Identify mechanisms, in consultation with traditional harvesters and healers, to scale cultivation of indigenous medicinal plants for sustainable use within the traditional medicine sector.

Through consultation and co-development with traditional harvesters and healers, leverage the potential for production of Traditional Medicinal Plants on natural lands for commercialisation and buffering of threatened species. While there have been some attempts to create traditional medicine plant nurseries, these have not been scaled to full potential. There is opportunity for this in community areas on natural lands.

Action 4.5.: "Crop wild relatives" identified and encouraged for genetic use and development for commercial crop production, especially for small-holder farmers.

Leverage the value of indigenous "Crop wild relatives" for beneficiation and food security. The National Plan for Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture (2017) has a section on Promoting in situ conservation and management of Crop Wild Relatives and wild food plants. It indicates Crop Wild Relative, even of major crops, have received little attention relative to their potential importance in breeding. There has been a process to identify Crop wild relatives with potential (DFFE/SANBI/ DALRDD project), but no cohesive strategy to take this potential forward. This needs to be undertaken in partnership with DALRRD and ARC (and Agriculture Faculties).

Action 4.6.: Mainstream the informal traditional edible insect sector through formalising, scaling, and marketing natural products from sustainably harvested insects and their products.

Leverage the traditional insect food potential to empower community sustainable harvesting from natural lands, and promote conservation land-use. There is an extensive informal insect food sector, mainly based in Limpopo, which has great potential for scaling, as well as for added-value product development (such as protein enrichment). Insects are consumed in other areas, but markets are less common. Municipalities need to provide infrastructure in Limpopo, and there should be channels for marketing in other provinces. Linkages to food producers and supermarkets can create formal and sustainable value-chains. This can be especially empowering to women in communities, and for PDIs in commercial ventures. Apiculture, and harvesting of bee products. There may also be potential to commercialise use of insect silk, e.g. from Mopane worms. This would require the conservation of mopani trees across their range, noting such trees are under threat due to illegal logging for wood.

6.5 Cross-Cutting Imperative 1: Leverage the Biodiversity Economy to promote conservation and species and ecosystem management, thereby ensuring a positive feedback loop.

Action 5.1.: Expand the area of land under conservation land-use by acquisition, partnering, stewardship, and other OECMs.

Expand the conservation estate towards 30% by 2030 (30 x 30) by 2040. While there is extensive land outside of protected areas that is still natural resource based land-use (sustainable agriculture,

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conservation agriculture, agro-ecosystems, game farms, game reserves, state land etc,) these are not well recognised as a conservation land-use as envisaged in the White Paper, and may not count towards the 30x30 target. Conservation contribution and objectives, and governance processes supporting conservation of biodiversity on such land can be more rigorously document to support South Africa's 30x30 implementation plan, while better recording the contribution of this land to the biodiversity economy. This should also include resolving land-claims, and frameworks for community owned land to be included.

Action 5.2.: Broaden the participation of the private sector and communities in conservation and ecosystem management.

Innovative partnerships can unlock step-change required to achieve 30 x 30 conservation land-use, by private sector and communities, with such land supporting socio-economically viable enterprises. Current processes for shifting to conservation compatible land-use tend to be fragmented, inconsistent, and largely driven from a state conservation agenda. New approaches are needed to recognise the contribution of private sector and communities to conservation land use, including considering living landscapes with sustainable agriculture, conservation agriculture and agro-ecosystems, and mixed management systems, with partnerships to facilitate this explored. This may require innovative funding models (see Enabler 3), and increased ease of doing business and certification schemes (see Enabler 1).

Action 5.3.: Cross-subsidise conservation and ecosystem management from Biodiversity Economy enterprises.

Sustain the foundation of the Biodiversity Economy, i.e. conservation land-use and its associated ecosystem management, including land restoration and rehabilitation. In the state sector, income streams from the Biodiversity Economy that are based on conservation land-use do not fully subsidise the costs of conservation, management and rehabilitation of that land on which they are based, in effect a hidden subsidy system. There are models where this is partially achieved, e.g. through concessions, greater transparency and full cost accounting should provide for elements such as infrastructure (roads, fences, boat launches), ranger and scientific services, species and ecosystem management, restoration and/or rehabilitation, and alien invasive species control. Learnings can be gained from the Private Sector where there are successful models for cross-subsidisation of land management for conservation compatible land-use; although even there more long-term investment may be required for full sustainability. There are potential funding opportunities/models that can contribute to this (see Enabler 3).

Action 5.4.: Leverage Biodiversity Economy land use to improve and enhance ecological infrastructure.

South Africa has extensive experience in converting agricultural land to conservation land use for purposes of ecotourism, in the public (e.g. Madikwe etc), private (Phinda etc.), and community (e.g. Somkhanda), as well as for game farming (including ecotourism and harvesting – see Goal 2). Healthy natural ecosystems promote ecotourism, but require rehabilitation and restoration of ecological infrastructure, including conversion of crop-lands to natural lands, and removal of aliens. Such interventions provide for participation (e.g. PDI SMMEs) and employment from local communities (e.g. EPWP). There is also potential to for use of indigenous trees from community-based nurseries.

6.6 Cross-Cutting Imperative 2: Promote growth and transformation of the Biodiversity Economy.

Action 6.1.: Develop and implement innovative partnership arrangements and context specific business models that create economies of scale and effective enterprises for communities and PDIs.

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New business models need to be developed and implemented to achieve economies of scale for involvement of PDIs in biodiversity-based businesses. Existing models do not favour individuals in Communities or PDIs (or their SMMEs) to ensure enterprise success and sustainability. New enterprises may require some form of subsidisation (such as the game donation programme), and mechanisms to link SMMEs with existing industry players to create economies of scale (for example linking individual plant propagators into horticulture/landscaping distribution networks).

Action 6.2.: Identify and alleviate key barriers of entry into large and commercially scaled biodiversity-based value chains (Ecotourism, Trophy and Recreational Hunting, Game Meat Harvesting) to enable shift to large areas of community owned conservation land-use.

Large, biodiversity-economy based, conservation land-use areas developed with communities who wish to do so on their land, potentially as part of mega-living landscapes. There are key barriers to entry associated with different capital needs to establish viable enterprises that can sustain conservation-based land use within community areas. These may be different for the different components of Biodiversity Economy, and need tailored responses, but include capital for infrastructure (including lodges), capital for wildlife (see game donation programme, which should also be focused on creating economies of scale), and Human capital (capacity development). Communities have demonstrated willingness to provide land, but access to capital is their constraint.

Action 6.3.: Develop and implement innovations, strategies, mechanisms and tools to stimulate, capacitate and develop SMMEs within Communities and with PDIs.

Community and PDI SMMEs functioning effectively along all components of Biodiversity-based value chains. There are a range of opportunity spaces for SMMEs for which there is no comprehensive, strategic approach that leverages key advantage spaces. For example, Protected Areas associated ecotourism includes craft markets (hides), Transport tours, game drives, Bed and Breakfast and homestays, Cultural Tours and guesthouses/ lodges Accommodation. Hunting includes Professional Hunters, Skinners, processing etc.; similarly, for Game meat. This can also include privileged or unique access into protected areas such as Kruger/Addo for game drives from accommodation in community areas. Also, opportunities for Bioprospecting, Biotrade, and Biodiversity-based Harvesting and Production Sector. This action will require collaboration with, amongst others, DFFE, SANBI, Management Agencies, Provincial Economic development, tourism and environment departments, DTIC, DSBD, DLARRD, Tourism, DOH, COGTA, and district and local municipalities.

Action 6.4.: Develop and implement a framework with mechanisms and tools for a strong role of traditional authorities in conservation land-use management and sustainable biodiversity-based enterprises.

Elevate and mainstream the role of traditional authorities in conservation and sustainable use. The traditional authorities are key to the shift to conservation land use for traditional areas, including conservation agriculture. They are also critical in terms of the governance of both land, and biodiversity-based enterprises based on the land, and in promoting SMMEs within their communities. A cross-sectoral approach is needed, working with traditional leaders, DFFE, DALRRD, COGTA, National House of Traditional and Koi-San Leaders, CONTRALESA, and local municipalities.

Action 6.5.: Develop and implement benefit-sharing Agreements that are more inclusive/participatory for communities, and that support effective ecosystem management and conservation of community land.

Communities benefit from Biodiversity Economy and contribute to more effective conservation. The current approach to agreements with communities that own land in protected areas, or that are adjacent to protected areas and absorb costs of conservation do not provide for sufficient access or meaningful benefits to flow to communities. New models need to be explored that are more balanced to favour these communities. This should be primarily driven by the state, but requires private partnerships in key areas.

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Action 6.6.: Develop and implement innovative benefit-sharing agreements, through Access and Benefit Sharing, that leverage private sector funding and/or non-monetary support of conservation compatible land-use and management as a foundation for localised value add.

It is important that commercial exploitation of biodiversity results in mechanisms to empower community and PDI land-owners and traditional knowledge holders to be part of localised value add. This may include elements such as involvement in sustainable harvesting of the resource (e.g. Aloe ferox), growing/producing the resource (e.g. honeybush), local processing (e.g. distilling essential oils), or value add to raw materials (e.g. cosmetics). This local economy then feeds back into sustaining the land that is producing the resource. In addition, consideration should be given to the inclusion of beneficiaries as shareholders in resultant enterprises, in addition to received payments.

Action 6.7.: Develop and implement innovative mechanisms to include EPWP type activities into conservation and environmental management/ rehabilitation through cross-subsidisation.

Integrate and incorporate Extended Public Works Programme in promoting biodiversity sustainability of Biodiversity-based value chains. The EPWP components make important contributions to environmental management, job creation, capacity development, and local economic stimulation. These activities can be cross-subsidised by Biodiversity Economy elements as part of the environmental sustainability of these, and/or in the shift to conservation land-use and associated conservation work required. An integrated approach such as this can enhance sustainability of jobs, and ensure collective community upliftment.

Action 6.8.: Develop and implement co-management agreements that enhance participation of communities in the Biodiversity Economy programmes, based on conservation land use, including incorporation into larger contiguous areas.

Resolve outstanding land claims within protected areas with advantageous and truly beneficial links to Biodiversity Economy components within the protected areas; thereby promote sustainable conservation and use outcomes for the land. Success of transfer of land and enterprises to claimant communities is not resulting in sustainable economic benefits nor enhanced conservation outcomes. Innovations such as elaborated under the enablers, as well as economic scaling, incorporation into larger areas, including state protected areas, and scalable capital inflows/investment can unlock future potential.

Action 6.9.: Mechanisms and tools developed and implemented to ensure access, empowerment, and participation of communities and PDIs in inland fisheries and recreational fishing.

Promote and ensure an equitable and inclusive inland fisheries economy. The following interventions have been identified in the inland wild captures fisheries policy for intervention: Equity of access to inland fisheries resources; The empowerment of historically disadvantaged persons and communities to participate in inland fisheries opportunities; and Transformation of participation in the recreational fisheries to include previously disadvantaged groups in value chain opportunities.

6.7 Enabler 1: Effective and Efficient regulation and policy implementation

Action 7.1.: Effectively implement the Game Meat Strategy.

Game Meat Strategy drives a key pillar of the Biodiversity Economy. The strategy has been approved by Cabinet for implementation, with 50 pilots for the agro-ecological landscapes in communal areas being identified and should be prioritised for effective implementation.

Action 7.2.: Develop and implement mechanisms and tools to improve duty of care, animal well-being and ethical and effective practices.

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Mechanisms and tools enhance conservation and sustainable use reputation. Norms and Standards, guidelines, and codes of conduct for improved duty of care, animal wellbeing, and reputation. The Voluntary Wildlife Standards and Certification Scheme was approved by MINMEC for implementation. This voluntary scheme encourages sustainable land management practices in the wildlife sector; increases wildlife-based land users' contribution to biodiversity conservation at species and landscape levels; provides a transparent and systematic means of data and information collation to advocate for and showcase industry impact; and stimulate inclusive growth and development in the sector and support favourable reputation locally and internationally.

Action 7.3.: Review existing regulatory framework for simplification and streamlining to facilitate ongoing and new entrant biodiversity economy enterprises.

Improve the ease of doing business for Biodiversity-economy enterprises. Areas of activity of the Biodiversity Economy often cut across sectors, and levels of government. The legislation is complicated, often contradictory, and implemented inconsistently across provinces or sectors. This would apply across areas which face similar challenges, for example, to game ranching or to the small-scale aquaculture sector.

Action 7.3.: Mechanisms and tools for effective intergovernmental co-ordination across sectors and levels of government, including integration into municipal IDPs.

Mainstream Biodiversity Economy programmes and mechanisms and tools across spheres of government. Improved governance requires horizontal and vertical strategic partnership for effective and efficient biodiversity conservation and sustainable use, mainstreaming of the Biodiversity Economy, and the conservation land use on which this is based, across and within sectors, and leveraging on existing resources and capabilities.

6.8 Enabler 2: Increased capacity, innovation and technological support

Action 8.1.: Enhanced biodiversity conservation and sustainable use content expertise and service within mandated state agencies and departments.

Enhanced state capacity to support and drive the Biodiversity Economy Sector. The state is a key role-player in delivering the Biodiversity Economy Strategy but lacks capacity in key areas. This not only effects state initiatives, but can hinder private sector and community enterprises. Challenges include unfilled positions, poor planning of resource use, gaps in content knowledge, lack, or poor implementation, of management support tools such as Biodiversity Management Plans, harvesting guidelines, Non-Detrimental Findings, sustainability planning tools, etc. There is poor extension service support targeting biodiversity management; in addition, there is poor coordination of extension services across sectors, e.g. Agriculture, Water, Environment, Tourism etc, and some integration could be explored.

Action 8.2.: Skills development, retention, and transfer, and staff retention strategy across the sector enhanced. Development of transformative biodiversity qualifications and curricula influenced, with multidisciplinary approaches, for effective biodiversity education and training at all levels.

Capacity development, especially for PDIs and Communities unlocks participation and influence within the Biodiversity Economy. The full value chain for each of the identified goals and their objectives to be defined, and capacity development needs identified. These should be prioritised for those that can be scaled for effectiveness. This will require partnerships with DSI, DHET, DTIC, DALRRD, Tourism, and with the private sector, e.g. training of community bird guides by Birdlife SA; working with hunting associations for developing capacity for components of the hunting value chain.

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Action 8.3.: "Virtual" institute of Biodiversity Economy Research and Innovation across private sector, communities, and government undertakes priority research, development, and innovation.

Integrated approaches to research and innovation unlocks potential. Biodiversity economy (resource economics) and underlying conservation and transformation issues have key gaps in understanding, both of the intentions of activities, but also their unintended consequences. Routes to, and mechanisms for, increased access and benefit flows for communities urgently needs attention to better frame pathways to success. Research activities are fragmented, and don't promote large projects that can provide impactful results. This can be informed by research initiatives such as the DSI/NRF Foundational Biodiversity Information Programme, DSI SARIR programme, and the BioPANZA (see Goal 4). Partnerships with amongst others DSI, DHET, SANBI, ARC, WRC, CSIR, HSRC and Universities will be essential.

6.9 Enabler 3: Financial support sustains conservation and grows the Biodiversity Economy

Action 9.1.: Develop a range of models for park fees, conservation fees, concession fees etc. that can be implemented to sustain the underlying costs of conservation and environmental management.

Leverage the Biodiversity Economy to sustain biodiversity land-use on which it is based. Biodiversity-based enterprises are founded on the underlying biodiversity, and this is not being effectively funded from these enterprises. This is effectively a subsidy for the enterprises, and this needs to shift so that finances flow to ensure sustainability of the system on which the enterprises are based. Access and use-based fee systems can be developed that fully cost the management of the natural system on which the enterprise is based. The Private Sector has number of models that can be drawn on for learnings. It should be noted that state protected areas also have an obligation to provide reasonable access to people, and models need to ensure reasonable access.

Acton 9.2.: Engage with private sector and communities to generate alternative approaches to PPPs that can be effectively implemented for improved conservation and Biodiversity Economy outcomes.

Leverage Public Private Partnerships, linked with Communities to sustain and grow the Biodiversity Economy. The public sector makes a massive contribution to the conservation estate, and through their enterprises, to the Biodiversity Economy. In achieving this they contribute to conservation outcomes, and to rehabilitation and restoration of land to conservation use. Communities are increasingly contributing in the same way, but there is massive potential for large areas of community owned land to contribute to the conservation estate, enabling community SMMEs to enter the Biodiversity Economy. Innovative partnership approaches are needed with the private sector, to more effectively manage state protected areas as well as to expand conservation land. This includes using state protected areas as a core to scaled conservation areas, and, thereby growing the Biodiversity Economy. This can include private management of state owned protected areas where appropriate.

Action 9.3.: 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.

Remove infrastructure development (new conservation areas, ecotourism) as a key barrier to new community or PDI owned conservation areas or ventures. There are key barriers to entry into Biodiversity Economy enterprises, with infrastructure capital investment being a key barrier to entry, or to subsequent success. This is especially related to the establishment of new conservation areas (e.g., land, fencing, game, roads, habitat restoration) and their sustainable use (e.g., lodges, vehicles), as well as with the critical human capacity to implement infrastructure development.

Action 9.4.: Leverage existing and in process funding streams to support key elements of the Biodiversity Economy, and underlying conservation land and required environmental management.

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An integrated and holistic approach to leveraging funding streams for a sustainable Biodiversity Economy. There are a wide range of external funding sources that the state can draw on to give effect to the Biodiversity Economy Strategy. These are often dealt with in isolation, focused on a particular issue, when the impact could be leveraged more broadly if strategically consolidated for effectiveness and efficiency. Some examples include: Carbon sequestration – GEF 8 Peatlands; GEF - $8m for 5 years (WB, Sanparks) - nodes, Isimangaliso, Kruger, Addo; GEF 8 - $10 m Eastern Cape Grasslands; Maluleke; $4m business and biodiversity (CBD - SANBI); $6.2m – Bioprospecting and Biotrade; $3.4m – alien invasives – ecosystem management; DSI Fund under CBD; Traditional Health Practitioners to accredit and scientifically test – R100m Nedbank; Partnerships – G12/Seco.

Action 9.5.: Gain approval for Biodiversity Trust fund, and develop a transparent framework for the investment of funds into, and the investment of funds out of, the Fund, such that funded projects are priorities within the Biodiversity Economy Strategy.

Lobby Treasury to approve the establishment of a Biodiversity Trust fund as proposed by SANBI, and then put in place an integrated and holistic approach to growing and leveraging this fund for targeted investment into a transformed Biodiversity Economy. Biodiversity Trust Fund would provide an opportunity for the state to harness and create critical mass of resources for key investments into the Biodiversity Economy, especially for those that would empower and unlock community and PDI ventures.

Action 9.6.: Develop and implement key financial mechanisms based on successful conservation of threatened species or ecosystem, which can be invested in conservation and sustainable use more broadly.

Develop innovative funding tools based on conservation and sustainable use of threatened species or ecosystems. There may be opportunities for raising funding internationally (and locally) based on achieving specific conservation targets for key threatened species and ecosystems. The GEF Wildlife Conservation Bond (Rhino Bond) is one example, linked to increasing rhino numbers. There are opportunities for tax relief for conservation actions, such as conservation of threatened species being led by the Sustainable Finance Coalition. There is much potential, including for iconic marine species.

Action 9.7.: Identify key elements within Natural Capital Accounting, Payment for Ecosystem Services and Carbon Sequestration, which can be incorporated as part of the Biodiversity Economy.

Incorporate innovations for financing based on offset approaches: Natural Capital Accounting (SANBI); Payment for Ecosystem services; and Carbon Sequestration amongst others.

6.10 Enabler 4: Market access for Previously Disadvantaged Individuals and Communities

Action 10.1. Integrate community and PDI SMMEs into State Protected Area booking systems to profile and provide opportunity of integrated package bookings.

Increase market access for Ecotourism-based Community and PDI SMMEs. Integrated booking system for a park and surrounding community areas linked into SANParks, and provincial booking systems. Integrated booking system for nature-based tourism accommodation across small reserves, community areas, and activity types (e.g. game drives, walks)

Action 10.2.: Mechanisms developed and implemented to ensure community based and PDI SMMEs are embedded along the trophy and recreational hunting value chains.

Increase market access for fair-chase hunting-based Community and PDI SMMEs. There are insufficient individuals of the big 5 to hunt on community owned land, and barriers to effectively permitting these.

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Community owned destinations are not part of hunting packages. PDIs are not effectively networked into the hunting landscape, or there are barriers to their competitiveness what they can deliver.

Action 10.3.: Mechanisms developed and implemented to communities and PDIs are embedded along the Bioprospecting, Biotrade, Bioeconomy, harvesting, and plant production value chains.

Not only should innovative Access and Benefit Sharing agreements should ensure participation by communities and PDIs along the value chains, but non-beneficiary PDIs enterprises and SMMEs should be facilitated and enabled to bring products to market.

Action 10.4.: Develop and implement a strategy for a market for regulated domestic trade in high-end parts and derivates (e.g., rhino horn and elephant ivory) for local value-add enterprises based on processing and use of products.

International commercial trade in rhino horn and elephant ivory is currently restricted by CITES. While South Africa may work towards submitting a proposal to CITES once conditions are favourable and the Rhino Commission of Inquiry recommendations have been met, until this is achieved we should explore domestic options for trade. To maximise the value of domestic trade, i.e. that domestic trade can bring income to support private, community and state conservation land-use, local value add would need to be developed to such an extent that the sale of derived products can generate sufficient funds. Innovative approaches are needed to identify products, and develop the necessary local markets. For example, health clinics to administer traditional remedies using rhino horn for health tourists from the far East, or ivory carving being done locally for local sale and export for personal use.

7 MONITORING, EVALUATION AND REVIEW

Progress with the National Biodiversity Economy Strategy will be reviewed as and when required. The Implementation Plan (Appendix A) provides the mechanism for setting, monitoring, evaluating, and revising targets specific to each action for implementation.

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8 APPENDIX: DRAFT IMPLEMENTATION PLAN

An implementation plan for the revised NBES would need to be co-developed with all stakeholders being involved in the process. Each action will require identification of a 2036 NBES Outcome, as well as periodic targets to be achieved along the way. Because the NBES builds on the previous strategy, and integrates a range of activities that are already underway or planned, some of these elements may currently be better resolved. To give better understanding to what each of the actions may entail, a draft Implementation Table has been developed. The intention of this is that there is greater clarity as to the intent of the action, as well as highlighting the challenging work that is required to meaningfully grow the Biodiversity Economy in a sustainable manner the also grows the conservation land, and the management of the species and ecosystems on which the Biodiversity Economy is based. In addition, the details in the table provide understanding of what outcomes, and targets to meet these, would be required for meaningful transformation of the sector. As part of the implementation process, the responsible and contributing role-players for each element would need to be identified.

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 implement the NBES, and example of which is included in the Table below. 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 plan.

1.6. Finalise and adopt the implementation plan.

1.7. Implement the plan.

1.8. Mainstream the plan across spheres of government.

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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.

2.3. Improved co-operative governance and reduced inefficiencies across implementing authorities in line with goals and actions, 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 implementation mechanisms.

2.6. Review and reallocation of financial and human resources to cover identified gaps, and new areas of operation required for implementation.

Table 1. Draft implementation approach indicating the anticipated 2036 outcome for each action, with periodic targets demonstrating how this can be achieved. This is intended as exemplar, and will be co-developed with stakeholders during the initial implementation process.

Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Goal 1: Leveraging biodiversity-based features to scale inclusive ecotourism industry growth and sustainable conservation land-use.					
Action 1.1.: Establish 5 mega living conservation landscapes through voluntary involvement of suitable state, private and Community areas	5 areas confirmed 2 areas in progress	2 areas "proclaimed" 3 areas underway 500 new beds 2000 planned beds	5 areas "proclaimed" 2000 new beds 3000 planned beds	3000 new beds (5500 total beds)	50% growth in tourism bed-nights in big 5 wildlife reserves by 2036.
Action 1.2.: Prioritise infrastructure development in community reserves and areas adjacent to faunal Big 5 areas such as Kruger Park, suitable state protected areas	Integrated infrastructure development plan 5 camps underway 10 camps planned	5 camps operating 10 camps underway 5 camps planned 1000 new beds 2000 planned beds	15 camps operating 5 camps underway 1500 new beds (2500 total)	20 camps operating 500 new beds (3000 total beds)	3000 new daily bed nights in community owned reserves, or accessing state protected areas from adjacent community land by 2036

Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
and private game reserves					
Action 1.3.: Develop Ecotourism infrastructure in priority locations in existing and developing large conservation areas with high potential for community involvement.	Integrated infrastructure development plan 5 camps underway 10 camps planned	5 camps operating 10 camps underway 20 camps planned 1000 new beds 2000 planned beds	15 camps operating 20 camps underway 1500 new beds (2500 total) 2500 beds planned	35 camps operating 2500 new beds (5000 total)	5000 new daily bed nights in non-big-5 conservation areas in adjacent community land by 2036
Action 1.4.: Develop themed and packaged ecotourism infrastructure across small state and private conservation areas, and community areas with high potential.	Strategy for themed and packaged tourism developed.	Strategy implemented Infrastructure developed in 10 small areas (40 planned) 5 new niche areas (25 planned)	Infrastructure developed in 30 small areas (20 planned) 15 new niche areas (15 planned)	Infrastructure developed in 20 small areas (50 total) 15 new niche areas (total 30)	50 priority small conservation areas self-funding and 30 new niche destinations in community areas. by 2036;
Action 1.5.: Extend and develop infrastructure in four key TFCAs	Integrated TFCA infrastructure development plan 3 camps underway 10 camps planned	3 camps operating 5 camps underway 5 camps planned 600 new beds 1400 planned beds	8 camps operating 5 camps underway 800 new beds (1400 total)	13 camps operating 600 new beds (2000 total beds)	2000 new daily bed nights in key TFCAs by 2036.
Goal 2: Consumptive use of game from extensive wildlife systems at scale that drives transformation and expanded sustainable conservation compatible land-use.					
Action 2.1.: Increase the number of Big five animals available for fair-chase trophy hunting, especially in community owned areas and larger	Plan for expanded hunting of big 5 implemented 5 new hunting destinations with value chains (10 planned)	10 new hunting destinations with value chains (total 15; 20 planned)	20 new hunting destinations with value chains (total 35; 25 planned)	25 new hunting destinations with value chains (total 60)	150 wild lion and elephant hunted per annum, with associated value chains by 2036.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
contiguous privately owned land.					
Action 2.2.: Formalise and expand sustainable recreational hunting, including for traditional use, especially into community owned areas	Plan for expanded recreational hunting implemented 2% growth in recreational hunting	5% growth in recreational hunting	10% growth in recreational hunting	8% growth in recreational hunting	25% growth in recreational hunting by 2036.
Action 2.3. Shift from informal to formal, large scale enterprises harvesting from extensive wildlife systems, including from substantial plains game on community owned land.	Implement Game Meat Strategy 5% growth in game meat production 5% growth in jobs	30% growth in game meat production 30% growth in jobs	30% growth in game meat production 30% growth in jobs	35% growth in game meat production 35% growth in jobs	Double game meat production by 2036, with 100% growth in jobs.
Goal 3: Consumptive use of marine and freshwater wild and produced resources that drives inclusive coastal socio-economic development.					
Action 3.1.: Develop and implement an inclusive and transformative sustainable harvesting strategy for all components of the commercial marine fisheries.	To be developed				A diverse and thriving marine commercial harvesting sector drives coastal socio-economic development.
Action 3.2.: Develop and implement a small-scale sustainable harvesting strategy that addresses barriers to entry, ensures	To be developed				A viable and transformative small-scale estuarine and coastal harvesting sector by 2035.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
economies of scale, and promotes transformative value-chains.					
Action 3.3.: Develop and implement a small-scale Aquaculture strategy that addresses barriers to entry, ensures economies of scale, and promotes transformative value-chains.	To be developed				A viable and transformative small-scale aquaculture (freshwater and marine) sector by 2035.
Action 3.4.: Effective implementation of the National Freshwater (Inland) Wild Capture Fisheries Policy	To be developed				Inland fisheries contribute community food security and livelihoods.
Goal 4: Well structured, inclusive, integrated and formalised Bioprospecting, Biotrade, and Biodiversity-based Harvesting and Production Sector that beneficiates communities.					
Action 4.1.: Develop a "virtual" institute for discovery phase bioprospecting that feeds into an inclusive Biotechnology value-chain.	Upington Research and Development Hub operating. Plan for virtual institute developed, and institute "established" Integration of the work of the institute integrated into BioPANZA.	Hub and Virtual Institute functioning. Revised targets for BioPANZA to align with Revised NBES. 10 new potential products identified	5 products developed, 5 under development, 20 identified	15 products developed (20 total), 15 under development, 15 identified	Functioning "Virtual" Institute for Bioprospecting Discovery that has facilitated 20 (plus 30 potential) bioproducts into the Bioeconomy value chain by 2036.
Action 4.2.: Develop and implement a well structured, inclusive, integrated and	National Strategy for communities to benefit from biotrade implemented.	10 potential products identified	5 products developed, 5 under development, 20 identified	15 products developed (20 total), 15 under	20 new (plus 30 potential) bioproducts brought to market by enterprises inclusive of communities and PDIs by 2036.

Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
formalised, Biotrade, Sector that beneficiates communities				development, 15 identified	
Action 4.3.: Scale up PDI / community-based cultivation of indigenous plants for commercial use into large land restoration/ rehabilitation and carbon sequestration programmes, with a pipeline to commercial horticulture/landscaping.	National strategy for community production for rehabilitation/ sequestration implemented. 50 community-based nurseries established (200 planned)	200 nurseries established (300 planned, 250 total) feeding into 15 projects	300 nurseries established (450 planned, 550 total) feeding into 25 projects	450 nurseries established (1000 total) feeding into 50 projects	1000 community-based nurseries established, with value pipelines into 50 major restoration and/or sequestration projects for sustainability, by 2036.
Action 4.4.: Identify mechanisms, in consultation with traditional harvesters and healers to scale cultivation of indigenous medicinal plants for sustainable use within the traditional medicine sector.	National strategy for medicinal plant nurseries implemented. 20 community-based nurseries established (40 planned)	40 nurseries established (40 planned, 60 total) feeding into 15 projects	40 nurseries established (50 planned, 100 total) feeding into 25 projects	50 nurseries established (150 total)	150 traditional medicinal plant nurseries established and feeding into the traditional medicine sector by 2036.
Action 4.5.: "Crop wild relatives" identified and encouraged for genetic use and development for commercial crop production, especially for small-holder farmers.	Strategy for identifying crop production enhancements from crop wild relatives implemented.	3 crop enhancements identified	3 enhancements piloted (7 identified)	10 crop enhancements piloted	10 crop production enhancements identified and piloted by 2035.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 4.6.: Mainstream the informal traditional edible insect sector through formalising, scaling, and marketing natural harvested products from sustainably harvested insects and their products.	Strategy developed for mainstreaming traditional insect food, including incorporating into value added products	3 upgraded insect food markets (3 planned) 5 insect derived protein fortified products under development	3 upgraded insect food markets (6 total, 3 planned) 3 insect derived protein fortified product marketed (2 under development)	3 upgraded insect food markets (9 total) 5 insect derived protein fortified products marketed	Indigenous insect based food products mainstreamed by 2035
Cross-Cutting Imperative 1: Leverage the Biodiversity Economy to promote conservation and species and ecosystem management, thereby ensuring a positive feedback loop					
Action 5.1.: Expand the area of land under conservation land-use by acquisition, partnering, stewardship, and other OECMs	To be inserted				30% of land under audited conservation land-use by 2040 (insert correct % by 2036).
Action 5.2.: Broaden the participation of the private sector and communities in conservation and ecosystem management	Strategy to integrate				30% of land under audited conservation land-use by 2040. (insert correct % by 2036).
Action 5.3.: Cross-subsidise conservation and ecosystem management from Biodiversity Economy enterprises.					By 2036, Biodiversity Economy income streams fully subsidise sustainable conservation land use on which they are based.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 5.4.: Leverage Biodiversity Economy land use to improve and enhance ecological infrastructure.	10 Generic Business plans developed for restoration of new areas for conservation land use by community and PDI SMMEs	90 new SMMEs incubated (120 total)	90 new SMMEs incubated (210 total)	90 new SMMEs incubated (300 total)	30 SMMEs incubated per annum by 2036 (total 300)
Cross-Cutting Imperative 2: Transformation of the Conservation Sector and the Biodiversity Economy					
Action 6.1.: Develop and implement innovative partnership arrangements and context specific business models that create economies of scale and effective enterprises for communities and PDIs	Generic business plans developed for 6 different large-scale ventures for each of communities and PDIs Project scoping completed for 3 community and 3 PDI ventures	3 new community and 3 new PDI ventures established. Project scoping completed for 5 community and 5 PDI ventures	5 new community (total 8) and 3 new PDI (total 8) ventures established. Project scoping completed for 7 community and 7 PDI ventures	7 new community (total 15) and 7 new PDI (total 15) ventures established.	By 2036, 15 large-scale economic ventures in place within communities surrounding Kruger, and three around Addo. 30 large scale biodiversity based economic ventures by PDIs in place.
Action 6.2.: Identify and alleviate key barriers of entry into large and commercially scaled biodiversity-based value chains (Ecotourism, Trophy and Recreational Hunting, Game Meat Harvesting) to enable shift to large areas of community owned conservation land-use.	Generic business plans developed for 6 different models for large community owned conservation areas developed Project scoping completed for 3 community conservation areas	3 new community conservation areas established. Project scoping completed for 10 community conservation areas	10 new community conservation areas (total 13). Project scoping completed for 12 community conservation areas	12 new community conservation areas (total 25).	25 Large community owned conservation areas established with sustainable income streams by 2036.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 6.3.: Develop and implement innovations, strategies, mechanisms and tools to stimulate, capacitate and develop SMMEs within Communities and PDIs	20 Generic Business plans developed for conservation-based community and PDI SMMEs 30 SMMEs incubated	90 new SMMEs incubated (120 total)	90 new SMMEs incubated (210 total)	90 new SMMEs incubated (300 total)	30 SMMEs incubated per annum by 2036 (total 300)
Action 6.4.: Develop and implement a framework with mechanisms and tools for a strong role of traditional authorities in conservation land-use management and sustainable biodiversity-based enterprises.	Framework developed and implemented. 10 community areas identified for transformative empowerment	10 new community areas empowered 20 community areas identified for transformative empowerment	20 new community areas empowered (30 total) 20 community areas identified for transformative empowerment	20 new community areas empowered (50 total)	50 Empowered communities take ownership, and benefit from Biodiversity Economy and conservation outcomes.
Action 6.5.: Develop and implement benefit-sharing Agreements that are more inclusive/participatory for communities, and that support effective ecosystem management and conservation of community land.	Develop 5 different generic co-ownership/ management agreements. 5 co-owned areas identified for implementation	5 new co-ownership/ management agreements operating 12 co-owned areas identified for implementation	12 new co-ownership/ management agreements operating (total 17) 13 co-owned areas identified for implementation	13 new co-ownership/ management agreements operating (total 30)	By 2036, 30 new co-ownership/ management agreements delivering meaningful income, livelihoods and ownership value.
Action 6.6.: Develop and implement innovative benefit-sharing agreements, through Access and Benefit	Develop 5 different generic ABS agreements, some which include shareholding.	5 new ABS agreements operating	12 new ABS agreements operating (total 17) 13 opportunities for implementation	13 new ABS agreements operating (total 30)	By 2036, 30 new ABS agreements delivering meaningful income and ownership value.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Sharing, that leverage private sector funding and/or non-monetary support of conservation compatible land-use and management as a foundation for localised value add.	5 opportunities identified for implementation	12 opportunities identified for implementation			
Action 6.7.: Develop and implement innovative mechanisms to include EPWP type activities into conservation and environmental management/ rehabilitation through cross-subsidisation.	15 generic business plans for EPWP type SMMEs developed. 30 EPWP based SMMEs incubated	90 new EPWP based SMMEs incubated (120 total)	90 new EPWP based SMMEs incubated (210 total)	90 new EPWP based SMMEs incubated (300 total)	~3000 EPWP type obs created by 2035. 300 SMMEs based on EPWP created by 2035.
Action 6.8.: Develop and implement co-management agreements that enhance participation of communities in the Biodiversity Economy programmes, based on conservation land use, including incorporation into larger contiguous areas.	10 generic business models for incorporating land-claim settlement areas/communities into conservation/Biodiversity Economy 5 claimant areas identified for implementation	5 new claimant areas incorporated effectively into conservation/ Biodiversity Economy. 10 identified for implementation	10 new claimant areas incorporated effectively into conservation/ Biodiversity Economy (15 total) 10 identified for implementation	10 new claimant areas incorporated effectively into conservation/ Biodiversity Economy (25 total)	25 settled land claims with successful and sustainable biodiversity-based enterprises that enhance conservation outcomes.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 6.9.: Mechanisms and tools developed and implemented to ensure access, empowerment, and participation of communities and PDIs in inland fisheries and recreational fishing.	15 Generic Business plans developed for inland fisheries/recreational fishing community and PDI SMMEs 30 SMMEs incubated	90 new SMMEs incubated (120 total)	90 new SMMEs incubated (210 total)	90 new SMMEs incubated (300 total)	300 SMMEs functioning for a transformed inland fisheries sector promotes community and PDI livelihoods and well-being by 2035.
Enabler 1: Effective and Efficient regulation and policy implementation					
Action 7.1.: Effectively implement the Game Meat Strategy	Implementation plan for Game Meat strategy developed and implemented.	Insert targets from GMS	Insert targets from GMS	Insert targets from GMS	Well directed process for growing the game meat sector with all the benefits envisaged in the strategy as outlined above.
Action 7.2.: Develop and implement mechanisms and tools to improve duty of care, animal well-being and ethical and effective practices.	Norms and Standards developed and implemented for key Management and Sustainable Use aspects, with associated guidelines Implement the voluntary Wildlife Standards and Certification Scheme	Norms and standards effectively implemented Pilot certification processes for ecotourism, hunting, and harvesting operations. Additional areas for certification identified	Norms and standards Reviewed and Revised. Certification systems effectiveness reviewed, and schemes revised. Revised certification processes applied generally.	Revised norms and standard and certification schemes functioning effectively.	Enhanced global reputation for conservation and sustainable use drives ecotourism, fair-chase trophy hunting, and game meat consumption.
Action 7.3.: Review existing regulatory framework for simplification and streamlining to facilitate	On-line permitting system in place. Revised NEMBA, NEMPAA, TOPS, BABS in place.	Online permitting system reviewed for improvement Revised provincial legislation in place.	Revised On-line permitting system in place.	Revised legislation in place.	Simplified and streamlined processes promote investment and success across the Biodiversity Economy.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
ongoing and new entrant biodiversity economy enterprises.	Provincial legislation review underway.		Legislative review for effectiveness and efficiency.		
Action 7.3.: Mechanisms and tools for effective intergovernmental co-ordination across sectors and levels of government, including integration into municipal IDPs.	MOUs in place among National and Provincial spheres of government as identified in the White Paper. Process developed with COGTA and SALGA for effective consideration of conservation and Biodiversity Economy in provincial and municipal planning processes.	MOUs evaluated for effective collaborative functioning. 15 District Municipality SDF/IDP revised. 4 Metro SDF/IDP revised. 3 Provincial SDFs revised	15 District Municipality SDF/IDP revised (total 30) 4 Metro SDF/IDP revised (8 total). 6 Provincial SDFs revised (9 total)	14 District Municipality SDF/IDP revised (total 44)	Cross-sectoral Biodiversity Economy projects effectively budgeted and implemented
Enabler 2: Increased capacity, innovation and technological support					
Action 8.1.: Enhanced biodiversity conservation and sustainable use content expertise within mandated state agencies and departments.	Audit of capacity within DFFE, SANParks, iSimangaliso, & SANBI relative to mandates. Plan in place for capacity Audit across relevant Provincial and Municipal entities.	Plan for capacity improvement of DFFE, SANParks, iSimangaliso, & SANBI developed and implemented. Capacity Audit implemented across identified Provincial and Municipal entities completed.	Plan for capacity improvement of identified Provincial and Municipal entities developed and implemented..	DFFE, SANParks, iSimangaliso, & SANBI capacity improvement plan reviewed and revised.	Effective state actions promote success of Biodiversity Economy initiatives.
Action 8.2.: Skills development, retention, and transfer, and staff	Skills development, retention, and transfer, and staff retention	100 SMMEs trained in 3 key areas.	200 SMMEs trained in 10 key areas.	400 SMMEs trained in 10 key areas.	Increased opportunity and success for community and PDI based ventures.

Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
retention strategy across the sector enhanced. Development of transformative biodiversity qualifications and curricula influenced, with multidisciplinary approaches, for effective biodiversity education and training at all levels.	strategy across the sector developed 3 key areas for training of SMMEs identified and plan/materials developed. Process of engagement with HEIs developed and initiated.	7 additional key areas for training of SMMEs identified and plan/materials developed. 3 qualifications approved, and 7 under review, by SAQA. Students enrolled within 3 qualifications.	7 new qualification approved by SAQA. Students enrolled within 10 qualifications.	1000 students graduated from qualifications.	700 SMMEs trained and capacitated to manage and operate their own business by 2036 15 Institutions of higher learning supporting SMMEs with accredited courses in Biodiversity based business ventures
Action 8.3.: "Virtual" institute of Biodiversity Economy Research and Innovation across private sector, communities, and government undertakes priority research, development, and innovation.	Business Plan developed for virtual institute aligned with stakeholder needs.	Virtual institute in place and functioning effectively	Review of virtual institute, and improved governance arrangements and business plan implemented	Virtual institute in place and functioning effectively	Sound evidence base for key strategic pathways ensues successful ventures.
Enabler 3: Financial support sustains conservation and grows the Biodiversity Economy					
Action 9.1.: Develop a range of models for park fees, conservation fees, concession fees etc. that can be implemented to sustain the underlying costs of conservation	Strategy for full cross-subsidisation of conservation and environmental management costs by economic activities developed and implemented.	Implement and monitor 15 pilot projects across the different reserve types.	Evaluate pilot projects, refine reserve business plans. Fully implement revised business plans in 15 reserve	Evaluate pilot projects, refine reserve business plans. Implement appropriate reserve business plans	State protected areas effectively resourced by 2036.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
and environmental management.	3 generic reserve Business plans developed for each of large Marine PA, small marine PA, small PA, large non-big 5 PA, big 5 PA.		Pilot refined plans in 45 additional reserves across reserve types.	across state reserves.	
Acton 9.2.: Engage with private sector and communities to generate alternative approaches to PPPs that can be effectively implemented for improved conservation and Biodiversity Economy outcomes.	Develop 6 alternative generic partnership agreements and associated business plans. Identify 15 potential areas for engagement for new approaches.	Implement and monitor 15 pilot partnerships. Identity additional 30 potential areas for engagement for new approaches.	Evaluate pilot projects, refine partnership agreements and associated business plans. Fully implement revised business plans in 15 conservation areas. Pilot refined plans in 30 additional conservation areas. Identify 100 additional potential areas for engagement for new approaches	Evaluate pilot projects, refine partnership agreements and business plans. Implement revised plans across 45 reserves. Roll out agreements as standard practice.	30% of land under audited conservation land-use by 2040. 150 new conservation area agreements implemented by 2036,
Acton 9.3.: Mechanisms and tools, developed in partnership with the private sector, to	Develop a national strategy for funding models for infrastructure development and	Pilot development of 10 sites using different models as appropriate.	Evaluate pilot projects, refine models and	Evaluate pilot projects, refine models and business plans.	50 new community or PDI owned conservation areas and 100 new community or PDI owned large scale ecotourism ventures by 2036.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
facilitate access to capital, and financial training and support, for new entrants to the biodiversity sector.	business capacity development. Identify 10 areas to pilot capital deployment. for Ecotourism/hunting development.	Identify 50 potential sites for development. Pilot business skills development training.	associated business plans. Pilot refined plans in 50 additional conservation areas. Identify 100 additional potential areas for engagement for new approaches. Implement business skills training as required.	Mainstream funding models across the Biodiversity economy.	
Action 9.4.: Leverage existing and in process funding streams to support key elements of the Biodiversity Economy, and underlying conservation land and required environmental management.	Develop and implement a strategy for identifying potential funding sources, and approaches to leverage them for impact on conservation and environmental management. Evaluate current large projects for opportunity to leverage for impact. Identify key needs to develop proposals tailored to large funding streams.	$75 million leveraged.	$150 million leveraged	$200 million leveraged	External funding streams deliver key outcomes of Biodiversity Economy strategy.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 9.5.: Gain approval for Biodiversity Trust Fund, and develop a transparent framework for the investment of funds into, and the investment of funds out of, the Fund, such that funded projects are priorities within the Biodiversity Economy Strategy.	To be developed				The Biodiversity Trust fund becomes an effective vehicle for key transformation outcomes for the Biodiversity Sector.
Action 9.6.: Develop and implement key financial mechanisms based on successful conservation of threatened species or ecosystem, which can be invested in conservation and sustainable use more broadly.	Develop a strategy for targeting financial instruments that can be leveraged to support the conservation foundation. Identify 5 potential financial mechanisms and develop business plans for these.	5 financial mechanisms in place. 5 additional financial mechanisms identified and planned.	10 financial mechanisms in place. 5 additional financial mechanisms identified and planned.	15 Financial mechanism in place.	15 new funding mechanisms in place by 2035.
Action 9.7.: Identify key elements within Natural Capital Accounting, Payment for Ecosystem Services, and Carbon Sequestration, which can be incorporated as part of the Biodiversity Economy	Develop a strategy for targeting indirect financing models.to support conservation and the biodiversity economy. Identify 5 potential case studies and develop business plans for these.	Pilot 5 potential case studies Identify 15 additional case studies.	Evaluate 5 pilot case studies, and fully implement. Pilot 15 additional case studies. Identify 50 additional opportunities based on the case studies.	70 sustainably funded case studies Mainstream financing models for adoption across the Biodiversity sector.	$100 m p.a. international funding for investment into conservation and transformation of the Biodiversity Economy by 2036.

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Action 10.4.: Develop and implement a strategy for a market for regulated domestic trade in high-end parts and derivatives (e.g., rhino horn and elephant ivory) for local value-add enterprises based on processing and use of products.	To be developed				

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Action	Targets 2026	Targets 2029	Targets 2032	Targets 2035	2036 NBES Outcome
Enabler 4: Market access for vommunity and Previously Disadvantaged Individuals					
Action 10.1. Integrate community and PDI SMMEs into State Protected Area booking systems to profile and provide opportunity of integrated package bookings	Develop and implement a plan for opening up state protected booking systems to activities of community and PDI SMMEs. 5 Pilot SANParks case studies.	Evaluate pilot case studies, improve plans. Implement across SANParks. Pilot in Northwest Parks, Ezemvelo, Eastern Cape Parks, Cape Nature	Evaluate pilots, refine plans. Roll out across state conservation entities.		Fast-tracked Community and PDI ecotourism start-up success, with 200 new SMMEs established and sustained per annum.
Action 10.2.: Mechanisms developed and implemented to ensure community based and PDI SMMEs are embedded along the trophy and recreational hunting value chains.	Develop and implement a plan for embedding communities and PDI SMMEs into value chains. Pilot 5 case study SMMEs in Trophy hunting value chain.	Evaluate case studies, refine plans. 20 SMMEs in trophy hunting incubated. 5 SMMEs in recreational hunting incubated.	20 new SMMEs in trophy hunting incubated (total 40). 10 new SMMEs in recreational hunting incubated (15 total).	40 new SMMEs in trophy hunting incubated (total 80). 30 new SMMEs in recreational hunting incubated (45 total).	By 2036, Fast-tracked Community and PDI hunting industry start-up success, with 125 new SMMEs established and sustained
Action 10.3.: Mechanisms developed and implemented to communities and PDIs are embedded along the Bioprospecting, Biotrade, Bioeconomy, harvesting, and plant production value chains.	Develop and implement a plan for embedding communities and PDI SMMEs into value chains. Pilot 5 case study SMMEs in value chains.	Evaluate case studies, refine plans. 20 SMMEs incubated.	23 new SMMEs incubated (total 50).	40 new SMMEs incubated (total 90).	By 2036, 90 new SMMEs established and sustained

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