

National Biodiversity Strategy and Action Plan

2026 -2030

ACKNOWLEDGEMENTS

The successful development of this updated National Biodiversity Strategy and Action Plan (NBSAP) for Botswana is the result of a collective, nationwide endeavour. It is with profound gratitude and a deep sense of shared achievement that the Government of Botswana extends its sincere appreciation to all stakeholders who contributed their time, expertise and energy to this milestone process.

This document is a true testament to the "whole of government" approach, which ensured cohesive policy alignment, technical rigor, and coordinated implementation across all relevant ministries, departments, and parastatals. Equally, the "whole of society" approach brought together diverse voices from local communities, civil society organizations, the private sector, academic institutions, and traditional leadership. Their active participation through extensive consultations, technical working groups, and validation workshops, ensured that this NBSAP is not merely a government document, but a shared national vision owned by all Batswana.

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List of Acronyms

ABS	Access and Benefit Sharing
BFP	Biodiversity Finance Plan
BITRI	Botswana Institute for Technology Research and Innovation
BIUST	Botswana International University of Science and Technology
BoB	Bank of Botswana
BOCONGO	Botswana Council of Non-Governmental Organizations
BoFiNet	Botswana Fiber Network
BURS	Botswana Unified Revenue Services
BW-NEA	Botswana National Ecosystem Assessment
CEDA	Citizen Entrepreneur Development Agency
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Conservation of Migratory Species of Wild Animals
COP	Conference of Parties
CTF	Conservation Trust Fund
DAP	Department of Animal Production
DCP	Department of Crop Production
DFFR	Department of Forestry and Range Resources
DRR	Disaster Risk Reduction
DOT	Department of Tourism
MEA	Multilateral Environmental Agreements
NBFIRA	Non- Bank Financial Institutional Regulatory Authority
NBSAP	National Biodiversity Strategy and Action Plan
NDCs	Nationally Determined Contributions
NDP	National Development Plan
NEEC	National Environmental Education Committee
NEIN	National Environment Information Network
NPC	National Planning Commission
ODMP	Okavango Delta Management Plan
PEA	Public Education and Awareness
SADC	Southern Africa Development Committee
SDGs	Sustainable Development Goals
SEZA	Special Economic Zone Authority
SGP	Small Grants Programme
SMEs	Small Medium Enterprises
SOER	State of Environment Report
TDF	Tourism Development Fund
TFCAs	Transfrontier Conservation Areas
TK	Traditional Knowledge

DTCP	Department of Town and Country Planning
DWS	Department of Water and Sanitation
DWNP	Department of Wildlife and National Parks
EPR	Extended Producer Responsibility
EbA	Ecosystem Based Approach
GCF	Green Climate Fund
GHG	Greenhouse Gas
GMOs	Genetic Modified Organisms
IKI	International Climate Initiative
IUCN	International Union for Conservation of Nature
MoLA	Ministry of Land and Agriculture
TWG	Thematic Working Group
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCBD	United Nations Convention on Biological Diversity
UNEP	United Nations Environment Programme
UNESCO	United Nation Educational, Scientific and Cultural Organization
UN-Habitat	United Nations Human Settlements Programme
UNFCCC	United Nations Framework Convention on Climate Change
VDCs	Village Development Committees
WCF	Wildlife Conservation Fund
WUC	Water Utilities Corporation

FOREWORD

Botswana, a Party to the Convention on Biological Diversity since 1995, has consistently demonstrated leadership in conserving and sustainably using biodiversity. This commitment is reflected in the country's conservation legacy, including the dedication of a significant proportion of national land to protected areas, wildlife management areas, forest reserves and other conservation purposes. Botswana's main ecosystems, namely desert, agroecosystems, grasslands and shrublands, forests and woodlands, aquatic and wetland, and hill ecosystems, are among the country's greatest national assets. They sustain livelihoods, support tourism, strengthen food and water security, preserve cultural heritage and contribute to national resilience.

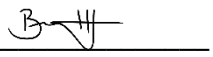
The National Biodiversity Strategy and Action Plan 2026–2030 represents a renewed national commitment to protecting this natural heritage and placing biodiversity at the centre of Botswana's development pathway. It provides a clear framework for the conservation, sustainable use, and equitable management of biodiversity, while aligning national priorities with the Kunming-Montreal Global Biodiversity Framework. Building on lessons from previous national biodiversity strategies, the NBSAP reflects a whole-of-government and whole-of-society approach, recognising that biodiversity conservation is a shared responsibility and a national development priority.

This Strategy matters because biodiversity is not separate from development; it is one of the foundations of sustainable development. As Botswana implements National Development Plan 12 and operationalises the Botswana Economic Transformation Programme, the NBSAP 2026–2030 offers an important opportunity to ensure that economic transformation is green, inclusive and resilient. It gives practical expression to Vision 2036, particularly the aspirations for sustainable economic development, a sustainable environment, human and social development and good governance.

The pressures on biodiversity and ecosystems require decisive leadership and coordinated national action. Climate change, land degradation, habitat loss, invasive alien species, pollution and competing land uses continue to threaten the natural systems that underpin our people and economy. This Strategy therefore calls for a shift from commitment to implementation, from planning to measurable results, and from isolated interventions to coordinated national delivery across all sectors.

The Government fully supports this Strategy and is committed to advancing its implementation through strengthened coordination, resource mobilisation, institutional accountability, and the integration of biodiversity priorities into national, district and sectoral planning. This includes mainstreaming biodiversity values across key sectors such as agriculture, tourism, mining, infrastructure, water, land management and local economic development. It also requires empowering communities as custodians of natural resources, promoting equitable benefit-sharing, and unlocking innovative financing mechanisms that support long-term conservation and sustainable development.

I commend all ministries, departments, district authorities, traditional leaders, communities, civil society organisations, academia, private-sector entities and development partners for their contributions to the preparation of this Strategy. I call upon all sectors of society to embrace the NBSAP 2026–2030 as our shared roadmap for protecting Botswana's biodiversity and securing the livelihoods and prosperity it supports. Through this Strategy, Botswana reaffirms that true and lasting development must be built on the protection, restoration and wise use of nature. Our biodiversity is our inheritance, our responsibility and our opportunity.



Wynter Boipuso Mmolotsi
Minister of Environment and Tourism
Republic of Botswana

1. EXECUTIVE SUMMARY

The National Biodiversity Strategy and Action Plan 2026-2030 provides Botswana's strategic framework for conserving, sustainably using and equitably managing biodivers

ity over the next decade. It responds to national biodiversity priorities, emerging environmental pressures and Botswana's obligations under the Convention on Biological Diversity. The Strategy further aligns national action with the Kunming-Montreal Global Biodiversity Framework (KM-GBF), which calls for urgent and transformative action to halt and reverse biodiversity loss.

Botswana's biodiversity is a vital national asset and a foundation for sustainable development. It supports ecosystem services that are essential for human well-being, economic growth, climate resilience and national prosperity. The country's ecosystems provide grazing resources, water regulation, carbon storage, wildlife habitat, tourism opportunities, food resources, cultural values and livelihoods for many communities. Biodiversity also contributes significantly to key sectors of the economy, including tourism, agriculture, livestock production, fisheries, forestry and natural resource-based enterprises.

Despite this importance, biodiversity loss and ecosystem degradation remain major national concerns. Key drivers include land degradation, habitat fragmentation, unsustainable resource use, climate change, pollution, invasive alien species, human-wildlife conflict, wildfires and increasing pressure from competing land uses. These challenges affect ecosystem health, species survival, community livelihoods and the long-term resilience of Botswana's natural resource base. The NBSAP therefore provides a coordinated national response to strengthen conservation action, restore degraded ecosystems, promote sustainable use and ensure that biodiversity contributes meaningfully to national development.

The Strategy was developed through a whole-of-government and whole-of-society approach, recognizing that biodiversity conservation is a shared responsibility across ministries, departments, local authorities, parastatals, civil society, communities, academia and the private sector. Stakeholder consultations were undertaken across Botswana, including Central, Ghanzi, Kgalagadi, Southern, South East, North West, North East and Chobe Districts, followed by validation workshops with representatives from Government institutions, NGOs, CBOs, farmers' associations, Village Development Committees and Traditional Leaders. This participatory process ensured that the Strategy reflects national priorities, local realities and the needs of communities that directly depend on biodiversity and ecosystem services.

Vision

By 2030, Botswana will stand at the true north of environmental sustainability, with healthy ecosystems, thriving biodiversity and responsibly managed natural resources that drive sustainable development, climate resilience and equitable benefits for all.

Mission

To achieve a sustainable environment through the promotion of a Green Botswana, ensuring water and energy security; advancing integrated and climate-resilient land management; and fostering the optimal, equitable and sustainable use of natural resources for improved livelihoods, economic prosperity and the well-being of present and future generations.

Overall Objective

To conserve, manage and sustainably utilize biodiversity in Botswana while ensuring a fair and equitable distribution of benefits among the people of the region and the global community by 2030.

The NBSAP is guided by principles that promote transparency, accountability, inclusiveness, equity and national ownership. It recognizes the rights and roles of local communities, the importance of traditional knowledge, gender equality, youth participation, scientific evidence, innovation and adaptive management. These principles are essential to ensuring that biodiversity conservation supports social justice, sustainable development and long-term national resilience.

The Strategy is structured around the thematic areas of the Kunming–Montreal Global Biodiversity Framework: reducing threats to biodiversity; meeting people's needs through sustainable use and benefit-sharing; and strengthening tools, systems and solutions for implementation and mainstreaming. These areas are translated into Botswana's national targets, strategic actions, implementation responsibilities, monitoring indicators and resource needs. Implementation of the NBSAP will require strong institutional coordination, adequate financing, effective monitoring and reporting, capacity-building, data sharing and integration of biodiversity priorities into national, district and sectoral planning. The Monitoring and Evaluation Framework will support regular tracking of progress, evidence-based decision-making, accountability and reporting to both national structures and the Convention on Biological Diversity.

Overall, the NBSAP 2026-2030 positions biodiversity as a national development priority and a key pillar of Botswana's transition towards a sustainable, inclusive and climate-resilient future. It provides a practical Government-wide framework for protecting the country's natural heritage, strengthening livelihoods, supporting economic diversification, enhancing ecosystem resilience and ensuring that the benefits derived from biodiversity are shared fairly among current and future generations.

2. INTRODUCTION

Botswana has been a Party to the Convention on Biological Diversity (CBD) since 1995 and remains firmly committed to the conservation and sustainable management of its rich biological diversity. Since the submission of its first National Biodiversity Strategy and Action Plan (NBSAP) in 2004 and its subsequent revision in 2007, the global biodiversity agenda has evolved significantly, culminating in the adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF) at the Fifteenth Meeting of the Conference of the Parties to the CBD in 2022. In response, Botswana has undertaken a comprehensive review, update, and alignment of its NBSAP to ensure coherence with the goals and targets of the KMGBF, while reflecting national development priorities, emerging biodiversity challenges, and lessons learned from previous implementation efforts.

This updated NBSAP is anchored in the three objectives of the Convention on Biological Diversity:

(i) the conservation of biological diversity

(ii) the sustainable use of its components

(iii) the fair and equitable sharing of benefits arising from the utilization of genetic resources.

It also incorporates Botswana's commitments under the Cartagena Protocol on Biosafety, ratified in 2001, and the Nagoya Protocol on Access and Benefit-Sharing, acceded to in 2013, recognising these instruments as integral components of the national biodiversity governance framework.

Botswana acknowledges that biodiversity underpins ecosystem integrity, resilience, and the provision of essential ecosystem services that support human well-being, sustainable livelihoods, climate resilience, economic growth, and poverty reduction. The country further recognizes that the conservation and sustainable use of biodiversity are fundamental to achieving national development aspirations, including Vision 2036, the National Development Plan, and the Sustainable Development goals.

This introductory chapter provides an overview of the national biodiversity context and presents key findings from the NBSAP Stocktaking and Gap Analysis undertaken to inform the revision and alignment process. It highlights progress achieved, identifies remaining challenges and opportunities, and establishes the foundation upon which Botswana's renewed biodiversity ambitions and actions for the period 2026–2030 and beyond are built.

2.1 BOTSWANA'S ECOSYSTEMS AND BIODIVERSITY

Botswana is endowed with globally significant biodiversity and ecosystems that underpin national economic development, livelihoods, climate resilience, cultural heritage, and human well-being. Covering approximately 581,730 km², Botswana is predominantly semi-arid and is characterised by diverse ecosystems ranging from the internationally renowned Okavango Delta and Chobe-Linyanti wetland systems in the north to the extensive Kalahari Desert landscapes in the centre and south. These ecosystems support rich biodiversity, including globally important populations of large mammals, birds, reptiles, fish, plants, and microorganisms. Botswana's biodiversity constitutes a critical component of the country's natural capital and contributes substantially to tourism, agriculture, water security, and ecosystem services. (Botswana National Ecosystem Assessment Scoping Report (2023/2024). The country's biodiversity is increasingly threatened by land degradation, climate change, invasive alien species, habitat fragmentation, unsustainable resource use, human-wildlife conflict, and pollution. (Botswana NBSAP Review and Gap Analysis Report.)

The Botswana National Ecosystem Assessment (BW-NEA) identifies six broad ecosystem categories that characterize the country's ecological landscapes:

- Aquatic and Wetland Ecosystems
- Forest and Woodland Ecosystems
- Grassland and Shrubland Ecosystems
- Desert Ecosystems
- Hill Ecosystems
- Agroecosystems

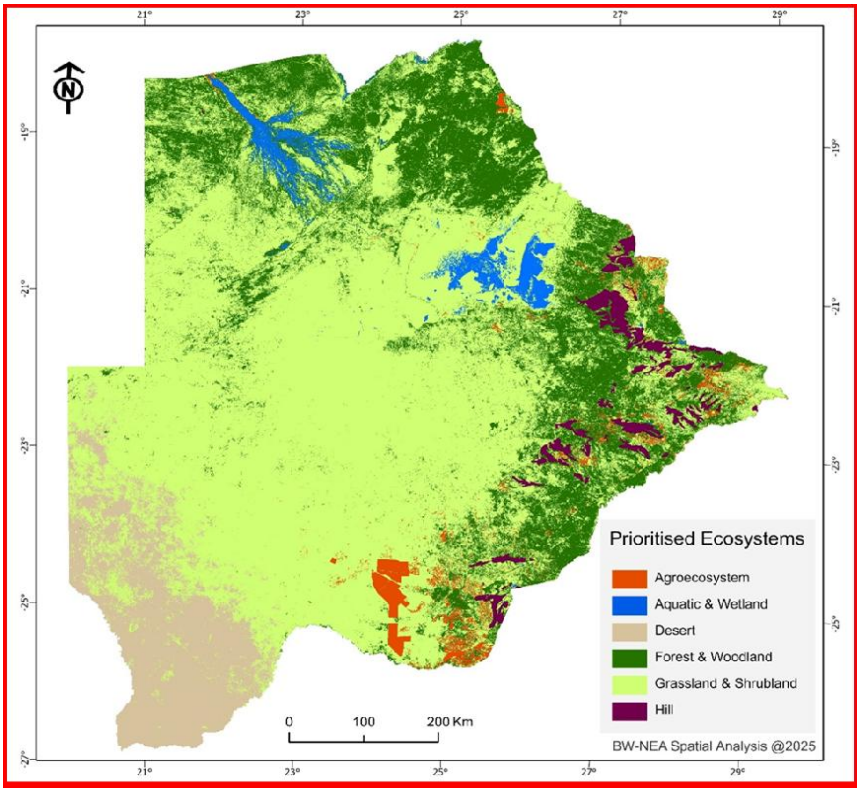


Figure 1: Map of Botswana's Ecosystem Types

(Source: Botswana National Ecosystem Assessment, 2024

Aquatic and Wetland Ecosystems

Wetlands occupy a relatively small proportion of Botswana's land area but provide disproportionately high biodiversity and ecosystem service values. Key wetland systems include:

- The Okavango Delta
- The Chobe River System
- The Linyanti Swamps
- The Makgadikgadi Pans
- Seasonal floodplains and pans
- Major river systems including the Okavango, Chobe, Boteti and Limpopo catchments



Figure 2: Flamingos at Nata Bird Sanctuary, Botswana
Source: Joachim Huber, Wikimedia Commons, 2007 (CC BY-SA 2.0).

Forest and Woodland Ecosystems

Woodlands occur mainly in northern Botswana and are dominated by:

- Miombo woodlands
- Baikiaea plurijuga (Zambezi teak) forests
- Mopane woodlands
- Acacia savanna woodlands



Figure 3: Mopane woodland ecosystem in Botswana
Wikimedia Commons, "Mophane Woodland.jpg" (accessed 2026).2.3 Grassland and Shrubland Ecosystems

Grassland and Shrubland Ecosystems

Grasslands and shrublands constitute a significant proportion of Botswana's rangelands and support both livestock production and wildlife populations. Important areas include:

- Eastern hardveld
- Sandveld rangelands
- Savanna ecosystems
- Wildlife Management Areas



Figure 4: Kalahari landscape of Khutse Game Reserve, Botswana, illustrating the country's dryland ecosystems and protected area biodiversity.

Desert Ecosystems

The Kalahari Desert dominates central and southern Botswana and represents one of the largest continuous sand systems globally. Although often perceived as species-poor, the Kalahari supports unique biodiversity adapted to extreme environmental conditions including:

- Gemsbok
- Brown hyena
- Bat-eared fox
- Numerous reptiles
- Endemic and drought-resistant flora



Figure 5: Kalahari Desert Landscape – Khutse Game Reserve, Botswana
© Uli Doering / AfriPics. Kalahari desert landscape, Khutse Game Reserve, Botswana.

Hill Ecosystems

Hill ecosystems include:

- Tsodilo Hills
- Tswapong Hills
- Other inselbergs and rocky outcrops



Figure 6: Hill ecosystem – Tswapong Hills, Central District, Botswana
Source: Botswana Tourism Organisation – *Tswapong Hills* (accessed 2026).

Agroecosystems

Agroecosystems comprise croplands, livestock production systems, communal grazing lands and integrated farming systems. These landscapes contribute to:

- Food security
- Livelihoods
- Genetic diversity of crops and livestock



Figure 7:Commercial crop production landscape in Pandamatenga, Botswana
***Source:** Botswana Agricultural Marketing Board (BAMB) – Pandamatenga Photo Gallery*

Table 1: Botswana's Ecosystems and their Biodiversity Value

Ecosystem	**Ecological Importance**	**Key Threads**	**Area Covered (Km²**	**Percentage Coverage**
Aquatic and Wetland Ecosystem	Vital water networks, including the Okavango Delta, which is one of the world's largest inland deltas and a UNESCO World Heritage Site. It supports exceptional biodiversity including elephants, hippopotamus, crocodiles, fish species, aquatic plants, migratory birds and threatened species such as African wild dog and wattled crane. Wetlands provide critical ecosystem services including water purification, flood regulation, fisheries, carbon sequestration, tourism and cultural values.	-Altered hydrological regimes -Climate variability and drought -Invasive alien species -Tourism pressure -Water abstraction -Pollution from settlements and agriculture	20, 000	7%
Forest and Woodl and Ecosystem	Areas dominated by trees that provide timber, fuel, and ecological habitats. These ecosystems support numerous plant and animal species and provide timber, fuelwood, non-timber forest products, grazing resources and wildlife habitat. Forest ecosystems are important carbon sinks and contribute to climate regulation.	-Unsustainable harvesting -Wildfires -Agricultural expansion -Overgrazing -Climate change	581,730	60%
Agro-Ecosystem	Lands dedicated to crop agriculture and livestock farming, which are the backbone of many local communities.	-Land degradation -Loss of agrobiodiversity -Climate variability -Unsustainable agricultural practice	2,700	46%
Grassland and Shrub-land Ecosystem	Expansive, open areas providing crucial grazing for livestock and wildlife. These ecosystems support herbivore populations	-Bush encroachment -Rangeland degradation -Overgrazing	400,000	86%

	including zebra, wildebeest, springbok, impala and numerous bird species. They also provide essential ecosystem services such as forage production, nutrient cycling and carbon storage.	-Veterinary cordon fences -Habitat fragmentation		
Desert Ecosytem	The arid Kalahari region, characterized by dry savanna and unique drought-adapted biodiversity. Desert ecosystems provide critical ecological functions and support pastoral livelihoods and wildlife-based tourism.	-Climate change -Desertification -Groundwater depletion -Mining expansion -Infrastructure development	400,000	86%
Hill Ecosystem	Elevated terrains that provide rich bio-cultural value and support traditional knowledge. These ecosystems often contain endemic species, sacred sites, springs, medicinal plants and important cultural heritage values. Hill ecosystems provide refugia for biodiversity and play important roles in water catchment protection.	-Quarrying -Tourism pressure -Invasive species -Climate change	11,422, 520	1%

Source: Botswana National Environmental Assessment (NEA), 2026

***Note**: Percentages indicate the proportion of each ecosystem type relative to Botswana's total land area. Overlaps between ecosystem types account for the total exceeding 100%*

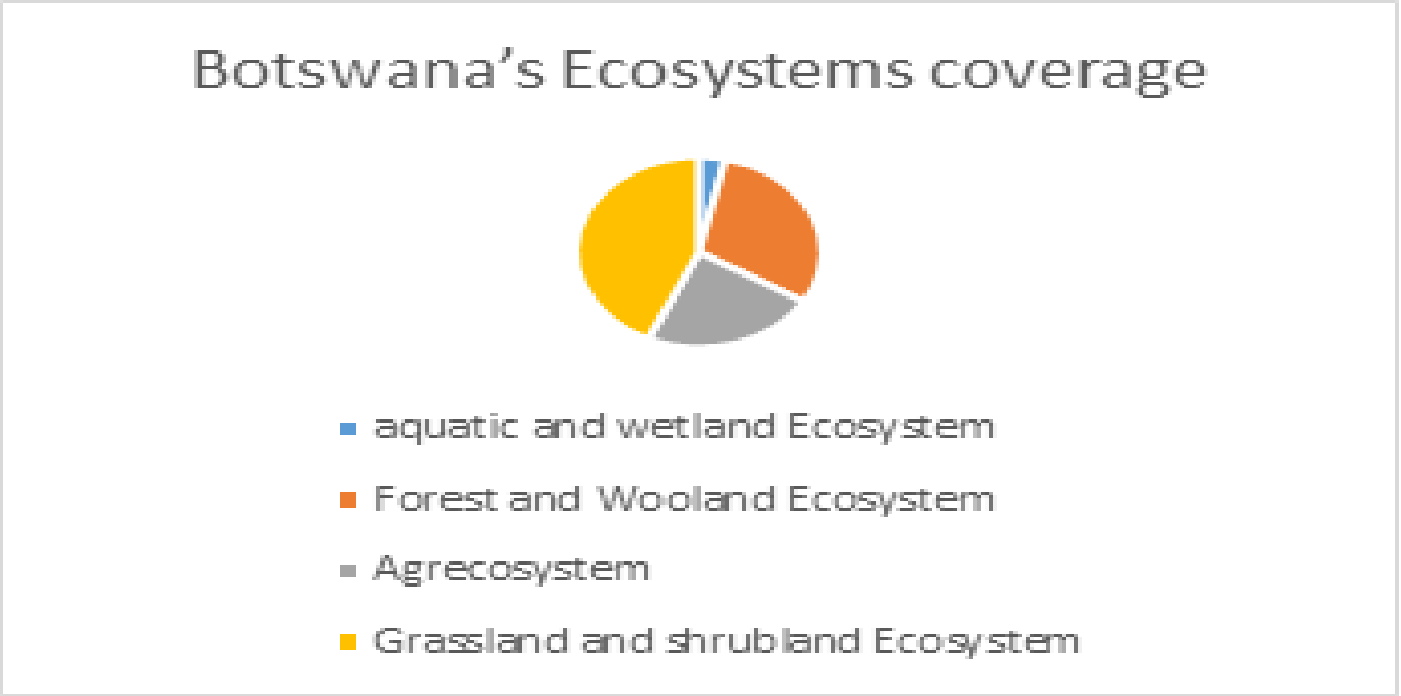


Figure 8: Botswana Ecosystem Coverage

2.2 FAUNA POPULATION IN BOTSWANA

Botswana is one of Africa's premier wildlife strongholds, sustaining vast populations of mammals, birds, reptiles, and amphibians across the Okavango Delta and Kalahari ecosystems. Table 2 presents key fauna species, their current population estimates in the country, and their official IUCN Red List statuses.

Table 2: Key Fauna Species in Botswana

SPECIES	ESTIMATED POPULATION	IUCN RED LIST STATUS
African Savanna Elephant	130,000+	Vulnerable
African Lion	2,000 - 3,000	Vulnerable
African Wild Dog	800 - 1,000	Endangered
Cheetah	1,700	Vulnerable
Leopard	4,200- 6,800	Vulnerable
Spotted Hyena	6,000–10,000	Least Concern

Source: (Botswana National Reports to CBD; Botswana National Ecosystem Assessment; Department of Wildlife and National Parks.)

Table 2 above highlights Botswana's globally significant role in conserving large mammals, particularly threatened carnivores and elephants. While several species maintain relatively healthy populations within the country, continued conservation efforts are required to address threats such as habitat fragmentation, human-wildlife conflict, climate change, and illegal wildlife exploitation.

2.3 Status of Antelopes in Botswana

Botswana is home to one of Africa's most diverse antelope populations, boasting over 25 species across the Okavango Delta, Chobe National Park, and the Makgadikgadi Pans. While many of these herds remain

vital to global conservation, several species face threats from habitat loss, veterinary fencing, droughts, and poaching.

Table 3: Status of Selected Antelope Species in Botswana

Species	Population Trend in Botswana	IUCN Red List Status
Impala	Stable to increasing in within protected areas.	Least Concern
Greater Kudu	Generally Stable.	Least Concern
Gemsbok	Stable, especially in arid regions.	Least Concern
Springbok	Stable	Least Concern
Red Lechwe	Stable but generally vulnerable to habitat changes	Least Concern (Global)
Tsessebe	Declining in parts of northern Botswana.	Least Concern globally, but local concerning
Roan Antelope	Declining and localized	Least Concern globally, but regionally vulnerable
Sable Antelope	Small, localized populations	Least Concern globally
Blue Wildebeest	Significant declines were recorded in some northern areas	Least Concern globally
Eland	Stable but Scattered	Least Concern

2.4 Avifauna

Botswana supports a rich and diverse avifauna, reflecting the country's wide range of ecosystems. Over 590 bird species have been recorded in the country, representing approximately 60% of all bird species found in southern Africa. The internationally significant wetlands of the Okavango Delta, Chobe-Linyanti wetland system, Makgadikgadi Wetlands, and the Boteti River provide critical breeding, feeding, and migratory habitats for numerous resident and migratory bird species. Botswana is particularly important for globally threatened and Near Threatened species such as the Wattled Crane (*Bugeranus carunculatus*), Slaty Egret (*Egretta vinaceigula*), African Skimmer (*Rynchops flavirostris*), White-backed Vulture (*Gyps africanus*), and Kori Bustard (*Ardeotis kori*). The country's extensive protected area network and relatively low levels of habitat fragmentation have contributed to the persistence of viable bird populations. However, avifauna face increasing pressures from habitat degradation, climate change, invasive alien species, unsustainable land-use practices, infrastructure development, and poisoning associated with human-wildlife conflict. Conserving Botswana's bird diversity is essential for maintaining ecosystem functions such as pollination, seed dispersal, pest regulation, and nutrient cycling, while also supporting nature-based tourism and local livelihoods

2.4.1 Important Bird Areas (IBAs)

Twelve (12) sites have been identified as Important Bird Areas in Botswana, based on the internationally agreed criteria established by BirdLife International (see Figure 2 below). These sites are; Chobe National Park, Linyanti Swamps, Okavango Delta, Lake Ngami, Central Kalahari Game Reserve, Makgadikgadi Pans,

Gemsbok National Parks, Tswapong Hills, Mannyelanong Hill, Phakalane Sewage, and Bokaa Dam. IBAs are key sites for the conservation of birds, and seven of them in Botswana are already part of the protected area network. Of the twelve, the Chobe and Okavango Delta IBAs have the richest avifauna with 433 and 464 species respectively (Kootsositse et al, in press).

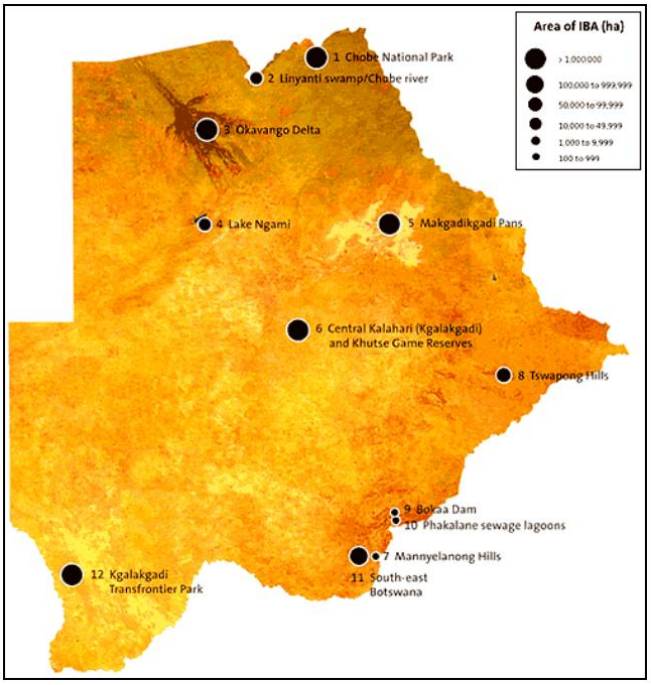


Figure 9: Map of Important Bird Areas in Botswana Source: Kootsosite et al (2008)

2.5 Fish

Fishing is traditionally confined to the wetlands in the northern part of the country. Despite rising demand, Botswana records one of the lowest levels of per capita fish consumption in Africa, estimated at 3.7 kg in 2016. The Okavango Delta, which is the country's largest water source supports the most significant fishery, contributing approximately 80 percent of the national fish catch of 38 tonnes (as of 2016). In 2004, approximately 3,250 fishers were reported. The majority of fish consumed domestically is imported, with imports of fish and fishery products valued at USD 10.3 million in 2017, while exports remain negligible (USD 450,000 in the same year). There is some untapped potential for fisheries development in the hundreds of small reservoirs used for livestock watering in south-eastern and central Botswana.

Beyond food provision, small-scale recreational fishing could also generate additional income for communities. However, due to the seasonal nature of the streams feeding the reservoirs, most of these water bodies have limited fish species diversity, typically restricted to catfish. The more popular species among consumers are the various indigenous tilapia species. However, because most reservoirs are relatively recent in construction, and given the seasonal nature of the streams that feed them, tilapias are usually present only where they have been deliberately stocked. Aquaculture production is concentrated on tilapia farming, with annual production recorded at 15 tonnes in 2016 (FAO, 2026). During the 2024 government restructuring, aquaculture was prioritized and transferred to the Ministry of Agriculture to strengthen food security. Nevertheless, the Department of Wildlife and National Parks (DWNP) under the Ministry of Environment retained responsibility for inland fisheries to strictly regulate fishing activities within protected wildlife areas.

2.6 Reptiles and Amphibians

Botswana's rich biodiversity features 147 confirmed reptile species and 42 amphibian species. Notably, the country boasts only one strictly endemic reptile the Tsodilo Gecko and has zero endemic amphibians.

Table 4: Reptile and Amphibian Diversity in Botswana

GROUP	FAMILIES	SPECIES
Lizards (including geckos, skinks ,agamas, chameleons, monitors)	8	73
Amphisbaenas (worm lizards)	1	9
Snakes	13	64
Tortoises & Freshwater Turtles	2	9
Crocodiles	1	1
Total Reptiles	24	**147**
Amphibians (frogs & toads)	12	**42**

Source: African Herpetological Biodiversity Inventory (AHBI), 2025

2.7 Invertebrates

Invertebrates represent the most diverse yet underexplored segment of Botswana's biodiversity. Unlike vertebrates, they lack a comprehensive national inventory. To bridge this critical knowledge gap, increased financial investment must be directed toward invertebrate research. Although invertebrate data in Botswana is generally limited, research reveals diverse aquatic life. A 2024 checklist records 63 native and 4 introduced mollusc species. Over 50 ostracod varieties inhabit freshwater wetlands, and hundreds of macroinvertebrates thrive in the Okavango Delta (Zenodo, 2025).

3. VEGETATION

Botswana's flora is adapted to semi-arid conditions and includes species of ecological, medicinal, cultural and economic importance. The country's vegetation structure is officially categorised into nine primary savanna and woodland types, including:

- Shrub Savanna
- Tree Savanna
- Close Tree Savanna on Rocky Hills
- Semi-arid Shrub Savanna
- Grass Savanna
- Aquatic Grassland
- Dry Deciduous Forest
- Riparian Forest
- Woodland

Compared with many African countries, most of Botswana's natural vegetation remains relatively intact. However, a number of ecosystems are coming under mounting pressure from drought, overgrazing, wildfires, land degradation, and the impacts of climate change.

Table 5: Major Vegetation Types in Botswana and Their Associated Biodiversity Values

VEGETATION TYPE	DESCRIPTION AND DISTRIBUTION IN BOTSWANA	ASSOCIATED BIODIVERSITY VALUES	KEY ECOSYSTEM SERVICES
Shrub Savanna	Dominated by shrubs and scattered small trees, occurring extensively in semi-arid regions including parts of the Kalahari ecosystem.	Provides habitat for antelope species, small mammals, reptiles, and numerous bird species. Supports pollinators and contributes to ecosystem resilience in dry environments.	Grazing resources, erosion control, carbon storage
Tree Savanna	Characterized by a continuous grass layer interspersed with medium to large trees such as Acacia (Vachellia and Senegalia spp.) and Mopane. Widespread across northern and eastern Botswana.	Supports high wildlife diversity, including elephants, giraffes, zebras, and large predators. Important for carbon storage, nutrient cycling, and seasonal forage provision.	Wildlife habitat, tourism, carbon sequestration
Close Tree Savanna on Rocky Hills	Dense tree and shrub cover associated with rocky outcrops, hills, and inselbergs found mainly in eastern Botswana.	Serves as refuge habitat for endemic and specialized plant species, reptiles, birds of prey, and small mammals. Provides important ecological connectivity and climate refugia.	Biodiversity refugia, watershed protection
Semi-arid Shrub Savanna	Occurs in drier parts of the Kalahari and southwest Botswana, characterized by drought-tolerant shrubs and sparse tree cover.	Supports species adapted to arid conditions, including gemsbok, springbok, meerkats, and diverse reptile communities. Important for drought resilience and soil stabilization.	Drought resilience, forage production
Grass Savanna	Dominated by perennial grasses with sparse woody	Provides critical grazing resources for wild	Livestock grazing,

	vegetation, occurring in seasonally productive rangelands and floodplain margins.	herbivores and livestock. Supports ground-nesting birds, insects, and migratory wildlife. Important for maintaining ecosystem productivity and fire regimes.	wildlife migration support
Aquatic Grassland	Found in wetlands, floodplains, and seasonally inundated areas, particularly within the Okavango Delta and Chobe-Linyanti systems.	Supports high aquatic biodiversity, including fish, amphibians, water-birds, and large herbivores such as lechwe and buffalo. Provides breeding and nursery habitats and regulates water quality.	Water purification , fisheries, flood regulation
Dry Deciduous Forest	Occurs mainly in northern Botswana, dominated by species that shed leaves during the dry season, including Baikiaea and Mopane woodlands.	Supports diverse bird, mammal, insect, and plant communities. Provides critical dry-season habitat, carbon sequestration, and valuable ecosystem services such as timber and non-timber forest products.	Carbon storage, timber and non-timber products
Riparian Forest	Develops along rivers, streams, and floodplains, particularly in the Okavango, Chobe, and Limpopo catchments.	Biodiversity hotspots supporting high concentrations of birds, primates, insects, and aquatic species. Important for erosion control, water regulation, habitat connectivity, and climate resilience.	Water regulation, erosion control, habitat connectivit y
Woodland	Extensive vegetation type dominated by trees such as Mopane (Colophospermum mopane), Zambezi teak (Baikiaea plurijuga), and mixed broadleaf species. Predominantly found in northern Botswana.	Supports Botswana's largest populations of elephants and other large mammals. Provides habitat for threatened species maintain ecological processes and stores carbon.	Wildlife conservatio n , tourism, climate regulation

4. NATURE OF BIODIVERSITY LOSS IN BOTSWANA

Botswana remains one of the least transformed countries in Africa, with approximately 96.2% of its land area still covered by natural and semi-natural ecosystems. However, despite this relatively intact ecological condition, biodiversity loss is occurring across terrestrial, freshwater, wetland, and agroecosystems due to a combination of anthropogenic and climatic pressures. Recent assessments indicate declining ecosystem integrity, habitat degradation, increasing pressure on wildlife populations, the proliferation of invasive alien species, unsustainable resource use, and the growing impacts of climate change. These pressures threaten the ecosystem services that underpin livelihoods, economic development, cultural heritage, and national resilience. The Botswana National Ecosystem Assessment (BW-NEA) identifies six major ecosystem types that collectively support the country's biodiversity and ecosystem services. Biodiversity loss manifests differently across these ecosystems, reflecting variations in ecological characteristics, land-use pressures, and climate vulnerability.

Direct drivers -are the immediate physical or biological actions that directly impact biodiversity (e.g., habitat clearance, fire, climate stress, conflict). The factors identified are presented in Table 6 below:

Table 6: Direct Causes of Biodiversity Loss

Threat	Underlying Causes	Main Impacts	Key Implications	Related Strategic Action
Habitat Loss and Fragmentation	Expansion of human settlements, arable agriculture, and veterinary disease control fences restricting vital wildlife migration routes; high elephant population	Decline in wildlife populations; reduced genetic diversity; degradation of ecosystem services; increased vulnerability to climate change; negative effects on Botswana's wildlife economy	Extinction of certain wildlife species; degradation/erosion of domestic animal and crop varieties; reduced benefits affecting livelihoods and economic development; species may struggle to move to suitable habitats as climate conditions change; reduced contribution of tourism to GDP	1-2, 2-1, 2-2
Wildland Fires	Natural sources (lightning); high temperatures and dry conditions; human activities (agricultural burning, hunting and poaching activities, campfires, waste burning); infrastructure and machinery	Loss of vegetation; habitat destruction; reduced grazing resources; damage to infrastructure; threats to human health; destruction of nesting and breeding habitats; increased spread of invasive species in disturbed areas	Increased wildlife mortality; soil degradation; air pollution; contamination of water resources; loss of tourism revenue; increased expenditure on firefighting; increased respiratory problems; reduced ecosystem resilience to drought and climate change; destruction of ecological processes	2-2
Climate Change and Drought	Shifting weather patterns, persistent droughts, and rising temperatures placing severe	Negative effects on water resources; negative effects on biodiversity and ecosystems;	Reduced rainfall leading to water shortages; changes to hydrology and water quality of inflowing rivers; habitat loss for both fauna and flora;	8-2, 8-5

	stress on water-dependent ecosystems	negative effects on agriculture	changes in species distribution; reduced productivity for both crops and livestock	
Human-Wildlife Conflict	Encroachment of agricultural land into protected areas; lack of gazettement of wildlife migratory routes; high elephant population	Livelihood and economic losses (crop destruction); fatalities and injuries; negative attitudes towards conservation; increased management costs	Reduced food security due to crop destruction; reduced household income and increased poverty; loss of breadwinners leading to poverty; loss of household income when victims are unable to work; reduced community support for protected areas and conservation programmes; retaliatory killing of problem animals; compensation bills, *ex gratia* payments, medical bills, and costs for rehabilitating poisoned sites	4-2, 4-3

4.1 Indirect Causes of Biodiversity Loss

Indirect threats constitute the underlying socio-economic, institutional, and environmental factors that drive the direct causes of biodiversity loss in Botswana. These are summarized in Table 7 below;

Table 7: Indirect Causes of Biodiversity Loss

Underlying Causes	Main Impacts	Key Implications	Related Strategic Action	
Population Growth and Urbanization	Expansion of settlements and infrastructure increases demand for land, water, and natural resources	Habitat loss, conversion, and fragmentation	Displacement and alteration of key biodiversity species	1-3, 1-4
Poverty and Rural Livelihood Dependence	Demand for natural resources	Overharvesting of natural resources	Land degradation; extinction of some species	9-4, 9-5
Economic Development and Diversification	Expansion of agriculture, mining, tourism, and infrastructure	Development projects may encroach on ecologically sensitive areas	Displacement and alteration of key biodiversity species	1-1

Weak Land Use Planning	Competing land uses undermine conservation objectives	Loss of wildlife corridors; land degradation	Human-wildlife conflict; unplanned developments around protected areas can isolate them from	1-4
Limited Environmental Awareness	Habitat destruction; poor policy and decision-making	Land may be cleared for agricultural or settlement purposes without recognizing ecological importance; approval of non-eco-friendly projects by decision-makers	Unsustainable harvesting of natural resources (e.g., harvesting phane at pupae stage, cutting live trees for firewood); loss of species and habitats	21-1, 21-2, 21-5
Market Demand for Natural Resources	Biodiversity decline due to mining, agriculture, and industry	Deforestation, air pollution, degradation, increased water extraction	Disturbance of wildlife; pollution of ecosystems	2-1
Governance and Institutional Challenges	Weak enforcement of environmental laws	Uncoordinated implementation of legal instruments governing biodiversity	Decline of wildlife populations and habitat destruction	4-3, 5-1
Expansion of Transport and Energy Infrastructure	Development of land-intensive infrastructure	Habitat loss, conversion, and fragmentation; environmental pollution	Displacement and alteration of key biodiversity species; emission of greenhouse gases	7-2, 7-3
Inadequate Investment in Conservation	Limited funding for protected area management, ecological restoration, and research	Habitat loss and fragmentation	Increase in illegal resource use; limited climate change adaptation; inadequate research	19-1, 19-3, 19-5, 19-6, 19-7

5. CURRENT APPROACHES TO BIODIVERSITY CONSERVATION PRACTICES IN BOTSWANA

5.1 Policy Implications of Biodiversity Loss

Biodiversity loss in Botswana directly threatens the nation's economic bedrock and rural livelihoods, particularly the wildlife tourism sector. Policy implications include the urgent need for enforceable environmental framework legislation, modernized land-use systems, and ecosystem-based adaptation strategies to combat biodiversity loss.

The following policy implications and strategic imperatives must be addressed to safeguard Botswana's biodiversity:

5.2 Investment in the Tourism Sector

Tourism represents Botswana's next diamond asset. The country's wildlife and natural capital account constitute a substantial portion of GDP and rural employment; however, these assets have not yet been fully harnessed. The current National Development Plan 12 (NDP 12) and Vision 2036 have prioritized sustainable green growth as a national imperative. In this context, Botswana needs to invest more in natural capital accounting to safeguard ecosystems before tourism revenues are adversely affected

5.3 Land-Use Planning

Although Botswana has developed the National Spatial Plan to support biodiversity management, the integration of biodiversity considerations into agriculture, mining, infrastructure, and urban development; aimed at reducing habitat fragmentation and minimizing ecosystem damage, remains a significant challenge. The current policy framework is outdated and ill-equipped to address emerging land-use pressures and escalating demand.

5.4 Control of Pollution

Botswana's legal framework for pollution control is robust. However, the realization of its full potential is constrained by ongoing financial limitations, technical expertise deficits, and inadequate human resource capacity.

5.5 Control of Invasive Alien Species

Invasive alien species are inflicting heavy damage on Botswana's agriculture and vital ecosystems, such as the Okavango Delta. By exhausting water resources and displacing native vegetation, they undermine food security and local economic stability. To build on the success of isolated eradication programmes, including those implemented in the Kgalagadi and Okavango regions. Botswana urgently needs a robust, overarching legal framework to effectively tackle invasive alien species (IAS) on a national scale.

5.6 Improved Habitat Protection

Botswana has an extensive network of protected areas, including national parks, game reserves, and wildlife management areas, which help conserve key habitats and biodiversity. Botswana's habitat protection policies have been effective in preserving many important ecosystems and supporting biodiversity conservation. However, their impact is constrained by implementation challenges, habitat fragmentation, competing development pressures, and limited protection for habitats outside designated conservation areas. Strengthening enforcement, improving integrated land-use planning, enhancing ecological monitoring, and expanding conservation efforts beyond protected areas are necessary to address these gaps and improve long-term protection.

5.7 Reduction of Over-Exploitation

Botswana is supported by a sound and comprehensive policy and legislative environment designed to reduce over-exploitation, and has realized significant conservation successes, most notably through protected areas, forest reserves, and wildlife management areas. However, ongoing challenges stemming from unlawful resource use, weak enforcement capacity, external market forces, and shifting environmental conditions

highlight the critical importance of strengthening monitoring frameworks, upgrading data systems, fostering greater community participation, and ensuring consistent investment in both conservation initiatives and regulatory enforcement.

5.8 Enhanced Climate Resilience

Botswana has established a policy foundation that supports climate resilience and biodiversity conservation, particularly through protected areas, sustainable resource management, and adaptation planning. Nevertheless, climate change continues to pose significant risks to ecosystems and species. Strengthening habitat restoration, ecological monitoring, cross-sectoral coordination, financing, and landscape connectivity could improve the country's ability to conserve biodiversity under changing climatic conditions.

6. VALUE OF BIODIVERSITY AND ECOSYSTEMS SERVICES IN BOTSWANA

Botswana’s biodiversity and ecosystems are strategic national assets that underpin economic development, social well-being, cultural identity and environmental sustainability. The country’s rangelands, wetlands, savannas, woodlands, wildlife habitats and freshwater systems provide essential ecosystem services that support livestock production, crop and horticultural production, tourism, fisheries, water security, climate regulation, disaster-risk reduction and human health. These benefits include market values, such as livestock production, tourism revenue and natural resource-based enterprises, as well as non-market values, including cultural heritage, traditional knowledge, recreation, spiritual values and the intrinsic value of nature.

Recognizing and accounting for these contributions is essential for evidence-based planning, budgeting and implementation of Botswana’s National Biodiversity Strategy and Action Plan. Botswana’s National Ecosystem Assessment provides an important foundation for strengthening the national knowledge base on biodiversity, ecosystem services and their linkages to people. The assessment synthesises scientific, indigenous and local knowledge to support policy and decision-making, including implementation of the NBSAP and Botswana Vision 2036 (Botswana National Ecosystem Assessment, 2025).

The sections below present selected examples where valuation evidence is available. They demonstrate the contribution of biodiversity and ecosystem services to key sectors of Botswana’s economy and society, while also highlighting the need to address gaps in ecosystem valuation and natural capital accounting.

6.1 Ecosystem services and nature's contribution to people

Biodiversity supports Botswana’s development through a wide range of ecosystem services and nature’s contributions to people. These include provisioning services such as freshwater, food, fisheries, geological resources, fuelwood, medicines, energy, biomaterials and genetic resources. They also include regulating services such as water purification, water regulation, natural hazard control, air quality regulation, erosion control, pollination and climate regulation. Cultural services include cultural diversity, spiritual and religious values, knowledge systems, aesthetics, inspiration, tourism and recreation. Supporting ecological functions include soil formation, photosynthesis, nutrient cycling and the water cycle.

These services are particularly important in Botswana because many rural livelihoods remain closely connected to land, water, wildlife, rangelands, wetlands and veld resources. Ecosystems contribute not only to

national income, but also to broader dimensions of human well-being, including basic materials for a good life, security, health, good social relations and freedom of choice and action (Millennium Ecosystem Assessment, 2005). In this regard, biodiversity supports household resilience, food security, cultural identity, traditional knowledge systems, community cohesion and adaptation to climate variability. Maintaining healthy ecosystems is therefore essential for sustaining both economic development and the well-being of present and future generations in Botswana (Botswana National Ecosystem Assessment, 2025).

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6.3 Agriculture

Agriculture is one of the sectors most directly dependent on biodiversity and ecosystem services. Rangeland productivity, soil fertility, pollination, water availability, genetic diversity and climate regulation all influence agricultural performance. Healthy ecosystems support livestock production, crop production and horticulture by maintaining the ecological processes required for productivity, resilience and long-term sustainability.

Strengthening biodiversity within agricultural landscapes is therefore essential for building climate-resilient and sustainable food systems. By maintaining soil health, protecting pollinator habitats and promoting natural ecosystem functions, Botswana can reduce dependence on costly external inputs, improve resilience to climate shocks and support long term food security. Agro ecological practices, conservation agriculture and sustainable land management are therefore not only biodiversity measures, but also strategic investments in agricultural productivity and rural livelihoods.

6.3.1 Livestock production

Livestock production depends heavily on healthy rangelands. Degraded rangelands reduce forage availability, weaken resilience to drought and may contribute to soil erosion, bush encroachment and declining land productivity. In contrast, well managed rangelands provide important ecological and economic benefits by sustaining livestock production, conserving habitats, supporting carbon storage and strengthening landscape resilience.

Table 8 presents the estimated value of ecosystem services generated by communal grazing areas. The valuation is based on the BW-NEA application of Favretto et al. (2017), which uses an estimated value of BWP 3.65 per hectare and assumes that communal rangelands account for 80% of Botswana's total agroecosystem area, while the remaining 20% supports livestock grazing under commercial ranches (Botswana National Ecosystem Assessment, 2025).

The BW-NEA further notes that Arntzen (1998a) undertook a national-level valuation of communal rangelands and estimated their value between 1980 and 1987 at BWP 3.65 per hectare. This valuation included benefits from beef, goats, sheep, draught power, manure, milk, hunting and gathering (Arntzen, 1998a, as cited in Botswana National Ecosystem Assessment, 2025). These estimates show that rangelands provide multiple benefits beyond livestock production alone and should therefore be treated as a productive ecological asset

Table 8: Valuation of Communal grazing areas

Year	**1990**	**2000**	**2010**	**2020**
Area (KM2)	11,585.17	11,463.10	11,967.17	11,632.80
Communal grazing (BWP)	3,382,869.64	3,347,225.20	3,494,413.64	3,396,777.60
Commercial grazing (BWP)	845,717.41	836,806.30	873,603.41	849,194.40
Total (BWP)	**4,228,587.05**	**4,184,031.50**	**4,368,017.05**	**4,245,972.00**

Data source: Favretto et al. (2017), as cited in Botswana National Ecosystem Assessment (2025)

6.3.2 Crop Production

Crop production relies on ecosystem services that sustain soil fertility, water availability, pollination, pest regulation and genetic diversity. Pollinators, soil organisms and natural pest control processes contribute directly to agricultural productivity, while wetlands, riparian areas and healthy catchments support the water flows needed for production.

The economic importance of these ecosystem contributions is reflected in the 2015 market value of grain crops, which was estimated at nearly BWP 190 million. Pulses, particularly beans, accounted for the largest share at BWP 85 million, representing about 45% of total crop value. Sorghum followed at 34%, while maize and sunflower contributed 4% and 1.5%, respectively. These figures demonstrate the strong link between ecosystem health, crop production and Botswana's food security objectives.

Table 9: Valuation of Grain Crops; 2015(Source, 2018b)

Crop	**Quantity (tonnes)**	**Value (BWP)**
Sorghum	35,508	60,363,600.00
Maize	3,792	6,430,284.00
Millet	555	1,226,550.00
Pulses	7,187	85,525,300.00
Sunflower	1,388	3,033,494.82
Groundnuts	151	705,925.00

Fodder	7,474	23,473,885.64
Total	**56,055**	**189,759,039.40**

Source: Botswana (2018)

6.3.3 Horticulture Production

Horticulture is one of the most economically important components of Botswana's arable agroecosystem. It depends strongly on ecosystem services, particularly soil fertility, water availability, pollination, pest regulation and genetic diversity. These ecosystem functions are fundamental to the productivity, stability and long-term sustainability of horticultural systems.

As shown in Table 10, the total market value of horticultural production in 2022 was estimated at approximately BWP 649 million. A diverse range of vegetable and fruit crops, supports the sector with key vegetables including potatoes, cabbage, tomatoes, onions, rape or spinach and green peppers, while fruit production is mainly dominated by citrus. Potatoes were the highest-value horticultural crop, contributing about BWP 254 million, followed by cabbage at BWP 126 million and tomatoes at BWP 93 million.

Table 10: Valuation of Crops- 2022

Crop Quantity (Tonnes) Value (BWP)	**Crop Quantity (Tonnes) Value (BWP)**	**Crop Quantity (Tonnes) Value (BWP)**
Cabbage	9,183.52	126,548,884.93
Tomatoes	6,089.95	93,541,616.64
Potatoes	24,718.03	254,348,528.70
Onion	7,570.49	72,071,083.84
Rape/spinach	1,654.96	17,112,296.74
Green pepper	2,430.82	44,897,171.52
Citrus	3,017	19,731,180.00
Total	**56,093.61**	**649,120,832.81**

Source: Ministry of Agriculture, Horticulture Section (unpublished) and Statistics Botswana (2024)

The table highlights the substantial economic contribution of horticulture to Botswana's agricultural sector. With a total production of over 56,000 tonnes valued at BWP 649 million, vegetables such as potatoes, cabbage, and tomatoes dominate both volume and value. These figures underscore that healthy ecosystems are critical not only for biodiversity but also for food supply, income generation, and rural livelihoods. Protecting ecosystem services is therefore essential for sustaining agricultural productivity and achieving Botswana's food security, climate resilience, and biodiversity objectives (Botswana National Ecosystem Assessment, 2025).

6.3.4 Tourism

Tourism is a critical biodiversity-dependent economic sector in Botswana and demonstrates the direct contribution of natural capital to national development and livelihoods. As a largely nature-based industry, tourism depends on the country's globally significant biodiversity, including wildlife populations, wetlands, protected areas and iconic landscapes.

In 2023, tourism accounted for over 12% of Botswana's Gross Domestic Product, contributing approximately BWP 32.8 billion (Statistics Botswana, 2023). This contribution reflects the increasing economic value of biodiversity and ecosystem services as fundamental drivers of tourism demand. The sector is anticipated to expand further, with the tourism sector real value-added growth rate projected to rise from 4.4% in 2024 to 6.7% by 2030.

Furthermore, continued tourism growth emphasizes the vital role of biodiversity conservation in economic diversification, employment creation, community livelihoods and foreign exchange earnings. Protecting and sustainably managing Botswana's ecosystems is not only an environmental necessity, but also a strategic economic investment in the resilience and long-term competitiveness of the tourism sector.

6.4 Wetlands, Water Security and Fisheries

Aquatic and wetland ecosystems are among Botswana's most valuable ecological assets. They regulate water flows, attenuate floods, recharge groundwater, sustain fisheries, support biodiversity and provide cultural, tourism and livelihood benefits. Major systems such as the Okavango Delta and Makgadikgadi wetlands perform functions that extend beyond their immediate boundaries by supporting wildlife movements, grazing systems, tourism activities and community resource use.

These ecosystems are also central to food security and local economies. Fisheries and aquatic resources provide income and nutrition, particularly for communities living in wetland and riverine areas. Their sustainable management is therefore essential not only for biodiversity conservation, but also for strengthening livelihoods, resilience and socio-economic development. This is consistent with the Kunming-Montreal Global Biodiversity Framework, which recognises ecosystem functions and services, including water regulation and protection from natural hazards, as critical for both people and nature (CBD, 2022).

6.4.1 Makgadikgadi and Okavango wetland Ecosystems valuations

The economic valuation undertaken for the Makgadikgadi Framework Management Plan (MFMP) demonstrated that the Makgadikgadi wetland system is not only an ecological asset, but also a significant contributor to Botswana's economy. (Setlhogile et al. 2011) estimated selected direct and indirect use values of the system at approximately BWP 510 million, or USD 38.25 million. Mining accounted for the largest share of direct use values at 55%, while carbon sequestration dominated indirect use values, contributing 85%. These findings highlight the importance of integrating wetland ecosystem services into national planning, investment decisions and conservation priorities.

Using the Total Economic Value framework, (Turpie et al. 2006) examined four categories of value to provide a more comprehensive assessment of the Okavango Delta's direct and indirect contributions to livelihoods, economic development and ecosystem functioning. The study found that tourism, including both consumptive and non-consumptive uses, contributed BWP 401 million, or USD 30.08 million, to national GDP. Direct consumptive uses of natural resources by local households were valued at BWP 2.2 million, or USD 106,500, annually. Beyond these direct economic benefits, the report emphasized the Delta's indirect use values, including groundwater recharge, carbon sequestration, water purification, wildlife refuge and opportunities for scientific research and education.

Together, these valuation studies show that wetlands provide benefits that extend far beyond visible or

immediate uses. Their contribution to water security, climate regulation, tourism, fisheries, livelihoods and cultural identity makes them central to Botswana's sustainable development agenda.

6.5 Non-Timber Forest Products

Biodiversity provides essential provisioning services, including food, household energy, medicinal resources and raw materials that support rural livelihoods. In Botswana, many communities depend on Non-Timber Forest Products (NTFP's) also referred to as forest and range resources, for subsistence use, income generation and cultural practices. These resources include traditional medicines, cosmetic oils, natural dyes, edible products, fuelwood and construction materials.

A Centre for Applied Research study estimated the net value of key forest and range resources, including firewood and thatching grass, at approximately BWP 12.8 million each, while phane (mopane worms) were valued at about BWP 11.7 million. Additional resources, including wood products, palm leaves, grapple plant, morula, morama bean and mmilo (wild medlar), recorded lower monetary values but remain important for household use, income generation, traditional medicine, food security and rural livelihoods (Arntzen et al., 2017; Kelebang et al., 2018).

The value of Non-Timber Forest Products is therefore not limited to their market price. These resources support household resilience, cultural practices, local enterprises and traditional knowledge systems. Their sustainable management can contribute to biodiversity conservation while also strengthening rural livelihoods and community-based natural resource management

6.6 Valuation Gaps and Recommendation

Although available valuation studies demonstrate the importance of biodiversity and ecosystem services to Botswana's economy and livelihoods, the Botswana National Ecosystem Assessment highlights important gaps. Valuation evidence remains uneven across ecosystems and sectors. Wetlands, tourism, rangelands, crop production, horticulture and selected forest and range resources are relatively better documented, while desert ecosystems, hill ecosystems, grassland and shrubland ecosystems, urban green and blue spaces, cultural services, regulating services and supporting ecological functions remain less valued. Many existing studies are also dated, site-specific or focused mainly on market-based values, leaving important non-market services such as water regulation, flood attenuation, groundwater recharge, carbon storage, pollination, soil formation, cultural heritage, traditional knowledge and community resilience insufficiently reflected in planning, budgeting and land-use decision-making. Desert and hill ecosystems also remain under-represented in policy coverage and valuation evidence, despite their ecological, cultural, spiritual and landscape importance.

To address these gaps and support effective NBSAP implementation, Botswana should strengthen ecosystem valuation and natural capital accounting. This includes updating existing valuation studies, expanding valuation to under-studied ecosystems, especially desert and hill ecosystems, and integrating ecosystem-service values into national development planning, fiscal systems, sector strategies, land-use decisions, biodiversity financing, monitoring and reporting. Valuation evidence should also guide targeted management interventions, including ecosystem restoration, protection of culturally significant landscapes, sustainable land management, community-based natural resource management and monitoring of ecosystem condition. This should be advanced through a whole-of-government and whole-of-society approach involving government

departments, Statistics Botswana, research institutions, local authorities, communities, civil society and the private sector.

Review of the 2016 NBSAP: Lessons Learned and Strategic Implications

Based on stakeholder consultations conducted across major settlements, the following lessons have been identified to inform institutional arrangements, monitoring and evaluation (M&E), communications, and coordination for the forthcoming NBSAP.

- **Limited Awareness and Rollout**: Insufficient awareness of the NBSAP among implementers severely constrained implementation. This lack of awareness led to inaction, missed opportunities for synergy, and a perception that the NBSAP was a peripheral, rather than central, government priority.

  Lesson: A passive dissemination strategy (e.g., publishing the document online) is wholly inadequate. This NBSAP must be underpinned by a formal, costed stakeholder engagement plan that includes targeted sensitization workshops, simplified communication materials (in English and Setswana), and a rollout schedule with clear milestones. Awareness must be treated as a continuous, high-visibility activity, not a one-time launch event, to embed biodiversity within the national consciousness and institutional culture.

- **Inadequate Community and Private Sector Involvement**: Previous NBSAPs lacked adequate engagement with communities (including Dikgosi), political leadership, and the private sector. The private sector,particularly in tourism, mining, agriculture, and finance, was viewed only as a potential source of impact and not as a partner in resource mobilisation and sustainable use.

  Lesson: NBSAP IV must operationalize a whole-of-government and whole-of-society approach, consistent with the KM-GBF. This demands formal partnership agreements, private sector biodiversity engagements, enhancements to community-based natural resource management (CBNRM) that genuinely empower community leadership (Dikgosi), and mechanisms for political champions to advocate for biodiversity within cabinet and local councils. Biodiversity must be repositioned as a shared national asset with shared responsibility.

- **Inadequate Monitoring and Evaluation (M&E)**: There was no systematic tracking of progress toward targets, no periodic collection of baseline data, and no mechanism for identifying or implementing corrective actions. Designated M&E personnel were absent within the implementing structures, and reporting was often ad hoc.

  Lesson: A fit-for-purpose M&E framework must be co-developed with statisticians, biodiversity technical experts, and planners before implementation begins. This framework must include: (a) a limited set of SMART (Specific, Measurable, Achievable, Relevant, Time-bound) indicators linked to the KMGBF; (b) baseline data for each indicator; (c) clear data collection protocols and timelines; (d) assignment of M&E responsibilities to named personnel; and (e) a biannual review cycle for corrective action. A dedicated M&E unit or officer is non-negotiable; accountability must be institutionalized, not aspirational.

- **Ineffective Coordination** – Coordination of previous NBSAPs was insufficient. The Multilateral Environmental Agreements (MEA) Coordination Unit, nominally responsible for cross-sectoral alignment, was not fully operational and lacked both staffing and authority. Lead implementers in various departments received no technical or strategic support, resulting in isolated, uncoordinated activities that did not aggregate toward national targets. The CBD Focal Point (within the Department

of Environmental Protection) lacked the leverage to compel action from other ministries and departments.

Lesson: The CBD Focal Point must be empowered as the central driver of coordination, with explicit senior-level backing and political authority. The MEA Coordination Unit must be structurally strengthened through dedicated budget lines, trained personnel, and a clear mandate to convene, track, and report on inter-departmental activities. Coordination must be proactive (e.g., quarterly joint planning meetings) rather than reactive (e.g., annual reporting requests), ensuring that biodiversity is mainstreamed across all sectors as a matter of strategic national priority.

- **Unclear Responsibility and Institutional Misalignment** – A persistent structural flaw was the assignment of responsibilities at the ministerial level rather than at the departmental or divisional level. This ambiguity allowed responsibilities to fall into the gap between policy and action. Moreover, several MEAs and protocols were housed in departments without any mandate alignment (e.g., the Cartagena Protocol on Biosafety located outside the Department of Crop Production). This misalignment guaranteed that technical staff lacked both the expertise and the incentive to implement.

  Lesson: Responsibilities in this NBSAP must be assigned to specific departments, units, or even named positions i.e. moving from broad policy statements to precise operational accountability. A full-time NBSAP implementation team, not a part-time committee is essential to sustain resource mobilisation, communication, awareness raising, reporting, and cross-departmental support. Furthermore, all MEAs and protocols must be administratively re-housed in departments whose core mandates naturally align with the agreement's objectives (e.g., Cartagena Protocol under the Department of Crop Production). Institutional alignment is a prerequisite for effective delivery.

- **Activities Not Aligned with Implementers' Mandates** – Most activities in the 2016 NBSAP were implemented by default, meaning they were only carried out if they happened to coincide with an implementer's existing work plan. Strategic biodiversity actions that required new effort, new skills, or inter-departmental collaboration were simply ignored. This created a situation where the NBSAP described an ideal program of work that bore little relation to what departments were actually funded and staffed to do.

  Lesson: Activity design must begin with a mandate audit. Before an activity is included in this NBSAP, its lead implementer must confirm in writing that the activity aligns with their departmental mandate and existing core functions. Where strategic activities fall outside mandates, a formal mechanism for mandate expansion (e.g., amended terms of reference, new performance agreements) must be put in place. Implementation should not require "additional effort or awareness" as a discretionary input; it must be a line item in Job Descriptions (JEDs), Performance Development Plans (PDPs), and Annual Performance Plans (APPs), embedding biodiversity into the very fabric of public service delivery.

- **No Dedicated Funding** – Underpinning all the above deficiencies was the absence of dedicated, ring-fenced funding for NBSAP implementation. Stakeholders consistently cited inadequate financial and human capacity as the single most decisive constraint. Without a budget line, biodiversity activities competed with and lost to other priorities. Short-term, project-based funding created cycles of activity

followed by collapse. Stakeholders could not plan, hire M&E staff, conduct outreach, or maintain coordination mechanisms because no recurrent funding existed for these functions.

Lesson: This NBSAP must be developed in parallel with a resource mobilisation strategy that identifies domestic and international funding sources (including national treasury allocations, debt-for-nature swaps, biodiversity offsets, private sector contributions, and the Global Environment Facility – GEF). A dedicated NBSAP budget line must be approved at the highest level for all ministries and departments. Costing of all activities is mandatory, and implementation milestones should be directly linked to disbursement tranches to ensure performance-based accountability. Botswana cannot meet its CBD obligations through unfunded mandates; financial sustainability must be secured as a foundational pillar of this strategy.

7. Preconditions for Success: Building an Enabling Environment for NBSAP Implementation

Achieving the goals of the National Biodiversity Strategy and Action Plan (NBSAP) requires far more than aspirational targets and policy documents; it demands a fundamentally enabling environment in which conservation can flourish. Such an environment is built upon a set of preconditions that must be firmly in place before implementation can succeed. These preconditions range from foundational knowledge systems and economic valuation to adequate funding, appropriate incentive structures, capacity building, technological support, robust institutions, and strategic synergies with existing frameworks. Without these enabling conditions, even the most well designed NBSAP risks fragmentation, underfunding, and failure. The following subsections outline the critical preconditions necessary for successful NBSAP implementation in Botswana, recognizing that each constitutes a non-negotiable pillar supporting the country's ability to meet its commitments under the Global Biodiversity Framework.

7.1 Strengthening Knowledge, Monitoring, and Adaptive Management for Biodiversity Conservation

Biodiversity must be understood well in order to be effectively managed. Without reliable, accessible, and actionable knowledge of what exists, where it occurs, and how it is changing, the NBSAP cannot set meaningful targets, allocate resources efficiently, or measure success with confidence. A primary precondition for success is therefore the timely updating of a national stocktake that identifies threatened species, threatened habitats, and threatening processes, many of which remain under-documented outside the northern regions of the country.

Beyond establishing this baseline, Botswana must continuously improve its understanding of species diversity, population dynamics, and emerging threats through adaptive management and systematic monitoring. Adaptive management, by its very nature, requires a closed feedback loop that enables learning and responsive decision-making. Clear roles and responsibilities for adaptive management and implementation monitoring must be assigned across key institutions including the Department of Wildlife and National Parks (DWNP), the Department of Forestry and Range Resources (DFRR), universities, and community trusts, in order to address current overlaps and gaps in institutional mandates.

Monitoring data must be analysed promptly and used to adjust on-ground actions in real time; however, current feedback loops are often weak or delayed, undermining the effectiveness of conservation interventions.

Furthermore, reporting must shift from administrative district boundaries to ecoregions in order to capture ecological processes more accurately such as wildlife migrations and fire regimes that transcend administrative lines and are critical to biodiversity management.

7.2 Comprehensive Economic Valuation as a Foundation for NBSAP Success

A fundamental precondition for successful NBSAP implementation is a comprehensive economic valuation of biodiversity. Although Botswana relies heavily on nature-based tourism contributing approximately 8–10% of GDP and agriculture, which supports over 70% of communities, the economic value of biodiversity remains systematically under-recognised in national and district-level planning. Most valuation studies have focused on northern regions such as the Okavango Delta and Chobe, emphasising direct use values like tourism revenues and subsistence harvesting. However, to meet NBSAP targets aligned with GBF Target 14, which requires integrating biodiversity into policies, planning, and national accounts, valuation efforts must urgently expand to include drylands, savanna woodlands, and ecosystem services beyond direct use. These encompass indirect use values (e.g., water purification, climate regulation), non-use values (e.g., cultural, bequest, and existence values), and option values (e.g., future bioprospecting). Without such expanded valuations, Botswana cannot properly mainstream biodiversity into sectoral planning which is a critical precondition for NBSAP success.

Furthermore, data deficiencies undermine multiple NBSAP goals. Veld products such as medicinal plants and wild fruits lack systematic valuation despite their importance for rural livelihoods, while subsistence hunting and community-based natural resource management (CBNRM) suffer from inconsistent reporting, as evidenced by post-2022 hunting quotas and gaps in Community-Based Organisation financial records. These deficiencies directly impede progress toward GBF Targets 5 and 9 on sustainable use and benefit-sharing. For NBSAP actions aimed at ecosystem restoration (GBF Target 11), the option and indirect use values of drylands and woodlands have never been estimated, rendering cost-benefit analyses for restoration unreliable. Finally, existence and bequest values for Botswana's flagship species including elephants, lions, cheetahs, zebras, and giraffes, remain unquantified outside protected areas; this constitutes a precondition failure that prevents the NBSAP from reflecting true biodiversity values in land-use and development decisions. Addressing these valuation gaps across all biomes is therefore not merely advisable but constitutes a non-negotiable precondition for achieving Botswana's NBSAP and fulfilling its commitments under the Global Biodiversity Framework.

7.3 Funding

For Botswana's National Biodiversity Strategy and Action Plan (NBSAP) to succeed under the GBF adequate, predictable and transparent funding is essential. However, Botswana faces significant fiscal constraints, with the national budget projecting substantial deficits in the near term as government revenue declines relative to GDP. This fiscal tightening means that competing national priorities health, education, infrastructure and debt servicing will likely receive precedence over environmental expenditures unless biodiversity is explicitly mainstreamed into budget processes. A critical first step is clarifying current government biodiversity spending, which remains fragmented and unclear across the Department of Wildlife and National Parks (DWNP), the Department of Forestry and Range Resources (DFRR), and other relevant ministries. A baseline expenditure review and biodiversity expenditure tracking are immediate priorities. Beyond government resources, private sector spending must be documented and mobilised through the Botswana Wildlife Management Association (BWMA), the Hospitality and Tourism Association of Botswana (HATAB) and Business Botswana.

7.4 Incentives/disincentives

The current fragmented system of incentives and disincentives must be urgently reformed. At present, policies, subsidies, and market signals often work at cross-purposes: activities that degrade biodiversity such as certain agricultural subsidies or unplanned infrastructure, receive implicit or explicit support, while conservation actions frequently lack financial reward. A coherent incentive framework is therefore a non-negotiable precondition for NBSAP success. The following are required:

- ***Payment for Ecosystem Services (PES) assessment*** **-** A precondition for NBSAP success is the undertaking of a comprehensive PES assessment to identify which ecosystem services in Botswana are viable for market-based mechanisms. PES schemes directly reward land managers or communities for maintaining ecosystem services that benefit others such as water catchment protection, carbon sequestration, pollination, or wildlife habitat provision. In Botswana, potential examples of PES opportunities include upstream watershed protection in the Okavango Delta benefiting downstream water users, and rangeland management for carbon storage benefiting the climate.
- ***Green Bond framework*** **-** To succeed, Botswana requires a robust system for issuing green bonds. Green bonds are financial instruments that enable capital raising and investment in new and existing projects with verifiable environmental benefits. Examples of eligible projects include protecting wildlife areas, restoring degraded habitats, supporting sustainable farming practices, and developing community conservation facilities. Unlike grants or donations, green bonds must be repaid with interest, similar to conventional bank loans. This repayment obligation means that any project financed through a green bond must generate sufficient income over time to repay investors. Potential income sources could include park entry fees, revenue from the sale of carbon credits, or tourism concession payments.

  A well-designed green bond framework would clearly define the types of projects that qualify for funding, establish reporting requirements for environmental outcomes, and set out verification mechanisms to ensure that funds are genuinely utilised for biodiversity conservation. To instil investor confidence and enhance market credibility, the framework should be aligned with internationally recognised standards such as the Green Bond Principles or the Climate Bonds Standard

- ***Carbon Credits framework*** **-** A robust carbon credits framework must be established and aligned with international standards, such as Verra and the Gold Standard. Botswana possesses significant potential for generating carbon credits through avoided deforestation, improved fire management (specifically reducing late-season fires), rangeland restoration, and soil carbon sequestration. A critical precondition for NBSAP success is the development of national carbon accounting methodologies, a clear legal framework for carbon rights, clarifying ownership between government, communities, and private landholders, and benefit-sharing mechanisms that channel revenues toward conservation and community development

7.5 Capacity building

The full and effective participation of all key stakeholders identified under the action plan is contingent upon their being adequately equipped and capacitated. Capacity building is a foundational prerequisite, as it equips stakeholders with the technical expertise required for successful implementation. To this end, institutional

needs assessments must be undertaken to guide the formulation of a targeted capacity-strengthening strategy. For community members and traditional leadership (Kgosi), capacity-building efforts should prioritise ecosystem-based approaches, conservation agriculture, and nature-based solutions as core thematic areas.

7.6 Mainstream biodiversity into all planning levels using (EbA) and (NbS)

Mainstreaming must be institutionalized across all tiers of planning, nationally (Vision 2036, National Development Plans), at the district level (District Development Plans), and locally (land use plans, community natural resource management plans). Ecosystem-based Adaptation (EbA) and Nature-based Solutions (NbS) serve as critical vehicles for this mainstreaming effort. EbA leverages biodiversity and ecosystem services to strengthen human adaptation to climate change for example, through restoring riparian vegetation to buffer flood impacts, maintaining wetlands to enhance water storage during drought periods, and conserving forests to regulate local rainfall patterns. NbS encompass a broader suite of actions that protect, sustainably manage, and restore natural ecosystems to address multifaceted societal challenges, including climate change, food security, water security, and disaster risk reduction. Illustrative examples include restoring degraded rangelands to improve livestock forage and carbon sequestration, maintaining floodplains to buffer drought effects and support fisheries, and conserving elephant corridors to mitigate human-wildlife conflict.

7.7 Use of Appropriate Technologies

Appropriate technologies are tools that are cost-effective, locally maintainable and matched to users' skills and resources. Without them, monitoring is sparse, data is delayed, human-wildlife conflicts go unreported, fires burn uncontrolled and adaptive management fails. Key technologies include camera traps, GPS collars and drones for wildlife monitoring, mobile data collection apps (e.g. SMART) and GIS for data management, early warning systems and predator-proof enclosures for human-wildlife conflict management and satellite fire detection for fire management. To ensure technologies are appropriate, they must be affordable, durable under Botswana's harsh conditions, repairable locally, usable in Setswana, solar-powered where needed and owned by communities.

7.8 Strengthening institutional arrangements and collaboration

Robust institutional arrangements and effective collaboration are essential. Institutional arrangements define the policies, systems and processes that organizations use to legislate, plan and manage their activities efficiently and to coordinate effectively with others in order to fulfill their mandate. Without clear roles, responsibilities, and coordination mechanisms, NBSAP implementation will be fragmented, duplicative and unaccountable. Biodiversity conservation in Botswana involves a wide range of actors including government departments, parastatals, CBOs, VDCs, NGOs, community leadership (Dikgosi), private sector (tourism, mining, agriculture, manufacturing), academic & research institutions and civil society. Each has different mandates, capacities and interests. Without strong institutional arrangements conflicts arise, responsibilities are disputed, information & data is not shared, and resources are wasted. Conversely, clear arrangements enable efficient decision-making, coordinated action, accountability and adaptive management.

7.9 Synergies with Existing frameworks

A fundamental precondition for NBSAP success is deliberate alignment with existing national, regional and international frameworks. Without synergies, the NBSAP will compete with other priorities, face contradictory mandates and fail to integrate biodiversity into the sectors driving land-use change.

Key frameworks requiring alignment include:

- National Development Plans (Vision 2036, National Development Plans) to secure budget allocations;
- Climate Change frameworks (National Climate Change Strategy, NDCs) to integrate Ecosystem-based Adaptation and Nature-based Solutions;
- Land use and Spatial planning frameworks (Tribal Land Act, district plans) to protect wildlife corridors and habitats;
- Agricultural and livestock policies to reform harmful subsidies and promote conservation agriculture; water resources frameworks (National Water Master Plan) to protect environmental flows and wetlands;
- Energy and infrastructure frameworks to require biodiversity impact assessments and offsets;
- Tourism frameworks to link revenues to conservation expenditures;
- Multilateral Environmental Agreements (CBD, CITES, Ramsar, CMS, UNFCCC, UNCCD) to coordinate reporting and implementation;
- And regional frameworks (SADC, OKACOM, LIMCOM, KAZA TFCAs) to enable transboundary conservation.

8. FINANCING FOR BIODIVERSITY CONSERVATION AND MANAGEMENT IN BOTSWANA

The Government of Botswana has historically been the primary financier of biodiversity management in the country, with periodic support from international development agencies, the private sector, and civil society organisations. Key strategic instruments guiding resource mobilisation include Vision, the National Development Plans (NDPs), the National Biodiversity Strategy and Action Plan (NBSAP), the MFMP, the ODMP, management plans for protected areas, the Annual Recurrent Budget, and the National Action Plan to Combat Desertification and Land Degradation.

Government funding is channelled through annual budgetary processes. The Ministry of Environment and Tourism (MET) submits its ministerial annual recurrent and development budgets based on departmental submissions. MET comprises seven departments: the Department of Environmental Protection (DEP), the Department of Meteorological Services (DMS), the Department of National Museum and Monuments (DNMM), the Department of Tourism (DoT), the Department of Wildlife and National Parks (DWNP), the Department of Forestry and Range Resources (DFRR), and the Department of Corporate Services (DCS). Each department prepares its budget for submission to the Ministry of Finance. MET's total annual budget for the 2024/25 financial year is approximately BWP 1.5 billion (MoF, 2024).

Despite the fact that biodiversity underpins Botswana's economy, MET remains one of the lowest-funded ministries in terms of recurrent budgets, receiving only approximately 1.5% of the national budget. According to the Botswana Financial Sustainability (BFS) report, government expenditure on biodiversity between the 2012/13 and 2018/19 financial years was estimated at BWP 5.26 billion (USD 505 million), averaging approximately BWP 750 million annually. Other key ministries involved in biodiversity conservation include the former Ministry of Water and Human Settlement (now the Ministry of Water and Sanitation) and the

former Ministry of Lands and Agriculture (now the Ministry of Lands and Agriculture). According to the Biodiversity Finance Policy (BFP) report, the share of biodiversity expenditure relative to total budgets varies significantly across these ministries. Tables 11–13 present their biodiversity budgets from 2016 to 2025.

Table 11: MET Budgets 2016 - 2025

KEY MINISTRIES	TOTAL BIODIVERSITY BUDGET (BWP) Millions									
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	TOTAL BUDGET
Ministry of Environment and Tourism	615.44 million	665.8 million	P756.1 million	921.50 million	1.043 billion	918.4 million	1.07 billion	1.13 billion	P1.5 billion	3,881.983 billion

Source: MoF,2024

Table 12: MILA Budget 2016-2025

KEY MINISTRIES	TOTAL BIODIVERSITY BUDGET (BWP) Millions									
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	TOTAL BUDGET
Ministry of Lands and Agriculture	39,24 million	39.6 million	48.24 million	48.24 million	50.04 million	50.04 million	51.96 million	54.72 million	87.84 million	**469.92 million**

Note: The BIOFIN project stated that 3.6% of the total Ministry budget is earmarked for Biodiversity support

Table 13: MWS Budget 2016

KEY MINISTRIES	TOTAL BIODIVERSITY BUDGET (BWP) Millions									
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	TOTAL BUDGET
Ministry of Water and Sanitation	61.60 million	64.64 million	63.28 million	65.52 million	68.32 million	71.68 million	73.36 million	97.44 million	98.00 million	**663.84 million**

Note: The BIOFIN project stated that 5.6% of the total Ministry budget is earmarked for Biodiversity support

8.1 Overview of Botswana's Local Environmental Funds

Botswana has demonstrated commendable commitment to resource mobilization including from non-governmental sources through the establishment of dedicated biodiversity-related funds. Three principal funds stand at the forefront of this effort: The National Environmental Fund (NEF), the Conservation Trust Fund (CTF), and the Tourism Development Fund (TDF). Each is examined in turn below;

8.2 National Environmental Fund (NEF)

The National Environmental Fund (NEF) was established under the National Environmental Fund Order of 2010, pursuant to the Finance and Audit Act (Cap. 54.01). Its primary objective is to support sustainable development and community-based natural resource management (CBNRM) across the country. Between 2016 and 2025, the NEF has awarded grants through multiple calls for proposals, funding a diverse portfolio of projects addressing human-wildlife conflict, habitat restoration, protection of the urban environment, climate change mitigation and adaptation, waste management and pollution control, environmental research and monitoring, and capacity building in environmental management and sustainable development. As of 2025, the NEF has supported projects totalling **BWP 46,596,635.78** across Botswana.

8.3 Conservation Trust Fund (CTF)

Established under the Conservation Trust Fund Order of 1999, the CTF was created exclusively to finance elephant conservation and community-based projects for communities living adjacent to elephant ranges. The fund promotes human-wildlife coexistence, with a particular focus on elephants. Revenue is generated from ivory sales in accordance with CITES Conference of the Parties Decisions 10.1 and 10.2, as well as from interest income. In accordance with the Order, 70% of revenue is allocated to elephant conservation and 30% to community-based projects. Eligible recipients include organisations involved in elephant conservation and community development near elephant ranges. Between 2016 and 2025, the CTF has supported projects amounting to **BWP 62,417,327.85**.

8.4 Tourism Development Fund (TDF)

To complement the above funding sources, Botswana has undertaken Protected Area Fee Reforms in collaboration with the Biodiversity Finance Initiative (BIOFIN). Through this initiative, Botswana revised its park entrance fees, resulting in an unprecedented revenue increase of **BWP 120,511,000** between 2022 and 2024. These locally generated revenues are actively reinvested into the protected area system, infrastructure, and local community support.

8.5 Private Sector Engagement in Biodiversity Finance

The private sector commands a significant share of Botswana's economy, contributing approximately 39% to national GDP (The World Bank, undated). Private sector funding for biodiversity occurs largely through corporate social responsibility (CSR) initiatives and viable economic operations. Although no formal frameworks currently exist to mandate or incentivise private sector investment in biodiversity, several key companies are actively engaged in conservation efforts.

Debswana stands out as a leading entity in this regard, demonstrating a strong commitment to biodiversity conservation and sustainable practices. Notably, one of its biodiversity targets is to conserve six hectares of land for every hectare mined (Mmegi, 2025). Beyond this, Debswana actively fosters community partnerships and has set an ambitious goal to achieve net-zero greenhouse gas (GHG) emissions through a transition to green energy.

Wilderness Safaris Botswana has also made significant strides, having established a dedicated Conservation Team responsible for facilitating biodiversity protection and conservation projects, including the Botswana Rhino Reintroduction Project.

Financial institutions are increasingly participating in biodiversity conservation, particularly in the green

energy space. The National Development Bank (NDB), though state-owned, extends grants to horticulture farmers for renewable energy through the IKI initiative. Similarly, First National Bank (FNB) funds the development of green spaces in and around Gaborone. Significant opportunities exist to optimise and scale up private sector funding for biodiversity initiatives, including those aimed at GHG emission reductions. Notably, financial institutions can mobilise substantial resources through innovative instruments such as green bonds. In 2023, Absa Bank Botswana successfully launched a BWP 2 billion note programme on the Botswana Stock Exchange to fund biodiversity and social projects in the country; a promising model for future private sector engagement.

8.6 Civil Society Funding

Civil society organizations (CSOs) operate outside government structures to provide support, advocacy, and capacity building for developmental and societal issues. Given the importance of biodiversity to community livelihoods, many NGOs are engaged in funding and implementing environmental initiatives. Prominent biodiversity-focused NGOs in Botswana include the Kalahari Conservation Society, Khama Rhino Sanctuary, Forestry Conservation Botswana, Somarelang Tikologo Trust, Birdlife Botswana, Elephants Without Borders, and Cheetah Conservation Botswana, among others. According to UNDP (2016), major NGO expenditure on biodiversity in the 2018/19 financial year was approximately BWP 36 million (Table 14).

Table 14: Biodiversity Expenditure of NGO between 2016/17 and 2018/2019

NGO	BWP (PULA)				Average year on year growth in total Biodiversity expenditure FY 2016/17-FY
	FY 2016/17	FY 2017/18	FY 2018/19	GRAND TOTAL (2016/17-2018/19)	
Mmokolodi Wildlife Foundation	10 046 337	10 329 137	10 670 854	69 697 984	2.3%
Forest Conservation Botswana	7283 148	10 022 589	10 353 131	46 468 033	14.2%
Predator Conservation Trust	4750 650	4 750 650	4 907 815	33 622 855	0.7%
Birdlife Botswana	3412 362	4 352 737	4 496 7738	24 702 330	4.0%
Cheetah Conservation Botswana	2742 669	2 819 874	2 913 163	18 572 330	2.8%
Kalahari Conservation Society	2532 299	2 602 359	2 688 452	17 176 962	2.9%
All NGOs	30 767 465	34 876 346	36 030 153	210 240 493	4.5%

Source: Biodiversity Finance Expenditure report, 2019

Between 2016 and 2019, NGO biodiversity expenditure in Botswana showed steady growth, totalling hundreds of millions of Pula. Civil society funding is heavily dependent on international grants (e.g., UNDP, UNEP, GEF, World Bank), with smaller contributions from the private sector (e.g., Debswana, Soda Ash, Sandfire) and government. This sector has been vital in implementing the National Biodiversity Strategy and Action Plan. Therefore, optimizing and strengthening NGO contributions is essential for enhancing national biodiversity conservation and promoting sustainable consumption patterns.

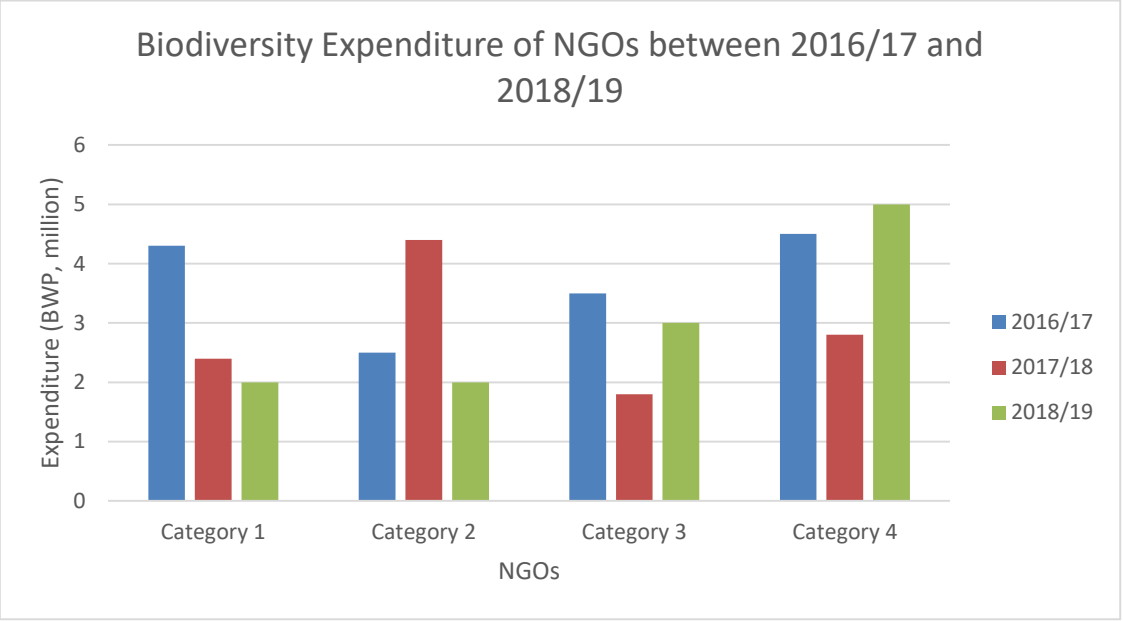


Figure 10: Biodiversity Expenditure of NGOs between 2016/17 and 2018/19

9. External Donor Funding (2016–2025)

Between 2016 and 2025, Botswana's biodiversity conservation funding has faced an estimated critical financing gap of approximately BWP 833 million, equivalent to an average annual gap of BWP 83 million, required to fully implement the NBSAP. External funding is therefore indispensable to meeting national biodiversity targets and fulfilling Botswana's commitments under the Global Biodiversity Framework. The main external donors and their contributions are outlined below.

9.1 Global Environment Facility (GEF)

Between 2016 and 2025, the GEF funded multiple major biodiversity and ecosystem conservation projects in Botswana, focusing on landscape restoration, community-led conservation, and protected area management. These initiatives were often implemented in partnership with the UNDP and local organisations. Key projects include:

(i) **Mainstreaming Biodiversity into the Botswana Financial Sector** – A project integrating biodiversity considerations into national financial policies and investments, supported by BWP 13,386,978.66 (including government co-financing). Executing agencies (MET and UNDP) oversee the deployment of funds to establish a green taxonomy, develop nature-risk guidance, and redirect financial flows toward nature-positive investments.

(ii) **GEF Small Grants Programme (SGP)**: Coordinated locally by UNDP, this ongoing

programme provides grants of up to USD 50,000 directly to NGOs and community-based organisations, targeting the Okavango Delta Panhandle, Bobirwa area, and Makgadikgadi Wetland System. Between 2016 and 2025, total funding of BWP 32,296,851.60 has supported projects across Botswana. This amount includes BWP 5,028,438.35 for COMPACT Grants for the Okavango Delta, managed by UNDP-SGP and UNESCO, which empower indigenous peoples and local communities in managing the Okavango Delta UNESCO World Heritage site.

9.2 International Climate Initiative (IKI)

Between 2016 and 2025, IKI committed approximately **BWP 19,072,745.70** to climate, land restoration, and biodiversity projects in Botswana, including:

(i) **Green Energy Transition for Sustainable Agriculture (GETSA)**: A grant managed by the National Development Bank (NDB) of Botswana, with an IKI contribution of **BWP 12,309,360.70**, enabling smallholder farmers to replace diesel generators with solar equipment and climate-smart irrigation.

(ii) **Botswana National Ecosystem Assessment**: Initiated in 2022 to synthesize biodiversity and ecosystem service knowledge for national policy. Supported by IKI with approximately **BWP 6,763,385.00**, implemented in collaboration with the Botswana University of Agriculture and Natural Resources (BUAN) (www.besnet.world).

9.3 Green Climate Fund (GCF)

Between 2016 and 2025, the GCF committed approximately **BWP 497,785,136.00** in grant funding for biodiversity and ecosystem management in Botswana. This amount supports a single major project: *Ecosystem-Based Adaptation and Mitigation in Botswana's Communal Rangelands*, approved in March 2021 and running through June 2030. The project includes co-financing from the Government of Botswana and Conservation International, and aims to restore vegetation in communal grazing lands, build drought resilience for livestock, and improve soil carbon storage.

10. Implementation Challenges

The previous NBSAP faced several implementation challenges, largely attributable to weaknesses in legal frameworks, institutional arrangements, funding constraints, and limited capacity. The main challenges are summarised below:

Table 15:NBSAP III Implementation Challenges

Silo operations-Operational fragmentation	Despite the introduction of thematic working groups, ministries continued to operate in silos with no deliberate efforts to enhance collaboration among implementing partners
Over-reliance on Government Recurrent Budget -	According to the Finance Needs Assessment (FNA), the estimated total financing requirement for NBSAP implementation is approximately **BWP 833 million (USD 79 million)** over the planning period, equivalent to about

Inadequate capacity to develop bankable	Botswana lacks sufficient expertise to prepare bankable proposals that could augment government resources
Fragmented special funds:	There is no coordination or cohesion among special funds, resulting in siloed administration and failure to leverage available resources
Lack of sustainability in donor-funded projects	Most conservation projects lack continuity once donor funding ends.
Limited private sector investment.	Few businesses invest in biodiversity protection or restoration.
Underfunded research and monitoring.	Weak data on species and ecosystems hinders evidence-based decision-making, compounded by limited public sector research capacity.
Inadequate community financial management capacity.	Communities often lack effective governance and financial management capacity.
Illegal wildlife activities driven by economic pressure	Limited enforcement resources have increased poaching and illegal resource use.
Climate adaptation funding gaps	Resources to address droughts, wildfires, and other ecosystem threats remain insufficient.
Limited use of innovative finance:	Botswana has not fully exploited instruments such as green bonds, biodiversity offsets, and payment for ecosystem services (PES) to augment available resources

11. Proposed Safeguards

- **Increase revenue generation from biodiversity-related activities:** Biodiversity has the potential to generate sufficient revenue to support NBSAP implementation while boosting economic growth. However, this potential remains largely untapped. Efforts must now focus on generating adequate revenue for biodiversity conservation. Practical actions include:

- **Introduction of an Autonomous Environmental Fund:** An independent environmental fund would help leverage resources across different funds, avoid duplication in reporting, enhance agility, increase donor confidence that funds will not be inefficiently used or redirected to other government programs, and ensure continuity by preventing funding priorities from shifting with changes in government.

- **Introducing Payment for Ecosystem Services (PES) schemes for various sectors:** Ecosystems provide services that are utilized by all economic sectors, including agriculture, water, mining, tourism, education, and manufacturing. Payment for Ecosystem Services (PES) schemes should be designed and operationalized across these sectors to generate revenue for sustainable biodiversity management. For instance, rangeland ecosystems support the livestock sector through grass production (biomass productivity); yet farmers often fail to maintain rangelands, leading to degradation. To raise revenue for restoring degraded rangelands, controlling invasive species, and managing veld fires, the livestock sector should pay for the services it benefits from. A graduated tariff based on livestock age, with

higher fees for older animals to reflect greater damage, would incentivize farmers to sell cattle at a younger age. Revenue generated should be allocated to rangeland restoration and invasive species control. Such a PES scheme could generate substantial annual revenue by charging modest grazing and water fees per animal. Other PES opportunities include a fuel levy or carbon levy (discussed under the National Environment Fund [NEF] to supplement the plastic levy), as well as PES schemes for the water sector (beyond cattle) and the mining sector. Appropriately, designed PES mechanisms can mobilize sufficient revenue to fund the NBSAP and contribute meaningfully to national revenue

- **Review existing PES schemes and adjust them promptly:** Existing PES schemes for the tourism sector include entrance fees, park fees, camping fees, and filming/photography fees. Compared to regional benchmarks, Botswana's fees are significantly lower. For instance, in South Africa, daily conservation fees for citizens/residents, SADC nationals, and international visitors are USD 7, USD 14, and USD 29 respectively, whereas Botswana's entrance fees are USD 1, USD 3, and USD 11 (MENT, 2019). Regular review and updating of PES schemes to reflect the true value of biodiversity functions and services is essential. Currently, parks and game reserves generate approximately BWP 50 million annually. Moderate adjustments to align with regional standards could increase revenue to over BWP 200 million, part of which could fund NBSAP activities.

- **Introduce domestic carbon markets:** Carbon markets are trading systems where carbon credits are bought and sold. The global carbon market was valued at USD 948.75 billion in 2023. Afforestation programs can generate carbon credits for sale. Botswana has community woodlands that can be reforested and managed effectively as carbon sinks, producing credits for domestic and international sale to fund NBSAP implementation. Carbon markets can promote nature-based projects and solutions, as strongly emphasized in the NBSAP. To participate in the global carbon market, the government must establish formal legal frameworks to facilitate engagement.

- **Green bonds:** Green bonds are a key instrument highlighted in available financing strategies. A green bond is a debt security issued to raise capital specifically for climate-related or environmental projects (The World Bank, 2025). Green bonds allow issuers to attract a broad range of investors and enhance their environmental credentials. Through the Central Bank of Botswana, the government can issue bonds for purchase by the private sector and individuals, generating revenue for NBSAP implementation. At maturity, investors are repaid the principal plus interest. Issuing green bonds could enable the government to raise over USD 1 billion with a five-year maturity, aligning with the NBSAP implementation period.

- **Strengthen collaboration with state-owned research institute:** The successful implementation of NBSAP targets and activities demands extensive research across multiple fronts, including the control and potential eradication of invasive species, exploration of suitable technologies, genetic preservation, and related areas. However, research capacity within the Ministry of Environment and Tourism (MET) departments may be limited and will require significant augmentation. Fortunately, several state-owned universities and research institutions, namely the University of Botswana (UB), Botswana International University of Science and Technology (BIUST), Botswana University of Agriculture and Natural Resources (BUAN), and the Botswana Institute for Technology Research and Innovation (BITRI) possess skilled personnel capable of supporting the research objectives outlined in the NBSAP. To this end, it is imperative to establish Memoranda of Agreement or Understanding to formalize and

strengthen collaboration with these institutions. Furthermore, the early inclusion and active involvement of these research entities in the Action Plan will facilitate resource mobilization. Through such strategic partnerships, the necessary resources can be effectively mobilized to underpin and sustain NBSAP implementation.

POLICY AND INSTITUTIONAL FRAMEWORK SUPPORTING BIODIVERSITY CONSERVATION

11.1 Institutional Arrangement

Recognizing biodiversity as a cornerstone of ecological integrity, economic development and human well-being, Botswana has established policies and institutional frameworks to safeguard its natural heritage and ensure its sustainable use for present and future generations. The Ministry of Environment and Tourism serves as the competent authority responsible for the management and conservation of biological diversity and natural resources in Botswana. Through its key departments such as; Department of Wildlife and National Parks (DWNP), Department of Environmental Protection (DEP), Department of Forestry and Range Resources (DFRR) and the Department of Meteorological Services (DMS), the Ministry provides strategic leadership, policy direction, regulatory oversight and technical support for biodiversity conservation and sustainable natural resource management. These institutions play complementary roles in the protection of ecosystems, wildlife, forests and environmental quality, while also supporting climate resilience, environmental monitoring, research and the implementation of national, regional and international biodiversity commitments.

Biodiversity conservation and sustainable use in Botswana are implemented through a collaborative and multi-sectoral governance approach that recognizes the interconnected nature of environmental, social, and economic development. The Ministry of Environment and Tourism participates in the Sustainable Environment Thematic Working Group (TWG), a core government-led planning committee under the National Planning Commission that coordinates climate resilience, natural resource management and environment sector projects. The TWG serves as a platform for coordination, dialogue and integration of biodiversity considerations across government sectors, development partners, academia, civil society organizations and the private sector during the national planning processes.

The Ministry of Environment and Tourism has established the National Biodiversity Authority (NBDA), with its Secretariat hosted by the Department of Environmental Protection, to provide strategic leadership and oversight on biodiversity matters in Botswana. The committee plays a central role in strengthening inter-institutional coordination, guiding national biodiversity priorities and ensuring alignment with the country's obligations under the Convention on Biological Diversity (CBD). Through this mechanism, Botswana advances a coherent, whole-of-government and whole-of-society approach to biodiversity governance. It enhances policy coordination across sectors, mobilizes technical expertise and leverages institutional and partner resources to support effective implementation. Ultimately, this coordinated framework strengthens monitoring, evaluation and reporting systems, ensuring that Botswana delivers on its national, regional and global biodiversity commitments with greater efficiency and impact.

Botswana's commitment to biodiversity conservation extends beyond its national borders. The country is an active Party to several Multilateral Environmental Agreements (MEAs) that guide and reinforce national conservation efforts, including the United Nations Convention on Biological Diversity (UNCBD), the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the United

Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC) and the World Heritage Convention. Through these commitments, Botswana has positioned itself as a responsible steward of globally significant biodiversity, demonstrating its resolve to conserve ecosystems, halt biodiversity loss, promote sustainable use of biological resources and contribute meaningfully to regional and global environmental sustainability.

Together these legal frameworks, institutional arrangements, and multilateral environmental agreements provide the foundation upon which Botswana's biodiversity conservation agenda is built. They ensure coordinated governance, strengthen implementation capacity, and support the integration of biodiversity priorities into national development processes. Ultimately, this framework enables Botswana to balance environmental protection with socio-economic development, while safeguarding natural resources for current and future generations.

11.2 Legal Framework

Botswana has established a comprehensive environmental governance framework encompassing statutory acts, strategic policies, national plans, and targeted strategies to secure the conservation and sustainable utilization of its biological diversity. This domestic legal architecture is reinforced by the country's active ratification of key international treaties. The following review examines these legislative instruments and policies to demonstrate the government's sustained commitment and policy consistency toward safeguarding national ecosystems.

Table 16: National Legislative Framework for Biodiversity Conservation

Legal Framework	Purpose and Key Provisions
Waste Management Act of 1999	Provides for the management and control of waste in order to protect human, animal and plant health. The Act seeks to minimise environmental pollution, promote the conservation of natural resources and regulate the handling, transportation and disposal of hazardous waste, including obligations related to the Basel Convention.
Environmental Assessment Act CAP 65:07	Provides for Environmental Impact Assessment for development projects likely to have significant environmental impacts. The Act ensures that potential impacts on land, water, biodiversity and communities are identified, assessed and mitigated before development takes place. It also provides for Strategic Environmental Assessment to integrate environmental sustainability into policies, plans and programmes.
Access and Benefit Sharing of Biological Diversity Act, 2022	Provides the legal framework for regulating access to genetic resources and associated traditional knowledge. The Act domesticates the Convention on Biological Diversity and the Nagoya Protocol by ensuring that benefits arising from the use of genetic resources are shared fairly and equitably with the State, local communities and other rightful holders.
Town and Regional Planning Act CAP 32:09	Supports orderly and sustainable land-use planning through development plans, planning permission and public consultation. The Act enables biodiversity, environmental protection and sustainable development

Legal Framework	Purpose and Key Provisions
	considerations to be integrated into spatial planning and development control processes.
Atmospheric Pollution Prevention Act of 1971	Provides for the prevention and control of air pollution arising from industrial processes. The Act aims to maintain acceptable air quality standards in order to protect human health, ecosystems and biodiversity from harmful atmospheric emissions.
Wildlife Conservation and National Parks Act CAP 38:01 of 1992	Provides for the conservation, protection and management of wildlife, national parks and game reserves. The Act is central to biodiversity governance in Botswana and supports the implementation of international obligations, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora.
Forest and Range Resources Act, 2025	Provides for the regulation, protection, conservation and sustainable management of forest and range resources. The Act supports sustainable use of forest produce and range resources, while also regulating trade in endangered plant species in line with relevant international conservation obligations.
Community-Based Natural Resources Management Act, 2025	Provides for the implementation of the Community-Based Natural Resources Management approach. The Act promotes community participation in the sustainable use of natural resources and cultural heritage, strengthens governance of Community-Based Organisations and supports fair distribution of benefits for community socio-economic development.
Plant Protection Act of 2007	Provides for the prevention, control and management of plant pests and diseases. The Act strengthens phytosanitary measures, facilitates safe international trade in plants and plant products, and protects domestic ecosystems and agricultural systems from biosecurity threats.
Monuments and Relics Act of 2001	Provides for the protection, conservation and management of Botswana's cultural, archaeological and unique natural heritage assets. The Act contributes to biodiversity and environmental management by safeguarding heritage sites that are often linked to landscapes, ecosystems, cultural values and community-based ecotourism.
Aquatic Weeds Control Act	Provides for the control and management of invasive aquatic plants in water bodies. The Act regulates activities such as boat movement and provides for inspection and decontamination measures to prevent the spread of aquatic weeds and protect aquatic ecosystems.

11.3 National Policies Relevant to Biodiversity Conservation

To complement its legislative framework, Botswana has over the years formulated a number of national policies that guide biodiversity conservation and sustainable natural resource management, while supporting national development priorities and international environmental commitments. Key policies relevant to biodiversity conservation are highlighted below.

Table 17: National Policies Relevant to Biodiversity Conservation

Policy Framework	Purpose and Key Provisions
Wildlife Policy, 2013	Provides a strategic framework for the conservation, sustainable use and management of Botswana's wildlife and biodiversity resources for the benefit of present and future generations. The policy promotes viable wildlife populations, habitat connectivity, protected area management, wildlife mobility, partnerships with communities and the private sector, research, public awareness and sustainable wildlife utilisation.
National Climate Change Policy, 2021	Provides a strategic framework for mainstreaming climate change and sustainability into national development planning. The policy aims to strengthen Botswana's resilience to current and future climate impacts, while promoting ecosystem-based adaptation, mitigation and disaster risk reduction approaches that support biodiversity conservation, ecosystem restoration and sustainable development.
Forest Policy, 2011	Provides a framework for the sustainable management, conservation and rehabilitation of Botswana's forest resources. The policy promotes sustainable forest management, afforestation, plantation development and restoration of degraded landscapes, while safeguarding indigenous flora, forest habitats and ecosystem resilience.
Community-Based Natural Resources Management Policy, 2007	Provides guidance for strengthening existing and emerging CBNRM initiatives. The policy supports community participation in natural resource management, safeguards community interests, promotes good governance and accountability in Community-Based Organisations, and encourages equitable benefit-sharing and partnerships with the private sector.
Integrated Waste Management Policy, 2021	Provides a strategic framework for an integrated and sustainable waste management system in Botswana. The policy aims to protect public health and the environment, improve waste planning and regulation, strengthen institutional coordination and promote waste minimisation, reuse, recycling and environmentally sound disposal.
National Policy on Disaster Management	Provides for a comprehensive disaster management programme aimed at reducing vulnerability and the impacts of disasters. The policy supports disaster preparedness, emergency response, recovery planning and a shift from reactive disaster response towards proactive disaster risk reduction.
Game Ranching Policy, 2002	Provides a framework for advancing Botswana's wildlife based economy through sustainable utilization, conservation and commercialization of wildlife resources beyond protected areas. The policy promotes private sector participation, game ranching, wildlife-based enterprises, research, market development, conservation of threatened species, sustainable off-take, rural employment and land-use diversification. It also aligns with initiatives such as the **Keeping Game in Masimo Programme**, which encourages the integration of wildlife into traditional agricultural landscapes to support rural livelihoods, ecological resilience and community participation in wildlife conservation.

11.4 Multilateral Environmental Conventions

Botswana is Party to a wide range of Multilateral Environmental Agreements (MEAs) that collectively provide a global and regional framework for the conservation, sustainable use, management of natural resources and equitable sharing of benefits arising from utilization of biological diversity. These agreements reflect the country's commitment to addressing environmental challenges such as biodiversity loss, climate change, land degradation, pollution and unsustainable resource use through coordinated international cooperation. Their implementation further strengthens national policies, legislation and institutional arrangements aimed at promoting environmental sustainability and resilience. The table below presents the Multilateral Environmental Agreements (MEAs) ratified by Botswana:

Table 18: Multilateral Environmental Agreements

Multilateral Environmental Agreement (MEA)	**Date of Ratification / Accession**
Convention of the World Meteorological Organization, 1947	16 October 1967
Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1975	14 November 1977
Vienna Convention for the Protection of the Ozone Layer, 1985	04 December 1991
Montreal Protocol on Substances that Deplete the Ozone Layer, 1987	04 December 1991
London Amendment to the Montreal Protocol, 1990	13 May 1997
Copenhagen Amendment to the Montreal Protocol, 1992	13 May 1997
Montreal Amendment to the Montreal Protocol, 1997	21 February 2013
Beijing Amendment to the Montreal Protocol, 1999	21 February 2013
Kigali Amendment to the Montreal Protocol, 2016	19 September 2020
United Nations Framework Convention on Climate Change, 1992	27 January 1994
Kyoto Protocol, 1997	28 October 2002
Doha Amendment, 2012	07 March 2016
Paris Agreement, 2015	22 April 2016
United Nations Convention to Combat Desertification, 1994	11 September 1996
Ramsar Convention on Wetlands, 1971	09 April 1997
Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal, 1989	20 May 1998
Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972	23 November 1998
Convention for the Protection of Cultural Property in the Event of Armed Conflict, 1954	19 February 2022
Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict, 1999	19 November 2021

Multilateral Environmental Agreement (MEA)	Date of Ratification / Accession
Southern African Development Community Protocol on Forestry, 2002	17 July 2002
United Nations Convention on Biological Diversity, 1992	08 August 2003
Cartagena Protocol on Biosafety, 2003	11 September 2003
Nagoya Protocol on Access and Benefit-Sharing, 2014	12 October 2014
Stockholm Convention on Persistent Organic Pollutants, 2001	Not indicated
Kavango Zambezi Transfrontier Conservation Area Treaty, 2006	07 December 2006
Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, 1970	17 July 2017
Minamata Convention on Mercury, 2017	16 August 2017
Agreement on the Conservation of African-Eurasian Migratory Waterbirds, 1999	01 November 2017
Orange–Senqu River Basin Agreement, 2000	03 November 2000
Permanent Okavango River Basin Water Commission Agreement, 1994	15 September 1994
Zambezi Watercourse Commission Agreement, 2004	13 July 2004

Rationale for Updating the NBSAP, Information Gaps and Resource Constraints

Botswana is undertaking the update and alignment of its National Biodiversity Strategy and Action Plan (NBSAP) to ensure consistency with the goals, targets, and monitoring framework of the Convention on Biological Diversity and the Kunming-Montreal Global Biodiversity Framework. Since the adoption of Botswana's previous NBSAP, significant developments have occurred at both the national and international levels, necessitating a comprehensive review of the country's biodiversity priorities, targets, implementation arrangements, and resource mobilization strategies.

The updated NBSAP provides an opportunity to integrate lessons learned from previous implementation cycles, findings from Botswana's National Ecosystem Assessment, the Seventh National Report to the CBD, the NBSAP Stocktaking and Gap Analysis, and emerging scientific knowledge on biodiversity status and trends. It also enables the country to respond more effectively to increasing pressures on biodiversity, including habitat degradation, climate change, invasive alien species, unsustainable natural resource use, human-wildlife conflict, and land-use change.

Furthermore, the NBSAP update seeks to strengthen policy coherence across sectors, improve mainstreaming of biodiversity into national development planning, and align biodiversity conservation with Botswana's development aspirations, including Vision 2036, National Development Plans, climate change commitments, and sustainable economic diversification objectives. The revised NBSAP therefore serves as the principal national instrument for translating the KMGBF into actionable national targets, strategies, and implementation measures that contribute to halting and reversing biodiversity loss by 2030 while supporting sustainable development and human well-being.

11.5 Biodiversity Information and Knowledge Gaps

Despite considerable progress in biodiversity, assessment and monitoring, significant information gaps remain that constrain evidence-based planning, implementation, and reporting. These gaps affect Botswana's ability to accurately assess biodiversity status, identify trends, measure conservation outcomes, and track progress towards national and global biodiversity targets.

Key information gaps include:

- Limited and outdated data on the population status and distribution of several taxonomic groups, particularly invertebrates, reptiles, amphibians, fungi, microorganisms, and freshwater biodiversity.
- Insufficient ecosystem-level assessments for some habitats, including wetlands, grasslands, aquatic ecosystems, and urban biodiversity.
- Inadequate long-term biodiversity monitoring systems capable of detecting ecological changes and trends over time.
- Limited information on ecosystem condition, ecosystem services, and ecological integrity across different landscapes.
- Data fragmentation across institutions, with biodiversity information often dispersed among government agencies, research institutions, non-governmental organizations, and community-based natural resource management programmes.
- Weak biodiversity information management systems and limited interoperability between databases and monitoring platforms.

Addressing these information gaps will require strengthened biodiversity research, national monitoring programmes, data-sharing mechanisms, citizen science initiatives, and improved collaboration among government agencies, academia, local communities, indigenous knowledge holders, and development partners.

11.6 Resource Constraints and Capacity Challenges

The effective implementation of Botswana's biodiversity agenda continues to be constrained by financial, technical, institutional, and human resource limitations. The NBSAP Stocktaking and Gap Analysis, the Finance Needs Assessment (FNA), and national reporting processes have consistently identified inadequate resource mobilization as one of the most significant barriers to achieving biodiversity objectives.

Financial resources allocated to biodiversity conservation remain insufficient relative to the scale of conservation needs and the increasing pressures facing ecosystems and species. According to the Finance Needs Assessment, the estimated financing requirements for biodiversity conservation significantly exceed available funding, resulting in a substantial financing gap that limits implementation of priority conservation actions. Biodiversity financing remains heavily dependent on government budget allocations and support from development partners, while private-sector investment and innovative financing mechanisms remain underdeveloped.

Additional resource constraints include:

- Inadequate technical capacity for biodiversity assessment, monitoring, spatial planning, ecosystem restoration, and data management.
- Insufficient infrastructure, equipment, and technology for biodiversity research and monitoring.
- Weak coordination among institutions responsible for biodiversity management.

- Limited financial and technical capacity at district and community levels to support decentralized biodiversity management.

Addressing these constraints will require enhanced domestic resource mobilization, increased biodiversity budget allocations, stronger engagement with the private sector, development of innovative financing mechanisms, capacity development programmes, and strengthened institutional coordination. The updated NBSAP therefore places significant emphasis on resource mobilization, capacity-building, knowledge management, and partnerships as enabling conditions for achieving Botswana's national biodiversity goals and contributing to the successful implementation of the KMGBF.

NBSAP PRINCIPLES, VISION, GOALS AND TARGETS

11.7 Principles

Botswana's National Biodiversity Strategy and Action Plan (NBSAP) is driven by principles that empower Batswana and protect local ecosystems. Key approaches include transparency, development rights and justice, and recognition of local communities. The strategy prioritizes gender equity, technological innovation, and scientific collaboration to ensure sustainable economic benefits for current and future generations. The operational framework for the strategy utilizes the following targeted principles:

- Adaptive Management
- Community-Centric Rights and Justice
- Inclusive Development
- Innovation and Collaboration
- Transparency

All the above principles are anchored on the last key national principle called **"Botho."** This is a Tswana word emphasising the spirit of mutual respect, responsibility, and accountability in a society. This concept is vital because it highlights the fact that all members of society have a part to play in looking after society's best interests. In this context, that means all members of society need to become involved in looking after the environment that underpins the nation's future.

11.8 Vision

By 2030, Botswana will stand at the true north of environmental sustainability, with healthy ecosystems, thriving biodiversity, and responsibly managed natural resources that drive sustainable development, climate resilience and equitable benefits for all.

11.9 Mission

To achieve a sustainable environment through the promotion of a Green Botswana, ensuring water and energy security; advancing integrated and climate-resilient land management; and fostering the

optimal, equitable, and sustainable use of natural resources for improved livelihoods, economic prosperity, and the well-being of present and future generations.

11.10 Objective

To conserve, manage, and sustainably utilize biodiversity in Botswana while ensuring a fair and equitable distribution of benefits among the people of the region and the global community by 2030.

11.11 Pillars of the Strategy

The Kunming-Montreal Global Biodiversity Framework (KM-GBF) has 23 targets under four goals, grouped into three thematic areas, namely: (i) Reduce Threats to Biodiversity; (ii) Meet People's Needs through Sustainable Use and Benefit-sharing; and (iii) Tools and Solutions for Implementation and Mainstreaming. Botswana's biodiversity priority areas were aligned to the KM-GBF thematic areas, now referred to as Strategy Pillars. The first thematic area was adopted as is from the KM-GBF. The last thematic area of the KM-GBF was split into two, namely: (a) Tools and Solutions for Implementing and Mainstreaming with a bias towards Capacity Building; and (b) Resource Mobilization. Resource Mobilization is prominent in this Strategy because most past biodiversity programmes and projects failed partly due to lack of and/or inadequate financial and non-financial resources for implementation. Below are Botswana's Pillars:

1. Reduce Threats to Biodiversity
2. Meet People's Needs through Sustainable Use and Benefit-sharing
3. Capacity Building
4. Resource Mobilization

National Priorities and Planning for Biodiversity

Botswana's strategic framework for biodiversity management is designed to drive sustainable and inclusive economic growth by integrating environmental objectives with national development plans, including Vision 2036 and the National Development Plan 12 (NDP 12). Below are the country's priorities which focuses on aligning conservation efforts with private sector development, digital innovation, knowledge management, and enhanced regional competitiveness.

- Strengthened Ecosystem Integration: -Strengthen the linkages between natural ecosystems, conservation areas, and commercial operations to facilitate seamless business activity. Align key economic sectors such as eco-tourism and horticulture to prevent ecological degradation while ensuring stable economic output.
- Resource Gap Closure, Address critical gaps in access to finance, technology, technical skills, and foundational infrastructure. This includes leveraging the Biodiversity Finance Initiative (BIOFIN) to unlock investments in nature-positive businesses.
- Digital Transformation: Upgrade the national business and environmental management ecosystem through digital tools and platforms. This will support data-driven decision-making, digital banking for local small and medium enterprises (SMEs), and the modernization of public services.
- Global Connectivity: Enhance the integration of Botswana's manufacturing and export-led ecosystem with regional (SADC) and global value chains. Focus on standardizing certification

systems to ensure local products meet international quality and sustainability requirements.

- Sustainability & ESG: Embed Environmental, Social, and Governance (ESG) principles throughout the economy. Support extended producer responsibility, circular economy principles, and sustainable resource utilization to align with global trade standards.
- Strengthened Multilateral Environmental Coordination Committee: Reinforce the Multilateral Environmental Coordination Committee within the Ministry of Environment and Tourism to streamline reporting across various environmental conventions. This will enhance coordinated and timely reporting, optimize the use of financial and technical resources and foster practical synergies in environmental governance

NATIONAL TARGETS

In accordance with the guidelines set forth by the Convention on Biological Diversity (CBD), Botswana has undertaken a comprehensive alignment of its national biodiversity targets with the ambitious goals and global targets of the Kunming-Montreal Global Biodiversity Framework (KM-GBF). This alignment process ensures coherence between national priorities and international commitments, thereby positioning Botswana to contribute meaningfully to the global biodiversity agenda while addressing its unique ecological, social, and economic contexts.

The updated national targets reflect a rigorous and inclusive consultative process, grounded in a Whole-of-Government and Whole-of-Society approach. They are designed to be ambitious yet achievable, contextually relevant, and fully integrated with Botswana's national development aspirations, including Vision 2036 and the National Development Plans. Each target has been carefully crafted to address specific biodiversity challenges and opportunities within the country, ranging from spatial planning and ecosystem restoration to pollution reduction, sustainable consumption, and gender-responsive action.

KMGBF-GOAL A: PROTECT AND RESTORE

National Goal A: Long-term conservation, preservation, and restoration of terrestrial, freshwater, and wetland ecosystems to safeguard Botswana's natural biodiversity by 2050.

Goal A: Targets 1, 2, 3, 4, 5, 6, 7, 8

Table 19: Botswana's National Biodiversity Targets aligned with the KM-GBF

Botswana's National Biodiversity Targets Aligned with the Kunming-Montreal Global Biodiversity Framework	
Target No.	**National Target**
Target 1	Ensure that all areas are under participatory, integrated, and biodiversity-inclusive spatial planning and/or effective management processes addressing land and inland water use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of local communities.
Target 2	By 2030, ensure that at least 30 percent of Botswana's ecosystems are conserved through restoration of degraded terrestrial and inland water ecosystems in order to enhance biodiversity and ecosystem functions, services, ecological integrity, and connectivity.

Target 3	By 2030, ensure and enable that at least 30 percent of all Botswana's ecosystems, especially areas of particular importance for biodiversity and ecosystem functions and services are effectively conserved through well-connected and equitably governed systems, ecosystem-based approaches, and other effective area-based conservation measures (OECMs) that integrate their management with surrounding landscapes, involve resident communities, and recognize tribal territories.
Target 4	By 2030, undertake urgent sustainable management actions to achieve the recovery and conservation of threatened species and the genetic diversity of native, wild, and domesticated species, including through *in situ* and *ex situ* conservation, thereby reducing the risk of human-induced extinctions of known threatened species by 5 percent and effectively managing human-wildlife interactions to enhance coexistence.
Target 5	By 2030, prevent overexploitation by ensuring that the harvesting, trade, and use of terrestrial and inland wild animal and plant species are sustainable, legal, and safe, minimizing impacts on non-target species and ecosystems, while respecting customary sustainable use by local communities.
Target 6	By 2030, ensure that the rate of introduction and establishment of invasive alien species is reduced by at least 50 percent, and mitigate the impacts of invasive alien species on biodiversity and ecosystem functions and services, especially in priority sites.
Target 7	By 2030, reduce pollution risk and the negative impact of pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects such as reducing excess nutrients lost to the environment, reducing the overall risk from pesticides and highly hazardous chemicals, and preventing, reducing, and working toward eliminating plastic pollution by at least half, taking into account food security and livelihoods.
Target 8	By 2030, significantly minimize the impact of anthropogenic pressures and climate change on biodiversity by increasing resilience through mitigation, adaptation, and disaster risk preparedness strategies, including nature-based solutions and/or ecosystem-based approaches, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.

KMFBF GOAL B: PROSPER WITH NATURE

National Goal B: Ensure that all biodiversity and ecosystems are sustainably used, protected, and restored so that nature continues to provide essential services to society, ultimately driving sustainable development and improving livelihoods for present and future generations of Batswana.

Goal B: Targets 9, 10, 11, 12

Target 9	By 2030, ensure that all terrestrial and inland water species are sustainably used and effectively managed to provide social, economic, and environmental benefits for all people, especially those most dependent on biodiversity and in vulnerable situations, while encouraging customary sustainable use by local communities.
Target 10	By 2030, ensure that all areas under agriculture, aquaculture, fisheries, game management, forestry, and other productive uses are managed sustainably, in particular through the sustainable use of biodiversity, contributing to the long-term productivity and resilience of these production systems, conserving and restoring biodiversity, and maintaining nature's contributions to people, including ecosystem goods and services.

Target 11	By 2030, restore, maintain, and enhance nature's contributions to people through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.
Target 12	By 2030, significantly increase the area, quality, connectivity, and access to green and blue spaces within cities and densely populated areas by ensuring biodiversity-inclusive regional and urban planning and mainstreaming the conservation and sustainable use of biodiversity to improve human health and well-being.

KMGBF GOAL C: SHARE BENEFITS FAIRLY

National Goal C: Ensure the fair and equitable sharing of monetary and non-monetary benefits derived from the country's native biological and genetic resources and indigenous knowledge, and sustainably invest these benefits into local communities and biodiversity conservation.

Goal C: Target 13

Target 13	By 2030, facilitate appropriate access to genetic resources, ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources, digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, facilitating a significant increase of the benefits shared through the adoption of effective legal, policy, administrative, and capacity-building measures at all levels, in accordance with applicable international access and benefit-sharing instruments.

KMGBF GOAL D: INVEST AND COLLABORATE

National Goal: Ensure adequate means of implementation, including financial resources, participatory planning, policy and regulatory instruments, capacity-building, technical and scientific cooperation, access to and transfer of technology, gender mainstreaming, human rights, and capacity building, are in place to support NBSAP implementation.

Goal D: Targets 14, 15, 16, 17, 18, 19, 20, 21, 22, 23

Target 14	By 2030, ensure that biodiversity and its values are fully integrated into policies, regulations, planning and development processes, poverty reduction strategies, environmental assessments, and national accounting processes across all levels of government and all sectors of the economy, progressively aligning all public and private activities, and all fiscal and financial flows, with the goals and targets of the KM-GBF and the Sustainable Development Goals.
Target 15	By 2030, ensure that policy and regulatory instruments are in place at all levels to require that all businesses and financial institutions, especially large and economically significant businesses with major impacts on biodiversity, assess, monitor, regularly evaluate, transparently report, and accept responsibility for their dependencies and impacts on biodiversity and human rights across operations, value chains, and portfolios, thereby reducing negative impacts and ensuring Access and Benefit-Sharing (ABS) compliance. Furthermore, provide information needed for consumers to enable the public to make responsible production and consumption choices that are

	biodiversity-positive, following a rights-based approach consistent with the Convention and other relevant international obligations.
Target 16	By 2030, reduce the national footprint of consumption by one quarter through the establishment of supportive policy, legislative, or regulatory frameworks to enable sustainable consumption choices, thereby reducing overconsumption and waste generation.
Target 17	By 2030, establish and strengthen capacity for biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity, as well as measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention, and implement these measures effectively.
Target 18	By 2030, identify and phase out or reform incentives harmful to biodiversity, taking into account national socio-economic conditions, while substantially and progressively reducing them by at least USD 500 billion per year, and ensure that positive incentives are scaled up consistently and in harmony with the Convention and other relevant international obligations.
Target 19	By 2030, progressively increase the level of financial resources from all relevant sources, including domestic, international, public, and private resources such as a biodiversity finance plan, blended finance schemes, payments for ecosystem services, and green bonds in accordance with Article 20 of the Convention, for the implementation of the NBSAP, by 20 percent of the implementation budget annually.
Target 20	By 2030, strengthen capacity-building and development, access to and transfer of technology, and promote the development of and access to innovation and technical and scientific cooperation at all levels, including through national, regional, and international cooperation, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity.
Target 21	By 2030, develop data management frameworks and information systems to ensure that the best available data is accessible to decision-makers, practitioners, and the public to guide effective and equitable governance and integrated, participatory management of biodiversity. Furthermore, strengthen communication, awareness-raising, education, monitoring, research, knowledge management, and traditional knowledge, innovations, practices, and technologies of local communities, which shall only be accessed with their free, prior, and informed consent in accordance with national legislation.
Target 22	By 2030, mainstream gender at every level of government and across all sectors to ensure full, equitable, inclusive, effective, and gender-responsive representation and participation in decision-making, as well as access to justice and information related to biodiversity, for local communities respecting their cultures and traditional knowledge, including women, girls, children, youth, and persons with disabilities.
Target 23	By 2030, ensure gender equality in the implementation of the National Biodiversity Strategy and Action Plan through a gender-responsive approach to the three objectives of the Convention, by recognizing the equal rights and opportunities of all persons to natural resources, and ensuring their full, equitable, meaningful, and informed participation and leadership at all levels of action, engagement, policy, and decision-making related to biodiversity.

Capacity-building is the systematic process of strengthening the knowledge, skills, institutional frameworks, resources, and enabling conditions required by individuals, organizations and communities to effectively address biodiversity conservation and sustainable development challenges. It encompasses not only the enhancement of technical competencies but also the transformation of attitudes, behaviors and governance systems necessary to achieve lasting and self-sustaining change (United Nations, n.d.). In the context of biodiversity, capacity-building extends beyond training and awareness creation to include institutional strengthening, improved governance, knowledge generation and management, technology transfer, resource mobilization and the creation of enabling environments that support effective implementation.

Capacity-building is a fundamental enabler for the successful implementation of National Biodiversity Strategy and Action Plan (NBSAP). Achieving the country's biodiversity vision and targets requires capable institutions, skilled professionals, empowered communities and effective governance systems that can respond to the growing complexity of biodiversity conservation challenges. As pressures from climate change, habitat degradation, invasive alien species, unsustainable resource use and economic development continue to intensify therefore strengthening national capacities is essential to safeguard biodiversity and the ecosystem services upon which livelihoods and economic growth depend.

Furthermore, as a dedicated Party to the Convention on Biological Diversity (CBD), a robust capacity building framework is crucial for Botswana to meet its international obligations under the Kunming-Montreal Global Biodiversity Framework (KM-GBF). Specifically, this chapter serves as Botswana's direct mechanism to fulfil Target 20 of the KM-GBF, which mandates the strengthening of capacity-building, technology transfer and scientific cooperation to match the scale of the global biodiversity crisis.

11.12 Assessment of Botswana's capacity to implement NBSAP

Institutional Capacity

Botswana's institutional capacity for the implementation of the National Biodiversity Strategy and Action Plan (NBSAP) is anchored in a well-established governance framework led by the Ministry of Environment and Tourism, which provides overall policy direction, coordination and oversight of biodiversity-related programmes. Through its technical departments, the Ministry ensures the operational delivery of core mandates in flora and fauna management, tourism, climate change environmental protection, translating national biodiversity commitments into programmes aligned with national development priorities and international obligations under the Convention on Biological Diversity (CBD) and the Kunming-Montreal Global Biodiversity Framework (KM-GBF).

A key strength of Botswana's institutional system lies in strong inter-sectoral coordination mechanisms that bring together government ministries, local authorities, research institutions, civil society and the private sector. These platforms support policy coherence and integrated planning across biodiversity-relevant sectors such as health, agriculture, mining, water and infrastructure development. Biodiversity is fully mainstreamed into National Development Plans (NDPs) and District Development Plans (DDPs), ensuring that conservation priorities are embedded within national development planning and budgeting systems, rather than treated as a standalone issue.

At the sub-national level, district and local authorities play an increasingly important role in implementing biodiversity actions, particularly in land-use planning, natural resource governance and community engagement. This decentralised institutional presence strengthens local delivery and responsiveness to site-specific challenges. Botswana's governance framework is further reinforced by strong ecosystem-based management approaches in key landscapes such as the Okavango Delta and Makgadikgadi wetlands, demonstrating a well-established institutional commitment to landscape level conservation and sustainable resource management, as well as effective transboundary cooperation through Transfrontier Conservation Areas (TFCAs) such as the Kavango Zambezi (KAZA), Kalahari (KTP), Greater Mapungubwe Transfrontier Conservation Areas. This underscores Botswana's strong institutional capacity for regional biodiversity governance and reinforces its ability to coordinate and sustain biodiversity outcomes beyond national borders.

11.12.1 Human and Technical Capacity

Botswana's institutional capacity for NBSAP implementation is further reinforced by its growing human and technical expertise across key biodiversity sectors. The country has progressively invested in strengthening the skills of professionals within the public service, research institutions, partner organizations responsible for biodiversity management. This includes targeted training in ecosystem monitoring, environmental impact assessment, conservation planning, GIS and remote sensing and natural resource governance, ensuring that technical decision making is informed by scientific evidence.

Key implementing agencies, including the Ministry of Environment and Tourism and its technical departments, are staffed with multidisciplinary teams that provide expertise in wildlife management, protected area administration, forestry, wetlands conservation and environmental and waste management. These capacities are complemented by national research institutions and academic partners that generate data, support biodiversity assessments and contribute to policy relevant research aligned with NBSAP priorities.

In addition, Botswana continues to benefit from structured capacity-building initiatives, knowledge exchange programmes and regional collaboration platforms that enhance technical proficiency and institutional learning. While capacity gaps remain in specialized areas such as long-term ecological modelling and advanced biodiversity informatics, ongoing investments in training, digital tools and inter agency coordination are progressively strengthening the country's ability to plan, implement and monitor biodiversity outcomes effectively.

11.12.2 Financial and Resources Mobilization Capacity

Botswana has established a strong institutional foundation to support the implementation of its National Biodiversity Strategy and Action Plan (NBSAP). A key component of this capacity is the country's ability to mobilize and manage domestic financial resources for biodiversity conservation and sustainable use. Through a combination of national planning instruments, dedicated environmental funds and innovative conservation financing mechanisms, Botswana has strengthened its capacity to implement biodiversity priorities while reducing reliance on external funding sources.

11.12.3The National Budget & National Development Plans (NDPs)

The national budget serves as the primary mechanism for financing biodiversity conservation and environmental management across government institutions. Biodiversity priorities are integrated into successive National Development Plans (NDPs), ensuring that environmental objectives are embedded within the country's broader socio-economic development agenda. Through annual budget allocations and medium-term development planning, lead institutions responsible for biodiversity conservation are able to incorporate NBSAP priorities into their operational plans and programmes. This integration provides a stable and predictable source of funding for core biodiversity functions, strengthens institutional continuity and supports the long-term implementation of national biodiversity targets.

11.12.4Other National Financing Mechanisms

Botswana's institutional capacity for biodiversity management is further strengthened through dedicated national financing mechanisms that provide targeted support for conservation initiatives and community participation.

- **The National Environment Fund (NEF),** established under the National Environmental Fund Order, serves as a legally mandated financing mechanism for environmental protection and sustainable development initiatives. The Fund supports ecosystem restoration, environmental rehabilitation, climate change adaptation and community-based environmental projects implemented by Community-Based Organizations (CBOs), Non-Governmental Organizations (NGOs) and other stakeholders. In addition, the NEF supports environmental research, awareness programmes, capacity development and Community-Based Natural Resource Management (CBNRM) initiatives, thereby enhancing local institutional capacity and promoting stakeholder participation in biodiversity conservation.
- **The Botswana Conservation Trust Fund (CTF)**, established under the Public Finance Management Act, provides an additional mechanism for mobilizing and directing resources towards wildlife conservation, protected area management and community-based conservation programmes. Revenues generated from regulated wildlife utilization activities are reinvested into conservation programmes, park infrastructure, wildlife management and community conservation initiatives. This approach contributes to the long-term financial sustainability of biodiversity conservation while creating incentives for local communities to participate in the sustainable management of natural resources.
- To further strengthen the financial sustainability of protected areas, the Ministry of Environment and Tourism developed the Protected Areas Resource Mobilisation Strategy and Partnership Plan with support from the UNDP Biodiversity Finance Initiative (BIOFIN). The strategy seeks to diversify funding sources, improve revenue generation systems, strengthen partnerships with the private sector and promote sustainable tourism investments that contribute to biodiversity conservation. These efforts enhance Botswana's capacity to secure long-term financing for protected areas and support the effective implementation of NBSAP priorities.

Collectively, these financing instruments demonstrate Botswana's commitment to building resilient institutional systems capable of supporting biodiversity conservation beyond project-based funding cycles. By strengthening domestic resource mobilization and establishing sustainable financing mechanisms, Botswana has created a solid foundation for the effective implementation of the NBSAP and the achievement of national biodiversity objectives.

Table 20: Priority Capacity Building needs and Actions

Priority Capacity Needs	Actions
Institutional Strengthening	Strengthen the mandates, coordination mechanisms, and operational effectiveness of biodiversity conservation implementing institutions at national and local levels to support effective implementation of the NBSAP.
Technical Skills Development	Design and deliver targeted training programmes in biodiversity assessment and monitoring, data management, taxonomy, ecosystem restoration, and invasive species management and control.
Knowledge Management Systems	Establish a centralised National Environmental Information System to facilitate data sharing, reporting, planning, and evidence-based decision-making across sectors.
Technology Transfer	Facilitate access to, and adoption of, appropriate technologies for biodiversity conservation, including remote sensing, GIS applications, bioinformatics, and mobile-based monitoring tools.
Community Empowerment	Strengthen the capacity of local communities to participate meaningfully in biodiversity governance, Community-Based Natural Resource Management (CBNRM) programmes, and sustainable use initiatives.
Resource Mobilisation	Build institutional and individual competencies in financial planning, proposal writing, project management, and accessing diverse funding sources, including national and international financing mechanisms.

Priority Capacity Needs	Actions
Policy and Legal Frameworks	Strengthen capacities for developing, implementing, and enforcing biodiversity-relevant policies, regulations, and standards across key sectors, including agriculture, mining, tourism, and water resources.
Monitoring and Evaluation	Develop Monitoring, Evaluation, and Learning (MEL) capacities to track progress against NBSAP targets and KM-GBF indicators, support adaptive management, and strengthen accountability.

Table 21: ***Capacity Building Needs across Key Sectors and Stakeholders***

Key Sector / Stakeholder	Role in Biodiversity Conservation	Capacity Needs
Government Ministries and Departments	Lead policy development, regulatory enforcement, protected area management, and national reporting on biodiversity commitments	Species and ecosystem assessments; data management; spatial planning; compliance monitoring; cross-sectoral coordination
District and Local Authorities	Support local-level implementation of biodiversity actions, land-use planning, and natural resource governance	Decentralised planning; local biodiversity monitoring; budget management; stakeholder engagement
Academic and Research Institutions	Generate knowledge, support technology innovation, conduct research, and provide training for biodiversity conservation	Research infrastructure; grant writing; scientific publication; policy engagement; knowledge translation
Civil Society Organisations (CSOs) and Non-Governmental Organisations (NGOs)	Support advocacy, community mobilisation, project implementation, and independent monitoring of biodiversity initiatives	Project management; fundraising reporting; partnership building; community engagement
Community-Based Organisations (CBOs) and CBNRM Trusts	Promote sustainable resource use, benefit-sharing, local stewardship, and livelihood generation through community-based natural resource management	Financial literacy; governance structures; enterprise development; conflict resolution; equitable benefit-sharing mechanisms
Private Sector, including Tourism, Agriculture, Mining, and Finance	Contribute to sustainable resource use, impact mitigation, biodiversity offsets, corporate responsibility, and green investment	Environmental impact assessment; biodiversity accounting; sustainability reporting; compliance management; nature-positive business practices
Indigenous Peoples and Local Communities	Serve as traditional knowledge holders, custodians of customary resource management systems, and frontline stewards of biodiversity	Rights awareness; participatory governance; livelihood diversification; traditional knowledge documentation; access to benefit-sharing opportunities

COMMUNICATION PLAN

Introduction

The National Biodiversity Strategy and Action Plan (NBSAP) outlines a structured, cooperative, and well-coordinated approach for executing a series of actions aimed at ensuring the lasting preservation of Botswana's biological resources. This approach also seeks to enhance the role of these resources in local, district, and national economies, ultimately contributing to improved livelihoods. The NBSAP is aligned with the Kunming-Montreal Global Biodiversity Framework (GBF), including its 2050 Vision of "Living in Harmony with Nature" and its 2030 Mission "to take urgent action to halt and reverse biodiversity loss." One of the guiding principles of the NBSAP is stakeholder participation. Stakeholder participation can be achieved when all stakeholders have access to information and knowledge and are willing to share information related to biodiversity conservation. Effective information exchange and dialogue are essential for realizing the objectives of the NBSAP and the GBF.

To ensure broader stakeholder participation and awareness, a Stakeholder Engagement Plan will be developed. The objectives of this Plan will be established in consideration of the defined biodiversity targets, specifically GBF Target 21 (which calls for making the best available knowledge, information and data accessible to decision-makers, practitioners, and the public) and Target 22 (which calls for ensuring full, equitable, inclusive, effective, and gender-responsive representation and participation in decision-making). An effective NBSAP Stakeholder Engagement Plan is essential for garnering support to implement activities under the NBSAP. This Plan offers guidance on effective communication to enhance information flow among all identified stakeholders involved in biodiversity management. Existing initiatives within the Department of Environmental Protection (DEP) and the Ministry of Environment and Tourism (MET) are already working toward improved communication and environmental public awareness. The NBSAP Stakeholder Engagement Plan will also be aligned with the DEP's organizational objectives and key deliverables with the goal of contributing to the fulfilment of the DEP's mandate. The Plan will identify various target groups and stakeholders at different levels who are affected by common biodiversity issues and will outline the most suitable methods for effective communication with each specific target group.

The CBD Focal Point, which is the DEP, will take the lead in disseminating the NBSAP and raising awareness about its alignment with the GBF. This work will be carried out by the DEP's Public Education and Awareness (PEA) division, using existing communication channels, tools and methods. Where gaps or capacity constraints exist, this strategy will recommend actions to address them, thereby ensuring that the capacities needed for effective communication are in place and used efficiently.

Approach

The development of this strategy draws on multiple sources and processes that document the extent to which the previous NBSAP was implemented, identify the challenges and lessons learned and describe the current status of biodiversity and its conservation in the country. The strategy is shaped by input from a range of stakeholders through various channels, ensuring a whole-of-government and whole-of-society approach that guarantees the inclusion of all parties.

Overall Aim

To ensure effective communication, dialogue, and information exchange among stakeholders across different levels of NBSAP implementation from local, national, regional, and international stakeholders thereby directly contributing to the GBF 2030 Mission and the 2050 Vision of Living in Harmony with Nature.

Objectives of the Communication Plan

The primary objectives of this communication plan are to:

- **Raise awareness and foster engagement:** Increase understanding among all stakeholders (government agencies, local communities, private sector, non-governmental organizations, and the public) about the importance of biodiversity, the role of the NBSAP, and its alignment with the KM-GBF, while encouraging active participation in biodiversity conservation efforts.
- **Build capacity:** Equip stakeholders with the necessary information, tools and resources to effectively implement the NBSAP and achieve the KM-GBF targets.
- **Promote policy support:** Secure political will and institutional backing for the NBSAP and its integration into the National Development Plan.
- **Enhance information sharing and resource mobilization:** Establish an effective feedback and information-sharing system to help stakeholders mobilize resources (human, financial, infrastructure, research and development) while improving awareness and communication, especially within MET and at the district level to close gaps between existing mandates and NBSAP activities.
- **Improve biodiversity management through lessons learned:** Document and share experiences from NBSAP implementation to continuously enhance communication processes, thereby improving biodiversity resource management and contributing to the adaptive management cycle envisioned under the GBF monitoring framework.
- **Enhance decision-making and policy outcomes at all levels:** Ensure appropriate and timely communication so that stakeholders across all sectors are involved in decision-making processes affecting biodiversity, including community resource uses and technical or political decisions, consistent with GBF Target 22 (participation in decision-making, access to justice and information).
- **Strengthen linkages among DEP, MET, and other biodiversity actors:** Establish appropriate communication protocols and processes to strengthen relations among DEP, MET, and other partners in the biodiversity sector. This will improve knowledge and information sharing, stimulate collaboration and partnership opportunities, and support the whole-of-government and whole-of-society approach embedded in the GBF.

The State of Communication

Communication Policy

Botswana's communication policy is characterised by a state-led, institution-driven and legally anchored approach, having evolved from traditional government public information dissemination to a structured ecosystem that now includes digital transformation, cybersecurity, and stakeholder participation. The Government of Botswana positions itself as the central hub of communication, particularly for developmental and environmental agendas, and has undertaken this role by establishing necessary institutions, policies, and availing resources to enable communication. The Ministry of Communication and Innovation serves as the apex body responsible for policy development, strategy and standards on communication, while execution is deliberately decentralized to line ministries and departments to ensure context-specific outcomes. In line with its objectives, the Department of Government Communications and Information Systems (DGCIS) established a Stakeholder Engagement Plan which directly informs the communication strategies of all line ministries and departments, creating a binding cross-government framework for identifying and engaging with citizens, civil society, private sector, and community leaders.

The operational execution of communication policy is spearheaded by two main departments: the Department of Shared Digital Services, which focuses on internal government efficiency through shared platforms and e-services; and the Digital Communications Infrastructure and Business (DCIB), which focuses on national infrastructure such as fibre networks and universal access, as well as business enablers like licensing. Communication in Botswana is heavily governed by statutory instruments to ensure it reaches all levels in a transparent and informed manner. The Communications Regulation Authority Act of 2012 establishes the Botswana Communications Regulatory Authority (BOCRA) to regulate the telecommunications, broadcasting, and postal services sectors, ensuring fair competition, spectrum management, and consumer protection. The Digital Service Act of 2025 provides for the regulation of digital services, enhances the management and promotion of digital service delivery, establishes the Digital Services Authority responsible for formulating digital service standards, and facilitates access to digital services to improve administrative functions, productivity, and public access to information. Complementing this, the Cybersecurity Act of 2025 establishes a legal framework to protect Botswana's critical information infrastructure, creates national cybersecurity authorities, and enhances incident response and resilience, ensuring that public communication channels remain credible and available even during cyber threats. Together, these legal instruments, institutions and strategies ensure that communication reaches all levels of society from national addresses and licensed broadcasters to local kgotla meetings and digital service portals in a transparent, informed and secure manner.

Existing Communication Infrastructures

Over the years, Botswana has made considerable progress in ensuring that communication infrastructure is widely available to all citizens. As a result, all villages, towns and cities, and some remote areas, have access to radio, particularly Radio Botswana. Other private radio stations are also gradually expanding their national coverage. In addition, newspapers are widely accessible. The Daily News is the most widely distributed and accessible newspaper, while other newspapers such as Mmegi, Sunday Standard, and Botswana Guardian are mainly available in urban centres and villages along major road networks, though they continue to extend their reach to villages not connected to these networks. These infrastructures will be leveraged to disseminate messages aligned with the GBF, incorporating indigenous and local knowledge where appropriate.

Botswana's communication infrastructure is a mix of public and private sector players, focusing on providing high-speed internet access, voice telephony, and value-added services. The main operators include Botswana Telecommunications Limited (BTCL), Mascom Wireless Botswana, and Orange Botswana, which hold network facilities and service licenses. Independent Service Providers (ISPs) also play a role, offering services primarily through the main operators. The Botswana Fibre Network (BoFiNet), a state-owned entity, provides wholesale national and international telecommunication infrastructure and services, ensuring extensive communications coverage. BoFiNet has achieved 4G coverage of 98.2 percent and 5G coverage of 41.89 percent, indicating a strong presence in the telecommunications sector.

Botswana is also moving toward digital transformation, evident in the establishment of data centre facilities for hosting various types of data. This includes database platforms, database administration (installing, configuring, monitoring, maintaining, and improving the performance of databases and data stores), database backup management and maintenance, database clones, recovery or migrations, as well as the deployment of developer scripts from ministries.

Strengthening Communication and Stakeholder Engagement within the Department of Environmental Protection

The Department of Environmental Protection (DEP), which serves as the national focal point for the UN Convention on Biological Diversity, does not currently have a communication strategy in place. To address this gap, a Stakeholder Engagement Plan will be developed upon the completion of the NBSAP. This Plan will serve as the overarching framework upon which NBSAP awareness-raising initiatives are anchored. Critically, the Plan will explicitly integrate the communication targets of the Global Biodiversity Framework (GBF), including the promotion of gender-responsive communication and the provision of accessible formats for persons with disabilities.

Despite the absence of a formal communication strategy, the Department of Environmental Protection (DEP) has established a Public Education and Awareness (PEA) Division. Part of the PEA's mandate is to engage with stakeholders and communicate all DEP activities across various relevant platforms. In relation to the Convention on Biological Diversity (CBD) and the Global Biodiversity Framework (GBF), the PEA's function is to communicate all convention- and framework-related matters to stakeholders, in conjunction with the CBD National Desk Officer. The National Environmental Education Strategy and Action Plan (NEESAP), which has been revised to align with GBF Target 21 on knowledge and information, guide the PEA. A multi-stakeholder committee known as the National Environmental Education Committee (NEEC) supports the implementation of NEESAP. The Stakeholder Engagement Plan for the NBSAP will further serve as a sub-section of activities that the PEA and NEEC are currently undertaking. It will strengthen the interface between these bodies and biodiversity management issues.

Institutional Framework for Biodiversity Communication: Structures, Divisions, and Mandates

The primary responsibility for communication on biodiversity-related matters falls to the focal department, the Department of Environmental Protection (DEP), with technical support from the MET Public Relations Office. Across the Ministry, similar structures exist within various departments, each engaging stakeholders on issues specific to their mandates. Notably, the Department of Forestry and Range Resources (DFRR) and the Department of Wildlife and National Parks (DWNP) play a significant role in biodiversity communication, the DFRR focusing on flora, and the DWNP on fauna. Both departments are central to the broader biodiversity communication framework and are each equipped with a Publicity and Outreach Unit. These Units are critical for communicating specific biodiversity (flora and fauna) issues to stakeholders across all sectors. Crucially, most of their outreach activities are designed to target local communities and youth, groups that have often been overlooked in biodiversity management processes, thereby responding directly to GBF Target 22's call for inclusive and participatory engagement

Communication Capacity Gaps and Training Needs across MET Departments

Within the Ministry of Environment and Tourism (MET), which comprises seven departments and one parastatal, the only unit with adequately trained communication staff is the Department of Corporate Services. The Department of Environmental Protection (DEP), which is responsible for coordinating NBSAP implementation, has no staff member holding a degree or any other formal qualification in communication; the closest relevant qualification among some staff members is in education. This represents a significant capacity gap that must be addressed. Accordingly, the DEP and other departments within the Ministry need to increase the number of staff with formal communication qualifications or, at minimum, functional communication skills. Training should specifically cover GBF communication principles, gender-sensitive communication, and accessibility. Importantly, these training opportunities should also be made available to

civil society organizations involved in communicating biodiversity management issues, thereby strengthening the broader communication ecosystem.

Overview of Current Biodiversity Communication Efforts across MET Departments

The Department of Environmental Protection (DEP) and other departments within the Ministry of Environment and Tourism (MET) have, over the years, implemented a variety of activities directed at biodiversity communication. Key among these are the DEP, the Department of Forestry and Range Resources (DFRR), the Department of Wildlife and National Parks (DWNP), and the MET Public Relations Office, all of which have played instrumental roles in this regard. The DEP, in collaboration with the MET Public Relations Office, has been communicating on all biodiversity issues and related matters. Simultaneously, the DFRR has taken the lead on flora-specific issues, including invasive alien species, fire management, and tree conservation while the DWNP has focused on fauna-specific matters, such as human-wildlife conflicts, human-wildlife coexistence, and threatened and endangered species, among others.

Strategic Overview of Biodiversity Communication within the MET and Its Departments

Biodiversity communication across the Ministry of Environment and Tourism (MET) and its constituent departments has been undertaken through a diverse array of platforms, including newsletters, brochures, pamphlets, radio and television broadcasts, advertisements, inserts, workshops, *kgotla* meetings, multi-stakeholder dialogues, youth rallies, school debates, commemorative events, and social media channels such as Facebook. The selection and application of these communication vehicles have been tailored flexibly, contingent upon the nature of the message and the specific target audience.

Notwithstanding these concerted efforts, there remains a discernible imperative to enhance coordination, cooperative mechanisms, and institutional synergies among MET departments in their engagement with stakeholders. Such alignment is especially critical to upholding the Global Biodiversity Framework's (GBF) overarching emphasis on knowledge sharing and inclusive, participatory dialogue. Historically, departmental communication with stakeholders has occurred in relative isolation, with limited inter-departmental consultation, despite frequent overlap in audience targeting. In this context, the MET Public Relations Office requires substantive reinforcement to effectively orchestrate and harmonize the communication processes and outputs across all departments. Moreover, the allocation of dedicated resources is essential to guarantee coherence and uniformity in stakeholder messaging. These resources will also be pivotal to the successful operationalization and implementation of the MET Stakeholder Engagement Plan, which in turn will markedly elevate the quality and impact of biodiversity communication and directly advance the realization of the GBF objectives.

Challenges in Biodiversity Communication

As elaborated in the preceding sections, biodiversity constitutes a fundamental pillar of Botswana's national economy, with particular significance for rural livelihoods and the tourism sector. Recognizing this critical importance, the Government of Botswana has accorded high priority to the adoption of sustainable management practices for these invaluable natural assets. Consequently, a comprehensive suite of policies, programmes, and projects has been developed and operationalized to advance this agenda.

Notwithstanding the extensively documented commitments and achievements of Botswana in the realm of biodiversity stewardship, several persistent challenges continue to impede effective communication on biodiversity matters. These obstacles, which remain unresolved despite notable progress, are delineated as follows:

Uncoordinated Communication

Biodiversity communication is presently undertaken by multiple entities, including the Department of Environmental Protection (DEP), the Department of Wildlife and National Parks (DWNP), the Department of Forestry and Range Resources (DFRR), as well as various non-governmental and community-based organizations. Critically, these communication efforts are executed without overarching guidance from a centralized coordination mechanism, whether in the form of a dedicated unit or a comprehensive strategy. In most instances, individual departments or organizations pursue their communication activities in isolation, without engaging or partnering with other relevant stakeholders. This fragmented approach undermines the overall efficacy of message delivery, strains available resources, and poses significant impediments to alignment with the Global Biodiversity Framework's (GBF) call for integrated, inclusive, and participatory approaches. There is an urgent imperative to foster synergy in biodiversity communication, as coordinated efforts would facilitate optimal utilization of financial resources and mitigate stakeholder fatigue, a phenomenon exacerbated by the current reality wherein identical stakeholders are repeatedly targeted by multiple departments and organizations.

Absence of a Stakeholder Engagement Strategy

A fundamental prerequisite for effective communication is the establishment of a comprehensive stakeholder inventory that informs the primary focal point as to which stakeholders are to be engaged, the rationale for their involvement, and the appropriate modalities for their engagement, consistent with GBF Target 22, which mandates full, equitable, and inclusive participation. Such an inventory would further delineate the specific communication mediums best suited for each stakeholder category. The development and operationalization of this strategic instrument would substantially enhance communication processes and strengthen decision-making frameworks across the biodiversity landscape.

Staffing Constraints

Effective communication necessitates a dedicated team with the capacity to engage consistently across all communication initiatives. At present, the MET maintains a specialized unit responsible for communicating broader issues pertaining to the ministry's mandate. However, this unit is significantly constrained by staffing limitations, attributable to its small complement of personnel. Consequently, the unit is compelled to prioritize select activities, thereby compromising the breadth and depth of its engagement on biodiversity management issues. While departments within the MET also host units that complement the work of the central communication unit, these too face analogous staffing challenges. At the CBD focal department, the Public Environment Awareness (PEA) division assists in communicating biodiversity-related matters, yet it similarly contends with an inadequate number of personnel. Notably, members of this division lack formal training in communication, a deficiency that, combined with staffing shortages, has further constrained the overall dissemination of biodiversity messages to stakeholders across diverse sectors, including the specific reporting requirements for GBF communication targets.

Information and Knowledge Gaps

The absence of coordinated communication activities has engendered significant information asymmetry among key stakeholders, including the DEP, DFRR, DWNP, the MET Public Relations Office, research institutions, and non-governmental organizations. This challenge is particularly pronounced with respect to information flow to district-level offices. The prevailing information-sharing mechanisms among stakeholders require substantial strengthening, as enhanced knowledge exchange would advance the overarching communication objectives on biodiversity matters and ensure Botswana's compliance with GBF Target 21, which emphasizes the accessibility of the best available knowledge.

Insufficient Biodiversity Data

An additional constraint pertains to the paucity of data on biodiversity-related aspects. The existing data is predominantly maintained in manual or hard-copy format, rendering it difficult to share with collaborators and partners. Furthermore, institutional capacities for comprehensive data management, encompassing collection, analysis, handling, and curation remain suboptimal and require targeted improvement to support evidence-based communication and decision-making.

Opportunities for Advancing Biodiversity Communication

Willingness for Partnerships

Biodiversity management has garnered significant momentum, particularly through the Gaborone Declaration on Africa's Sustainability, thereby creating a conducive environment for forging strategic partnerships with a diverse array of key stakeholders in the communication of biodiversity management initiatives. These collaborative arrangements offer the distinct advantage of resource pooling, which in turn facilitates broader outreach coverage and enables the development and implementation of more precisely targeted messaging. The following partnerships present viable avenues for enhancing effective biodiversity communication, in alignment with the Global Biodiversity Framework (GBF):

- **Partnerships with the Media:** Media collaborations offer a powerful platform for disseminating packaged messages pertaining to GBF national targets and actions to intended audiences, and in many instances, to broader stakeholder groups, including those not directly targeted. This approach provides a cost-effective mechanism for engaging a wide spectrum of stakeholders.
- **Partnerships with Training Institutions:** Collaborative engagements with tertiary institutions and research organizations yield the additional benefit of ensuring that biodiversity messages and GBF-aligned content are integrated into academic curricula and disseminated to students. Furthermore, research findings can be effectively communicated to other stakeholders, particularly the CBD focal department, thereby addressing the prevailing challenge of limited biodiversity information sharing.

Funding Opportunities

There exists a pronounced willingness among development partners and, significantly, local corporations to fund biodiversity-related activities. This presents a strategic opening for resource mobilization and the cultivation of partnerships with local private enterprises, with the specific objective of communicating on biodiversity issues and associated projects. This is particularly pertinent to the implementation of the GBF's resource mobilization targets, including those aspects pertaining to communication.

The Drive for Mainstreaming

The ongoing efforts by the Ministry of Environment and Tourism (MET), through the Department of Environmental Protection (DEP), to mainstream environmental considerations across all sectors represent a significant opportunity for communicating key biodiversity messages to stakeholders across diverse domains. This directly supports GBF Target 14, which calls for mainstreaming biodiversity across government and society, and Target 21, which emphasizes the accessibility of knowledge. Mainstreaming biodiversity entails the systematic integration of biodiversity considerations into the policies, strategies, and operational practices of sectors not traditionally associated with environmental concerns including agriculture, mining, energy, tourism, land use planning, infrastructure development, and finance. This cross-sectoral integration is imperative, as biodiversity loss is primarily driven by activities originating outside the environmental sector. Consequently, sustainable solutions necessitate collaborative engagement across all sectors of the economy and society.

The key mainstreaming efforts currently underway in Botswana include:

Key Mainstreaming Efforts Underway in Botswana

- **National Development Plans (NDPs):** Biodiversity and environmental sustainability are being progressively integrated into Botswana's national planning frameworks, thereby ensuring that economic growth trajectories are pursued without compromising the nation's natural capital endowment.
- **Sectoral Policies and Strategies:** Various ministries are being actively encouraged to adopt biodiversity-friendly practices across their operational domains. For instance, the agricultural sector is receiving support for the adoption of sustainable land management techniques, while the mining sector is being guided through the rigorous application of Environmental Impact Assessments (EIAs) and compliance with rehabilitation requirements.
- **Local and District Level Integration:** Mainstreaming initiatives are being extended to district development committees and local authorities, ensuring that biodiversity considerations are systematically incorporated into land use planning, natural resource management, and community development projects at the sub-national level.
- **Economic Valuation of Biodiversity:** Deliberate efforts are underway to demonstrate the economic value of Botswana's biodiversity and ecosystem services including water purification, pollination, and ecotourism revenue, to decision-makers within finance and planning ministries. This evidence-based approach serves to substantiate the business case for increased investment in conservation and sustainable resource management.
- **Multi-Stakeholder Platforms:** The Government is actively establishing platforms for structured dialogue between environment officials and representatives from diverse sectors, including infrastructure, energy, and trade. These forums are designed to facilitate joint planning, foster shared accountability, and promote collective ownership of biodiversity outcomes across all sectors of the economy.

Leveraging Mainstreaming Efforts for Targeted Biodiversity Communication

The Communication Plan can strategically capitalize on these mainstreaming initiatives by delivering tailored biodiversity messages to each sector, utilizing language and illustrative examples that resonate with their specific mandates and operational contexts. For instance, communications directed to the Ministry of Agriculture would emphasize the reduction of harmful subsidies and the promotion of sustainable agricultural practices, while messages to the Ministry of Minerals and Energy would highlight ecosystem rehabilitation

imperatives and the application of biodiversity offsets. This targeted, sector-specific approach will enhance stakeholder understanding, foster a sense of ownership, and encourage concrete actions within each sector that collectively contribute to the realization of domesticated GBF targets.

Establishment of a National Biodiversity Data Depository

A significant opportunity exists for the establishment of a National Biodiversity Data Depository, a centralized platform wherein a comprehensive coverage of biodiversity data components can be collated and collectively shared. Data flows should be managed under a unified information technology architecture, with services delivered through an online portal representing an umbrella concept under a single, cohesive brand. Data would be systematically aggregated from diverse available sources, including research institutes' data management systems, national monitoring schemes, natural history collection management systems, and citizen science initiatives, thereby ensuring a robust and accessible knowledge base.

Elements for Communication with Stakeholders

This strategy acknowledges that biodiversity management is a matter of paramount importance to a wide array of stakeholders. It further recognizes that in the effective communication of biodiversity messages, there is an imperative to identify relevant stakeholders and to determine the tools or communication mediums most appropriate for each category. Table 1 below delineates the stakeholder categories and the corresponding tools that will be employed in communicating key biodiversity messages, with a particular focus on ensuring information accessibility in alignment with GBF Target 21 and fostering inclusive participation consistent with Target 22.

The Communication Plan can leverage these mainstreaming efforts by delivering tailored biodiversity messages to each sector, using language and examples relevant to their specific mandates. For instance, messages to the Ministry of Agriculture would focus on reducing harmful subsidies, while messages to the Ministry of Minerals and Energy would highlight ecosystem rehabilitation and biodiversity offsets. This targeted communication will enhance understanding, build ownership, and encourage sector-specific actions that collectively contribute to the domesticated GBF targets.

Establishment of a National Biodiversity Data Depository

There is an opportunity for establishment of a National Biodiversity Data Depository where a broad coverage of the components of biodiversity data can be collectively shared. Data flows should be managed under a single information technology architecture. Services should be delivered through an on-line portal representing an umbrella concept under one brand. Data should be collated from available sources such a research institute’s data management systems, national monitoring schemes, natural history collection management systems and citizen science projects.

Elements for Communication with Stakeholders

This strategy recognizes that biodiversity management is an aspect of importance to stakeholders. It further recognizes that in communicating biodiversity messages, there is a need to identify stakeholders and the tools or mediums of communication that are appropriate for them. Table 1 below indicates the categories of stakeholders and the tools that will be used in communicating key biodiversity messages, with a specific focus

on making information accessible in line with GBF Target 21 and ensuring inclusive participation under Target 22.

Table 22: Stakeholder categories and communication tools

Stakeholder Category	Description	Communication Tools/Mediums	Purpose/Objective
Government Ministries and Departments	Policy-makers, planners, and technical staff across sectors (e.g., Agriculture, Minerals and Energy, Lands, Health, Finance)	High-level policy briefs, technical reports, inter-ministerial workshops, presentations at senior management meetings, circulars, and memoranda	To influence policy formulation, integrate biodiversity into sectoral planning, and secure political and financial commitment
Local Government and District Authorities	District Development Committees, sub-district councils, and local administration officials	*Kgotla* meetings, district-level workshops, informational brochures, local radio broadcasts, and face-to-face briefings	To embed biodiversity considerations into local development plans, land-use decisions, and community projects
Private Sector and Industry	Mining, energy, agriculture, tourism, infrastructure, and finance sectors	Sector-specific fact sheets, business case briefings, investor roundtables, corporate social responsibility (CSR) forums, and one-on-one engagement meetings	To encourage adoption of biodiversity-friendly practices, promote offsets and rehabilitation, and mobilize private sector investment
Non-Governmental Organizations (NGOs) and Civil Society	Environmental advocacy groups, community-based organizations (CBOs), and conservation trusts	Partnership dialogues, collaborative workshops, joint advocacy campaigns, newsletters, and social media engagements	To foster collaborative action, amplify messaging, and leverage grassroots networks for wider reach
Academic and Research Institutions	Universities, colleges, and research institutes	Research symposia, academic publications, student engagement programmes, data-sharing agreements, and guest lectures	To integrate biodiversity into curricula, facilitate knowledge generation and exchange, and address data gaps
Media	Print, broadcast, and digital media outlets	Press releases, media briefings, feature articles, radio and television talk shows, documentaries, and social media campaigns	To reach broad and diverse audiences cost-effectively, raise public awareness, and sustain media interest in biodiversity issues
Local Communities and Traditional Authorities	Rural communities, indigenous groups, traditional leaders, and community-based natural resource management (CBNRM) trusts	*Kgotla* dialogues, community radio, participatory workshops, storytelling sessions, illustrated brochures in local languages, and mobile village screenings	To ensure inclusive participation, respect traditional knowledge, and promote community ownership of biodiversity conservation
Youth and Students	Primary, secondary, and tertiary-level students; youth groups and associations	School debates, youth rallies, essay competitions, biodiversity clubs, career fairs, social media challenges, and interactive digital content	To build a conservation ethic among the next generation, inspire action, and create future biodiversity champions

Development Partners and Donors	Bilateral and multilateral agencies, international financial institutions, and philanthropic organizations	Project briefs, high-level dialogue meetings, progress reports, joint review missions, and donor roundtables	To mobilize resources, ensure alignment with national priorities, and demonstrate impact for continued funding
General Public	Broad citizenry across urban and rural areas	Mass media campaigns (radio, television, print), social media (Facebook, X/Twitter, Instagram), public commemorations (e.g., World Environment Day), information kiosks, and public service announcements	To raise general awareness, encourage behavioural change, and foster a national culture of environmental stewardship

18. MONITORING AND EVALUATION FRAMEWORK

Purpose of the Monitoring and Evaluation Framework

The purpose of this Monitoring and Evaluation (M&E) Framework is to provide a robust, systematic, and transparent mechanism for tracking the implementation of Botswana's National Biodiversity Strategy and Action Plan (NBSAP). The framework will serve as a national accountability, learning, and decision-making tool to ensure that strategic priorities are translated into measurable actions, resources are efficiently allocated, and biodiversity outcomes are effectively achieved over the implementation period.

The M&E Framework is predicated on the understanding that tackling biodiversity loss, habitat degradation, and climate risks demands immediate, coordinated, and evidence-based action. Effective monitoring and evaluation will enable Botswana to identify implementation gaps at an early stage, strengthen institutional accountability, scale up successful conservation models, and direct financial, technical, and human resources towards interventions with the greatest ecological, social, and economic impact. In the absence of a rigorous tracking system, it would be exceedingly difficult to ascertain whether national investments and interventions are effectively contributing to halting biodiversity loss, restoring degraded ecosystems, and strengthening ecological resilience.

This framework is aligned with the goals and targets of the Kunming-Montreal Global Biodiversity Framework (KM-GBF), while remaining firmly grounded in Botswana's national development priorities, institutional systems, and planning frameworks. By aligning national indicators with global biodiversity targets, the framework will ensure that Botswana's national and local actions contribute meaningfully to global biodiversity outcomes, while simultaneously supporting evidence generation, data aggregation, and reporting under the Convention on Biological Diversity.

Objectives of the M&E Framework

The objectives of the M&E Framework are to:

- Monitor the implementation of NBSAP actions, activities, and operational targets across all sectors
- Measure progress towards the achievement of national biodiversity targets, ecological sustainability, and long-term development outcomes

- Provide timely, evidence-based information to support decision-making, planning, budgeting, and adaptive management
- Identify emerging environmental risks, implementation gaps, and opportunities for corrective action
- Streamline data collection to support national reporting requirements and international obligations
- Strengthen transparency, institutional ownership, and collaboration among government institutions, local authorities, civil society, communities, academia, research institutions, and the private sector

Institutional Arrangements for Monitoring and Evaluation

The institutional arrangements for Botswana's NBSAP M&E Framework shall be anchored within existing national planning, coordination, and reporting systems. This will ensure alignment with Vision 2036, National Development Plans, District and Urban Development Plans, and Botswana's obligations under the Convention on Biological Diversity. The framework will promote a whole-of-government and whole-of-society approach, recognizing that biodiversity conservation and sustainable use are shared national responsibilities. Biodiversity monitoring shall therefore not be treated as a stand-alone environmental function, but as an integrated component of national development planning, sector implementation, local governance, and international reporting.

Coordination

The Sustainable Environment Thematic Working Group shall serve as a key coordination platform for mainstreaming NBSAP monitoring into national development planning and sector reporting. It is through this platform that biodiversity priorities will be linked to national planning instruments, budget processes, development programmes, and cross-sector implementation mechanisms. This will strengthen policy coherence and ensure that biodiversity considerations are systematically integrated across relevant sectors.

Furthermore, the Ministry of Environment and Tourism, through the Department of Environmental Protection, shall serve as the overall coordinating institution and national focal point for the NBSAP M&E Framework. The Department will provide technical leadership, coordinate data collection, consolidate progress information, facilitate stakeholder engagement, and ensure that monitoring and evaluation processes are implemented consistently across sectors.

Strategic Oversight and Policy Guidance

The National Biodiversity Authority shall provide strategic oversight and policy guidance for the implementation and monitoring of the NBSAP. As a multi-sectoral committee comprising representatives and experts from relevant government ministries, academic and research institutions, and environmental non-governmental organizations, the NBDA will play a central role in strengthening coordination, accountability, and technical review.

The committee will review progress against national biodiversity targets, support inter-institutional coordination, validate major monitoring and evaluation outputs, and advise on corrective measures where implementation gaps are identified. Its oversight role will help ensure that NBSAP implementation remains aligned with national priorities, emerging biodiversity challenges, and Botswana's commitments under the Convention on Biological Diversity and the Kunming-Montreal Global Biodiversity Framework.

Implementation and Data Generation

Line ministries, departments, and parastatals shall be responsible for monitoring biodiversity-related actions that fall within their respective mandates. These include institutions responsible for wildlife, forestry, water, agriculture, land-use planning, climate change, tourism, statistics, local government, research, and education.

Each implementing institution shall designate an NBSAP focal person responsible for submitting quarterly implementation updates, indicator data, and supporting evidence to the Department of Environmental Protection. This will strengthen accountability, improve data flow, and ensure that progress is captured consistently across sectors.

Local authorities, including district councils, urban councils, and land boards, shall play a critical role in monitoring implementation at the local level. They will support data collection on biodiversity-related interventions implemented within their jurisdictions, including ecosystem restoration, land-use planning, community-based natural resource management, urban green and blue spaces, waste management, awareness activities, and local conservation initiatives.

Research institutions, academia, civil society organizations, community-based organizations, and the private sector shall contribute technical expertise, data, research outputs, innovation, citizen science, community monitoring, and implementation evidence. Their participation will strengthen data quality, transparency, and inclusiveness, while promoting the integration of science and traditional knowledge into biodiversity decision-making.

Reporting Framework

Reporting is a key component of the Monitoring and Evaluation Framework, as it translates monitoring results into evidence for decision-making, accountability, learning, and adaptive management. The reporting framework will ensure that progress on NBSAP implementation is regularly documented, reviewed, and communicated at both national and international levels.

National Reporting

At the national level, implementing institutions shall submit quarterly progress reports to the Department of Environmental Protection. These reports shall provide updates on activities implemented, progress against agreed indicators, challenges encountered, lessons learned, and recommendations for adaptive management. Quarterly submissions shall be consolidated into annual national NBSAP implementation reports. These reports will inform policy review, national planning, budgeting, and prioritization. They will also strengthen national accountability by providing a clear picture of progress towards Botswana's biodiversity targets and the contribution of different sectors and institutions.

International Reporting

At the international level, Botswana shall report progress to the Convention on Biological Diversity Secretariat through the required national reporting cycle. The M&E Framework will therefore ensure that national data collection, validation, and reporting processes are organized in a manner that supports both domestic decision-making and international reporting obligations.

Accountability and Feedback Mechanisms

In an effort to strengthen consistency, accountability, and credibility, the framework shall include clearly defined roles and responsibilities, standardized reporting templates, agreed indicators, data-sharing protocols, validation mechanisms, and feedback loops. This will enable Botswana to track progress towards national biodiversity targets, assess its contribution to the Kunming-Montreal Global Biodiversity Framework, identify implementation gaps, and apply adaptive management to improve biodiversity outcomes.

Monitoring and Evaluation Approach

The Monitoring and Evaluation approach for NBSAP implementation will adopt a results-based and adaptive management approach to ensure that biodiversity actions are systematically planned, implemented, monitored, evaluated, and improved over time. This approach links planned interventions to measurable outputs, outcomes, and impacts, while ensuring alignment with Botswana's national biodiversity targets and the Kunming-Montreal Global Biodiversity Framework. It will support regular tracking of progress against agreed indicators, baselines, and targets, as well as periodic assessment of the relevance, effectiveness, efficiency, sustainability, and impact of implementation. The process of monitoring and evaluation will strengthen evidence-based decision-making, accountability, coordination among implementing institutions, and adaptive management, while supporting Botswana's national quarterly reporting and international reporting obligations under the Convention on Biological Diversity.

19. Implementation Plan for each Target's Strategic Actions

STRATEGIC ACTIONS FOR TARGET 1: Ensure that all areas are under participatory, integrated, and biodiversity-inclusive spatial planning and/or effective management processes addressing land and inland water use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of local communities.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
1-1	Implement the National Ecosystem Assessment Findings	DEP	BUAN, DTCP, DWNP, DNMM DFRR, UB, NARDI, MoLA (DCP, AP)	Birdlife Botswana, Kalahari Conservation Society	-Number of reports and policy briefs developed.	1.1.1 Strengthen the National Biodiversity Platform as an inclusive, multi-sectoral coordination and collaboration mechanism to facilitate effective stakeholder engagement, knowledge exchange, and coordinated implementation of national biodiversity priorities. 1.1.2 Enhance the capacity of planners, policymakers, and decision-makers to apply ecosystem-based management approaches in policy development, planning processes, and sustainable resource management. 1.1.3 Design and implement targeted ecosystem restoration initiatives within identified priority ecosystems. 1.1.4 Develop and operationalize sector-specific biodiversity action plans aligned with NBSAP priorities, national development objectives, and the targets and goals of the Kunming–Montreal Global Biodiversity Framework. 1.1.5 Establish and strengthen cross-sectoral coordination platforms among key sectors, including agriculture, mining, tourism, water, and climate change, to facilitate the integration of findings from the Botswana	2026	2030

						National Ecosystem Assessment (BW-NEA) into sectoral policies, strategies, plans, and decision-making processes. 1.1.6 Document, safeguard, promote, and facilitate the application of Traditional Knowledge associated with biodiversity conservation, sustainable utilization, and ecosystem management. 1.1.7 Integrate Traditional Knowledge systems, indigenous biodiversity practices, and locally developed conservation approaches into formal and informal education curricula. 1.1.8 Advance transformative policy and governance reforms, strengthen integrated spatial planning frameworks, and enhance community-based stewardship and ecosystem-based adaptation approaches		
1-2	Profiling and mapping of ecologically sensitive areas	DEP	BUAN, DNMM DTCP, DWNP, DFRR, UB, NARDI, MoLA (DCP, AP)	Birdlife Botswana, Kalahari Conservation Society	-Number of ecologically sensitive areas profiled and mapped.	1.2.1 Identify, classify, and delineate ecosystem types and ecologically sensitive areas using nationally agreed criteria. 1.2.2 Assess and characterize ecosystem services associated with identified ecosystems to inform sustainable planning, policy development. 1.2.3 Utilize Geographic Information Systems (GIS) and remote sensing technologies to spatially map ecosystems, ecosystem services, and areas of ecological importance. 1.2.4 Validate ecosystem profiles, spatial datasets, and associated maps through inclusive stakeholder consultations and technical review processes.	2026	2030
1-3	Develop three (3)	DTCP	All Land Management	BOCOBONET, KRCS, local	-Number of regional SP	1.3.1 Integrate ecosystem assessment and spatial mapping outputs into regional spatial	2026	2030

	Regional Spatial Plans, taking into account the ecologically sensitive areas in consultation with the communities		(LB, DOL) MET, District Land Use Planning Unit Committees	communities , UN-Habitat	developed -% of reviewed and updated ILUMPS -Number of new ILUMPS Developed	planning frameworks. 1.3.2 Conduct inclusive community consultations to incorporate local land-use priorities, traditional knowledge, and customary practices into regional spatial planning processes, ensuring participatory and context-specific planning outcomes. 1.3.3 Develop, finalize, and operationalize three regional spatial plans that establish appropriate land-use zoning, guide plot allocation, regulate development activities, and safeguard biodiversity-rich and environmentally sensitive areas.		
1-4	Review existing policies and legislative frameworks	MoLA (DTCP DOL, Land boards)	MET, Ministry of Justice and Correctional Services,	BOCOBONET , KRCS, UN-Habitat,	-Number of policies and legislative frameworks reviewed	1.4.1 Undertake a comprehensive review of land-related policies, legislation, and institutional frameworks to ensure coherence and alignment with national development and conservation objectives. 1.4.2 Identify, assess, and address inconsistencies, overlaps, and conflicts within existing legislation and policies, including those relating to tribal land administration and state land management. 1.4.3 Ensure meaningful participation of local communities in committees and platforms responsible for reviewing policies and legislative frameworks. 1.4.4 Integrate ecosystem assessment and mapping outputs into regional spatial planning processes. 1.4.5 Develop, update, and maintain a centralized database of existing laws, policies, and regulations governing land allocation and land-use management. 1.4.6 Implement education, awareness-raising, and capacity-building programmes on land	2026	2030

						allocation policies, legislative frameworks, and sustainable land-use planning. 1.4.7 Provide regular updates to local communities and stakeholders on the progress and outcomes of the policy and legislative review.		
1-5	Monitor the implementation of the spatial plans based on co-management approach	DTCP	MET, MkloLA, Local Authorities, Ministry of Justice and Correctional Services, DLUPU	BOCOBONET, KRCS, UN Habitat	% adherence to Spatial Plans Ha of area of ecosystems of ecological significance converted to other land use	1.5.1 Establish a co-management monitoring framework involving government, local authorities, and communities. 1.5.2 Conduct regular coordination, monitoring, and review meetings to assess implementation progress. 1.5.3 Track compliance, land-use changes, and ecosystem outcomes linked to spatial plan implementation. 1.5.4 Document lessons learned and institutionalize adaptive management practices.	2026	2030

STRATEGIC ACTIONS FOR TARGET 2: By 2030, ensure that at least 30 percent of Botswana's ecosystems are conserved through restoration of degraded terrestrial and inland water ecosystems in order to enhance biodiversity and ecosystem functions, services, ecological integrity, and connectivity.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
2-1	Assess and update national land degradation status in collaboration with local communities	DFRR	MoLA, Academic institutions	Implementing Partners, CBO's, NEEC, Civil Society Organisations	-National land degradation Status report developed	2.1.1 Review, consolidate, and synthesize existing ecosystem degradation assessments, land-use and land-cover maps, and biodiversity datasets to establish a comprehensive baseline of ecosystem condition and degradation status.	2026	2028

						2.1.2 Conduct a nationwide land degradation assessment to evaluate ecosystem health and trends. 2.1.3 Analyze, integrate, and validate biophysical, socio-economic, and ecological datasets to identify degradation hotspots, assess spatial and temporal trends, and inform targeted ecosystem restoration and management interventions. 2.1.4 Develop and disseminate a National Ecosystem Degradation Status Report to document current ecosystem conditions, highlight priority areas for intervention, and provide evidence-based recommendations for achieving national biodiversity and restoration targets.		
2-2	Develop and implement a National Land Restoration Strategy and Action Plan	DFRR	MoLA, Ministry of Mineral and Energy, DWS	Implementing Partners, CBO's, NEEC, Civil Society Organizations	-Land Restoration Strategy and Action plan developed -Number of land restoration projects -% area under restoration -Soil Organic Carbon trends	2.2.1 Finalize, validate, and operationalize the National Land Restoration Strategy and Action Plan. 2.2.2 Re-establish and strengthen national coordination, governance, and oversight mechanisms to support effective land restoration implementation. 2.2.3 Identify and prioritize degraded landscapes for restoration, define appropriate restoration interventions, and establish measurable, time-bound restoration targets. 2.2.4 Develop, institutionalize, and maintain a comprehensive national inventory of land restoration initiatives, programmes, and projects. 2.2.5 Monitor, evaluate, and report on progress towards the achievement of national Land Degradation Neutrality (LDN) targets using standardized indicators and reporting frameworks.	2026	2030

						2.2.6 Develop and implement policy, regulatory, and financial incentives to promote sustainable land management and restoration practices.		
2-3	Conduct public awareness, education and participation in Land Restoration activities	DFRR	MoLA, Ministry of Mineral and Energy,	FAO, KCR, NEEC Implementing Partners, Civil Society Organizations	-Number of stakeholders engaged on land restoration activities	2.3.1 Design and implement targeted behaviour change, awareness, and education programmes to promote land restoration and sustainable land management practices. 2.3.2 Facilitate and strengthen inclusive community participation in the planning, implementation, monitoring, and evaluation of land restoration initiatives. 2.3.3 Collect, review, consolidate, and analyse implementation reports submitted by stakeholders and partners to inform adaptive management and decision-making. 2.3.4 Document, disseminate, and promote the uptake of lessons learned, good practices, and innovative approaches to support the scaling up of successful land restoration interventions across communities and institutions.	2026	2030

STRATEGIC ACTIONS FOR TARGET 3: By 2030, ensure and enable that at least 30 percent of all Botswana's ecosystems especially areas of particular importance for biodiversity and ecosystem functions and services are effectively conserved through well-connected and equitably governed systems, ecosystem-based approaches, and other effective area-based conservation measures (OECMs) that integrate their management with surrounding landscapes, involve resident communities, and recognize tribal territories.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
3-1	Participatory identification and gazettement of Wildlife Management Areas,	DWNP	DTCP, MOLA	KRCS CBOs	-Number of mapped and gazette WMAs, wildlife migratory corridors	3.1.1 Identify, map, and document wildlife migratory corridors at local and national levels by integrating scientific evidence with indigenous and local knowledge systems.	2026	2030

	inclusive of wildlife migratory corridors at the national level					3.1.2 Gazette identified Wildlife Management Areas (WMAs) and wildlife migratory corridors to secure their legal recognition and long-term protection. 3.1.3 Maintain the ecological integrity of wildlife migratory corridors and regulate fencing and other physical barriers to sustain landscape connectivity and facilitate the free movement of wildlife.		
3-2	Review and develop protected area management plans	DWNP,DFRR	DTCP, Local Authorities	KRCS	-Number of PA's Management Plans developed -Level of implementation of Program of Works in Protected Areas	3.2.1 Access, review, update, and document existing Protected Area Management Plans to ensure they remain current, effective, and aligned with national biodiversity conservation priorities. 3.2.2 Review, update, approve, and implement the Okavango Delta Management Plan (2021–2028), ensuring alignment with the updated National Biodiversity Strategy and Action Plan (NBSAP) and national biodiversity priorities. 3.2.3 Establish and operationalise a multi-sectoral steering committee to coordinate, oversee, survey, and inspect the implementation of Protected Area Management Plans and monitor progress towards achieving protected area management objectives.	2026	2030
3-3	Identify and develop governance models for PA's to enhance community participation	DWNP, DFRR	DTCP, Local Authorities	KRCS	-Level of community participation in management of PA's -% level of benefits derived from PA's by local communities	3.3.1 Review and periodically update protected area management plans\. 3.3.2 Implement the Programme of Work for Protected Areas (PoWPA) to strengthen the effective management, governance, and ecological integrity of protected areas. 3.3.3 Monitor and evaluate the implementation of protected area management plans.	2026	2030

						3.3.4 Develop and implement a stakeholder engagement plan to guide the review, development, and revision of protected area management plans through inclusive and participatory processes. 3.3.5 Undertake assessments and identify gaps in existing protected area management plans, in consultation with local communities and other key stakeholders, to improve management effectiveness.		

STRATEGIC ACTIONS FOR TARGET 4: By 2030, undertake urgent sustainable management actions to achieve the recovery and conservation of threatened species and the genetic diversity of native, wild, and domesticated species, including through *in situ* and *ex situ* conservation, thereby reducing the risk of human-induced extinctions of known threatened species by 5 percent and effectively managing human-wildlife interactions to enhance coexistence.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
4-1	Implement HWC strategy through strengthening collaborative efforts with community members and stakeholders on human-wildlife co-existence	DWNP	MoLA Depts (DCP, AP), FAO, UNDP	Farmers association, CBO's	- % implementation of HWC strategy -level of stakeholder engagement -% reduction in HWC incidents	4.1.1 Establish community-based Human-Wildlife Conflict (HWC) response teams to strengthen local capacity for coordinated conflict prevention and response. 4.1.2 Map, gazette, and formally recognize community land, wildlife corridors, and community conservation areas to secure ecological connectivity and support community-led conservation. 4.1.3 Roll out the Human-Wildlife Conflict (HWC) Strategy to communities and key stakeholders to promote awareness, capacity development, co-ownership, and effective implementation.	2026	2030

						4.1.4 Conduct targeted public awareness and behaviour change campaigns to promote community-driven Human-Wildlife Conflict mitigation measures, enhance public participation, and communicate associated socio-economic and conservation benefits. 4.1.5 Utilize the Management-Oriented Monitoring System (MOMS) to systematically monitor, record, and track Human-Wildlife Conflict incidents and mitigation outcomes. 4.1.6 Institutionalize a standardized system for the monthly documentation, reporting, analysis, and dissemination of Human-Wildlife Conflict incident data and response actions to inform adaptive management and decision-making. 4.1.7 Strengthen community capacity on human–wildlife coexistence through training on early warning systems, conflict prevention, adaptive response measures, and best practices for community-based wildlife management. 4.1.8 Implement the Earth Ranger system to strengthen real-time monitoring, incident reporting, information sharing, and coordinated response to Human-Wildlife Conflict.		
4-2	Review the compensation guidelines and compensatory species	DWNP	MoLA Depts, Law Enforcement t agencies (DCP, AP), FAO, UNDP	Farmers association, CBO's	-Compensation guidelines reviewed	4.2.1 Establish a structured Wildlife Compensation Review Committee and thematic clusters to strengthen the assessment, review, and resolution of human-wildlife conflict compensation claims.	2026	2030

						4.2.2 Actively engage local communities and relevant stakeholders to identify non-listed species for inclusion in the wildlife compensation framework. 4.2.3 Establish a dedicated Wildlife Conflict Compensation Fund (WCCF) to provide timely compensation for the loss or damage of property, crops, and livestock caused by wildlife.		
4-3	To enhance institutional capacity for effective management through institutional reforms and resource mobilization for PAs	DWNP, DFRR,	Law Enforcement Agencies, UNDP, FAO	CBO's, Private Sector	-% increase in budget or funding mobilized for protected Areas. -Number of Institutional Reforms implemented within Protected Areas Management. - % level of infrastructure development and maintenance. -No staff trained -No of community members trained -No of policies and legal framework reviewed	4.3.1 Undertake a comprehensive capacity needs assessment across Protected Area (PA) authorities, local government structures, and Community Trust stakeholders. 4.3.2 Develop and implement a comprehensive capacity-building framework tailored to the needs of Protected Area authorities, local government institutions, and community representatives. 4.3.3 Strengthen and institutionalise the Community-Based Natural Resource Management (CBNRM) framework. 4.3.4 Enhance community empowerment and participation through targeted training programmes that build local capacity in natural resource stewardship, biodiversity conservation, sustainable livelihoods, and adaptive management practices. 4.3.5 Develop and operationalise a protected area maintenance and infrastructure management strategy to ensure the long-term	2026	2030

							functionality, resilience, and sustainability of protected sites and associated conservation infrastructure.		
						4.3.6	Establish and implement a monitoring and evaluation framework to track progress, assess the effectiveness of protected area reform initiatives, measure conservation outcomes, and guide adaptive management decisions.		
4-4	Conduct review and implementation of Nation Plant Genetic Resources Strategy	DCP DFRR,	NARDI, BUAN, UB, CIPA, Dept of Plant Health DNMM	Farmers Associations	-level of implementation of NPGR Strategy	4.4.1	Undertake a comprehensive technical and policy review of the existing National Plant Genetic Resources Strategy.	2026	2030
						4.4.2	Integrate lessons learned, emerging challenges, and climate-related threats into the revised National Plant Genetic Resources Strategy.		
4-5	Establish breeding facilities for threatened species	DWNP, DFRR, DAP, DCP	NARDI, UB-ORI, BUAN, BIUST	Farmers Associations	-Number of breeding facilities established. - % increase in threatened species successfully bred.	4.5.1	Empower local communities to identify, document, and profile threatened species in collaboration with technical experts and relevant stakeholders.	2026	2030
						4.5.2	Strengthen community ownership and long-term stewardship of captive breeding facilities by empowering local communities through Community-Based Natural Resource Management (CBNRM) Trusts.		
						4.5.3	Develop and establish customized breeding infrastructure, including gene banks, hatcheries, and nurseries, to support the conservation, propagation, and sustainable use of priority species.		
						4.5.4	Establish sustainable value chains and commercialize breeding		

							initiatives to generate long-term financial resources for biodiversity conservation and sustainable resource management.		
4-6	Enhance capacity development for genetic conservation	DWNP, DFRR, , NARDI	UB-ORI, BUAN, BIUST MoLA (DAP DCP,)	Farmers Associations	-Amount of Funds leveraged for Genetic Conservation -No of trained personnel -No of communities trained	4.6.1 4.6.2 4.6.3 4.6.4	Assess institutional, extension, and community-level capacity requirements for the effective conservation, sustainable use, and management of genetic resources. Establish a comprehensive national database of threatened species. Develop and implement a Resource Mobilisation Plan to secure sustainable financial and technical resources for strengthening genetic conservation efforts. Establish local conservation committees to oversee the establishment, operation, and management of facilities for the conservation and recovery of threatened species.	2026	2030
4-7	Develop recovery strategies and programmes for threatened or endangered wild and domestic species.	DWNP, DFRR,	DAP, NARDI, UB-ORI, BUAN, BIUST, MoLA	Farmers Associations	-Number of species recovery strategies and action plan developed. -% level of conservation status of threatened species -Level of utilization of local domestic breeds -Proportion of	4.7.1 4.7.2 4.7.3	Assess, inventory, and document threatened and endangered wild and domesticated species to establish an up-to-date national baseline for conservation planning. Priorities threatened and endangered species for recovery based on ecological significance, conservation status, cultural importance, and socio-economic and livelihood value. Document, preserve, and integrate traditional and indigenous knowledge on the breeding, management, sustainable use, and	2026	2030

					local domestic breeds, local crop varieties and wild species classified as being at risk of extinction	conservation of indigenous species into recovery programmes. 4.7.4 Facilitate the pledging or leasing of land through Community-Based Organisations (CBOs) and Community Trusts to establish pilot recovery, breeding, and conservation sites for priority species. 4.7.5 Develop and operationalise a comprehensive monitoring, evaluation, and reporting toolkit to track the implementation and effectiveness of species recovery programmes. 4.7.6 Develop and implement a sustainable resource mobilisation strategy to strengthen national genetic conservation and species recovery initiatives. 4.7.7 Establish and strengthen local management committees to oversee the establishment, operation, and maintenance of facilities dedicated to the conservation, breeding, and recovery of threatened and endangered species.		
4-8	Strengthen on-farm agricultural biodiversity conservation strategies targeted at indigenous Livestock and crop varieties.	DCP	NARDI, BUAN Statistics Botswana	Farmers Associations	-Number of local crop varieties conserved -Number of livestock breeder's societies established -Number of farmer field schools established	4.8.1 Resuscitate and strengthen Conservation Committees while intensifying collaboration with farmers' associations and other agricultural stakeholder groups. 4.8.2 Develop and maintain a national inventory of endangered indigenous livestock breeds and crop varieties. 4.8.3 Promote the conservation, sustainable use, restoration, and	2026	2030

					-Number of community seed banks established -Number of farmers groups participate ng on farm conservation initiatives. -Level of genetic diversity of traditional crop varieties maintained in farms. --Number of plant and genetic resources secured in in medium-or long-term conservation facilities	genetic improvement of indigenous livestock breeds and crop varieties. 4.8.4 Integrate the conservation and sustainable use of indigenous livestock and crop genetic resources into the curricula and training programmes of agricultural training institutions, including Rural Training Centres and the Ramatlabama National Artificial Insemination Laboratory. 4.8.5 Develop and operationalise community seed banks and livestock genetic resource conservation (gene pool) strategies to safeguard indigenous genetic diversity. 4.8.6 Document, safeguard, and integrate traditional knowledge, cultural values, and customary management practices that support the conservation and sustainable use of agricultural biodiversity. 4.8.7 Establish farmer field schools and demonstration sites to promote the conservation, multiplication, and use of indigenous crop varieties and locally adapted livestock breeds. 4.8.8 Promote integrated and mixed-farming systems that encourage farmers to dedicate portions of their farms to the conservation and sustainable production of indigenous crop varieties alongside improved and hybrid varieties. 4.8.9 Strengthen collaboration with the Botswana Agricultural Marketing Board (BAMB) and other public and		

							private market actors to enhance market access, improve pricing, and create incentives for the production and commercialization of indigenous crops and livestock products.		
4-9	Conduct an Assessment of endangered species in Botswana.	DWNP DFRR	MoLA (DAP, DCP) Statistics Botswana	GEF Research Institutions BOCONGO BOCOBONET Farmers Association	-Number of ational databases/ Registers for endangered species -level of Conservation Status of endangered species	4.9.1 4.9.2 4.9.3	Conduct comprehensive national assessments of endangered species to determine their conservation status, distribution, population trends, and associated threats. Develop and implement standardized national monitoring protocols to systematically monitor endangered species populations, assess conservation outcomes, and track emerging threats. Strengthen enforcement and compliance mechanisms by implementing targeted regulatory measures, enhancing surveillance, and enforcing bans on illegal activities affecting endangered species.	2026	2030

STRATEGIC ACTIONS FOR TARGET 5: By 2030, prevent overexploitation by ensuring that the harvesting, trade, and use of terrestrial and inland wild animal and plant species are sustainable, legal, and safe, minimizing impacts on non-target species and ecosystems, while respecting customary sustainable use by local communities.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
5-1	Use of the Botswana National Ecosystem Assessment (BW-NEA)	DWNP, DFR	FAO, UNDP	KRCS, Cheetah Conservation Botswana, Birdlife Botswana	-Number of strategies, policies and legal frameworks reviewed.	5.1.1 Strengthen the National Biodiversity Platform as a multi-sectoral structure. 5.1.2 Train planners and policymakers in ecosystem-based management approaches.	2026	2030

	findings				-Number of people trained in sustainable methods of wildlife harvesting and trade -Number of training courses conducted on sustainable utilization of wildlife species	5.1.3 Undertake on the ground restoration interventions within prioritized ecosystems. 5.1.4 Develop sector-specific biodiversity action plans aligned with NBSAP priorities 5.1.5 Organize cross-sector trialogue (agriculture, mining, tourism, water, climate) to embed BW-NEA findings into their strategies. 5.1.6 Document Traditional Knowledge on the use of Biodiversity 5.1.7 Incorporate Traditional Knowledge into the curriculum at all levels 5.1.8 Implement transformative policy reforms, integrated spatial planning, anchored into local stewardship and ecosystem based adaptation 5.1.9 Undertake a comprehensive review, harmonisation and strengthening of all policies, laws, and regulatory frameworks governing wildlife harvesting, utilization and trade to ensure coherence, eliminate gaps and align national priorities and international commitments 5.1.10 Develop and effectively implement transparent and accountable certification and licensing systems for harvesting and trade. 5.1.11 Conduct a detailed institutional capacity needs assessment to identify gaps in human resources, technical expertise, infrastructure and		

							operational systems across wildlife management, enforcement and trade regulation institutions. 5.1.12 Strengthen the operational and technical capacity of enforcement and regulatory institutions through sustained training programmes and inputs. 5.1.13 Design and implement target capacity building, education and awareness programmes for key stakeholders to promote understanding of sustainable harvesting practices, legal requirements and compliance		
5-2	Improve law enforcement and monitoring of illegal wildlife trade.	DWNP, DFRR	FAO, UNDP Law Enforcement Agencies BURS	BOCONGO BOCOBONET	-Level of compliance to legislative frameworks on wildlife harvesting and trade -Level of participation of local communities in monitoring illegal wildlife trade -Level of adoption of new technologies in monitoring illegal wildlife harvesting and trade -Number of law enforcement officers	5.2.1 Review and strengthen penalties and compliance mechanisms to ensure they are stringent, proportionate and enforceable. 5.2.2 Clearly define, formalise and communicate the roles and responsibilities of all stakeholders, including communities, trusts, private sector actors and government institutions to improve coordination, accountability and effectiveness in addressing illegal wildlife trade. 5.2.3 Strengthen the deployment and integration of advanced monitoring and surveillance technologies, including GIS, satellite systems and digital databases, to enhance real-time detection, tracking and reporting of illegal wildlife activities. 5.2.4 Intensify and expand routine compliance monitoring, inspections and anti-poaching patrols to ensure consistent enforcement of wildlife laws and regulations across all high-	2026	2030

					trained on monitoring wildlife trade.		risk areas and value chains wildlife trade.		
						5.2.5	Establish, strengthen and operationalise community-based monitoring and reporting systems that actively involve local communities in detecting, documenting and reporting illegal wildlife activities.		
						5.2.6	Conduct continuous professional development and refresher training programmes for law enforcement and wildlife officers.		
						5.2.7	Design and implement targeted and culturally appropriate awareness campaigns to increase public awareness on illegal wildlife trade and its impacts using local languages.		
						5.2.8	Establish and promote secure, accessible and confidential reporting mechanisms such as digital platforms to encourage timely reporting of illegal wildlife harvesting and trade.		
5-3	Enhance assessment and monitoring of wildlife species	DWNP, DFRR	FAO, UNDP	KRCS, Cheetah Conservation Botswana	-Level of population census and Inventories conducted on wildlife species -Level of engagement and participation of local communities' population census and Inventories	5.3.1	Conduct a comprehensive baseline assessment to generate data on population size, distribution, trends and habitat use of key species/ priority wildlife species to inform management and policy decisions.	2026	2030
						5.3.2	Build and institutionalize technical capacity among government officials, researchers, and local communities in wildlife monitoring methodologies, data collection, analysis and management systems.		
						5.3.3	Develop, standardise and implement national tools, manuals/ toolkits/guidelines for wildlife		

					conducted on wildlife species	assessment and monitoring to ensure consistency, accuracy and comparability of data across regions and species. 5.3.4 Develop and implement integrated wildlife management strategies including targeted species recovery, rehabilitation and reintroduction programmes for threatened and vulnerable species. 5.3.5 Undertake regular conservation status assessment of threatened species in collaboration with local communities and relevant stakeholders.		
5-4	Promote a nd enforce sustainable harvesting practices for wild animal and plant species to avoid overexploitation	DWNP, DFRR	FAO, UNDP	KRCS, Cheetah Conservation Botswana	-Proportio of wild species harvested within biologically sustainable levels -Number of communities trained on sustainable harvesting practices.	5.4.1 Establish, implement and regularly review science based harvest management measures, including quotas, size limits, seasonal restrictions and no-take zones to ensure sustainable utilisation and prevent overexploitation. 5.4.2 Strengthen and expand Community Based Natural Resources Management (CBNRM) approaches by empowering local institutions such as Community Based Organisations and Village Development Committees (VDCs) to actively participate in resource governance and sustainable use.	2026	2030
5-5	Strengthen stakeholder partnerships and collaboration in monitoring and policing illegal harvesting activities	DWNP, DFRR	FAO, UNDP	KRCS, Cheetah Conservation Botswana Birdlife Botswana	-Level of participation of local communities. -Number of contraventions on illegal wildlife trade activities. -Number of	5.5.1 Strengthen and operationalise District Law Enforcement Committees and national multi stakeholder coordination platforms with clearly defined mandate, roles and regular engagement mechanisms. 5.5.2 Establish and enhance cross-border collaboration frameworks and joint monitoring mechanisms with	2026	2030

					partnerships established. -% level of illegal wildlife trade.	neighbouring countries to effectively address transboundary illegal harvesting activities		

STRATEGIC ACTIONS FOR TARGET 6: By 2030, ensure that the rate of introduction and establishment of invasive alien species is reduced by at least 50 percent, and mitigate the impacts of invasive alien species on biodiversity and ecosystem functions and services, especially in priority sites.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
6-1	Undertake a comprehensive assessment, cataloguing and profiling the invasive species in the country and their pathways	DFRR, DWNP	DCP, DWA, UNDP, FAO BURS	CBO's, Private sector	-IAS Inventory report National Register/Database on IAS	6.1.1 Conduct a comprehensive baseline assessment of invasive alien species (IAS) across ecosystems and production landscapes. 6.1.2 Identify and assess pathways of introduction and spread of invasive alien species (e.g., trade, transport, agriculture, tourism, and ports of entry). 6.1.3 Develop and maintain a national invasive alien species database and registry, including species taxonomy, origin, habitats, invasiveness, pathways of introduction, and spatial mapping of distribution and areas of infestation. 6.1.4 Establish a publicly accessible invasive alien species (IAS) reporting and information-sharing platform to enable community reporting. 6.1.5 Strengthen national and district-level capacity for profiling and monitoring, and facilitate multi-stakeholder coordination on IAS management.	2026	2030

						6.1.6	Develop and implement IAS surveillance and monitoring systems and indicators.		
6-2	Develop National Invasive Alien Species Strategy and Action Plan	DFRR, DWNP	DCP, DWA, UNDP, FAO	CBO's, Private sector	-IAS strategy developed	6.2.1 6.2.2 6.2.3 6.2.4 6.2.5	Establish multi-sectoral governance structures, including an Invasive Alien Species (IAS) Technical Working Group and a Project Steering Committee, to guide and oversee the development of the IAS Strategy and Action Plan. Define clear, measurable, and time-bound targets for invasive alien species management, and develop a detailed, results-based action plan outlining specific activities, responsibilities, and implementation timelines for each objective. Establish inclusive, multi-level stakeholder engagement groups comprising national and local IAS working groups and conduct consultations, workshops, and focus groups at national, district, and community levels to co-design priority actions and build consensus and ownership of the strategy. Develop and implement transboundary cooperation agreements and collaborative projects with neighboring countries for the management and control of Invasive Alien Species (IAS). Present the draft Strategy and Action Plan to stakeholders and communities for review and validation.	2026	2030
6-3	Strengthen Capacity of research institutions and relevant Stakeholder to	DFRR, DWNP	Research Institutions (NARDI, UB BUAN)	CBO's	- Number of Research IAS studies funded -Number of research findings published	6.3.1 6.3.2	Conduct a comprehensive capacity and needs assessment for research institutions and key stakeholders involved in IAS research. Prioritize research needs aligned with national IAS management priorities.	2026	2030

	undertake research on IAS				-Number of policy briefs published	6.3.3 Establish and strengthen collaborative partnerships among research institutions, government agencies, NGOs, and local communities to support Invasive Alien Species (IAS) research, monitoring, and data collection through participatory approaches. 6.3.4 Strengthen the capacity of research institutions by investing in research infrastructure, equipment, and data management systems to support Invasive Alien Species (IAS) research, monitoring, and management. 6.3.5 Support peer-reviewed research and applied studies on IAS.		
6-4	Strengthen the capacity of the relevant Institutions on Management and control of IAS	DFRR, DWNP	DCP, DWA, UNDP, FAO BURS	CBO's, Private sector	-Amount of funds leveraged for the management and control of IAS -Level of participation and engagement of local communities on IAS management and control -Number of people trained on IAS Management and Control -Number of training courses conducted on IAS Management and Control -Number of polices and legislation developed and reviewed	6.4.1 Conduct a comprehensive capacity and needs assessment for institutions responsible for IAS management and control. 6.4.2 Strengthen inspectorate services at ports of entry and establish checkpoints where necessary. 6.4.3 Harmonise and/or develop legislation, regulations, and monitoring instruments addressing IAS. 6.4.4 Ensure inclusive stakeholder participation in the development and review of IAS-related Acts and Regulations. 6.4.5 Establish and operationalize national and district-level Invasive Alien Species (IAS) committees and strengthen community capacity for the control, monitoring, and management of IAS.	2026	2030

					-Number of quarantines established at ports of entry -National and District IAS Coordinating Committees established	6.4.6 6.4.7	Establish quarantine measures and biosecurity protocols - Enforce quarantine controls at points of entry. Undertake international benchmarking and knowledge exchange on IAS best practices.		
6-5	Conduct eradication, control and containment of priority IAS	DFRR, DWNP	DCP, DWA, UNDP, FAO	CBO's, Private sector	-% level of IAS introduction - Area covered by IAS	6.5.1 6.5.2 6.5.3 6.5.4 6.5.5	Develop and Implement programs on eradication, control, and containment of priority invasive species. - Roll out IAS management programs at community level. Restore native ecosystems and plant assemblages following IAS removal. Develop and deliver training programs for communities, extension officers, and local institutions on the identification, monitoring, safe removal, containment, and management of priority Invasive Alien Species (IAS). Promote public awareness and education on IAS prevention and management. Monitor effectiveness of eradication, control, and containment actions using clear indicators and by Track changes in IAS distribution and ecosystem recovery.	2026	2030

STRATEGIC ACTIONS FOR TARGET 7: By 2030, reduce pollution risk and the negative impact of pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects such as reducing excess nutrients lost to the environment, reducing the overall risk from pesticides and highly hazardous chemicals, and preventing, reducing, and working toward eliminating plastic pollution by at least half, taking into account food security and livelihoods.

	Strategic Actions	Lead	Implementing	Non-Govt	Indicators	Indicative Activities	Start	End

		institutions	Partners	Participants					
7-1	Implement the Agro-Chemicals Act and related legislation	DEP	Ministry of Local Government and Traditional Affairs, UNDP	CBO's Private Sector	-% reduction of pesticides and highly hazardous chemical usage	7.1.1	Enforce a national ban on the use of classified highly hazardous chemicals (HHCs).	2026	2030
						7.1.2	Promote the adoption and use of environmentally friendly bio pesticides, including neem-based and other biological pest control products.		
						7.1.3	Promote the adoption of organic farming practices among both subsistence and commercial farmers to reduce dependence on hazardous agrochemicals.		
						7.1.4	Review, strengthen, and update the national chemicals and pesticides management policy, legal, and regulatory framework in line with international best practices and Multilateral Environmental Agreements (MEAs).		
						7.1.5	Develop and enforce a code of conduct for companies involved in the manufacture, importation, distribution, storage, and use of highly hazardous chemicals and pesticides.		
						7.1.6	Implement targeted education, training, and public awareness programmes to promote the safe handling, use, storage, and environmentally sound disposal of pesticides and other hazardous chemicals.		
7-2	Develop a national strategy on management and control of plastic pollution	DEP	Ministry of Local Government and Traditional Affairs, UNDP	CBO's Private Sector	-% Proportion of plastic waste generation rate. -% increase in usage of organic carry bags. -% proportion of generated plastic waste reduced, reused and recycled	7.2.1	Implement the phased elimination and progressive prohibition of single-use plastics while promoting the production, distribution, and use of organic, biodegradable, and reusable alternatives.	2026	2030
						7.2.2	Strengthen and enforce policies, regulations, and standards governing the production, importation, distribution, sale, and use of plastic products.		
						7.2.3	Increase the plastic levy and establish an Extended Producer Responsibility (EPR) scheme to enhance producer accountability for plastic waste management.		

						7.2.4 Promote circular economy approaches by reducing plastic consumption, encouraging reuse, and strengthening recycling systems and markets. 7.2.5 Develop, operationalise, and maintain a national plastic pollution monitoring system to track plastic production, consumption, collection, recycling, recovery, and environmental leakage. 7.2.6 Introduce and implement fiscal and non-fiscal incentives to encourage the production, distribution, and use of organic, biodegradable, and reusable carry bags.		
7-3	Strengthen and enhance institutional capacity for relevant institutions to address pollution and Waste Management Issues	DEP	Ministry of Local Government and Traditional Affairs, UNDP	CBO's Private Sector	-Number of strategies, policies and legislative frameworks reviewed and developed -Number of institutional reforms implemented -National Standards for pollution monitoring developed -Number of local businesses utilizing waste -Amount of revenue generated from utilization of waste	7.3.1 Review, update, harmonise, and enforce relevant environmental legislation, policies, regulations, and standards, including the Atmospheric Pollution Prevention Act (1971), the Waste Management Act (1998), and national pollution monitoring standards. 7.3.2 Undertake institutional reforms and strengthen governance, coordination, and collaboration mechanisms among relevant government institutions and stakeholders to enhance effective environmental management. 7.3.3 Strengthen institutional capacity by implementing continuous capacity-building programmes, specialised technical training, and refresher courses for relevant institutions and personnel responsible for environmental management and biodiversity conservation.	2026	2030
7-4	Promote the use of technology for effective waste management and pollution control.	DEP	Ministry of Local Government and Traditional Affairs, UNDP	CBO's Private Sector	-Number of new technologies and innovations adopted. -% reduction of waste generated across	7.4.1 Promote the adoption and scaling up of climate-smart agriculture and environmentally sustainable clean technologies. 7.4.2 Promote the adoption of technologies for waste segregation, collection, recycling, recovery, treatment, and environmentally sound disposal.	2026	2030

					sectors and industries	7.4.3	Establish integrated systems for monitoring, measuring, and reporting waste generation, accumulation, recycling, treatment, and disposal.		
						7.4.4	Facilitate private sector innovation, investment, and technology transfer to advance sustainable waste management and pollution control.		
						7.4.5	Establish strategically located recycling and resource recovery centres to enhance waste valorisation and support the circular economy.		
						7.4.6	Develop and implement community and private sector engagement programmes to accelerate the adoption, uptake, and sustainable use of environmentally sound technologies.		
						7.4.7	Assess technologies for waste collection, sorting, recycling, treatment, resource recovery, and pollution monitoring, taking into account local environmental, social, and economic conditions.		
						7.4.8	Pilot, evaluate, and scale up innovative waste management and pollution control technologies in selected communities, industrial areas, and business hubs based on demonstrated effectiveness.		
7-5	Enhance law enforcement on waste management and pollution.	DEP	Ministry of Local Government and Traditional Affairs, UNDP	CBO's Private Sector	-% compliance to regulatory instruments -% reduction of various forms of waste - Proportion Of domestic and industrial waste flow safely treated	7.5.1	Identify and map pollution hotspots to inform targeted prevention, monitoring, and enforcement interventions.	2026	2030
						7.5.2	Enforce local authority by-laws and national legislation on waste management and pollution control to improve environmental compliance.		
						7.5.3	Adopt and deploy advanced technologies to strengthen environmental law enforcement, surveillance, compliance monitoring, and evidence collection.		
7-6	Intensify public participation, education and awareness	DEP	Ministry of Local Government and Traditional	CBO's Private Sector	-Number of campaigns conducted -Number of	7.6.1	Develop and disseminate targeted environmental communication and awareness materials tailored to diverse stakeholder groups, including local	2026	2030

	campaigns		Affairs, UNDP		industries adopting the three R's - % uptake of the three R's across sectors.	communities, educational institutions, the private sector, and local authorities, in both English and local languages. 7.6.2 Strengthen and promote multi-stakeholder collaboration among government institutions, the private sector, civil society organisations, community-based organisations, and local communities to design and implement coordinated public education and awareness campaigns on pollution prevention and reduction. 7.6.3 Develop and implement a Training of Trainers (ToT) programme to build national and community capacity for delivering environmental education and public awareness campaigns on pollution prevention and reduction, including through initiatives such as the Ikageng Programme.		

STRATEGIC ACTIONS FOR TARGET 8: By 2030, significantly minimize the impact of anthropogenic pressures and climate change on biodiversity by increasing resilience through mitigation, adaptation, and disaster risk preparedness strategies, including nature-based solutions and/or ecosystem-based approaches, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
8-1	Integrate climate-biodiversity linkages into National Development Plans and sectoral policies	DMS	All Government Ministries and Agencies	CBO's, Private Sector	-Number of policies and plans integrating climate-biodiversity linkages	8.1.1 Conduct a comprehensive review of national development plans, sectoral policies, strategies, and legislative frameworks to identify gaps and opportunities for strengthening the integration of biodiversity and climate change considerations. 8.1.2 Develop and operationalize national guidelines for mainstreaming biodiversity and climate change considerations into national development planning, sectoral policies, programmes, and investment frameworks.	2026	2030

						8.1.3 Implement inclusive stakeholder engagement and community awareness programmes to promote meaningful participation in integrating biodiversity–climate change linkages into national and sectoral planning processes. 8.1.4 Align and harmonize the implementation of the NBSAP with the Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), National Development Plans, and other relevant sustainable development frameworks to ensure policy coherence and maximize synergies.		
8-2	Identify and map climate risks and ecosystem vulnerabilities to identify priority areas for intervention.	DEP	DFRR, DWNP	Research Institutions	-Number of priority areas for intervention identified and Integrated into Biodiversity and climate adaptation plans. -Number of Ecosystem types Assessed for Vulnerability to climate change and anthropogenic pressures.	8.2.1 Conduct national and district climate risk and ecosystem vulnerability assessments to identify priority areas requiring adaptation and resilience interventions. 8.2.2 Undertake community-based consultations and participatory mapping exercises to identify, validate, and document climate change impacts, vulnerable ecosystems, and areas at risk. 8.2.3 Carry out ecosystem vulnerability assessments and field-based research to identify climate-risk hotspots and classify ecosystems based on climate vulnerability, biodiversity significance, ecological sensitivity, and anthropogenic pressures. 8.2.4 Integrate the findings of ecosystem vulnerability and climate risk assessments into national and district land-use planning, spatial planning, and disaster risk reduction processes in collaboration with District Disaster Management Committees. 8.2.5 Develop and maintain spatial maps of climate risk and ecosystem vulnerability to identify and prioritize areas for ecosystem-based adaptation, disaster risk management, and conservation interventions.	2026	2030
8-3	Explore and develop a national framework for high-integrity, nature-based	DMS	All Government Ministries and Agencies	CBO's, Private Sector	-Availability National Carbon Framework	8.3.1 Conduct a comprehensive national assessment of opportunities and potential for nature-based carbon markets, covering forests, rangelands,	2026	2030

	carbon markets.				-Amount of funds leverage from carbon markets	wetlands, grasslands, and ecosystem restoration initiatives. 8.3.2 Review existing national policies, legislation, and institutional frameworks to identify regulatory gaps, institutional requirements, and opportunities for the effective governance of nature-based carbon markets. 8.3.3 Develop and operationalise a national policy and regulatory framework for high-integrity nature-based carbon markets that is aligned with biodiversity conservation, climate change mitigation objectives, and national sustainable development priorities. 8.3.4 Promote and implement carbon sequestration and ecosystem-based mitigation initiatives that enhance biodiversity conservation, ecosystem resilience, and climate adaptation and mitigation outcomes. 8.3.5 Assess and establish appropriate fiscal and financial instruments, including incentives, levies, and revenue-sharing mechanisms, to enhance market integrity, attract investment, and maximise national socio-economic and environmental benefits. 8.3.6 Assess and strengthen national institutional, legal, technical, financial, and governance readiness to effectively participate in high-integrity voluntary and compliance carbon markets.		
8-4	Review and update national disaster risks reduction strategy.	OP	All government department	NGOs, Private Sector	-National disaster risk reduction strategy updated. -% reduction in disaster related impacts.	8.4.1 Conduct a comprehensive technical review of the national Disaster Risk Reduction Strategy to assess its effectiveness, identify gaps and implementation challenges, and integrate climate change adaptation and ecosystem-based approaches into disaster risk reduction planning. 8.4.2 Undertake inclusive stakeholder consultations at national and sub-national levels to inform the	2026	2030

						review and development of disaster risk reduction strategies. 8.4.3 Conduct community consultations in disaster-prone and vulnerable areas to capture local risk perceptions and coping strategies. 8.4.4 Build capacity of local communities on disaster risk reduction, preparedness, readiness, mitigation, and clearly define roles and responsibilities. 8.4.5 Periodically evaluate and monitor the effectiveness of the strategies being implemented		
8-5	Implement Nature based Solution projects (e.g., ecosystem restoration, sustainable agriculture) to mitigate and adapt to climate change	MET, MoLA	UNDP, FAO	CBO's	-Area of ecosystems managed for climate change mitigation and adaptation. -Trendson greenhouse gas emissions -Number of interventions that support green energy.	8.5.1 Identify, assess, and prioritize degraded ecosystems and climate-vulnerable landscapes for the planning and implementation of Nature-based Solutions (NbS) interventions. 8.5.2 Engage local communities throughout the planning process to co-design Nature-based Solutions (NbS) interventions and incorporate indigenous knowledge, local land-use practices, and community development priorities into project design. 8.5.3 Develop and implement ecosystem restoration projects. (e.g. afforestation, wetland restoration, rangeland rehabilitation). 8.5.4 Promote sustainable and climate-smart agricultural practices, and land management practices as climate adaptation measures.	2026	2030

STRATEGIC ACTIONS FOR TARGET 9: By 2030, ensure that all terrestrial and inland water species are sustainably used and effectively managed to provide social, economic, and environmental benefits for all people, especially those most dependent on biodiversity and in vulnerable situations, while encouraging customary sustainable use by local communities.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
9-1	Develop and implement Payment for Ecosystem Services (PES) framework	NPC	DEP, DWNP, DWS, DFRR, DOE & DMS	BOCOBONET	-PES framework developed -Number of activities implemented within the framework -Number of communities benefiting -Amount of revenue generated through PES.	9.1.1 Review existing policies and institutional frameworks and develop a national Payment for Ecosystem Services (PES) framework targeting commercial users of ecosystem services. 9.1.2 Establish legal and enforcement mechanisms for non-compliance. - Generate guiding tools for implementing Payment for Ecosystem Services 9.1.3 Identify priority ecosystems and ecosystem services for PES implementation taking into consideration the NEA studies. 9.1.4 Design equitable benefit-sharing mechanisms to ensure fair participation and compensation for local communities, landowners, women, and youth. 9.1.5 Develop and pilot PES schemes in priority landscapes (wetlands, wildlife corridors, rangelands). 9.1.6 Develop and implement participatory monitoring and evaluation frameworks that engage local communities in assessing project progress, outcomes, and impacts. 9.1.7 Raise awareness and strengthen the capacity of institutions and communities to participate in and manage Payment for Ecosystem Services (PES) schemes.	2026	2030
9-2	Identify areas with key wild species and ecosystems	DWNP	DFRR, DOT, TRIBAL ADMIN, LOCAL DISTRICT COUNCIL		-Number of the key wild species and ecosystems identified	9.2.1 Conduct comprehensive national biodiversity assessments and ecological surveys to identify key wild species habitats, threatened ecosystems, ecological corridors, and areas of high biodiversity and conservation value. 9.2.2 Conduct inclusive stakeholder and community consultations, integrating indigenous and	2026	2030

						traditional knowledge to identify, validate, and strengthen the management of key wild species habitats and critical ecosystems 9.2.3 Undertake spatial mapping, inventorying, and ecological characterization of critical ecosystems, including wetlands, forests, rangelands, river systems, biodiversity hotspots, and ecological corridors, to support evidence-based planning and decision-making. 9.2.4 Prioritize ecosystems and landscapes for restoration, protection, sustainable use, and enhanced management based on biodiversity significance, ecosystem service values, ecological connectivity, climate resilience, and the level of threats and degradation. 9.2.5 Validate and gazette priority biodiversity areas and critical ecosystems to strengthen their legal protection, conservation management, and sustainable use.		
9-3	Develop guidelines and strategies to sustainably manage key wild species and ecosystems	DWNP&DFRR	DEP, DOT, TRIBAL ADMIN LOCAL DISTRICT COUNCIL	CBO's	Guidelines and strategies developed	9.3 Develop species and ecosystem-specific sustainable use guidelines (quotas, harvesting protocols, seasonal restrictions). 9.3.1 Develop and implement science-based species recovery plans, action plans, and management guidelines for priority wild species and ecosystems. 9.3.2 Promote ecosystem-based approaches in fisheries, forestry, and agriculture. 9.3.3 Integrate indigenous knowledge and customary governance systems into management plans. 9.3.4 Strengthen and formalize community–government co-management agreements.	2026	2030
9-4	Develop and implement a national value chain strategy for	DFRR	DWNP, DEP, DNMM, MoLA, BURS, Trade,	Local communities ,	-NTFPs value chain strategy -No. of value chain activities	9.4.1 Conduct feasibility studies and value chain assessments to identify, evaluate, and promote viable biodiversity-based products, services, and	2026	2030

	the NTFPs aimed at improving benefit sharing for the lower value chain activities that involve the local communities.					market opportunities that support sustainable utilization of biological resources. 9.4.2 Support and scale up biodiversity-based livelihood initiatives including beekeeping, indigenous fruit processing, sustainable fisheries, nature-based tourism, and other sustainable enterprises that enhance community resilience and promote biodiversity conservation. 9.4.3 Build capacity and strengthen community skills through targeted training programmes on value chain development, enterprise management, sustainable harvesting practices, product development, and business sustainability. 9.4.4 Facilitate the development and strengthening of small and medium enterprises (SMEs) by providing technical support, improving access to resources, and integrating indigenous knowledge and traditional practices into sustainable biodiversity-based enterprises. 9.4.5 Promote collaboration, partnerships, and networking among producers, processors, traders, financial institutions, research organizations, government agencies, and other service providers to enhance value chain efficiency and market linkages. 9.4.6 Support product certification, value addition, processing, packaging, branding, and market access for biodiversity-based products such as Devil's claw, Marula products, Mopane worms, indigenous honey, and other sustainably harvested natural resources. 9.4.7 Integrate indigenous knowledge systems and customary governance mechanisms into biodiversity management plans, conservation strategies, and sustainable resource-use frameworks.		

						9.4.8	Strengthen and formalize community-government co-management arrangements to enhance participatory governance, equitable benefit-sharing, accountability, and effective stewardship of biodiversity resources.		
9-5	Promote Value Chain development	DEP	DFRR DWNP, DTD, RURAL DEVELOP MENT	LEA, BOCONGO, BOCOBONET	-Number of communities capacitated on value chain development -Number of Biodiversity based livelihood initiatives developed -Number of Jobs created -Amount of revenue generated	9.5.1 9.5.2 9.5.3 9.5.4 9.5.5	Develop, institutionalize, and operationalize a biodiversity reward system, including standardized operating procedures for reporting, verification, recognition, and timely disbursement of rewards to incentivize compliance and promote community participation in biodiversity protection. Design and deliver targeted community awareness and capacity-building programmes on the sustainable use of biodiversity, associated benefits, and the socio-economic and ecological risks arising from biodiversity loss.. Strengthen local leadership capacity and enhance customary governance and enforcement mechanisms to improve community-led biodiversity conservation, sustainable resource management, and compliance with environmental regulations. Establish, equip, and empower community-based escort guides and biodiversity monitoring committees to support surveillance, reporting, compliance monitoring, and early detection of biodiversity threats. Enhance collaboration among law enforcement agencies, environmental authorities, and relevant stakeholders to strengthen investigation, prosecution, and enforcement actions against non-compliance and biodiversity-related offences.	2026	2030

STRATEGIC ACTIONS FOR TARGET 10: **By 2030, ensure that all areas under agriculture, aquaculture, fisheries, game management, forestry, and other productive uses are managed sustainably, in particular through the sustainable use of biodiversity, contributing to the long-term productivity and resilience of these production systems, conserving and restoring biodiversity, and maintaining nature's contributions to people,**

including ecosystem goods and services.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
10-1	Develop conservation agriculture national strategy and its implementation plan	MoLA	DFRR, DMS	FAO, local communities, Farmers association	-National Conservation Agriculture Strategy and Action Plan developed -Number of farmers capacitated on Conservation Agriculture -Number of farmers practicing conservation agriculture -Number of hectares under conservation agriculture	10.1.1 Conduct a comprehensive national assessment of conservation agriculture to evaluate current adoption levels, identify existing practices, assess institutional and technical capacities, and determine key barriers and opportunities for scaling up implementation. 10.1.2 Develop and adopt nationally appropriate conservation agriculture principles, standards, and guidelines by tailoring sustainable land management practices to Botswana's agro-ecological zones, production systems, and climate resilience needs. 10.1.3 Strengthen the capacity of farmers, extension officers, and other key stakeholders through targeted training and demonstration programmes on conservation agriculture and regenerative farming practices.	2026	2030
10-2	Profile all areas under productive agricultural use across the country	MoLA	DFRR, DMS, Statistics Botswana	FAO, local communities, Farmer s association		10.2.1 Conduct mapping, surveys and inventories to identify and delineate productive agricultural areas across the country. 10.2.2 Conduct community consultations to document local knowledge on cropping systems, grazing areas and agricultural productivity patterns to inform land-use planning and decision-making. 10.2.3 Develop, establish and operationalise a centralised national database on productive agricultural land to support evidence-based planning, monitoring and sustainable agricultural land management.	2026	2030
10-3	Strengthen institutional and technical capacity within the ML&A to	MoLA	NARDI	Local communities, Farmers associations, FAO	-Needs assessment report develop -% Level of Implementation	10.3.1 Conduct institutional needs assessments and baseline capacity analyses to identify technical, human resource, and organizational gaps for the implementation of sustainable agriculture practices.	2026	2030

	implement the sustainable agriculture strategy.					10.3.2 Develop and maintain a national inventory of agricultural products and farming enterprises certified under recognised eco-friendly and sustainable production standards. 10.3.3 Promote the uptake, implementation, and scaling up of research findings, innovations, and technologies that support sustainable agriculture and biodiversity conservation. 10.3.4 Establish and implement a monitoring, evaluation, and learning (MEL) framework to assess implementation progress, measure outcomes, and inform adaptive management and continuous improvement.		
10-4	Promote eco-labelling to enhance the use of eco-friendly farming methods	MoLA	NARDI	Local communities, Farmers associations, FAO	-Number of agricultural products eco-labelled -Number of farms certified to be eco-friendly	10.4.1 Ensure the nationwide rollout and adoption of eco-labelling standards for agricultural products. 10.4.2 Promote the uptake of eco-labelling through targeted business education programmes and public awareness campaigns. 10.4.3 Introduce and implement incentive mechanisms, including input subsidies and tax incentives, to encourage the adoption of eco-friendly farming practices. 10.4.4 Establish and maintain a national database of farmers implementing eco-labelling practices to support monitoring, certification, and market access.	2026	2030
10-5	Improve the livestock markets to promote livestock offtake during drought period	Ministry of Lands & Agriculture – DAP	Local Councils	Botswana Meat Commission (BMC), Private Sector	-Number of livestock markets established/resuscitate -Increase in livestock offtake rates during droughts -Reduction in livestock mortality due to feed scarcity	10.5.1 Establish marketing cooperatives and farmer committees to strengthen collective bargaining, reduce transport costs, and enhance farmers' market access and negotiating power. 10.5.2 Establish community-based livestock collection centres at the village level to facilitate efficient aggregation and transportation of livestock to abattoirs and markets. 10.5.3 Develop and implement policies and incentives to	2026	2030

						strengthen livestock markets and promote timely livestock offtake during drought periods. 10.5.4 Facilitate increased private sector participation and strengthen the Botswana Meat Commission's (BMC) access to regional and international livestock markets. 10.5.5 Expand the issuance of livestock export licences to qualified private sector operators to promote market competition and diversify export opportunities. 10.5.6 Strengthen the capacity of farmers, producer organisations, and other stakeholders on market access, value addition, and livestock value chain development. 10.5.7 Increase targeted livestock feed subsidies and support mechanisms to enhance livestock resilience and safeguard farmer livelihoods during drought periods.		
10-6	Operationalize veldt fire management strategies	DFRR	DWNP, Local Authorities, Disaster Manage ment Offices, Law enforcement agencies	Community Fire Committees	-Number of trained community fire management teams -Frequency of veldt fire incidents reports -Area (ha) protected from fire damage	10.6.1 Establish and empower community-based fire management teams to lead and coordinate local fire prevention, preparedness, response, and awareness initiatives. 10.6.2 Train and certify Trainers of Trainers (ToTs) to build community capacity in fire prevention, early detection, control, reporting, and safe fire management practices. 10.6.3 Strengthen fire incident reporting, response, monitoring, and information management systems to enhance timely detection, coordinated response, and evidence-based decision-making. 10.6.4 Identify, map, and regularly update fire-prone areas to support risk assessment, prevention planning, and targeted fire management interventions. 10.6.5 Establish, maintain, and monitor strategic	2026	2030

							firebreaks to reduce wildfire risks, protect biodiversity, and safeguard communities and critical ecosystems.		
10-7	Promote the use of organic fertilisers and nature-based solutions for pest management along the river basin	Ministry of Lands & Agriculture,	Department of Environmental Protection (DEP), Department of Wildlife and National Parks (DWNP),	Water Utilities Corporation, NGOs, Research Institutions	-Percentage reduction chemical fertilisers and pesticide use -Number of farmers adopting organic and nature-based practices -Improvement in water quality indicators.	10.7.1	Undertake targeted stakeholder engagement to promote the adoption and implementation of sustainable agricultural practices that support biodiversity conservation.	2026	2030
						10.7.2	Undertake public education and awareness programmes on the environmental, economic, and agricultural benefits of organic fertilizers and nature-based solutions.		
						10.7.3	Provide training on the appropriate and efficient application of fertilizers to improve nutrient use efficiency and minimise adverse environmental impacts.		
						10.7.4	Promote the adoption of organic fertilizers, integrated pest management (IPM), and other sustainable agricultural practices to reduce reliance on synthetic agrochemicals.		
						10.7.5	Map agricultural activities within river basins to identify areas of high environmental risk and inform integrated land and water resource management.		
						10.7.6	Conduct assessments to identify and characterise problematic agricultural pests and their impacts on biodiversity, crop production, and ecosystem health.		
						10.7.7	Monitor fertilizer and pesticide use within river basins to assess environmental impacts, strengthen compliance with regulatory requirements, and inform adaptive management interventions.		
						10.7.8	Introduce targeted small grant schemes and tax incentives to encourage farmers and agricultural enterprises to adopt nature-based solutions and other biodiversity-friendly farming practices.		

10-8	Establish carrying capacity for each fishing spot to control number of fishermen	DWNP	Department of Environmental Protection (DEP), Local Authorities, Fishing Communities		-Number of fishing spots with defined carrying capacities -Percentage compliance with fishing quotas -Reduction in overfishing cases	10.8.1	Identify and map fishing areas and establish baseline data on fishing pressure, including the number of fishers operating at each identified fishing location.	2026	2030
						10.8.2	Implement systematic fish stock monitoring programmes, including regular fish population assessments and surveys to determine the status, trends, and sustainability of fish resources.		
						10.8.3	Develop and maintain fish carrying capacity maps to guide sustainable fisheries planning, resource allocation, and management decision-making.		
						10.8.4	Establish, implement, and enforce sustainable fishing quotas and access control mechanisms to regulate fishing effort and prevent overexploitation of fish resources.		
						10.8.5	Strengthen community-based fisheries management by empowering local communities, fisher associations, and resource user groups to participate in monitoring, reporting, and sustainable management of fisheries resources.		
						10.8.6	Enhance compliance with fisheries legislation, including the Fish Protection Act, through strengthened enforcement, awareness, and monitoring mechanisms, including the regulation of fishing gear specifications such as permissible net sizes and fishing methods.		
						10.8.7	Promote and support sustainable aquaculture development as an alternative livelihood option and complementary source of fish production to reduce pressure on wild fish stocks and fishing areas.		
10-9	Strengthen capacity of Regulatory Authorities to monitor and regulate fishing	DWNP	DEP	NGOs, Research Institutions	-Number of officers trained -Functioning monitoring and reporting system -Compliance rate with	10.9.1	Conduct a comprehensive capacity needs assessment for regulatory authorities to identify institutional, technical, human resource, and operational gaps in fisheries governance and enforcement.	2026	2030

	activities.				sustainable fishing practices	10.9.2	Develop and implement a Fisheries Capacity Development Plan to strengthen institutional and technical competencies for sustainable fisheries management and effective regulatory oversight.		
						10.9.3	Build the capacity of law enforcement agencies through targeted training on fisheries legislation, compliance monitoring, investigation of fisheries-related offences, and prosecution procedures.		
						10.9.4	Strengthen fisheries monitoring, compliance, and regulatory functions by enhancing surveillance systems, inspection capacity, enforcement mechanisms, and inter-agency coordination.		
10-10	Establish and operationalise a comprehensive monitoring and evaluation	DEP, DWNP,	Statistics Botswana,	Research Institutions	-Existence of M&E system -Frequency of monitoring reports - Evidence-based adjustments to management strategies	10.10.1	Conduct targeted awareness and education programmes to promote sustainable fishing practices among fishers, local communities, and other relevant stakeholders.	2026	2030
						10.10.2	Define the purpose, scope, indicators, and institutional arrangements for monitoring and evaluation of fisheries sustainability.		
						10.10.3	Develop and operationalize a national Monitoring and Evaluation (M&E) Framework to assess the sustainability of fisheries resources and management interventions.		
						10.10.4	Establish and implement fisheries monitoring and compliance systems, including catch quotas, closed seasons, licensing, and fishing gear restrictions, to support sustainable resource management.		
						10.10.5	Implement participatory co-management arrangements with fishing communities and other relevant stakeholders to strengthen sustainable fisheries governance, compliance, and shared resource stewardship.		

STRATEGIC ACTIONS FOR TARGET 11: By 2030, restore, maintain, and enhance nature's contributions to people through nature-based

solutions and/or ecosystem-based approaches for the benefit of all people and nature.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
11-1	Develop Vulnerability assessment Strategy report for Botswana	OP	DMS Ministry of Health Local Government and Traditional Affairs NPC DWNP, CBNRM, Local Authorities, Technical Advisory Committees	TFCAs	Strategy developed	11.1.1 Conduct Health Vulnerability Assessments to evaluate the impacts of climate change and environmental degradation on human health and identify priority adaptation measures. 11.1.2 Undertake Disaster Risk Assessments to identify, analyse, and prioritise risks associated with natural and human-induced hazards, informing disaster risk reduction and resilience planning. 11.1.3 Carry Out Drought Vulnerability Assessments to determine the susceptibility of ecosystems, communities, and productive sectors to drought and guide targeted adaptation interventions. 11.1.4 Conduct Agricultural Vulnerability Assessments to evaluate climate-related risks to agricultural systems and identify measures that enhance resilience, productivity, and sustainable land management.	2026	2030
11-2	Enhance Ecosystem health by monitoring Air, Water and Soil Strengthen collaboration on water monitoring system	DEP	DMS Ministry of Health Local Government and Traditional Affairs NPC DWNP, CBNRM, Local Authorities, Technical Advisory Committees		-Annual mean levels of fine particulate matter (PM2.5 and PM10) in cities -Proportion of bodies of water with good ambient water quality -Mortality rate attributed to unsafe water, unsafe	11.2.1 Strengthen cross-border collaboration for the monitoring and management of air, water, and soil quality. 11.2.2 Undertake coordinated national monitoring of air, water, and soil quality to inform environmental management and policy decisions. 11.2.3 Promote equitable access to safe Water, Sanitation and Hygiene (WASH) services to enhance human well-being and ecosystem health.	2026	2030

					sanitation and lack of hygiene (Exposure to unsafe WASH services) -Proportion of population using safely managed drinking water services			
11-3	Design and implement nature-based solution programme such as apiculture (bee keeping) and aquacultures & sustainable agroforestry	DFRR	DEP, Ministry of Agriculture, DWNP, BOCONGO BOCOBONET Local Authority		-Number of NbS projects implemented-Improved biodiversity indicators in project sites	11.3.1 Identify and map ecologically suitable sites for apiculture, aquaculture, and agroforestry, taking into account ecological suitability, land tenure, and socio-economic considerations. 11.3.2 Undertake feasibility studies and applied research to assess the technical, environmental, social, and economic viability of proposed Nature-based Solutions (NbS) interventions. 11.3.3 Develop programme guidelines for the design, implementation, monitoring, and evaluation of Nature-based Solutions (NbS) initiatives. 11.3.4 Develop and operationalise a national register for Nature-based Solutions (NbS) projects to facilitate coordination, monitoring, reporting, and knowledge management.	2026	2030

STRATEGIC ACTIONS FOR TARGET 12: By 2030, significantly increase the area, quality, connectivity, and access to green and blue spaces within cities and densely populated areas by ensuring biodiversity-inclusive regional and urban planning and mainstreaming the conservation and sustainable use of biodiversity to improve human health and well-being.

	Strategic	Lead	Implementing	Non-Govt	Indicators	Indicative Activities	Start	End

	Actions	institutions	Partners	Participants				
12-1	Identify and map green and blue spaces in urban and densely populated areas	DTCP	MoLA DWNP DEP DFFR DWS WUC		• -% of green and blue spaces mapped • -Number of green and blue spaces identified.	12.1.1 Engage local communities and relevant stakeholders to identify, map, and inventory green and blue spaces to support integrated planning, conservation, and sustainable management. 12.1.2 Promote the establishment of pocket parks and micro-green spaces in high-density and underserved neighbourhoods to enhance equitable access to nature, improve urban resilience, and strengthen community well-being. 12.1.3 Restore degraded green and blue spaces through the application of native species, ecosystem-based design approaches, and ecological restoration practices to enhance biodiversity, ecosystem functionality, and climate resilience.	2026	2030
12-2	Review existing layouts for Urban and densely populated areas to ensure ecological connectivity	DTCP	MoLA DWNP DEP DFFR DWS WUC		• -Number of layouts reviewed.	12.2.1 Assess the ecological health, functionality, and connectivity of green and blue spaces to inform evidence-based conservation and sustainable urban planning. 12.2.2 Map ecologically sensitive areas and evaluate rezoning requirements to integrate ecological connectivity objectives into land-use planning and development decision-making. 12.2.3 Develop, adopt, and implement regulatory frameworks and management measures to strengthen the protection, sustainable management, accessibility, and equitable distribution of benefits derived from green and blue spaces. 12.2.4 Conduct periodic reviews of approved urban development layouts to ensure continued compliance with ecological connectivity objectives, environmental standards, and sustainable spatial planning requirements.	2026	2030
12-3	Establish programs for greening and supporting the	DTCP	MoLA MLG&TA DWNP DEP DFFR	CBOs	• Number of programs established. • % level of	12.3.1 Develop and implement comprehensive management strategies, policy frameworks, and operational roadmaps to guide the sustainable	2026	2030

	increase of blue spaces and urban and densely populated areas		DWS WUC		• implementation established programs. • Number of management strategies developed	planning, protection, restoration, and management of green and blue spaces. 12.3.2 Establish and strengthen multi-stakeholder partnerships with local communities, private sector actors, and relevant institutions to promote collaborative governance, sustainable financing, and long-term stewardship of green and blue spaces. 12.3.3 Develop and implement buffer zone guidelines and regulatory frameworks to manage activities along rivers, wetlands, and other critical aquatic ecosystems, ensuring ecosystem protection, maintaining ecological integrity, and promoting sustainable land-use practices.		

STRATEGIC ACTIONS FOR TARGET 13: By 2030, facilitate appropriate access to genetic resources, ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources, digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, facilitating a significant increase of the benefits shared through the adoption of effective legal, policy, administrative, and capacity-building measures at all levels, in accordance with applicable international access and benefit-sharing instruments.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
13-1	Implement the ABS Policy/Act.	DEP	CIPA MLG&TA Research Institutes DFRR DWNP MoLA	Local Communities	• Number of commercial research proposals assessed. • % benefits of ABS initiatives towards the economy. • % of benefits (monetary and non-monetary channeled towards households/comm	13.1.1 Gazette and operationalize the ABS Regulations to facilitate the effective implementation of the Access and Benefit Sharing Act and establish a clear regulatory framework for the management of genetic resources and associated traditional knowledge. 13.1.2 Establish and institutionalize an ABS Implementation Committee to provide strategic oversight, coordination, policy guidance, and monitoring of ABS implementation across relevant sectors and stakeholders. 13.1.3 Design and implement targeted capacity-building and awareness programmes to enhance	2026	2030

					unities		the understanding, technical capacity, and participation of government institutions, local communities, traditional authorities, researchers, private sector actors, and other relevant stakeholders in ABS processes. 13.1.4 Develop, standardize, and institutionalize procedures for Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) to ensure transparent, fair, and legally compliant access to genetic resources and associated traditional knowledge. 13.1.5 Strengthen institutional coordination, compliance monitoring, reporting, and enforcement mechanisms to enhance effective ABS governance, ensure accountability, and promote adherence to national and international ABS obligations. 13.1.6 Undertake a nationwide rollout and implementation of the ABS Act through awareness initiatives, stakeholder engagement, and the development and support of community-based ABS initiatives and projects that promote sustainable use of genetic resources. 13.1.7 Strengthen community-led documentation, protection, and sustainable management of traditional knowledge associated with genetic resources through participatory approaches, knowledge safeguarding mechanisms, and recognition of the role of indigenous and local communities. 13.1.8 Promote the protection, registration, and equitable utilization of intellectual property rights associated with genetic resources and traditional knowledge to ensure fair recognition, benefit-sharing, and value creation for knowledge holders and communities.		
13-2	Develop a national	DTCP	DEP DFRR DWNP MET	Business Botswana	-Strategy developed	13.2.1	Establish inclusive community-level representation mechanisms and formal	2026	2030

	partnership strategy to promote partnerships between local communities and (multi) National Corporation.				-Number partnerships/ MOAs signed	affiliation structures to enhance stakeholder participation, strengthen local governance, and ensure meaningful engagement in ABS processes. 13.2.2 Promote equitable, transparent, and mutually beneficial partnerships among local communities, government institutions, research organizations, private sector entities, and national and multinational corporations to support sustainable utilization of biological resources. 13.2.3 Establish robust monitoring, compliance, accountability, and grievance redress mechanisms to ensure transparency, safeguard stakeholder interests, and enhance the effectiveness and sustainability of ABS partnerships.		
13-3	Build capacity of the local communities to establish and operate genetic based companies for the utilisation of genetic resources through training and establishing cooperative structures.	DEP	LOCAL COMMUNITIES DFRR DWNP NARDI DTD		-Number of trainings executed -Number of people trained -Number of functional genetic based companies established.	13.3.1 Implement targeted awareness-raising, education and capacity-building programmes on genetic resources, Access and Benefit-Sharing (ABS), enterprise development, governance frameworks and regulatory compliance. 13.3.2 Establish, strengthen and maintain gene banks and complementary conservation systems to safeguard, preserve and promote the sustainable utilization of indigenous genetic resources, including local breeds, traditional crop varieties and other valuable biological resources. 13.3.3 Develop and implement incentive mechanisms that promote community-driven innovation, sustainable utilization, value addition and enterprise development based on genetic resources, while ensuring equitable benefit-sharing and strengthening local livelihoods.	2026	2030

STRATEGIC ACTIONS FOR TARGET 14: By 2030, ensure that biodiversity and its values are fully integrated into policies, regulations, planning

and development processes, poverty reduction strategies, environmental assessments, and national accounting processes across all levels of government and all sectors of the economy, progressively aligning all public and private activities, and all fiscal and financial flows, with the goals and targets of the KM-GBF and the Sustainable Development Goals.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
14-1	Undertake institutional needs assessment on ecosystem valuation and mainstreaming of biodiversity	DEP	DWNP DNMM DFRR MOLA MOF	Research institutions	Need assessment report developed	14.1.1 Undertake comprehensive planning and scoping to define the scope, methodology, requirements, and implementation approach for the institutional capacity and needs assessment. 14.1.2 Identify, engage, and map relevant stakeholders to ensure inclusive participation and effective collaboration throughout the institutional needs assessment process. 14.1.3 Conduct institutional capacity and needs assessments through structured surveys, targeted consultations, and stakeholder workshops to identify capacity gaps, institutional strengths, resource requirements, and opportunities for strengthening biodiversity governance and implementation.	2026	2030
14-2	Build and strengthen institutional capacity on ecosystems valuation and mainstreaming approaches for all the relevant government departments, private sectors, and NGOs	DEP	DWNP DNM&M DFRR MoLA MoF	Research Institutions	No institutions capacitated	14.2.1 Identify priority institutions and assess institutional capacity and competency gaps related to ecosystem valuation. 14.2.2 Conduct awareness-raising programmes through workshops, kgotla meetings, sector forums, and other appropriate communication platforms. 14.2.3 Facilitate the active participation of the private sector, non-governmental organizations (NGOs), and other relevant stakeholders in ecosystem valuation initiatives. 14.2.4 Integrate ecosystem valuation principles and considerations into relevant national policies, legislation, regulations, and planning	2026	2030

							frameworks.		
14-3	Undertake periodic ecosystems' valuation exercises throughout the country	DEP	DWNP DNMM DFRR MoLA MoF	Research Institutions Local Communities	Number of ecosystems valued	14.3.1 14.3.2 14.3.3 14.3.4 14.3.5 14.3.6 14.3.7	Define the scope, methodologies, and priority ecosystems for ecosystem valuation assessments. Engage relevant stakeholders in the planning, implementation, and data collection processes for ecosystem valuation. Identify, characterize, and classify key ecosystem services and their associated benefits. Conduct ecosystem valuation surveys, assessments, and studies to quantify ecological, economic, and social values. Determine and assign appropriate economic and non-economic values to identified ecosystem services. Review valuation results and integrate findings into biodiversity planning, policy development, and decision-making processes. Establish mechanisms for monitoring and periodically updating ecosystem valuation data to support adaptive management and sustainable resource planning.	2026	2030
14-4	Develop an ecosystems' account based on the System of Environmental Economics Accounting (SEEA)	DEP	DWNP DNMM DFRR MoLA MoF	Research Institutions Local Communities	SEEA account developed.	14.4.1 14.4.2 14.4.3	Build the capacity of relevant stakeholders to implement the System of Environmental-Economic Accounting (SEEA) framework and its application in ecosystem accounting. Review and harmonise existing biodiversity, economic, and statistical datasets to support the development of SEEA-compliant ecosystem accounts. Develop and maintain a comprehensive national inventory of ecosystems and income-generating natural resources to inform ecosystem accounting.	2026	2030

						14.4.4 Develop and operationalise SEEA-compliant ecosystem accounting tools, methodologies, and technical guidelines for national application. 14.4.5 Review and amend relevant legislation and policy instruments to institutionalise the adoption and implementation of the SEEA framework. 14.4.6 Integrate ecosystem accounts into national statistical, planning, budgeting, and decision-making systems to strengthen evidence-based policy and sustainable development. 14.4.7 Monitor and assess ecosystem condition, ecosystem extent, ecosystem services, and trends in the sustainable use of natural resources to inform adaptive management and policy interventions.		

STRATEGIC ACTIONS FOR TARGET 15: By 2030, ensure that policy and regulatory instruments are in place at all levels to require that all businesses and financial institutions especially large and economically significant businesses with major impacts on biodiversity assess, monitor, regularly evaluate, transparently report, and accept responsibility for their dependencies and impacts on biodiversity and human rights across operations, value chains, and portfolios, thereby reducing negative impacts and ensuring Access and Benefit-Sharing (ABS) compliance. Furthermore, provide information needed for consumers to enable the public to make responsible production and consumption choices that are biodiversity-positive, following a rights-based approach consistent with the Convention and other relevant international obligations.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
15-1	Develop a compliance framework for institutions at all levels to	NPC	CIPA BoB MoF NBFI RA DEP DMS	BSE UNDP CEDA LEA NDB BIC Insurance Companies	-Availability of an ESG framework compelling companies to	15.1.1 Mainstream biodiversity considerations into institutional, corporate, and private sector strategies, policies, plans, and decision-making frameworks .	2026	2030

	disclose, assess and monitor their impacts on Biodiversity			Commercial banks	disclose their impact. -The number of companies disclosing their impacts on Biodiversity and taking corrective efforts -Number of financial Institutions requiring disclosure of companies impacts on Biodiversity for funding	15.1.2 Develop and institutionalize national biodiversity disclosure regulations aligned with Environmental, Social and Governance (ESG) standards and emerging global biodiversity reporting frameworks. 15.1.3 Develop and implement sector-specific biodiversity compliance guidelines for key economic sectors, including agriculture, mining, tourism, finance, energy, infrastructure, and other biodiversity-dependent sectors, . 15.1.4 Integrate biodiversity risk assessments into Environmental Impact Assessments (EIAs), Strategic Environmental Assessments (SEAs), and other environmental planning and approval processes 15.1.5 Establish and enforce Environmental, Social and Governance (ESG) disclosure requirements that incorporate biodiversity-related risks, dependencies, impacts, and opportunities into national sustainability reporting frameworks. 15.1.6 Standardize biodiversity indicators and monitoring metrics to support consistent measurement, reporting, evaluation, and tracking of progress towards national biodiversity targets and the Kunming–Montreal Global Biodiversity Framework (KM-GBF) commitments.		
15-2	Undertake institutional capacity needs assessment to determine the institutional readiness to monitor the institutions at all levels	NPC	CIPA BoB MoF NBFIRA DEP	Commercia l banks BSE, UNDP, CEDA, LEA, NDB, BIC Insurance Companies	-Availability of an Institutional -Assessment on readiness of institutions	15.2.1 Undertake a legal and policy gap analysis to identify gaps in existing mandates, institutional responsibilities, regulatory frameworks, and enforcement mechanisms, and recommend measures to strengthen biodiversity governance and implementation effectiveness. 15.2.2 Establish, strengthen, and operationalize biodiversity monitoring structures at national and district levels to support coordinated data generation, tracking of biodiversity indicators, compliance monitoring, and reporting under the	2026	2030

							Kunming–Montreal Global Biodiversity Framework (KM-GBF).		
						15.2.3	Enhance the capacity of community-based organizations (CBOs) to participate in biodiversity monitoring, compliance verification, community reporting, and adaptive management of local biodiversity resources.		
						15.2.4	Facilitate targeted stakeholder capacity assessment workshops to evaluate technical expertise, institutional staffing levels, operational resources, and implementation readiness across government agencies, private sector entities, civil society organizations, and local communities.		
						15.2.5	Develop and apply institutional readiness assessment tools, including scorecards and capacity assessment frameworks, to measure institutional preparedness, identify capacity gaps, and prioritize strategic interventions for effective NBSAP implementation.		
						15.2.6	Identify and implement priority training programmes to strengthen technical capacity on emerging biodiversity-related requirements, including Environmental, Social and Governance (ESG) reporting, biodiversity disclosure frameworks, and application of biodiversity indicators such as the Living Planet Index (LPI).		
						15.2.7	Develop and implement pilot biodiversity monitoring initiatives with selected private sector companies and priority economic sectors to test monitoring approaches, improve biodiversity data availability, and promote integration of biodiversity considerations into sectoral planning and decision-making.		
15-3	Strengthen the institutional arrangements for auditing the institutions at	NPC	DEP CIPA BoB MoF NBFIRA Auditor General	Com merci al banks BSE UNDP CEDA LEA NDB BIC	-Availability of audit reports	15.3.1	Develop, institutionalise, and operationalise Standard Operating Procedures (SOPs) for biodiversity compliance audits to ensure consistent assessment, reporting, and enforcement	2026	2030

	all levels			Insurance Companies			of biodiversity-related obligations across relevant sectors. 15.3.2 Establish and operationalise a digital biodiversity disclosure reporting system to enable institutions and regulated entities to submit, manage, and track biodiversity-related compliance information efficiently. 15.3.3 Strengthen regulatory oversight by enabling regulators to monitor compliance performance, identify gaps, generate audit dashboards, and support evidence-based decision-making on biodiversity management and accountability. 15.3.4 Design and implement targeted capacity-building programmes for regulators, auditors, and compliance officers on biodiversity metrics, Environmental, Social and Governance (ESG) disclosure requirements, biodiversity risk assessment, and emerging reporting frameworks. 15.3.5 Develop strategic partnerships with universities, professional institutions, and relevant accreditation bodies to establish certification programmes for biodiversity auditors and strengthen national technical capacity. 15.3.6 Establish and operationalise a Multi-Level Biodiversity Audit Coordination Mechanism through the creation of an inter-ministerial audit committee to enhance institutional coordination, harmonise compliance approaches, and strengthen accountability for biodiversity-related commitments.		
15-4	Establish persuasive incentives to encourage Institutions at all level to measure and value risks,	NPC	DEP CIPA BoB MoF NBFIRA	Com merci al banks BSE UNDP CEDA LEA NDB BIC Insurance Companies	-Number of businesses and financial Institutions with measures in place to measure and value risks, impacts and	15.4.1 Conduct targeted stakeholder consultations to secure ownership, strengthen institutional commitment, and enhance effective implementation of biodiversity initiatives. 15.4.2 Develop and operationalize a consultative national biodiversity incentive framework that promotes conservation and sustainable use through fiscal,	2026	2030

	impacts and dependencies on nature.				dependencies on nature	financial, and non-financial mechanisms, including tax incentives, subsidies, grants, and preferential permitting for compliant firms and institutions. 15.4.3 Develop and institutionalize biodiversity risk, impact, and dependency indicators, supported by sector-specific biodiversity registers to enhance monitoring, disclosure, accountability, and informed decision-making. 15.4.4 Promote and implement Payment for Ecosystem Services (PES) schemes to incentivize biodiversity conservation, sustainable resource management, and the maintenance of critical ecosystem services. 15.4.5 Promote the establishment and adoption of biodiversity-inclusive eco-certification schemes that integrate biodiversity conservation, sustainable use, and Access and Benefit-Sharing (ABS) criteria across relevant sectors.		
15-5	Strengthen capacity for businesses and financial Institutions to report on compliance to Access and Benefit Sharing regulations.	DEP	MET Departments AGCs,	Commercial banks BSE UNDP CEDA LEA NDB BIC Insurance Companies	Number of Institutions with relevant capacity to enforce compliance	15.5.1 Strengthen capacity of institutions, businesses, and financial entities through targeted training on Access and Benefit-Sharing (ABS) requirements, compliance obligations, and best practices. 15.5.2 Enhance enforcement of ABS compliance through regular inspections, audits, monitoring mechanisms, and the application of appropriate incentives and penalties to promote accountability and adherence. 15.5.3 Mobilise and allocate adequate resources, technologies, and monitoring instruments to support effective ABS compliance tracking, reporting, and enforcement. 15.5.4 Strengthen institutional coordination and capacity to implement, monitor, and enforce ABS measures across relevant sectors.	2026	2030

STRATEGIC ACTIONS FOR TARGET 16: By 2030, reduce the national footprint of consumption by one quarter through the establishment of supportive policy, legislative, or regulatory frameworks to enable sustainable consumption choices, thereby reducing overconsumption and waste generation.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
16-1	Promote Education and awareness on consumption behavior	DEP	Department of Curriculum Development and Evaluation Department of Consumer Affairs	Media NGOs CBOs Private Sector Civil Society	Percentage of population adopting sustainable lifestyles Level of Integration of biodiversity in education curricula	16.1.1 Design and implement community awareness campaigns to promote behavioural change, conscious consumption practices, sustainable lifestyles, and responsible resource use. 16.1.2 Establish and coordinate monthly community-based environmental stewardship initiatives across all wards, including litter-picking campaigns, community clean-up walks, and other conservation activities, while reinstating and strengthening the Cleanest Ward Award Scheme to incentivise community participation and environmental responsibility. 16.1.3 Integrate sustainable consumption and production principles into school curricula to build environmental awareness, encourage responsible consumption behaviours, and nurture a culture of sustainability among learners from an early age. 16.1.4 Promote and support the adoption of sustainable housing approaches and innovative settlement models, including alternative housing designs and efficient urban development approaches. 16.1.5 Revive, strengthen, and operationalise District Environmental Stewardship Programmes through the recruitment, training, mentorship, and deployment of youth environmental stewards as community-level environmental champions, biodiversity awareness facilitators, and local monitoring agents.	2026	2030

						16.1.6 Develop and implement a comprehensive biodiversity communication and outreach strategy that leverages traditional and digital media platforms to enhance public awareness, improve access to biodiversity information, promote behavioural change, and strengthen stakeholder engagement in NBSAP implementation.		
16-2	Promote Circular Economy	DEP	Local Government and Traditional Affairs (Councils) Office of the District Commissioner (ODC)	NGOs CBOs Private Sector Civil Society	Reuse, Reduction and Recycle rate	16.2.1 Promote sustainable alternatives to single-use plastics and implement measures to phase out or regulate their use where feasible. 16.2.2 Enhance resource efficiency by promoting the reuse, recovery, and recycling of materials, including glass, metals, textiles, and other recyclable resources. 16.2.3 Establish and strengthen incentive mechanisms to encourage circular economy initiatives, including bottle return schemes, reusable packaging systems, and other waste reduction innovations. 16.2.4 Strengthen the implementation and enforcement of the Waste Management Policy through improved coordination, regulatory measures, and stakeholder engagement. 16.2.5 Develop, upgrade, and expand waste management infrastructure and facilities to support efficient waste collection, sorting, recycling, treatment, and environmentally sound disposal.	2026	2030
16-3	Develop legislation that promote sustainable consumption.	DIA	CIPA Department of Plant Protection NARDI BOBS Department of Consumer Affairs	Civil Society Farmers Association	-Availability of eco-labels and sustainability certifications -Number of national policies promoting sustainable consumption	16.3.1 Strengthen enforcement of sustainable consumption-related legislation through Environmental Units, local authorities, and the integration of supportive local bye-laws. 16.3.2 Undertake periodic reviews and alignment of sectoral policies, strategies, and programmes to ensure consistency with national sustainable consumption and resource reduction objectives. 16.3.3 Enhance the Sustainable Consumption and Production framework through the development	2026	2030

						and integration of circular economy legislation, environmental fiscal incentives, and targeted awareness campaigns that promote responsible and conscious consumption behaviours.		

STRATEGIC ACTIONS FOR TARGET 17: By 2030, establish and strengthen capacity for biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity, as well as measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention, and implement these measures effectively.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
17-1	Develop a National Legal Biosafety framework	Department Crop Production	Ministry of Trade SEZA Ministry of Health Ministry of Environment and Tourism Councils (Environmental Health) NARDI AGCs	Farmers Association Civil Society	-Existence of a national biosafety framework -Number of risk assessments conducted for LMOs	17.1.1 Establish and operationalize a National Biosafety Coordinating Committee. 17.1.2 Undertake a comprehensive legal and institutional gap analysis to identify deficiencies, overlaps, and opportunities for strengthening existing legislation, policies, and regulatory frameworks governing biosafety and biotechnology. 17.1.3 Develop, standardize, and implement laboratory standards, guidelines, and protocols to ensure the safe handling, containment, testing, and management of Living Modified Organisms (LMOs) and biotechnology-related materials. 17.1.4 Establish mechanisms for the recognition, protection, and registration of indigenous knowledge associated with biotechnology, including the development of systems for patenting and safeguarding innovations derived from indigenous knowledge and genetic resources. 17.1.5 Develop, enact, and enforce a comprehensive Biosafety Act and associated regulations to provide a robust legal foundation for the management, regulation, and oversight of	2026	2030

						genetically modified organisms (GMOs) and LMOs. 17.1.6 Gazette and operationalize the National Legal Biosafety and Biotechnology Framework, including its dissemination to relevant implementing institutions, capacity-building of responsible authorities, and establishment of effective enforcement mechanisms through designated regulatory bodies. 17.1.7 Implement routine and risk-based monitoring and compliance mechanisms, including scheduled and ad-hoc inspections, risk assessments, laboratory testing, and monitoring of facilities, products, and activities involving GMOs and LMOs to ensure compliance with national biosafety standards and international obligations.		
17-2	Strengthen institutional capacity to assess risks and benefits associated with Biosafety and Biotechnology	Department Crop Production	Department of Plant Protection MET	-Farmers Association -Civil Society	-Number of LMOs approved, rejected, or under review -Monitoring systems for LMO release and containment	17.2.1 Develop and institutionalize comprehensive training manuals and capacity-building programmes on the safe handling, management, and regulation of Genetically Modified Organisms (GMOs) and Living Modified Organisms (LMOs), aligned with national biosafety requirements and international obligations. 17.2.2 Strengthen the capacity of biosafety legislation implementers, including inspectors, regulators, and enforcement officers, through targeted training on biosafety laws, regulatory procedures, compliance monitoring, risk assessment, and enforcement mechanisms, including applicable penalties for non-compliance. 17.2.3 Enhance national laboratory capacity by upgrading laboratory infrastructure, equipment, and analytical tools required for the detection, identification, assessment, and safe management of LMOs. 17.2.4 Establish and operationalize inter-agency coordination mechanisms among relevant sectors, including agriculture, health, environment, trade,	2026	2030

						research institutions, and civil society organizations, to facilitate coordinated decision-making and effective implementation of biosafety measures. 17.2.5 Develop and implement liability, redress, and risk management frameworks to address potential environmental, health, and socio-economic impacts associated with biotechnology applications. 17.2.6 Establish robust monitoring, reporting, and evaluation systems to track LMO applications, approvals, rejections, compliance status, containment measures, and overall effectiveness of biosafety management systems. 17.2.7 Promote the responsible commercialization and adoption of locally developed biotechnology products through enabling policy frameworks, regulatory support, innovation incentives, and partnerships with research institutions and private sector stakeholders. Developed biotech products through policy incentives.		
17-3	Raise Awareness on Biosafety and Biotechnology	Department Crop Production	Ministry of Trade SEZA Ministry of Health Ministry of Environment and Tourism Councils (Environmental Health) NARDI AGCs Business Botswana	MEDIA	Stakeholder participation in biosafety decision-making Awareness campaigns on biosafety and biotechnology	17.3.1 Conduct targeted biosafety and biotechnology awareness programmes, including workshops, seminars, and community engagement forums, delivered in English and local languages to enhance public understanding and informed participation. 17.3.2 Develop, produce, and disseminate context-specific information, education, and communication (IEC) materials, including posters, flyers, fact sheets, and other knowledge products tailored to the needs of local communities. 17.3.3 Integrate biosafety and biotechnology concepts into formal education curricula at primary, secondary, and tertiary education levels to strengthen knowledge development and promote long-term capacity building.	2026	2030

						17.3.4 Implement structured biosafety and biotechnology awareness initiatives in schools, including environmental club activities, debates, interactive learning sessions, and the distribution of educational resources to promote youth engagement and awareness. 17.3.5 Undertake post-implementation assessments, evaluations, and audits of biosafety systems to monitor effectiveness, identify emerging gaps, and inform continuous improvement of biosafety governance and implementation frameworks.		

STRATEGIC ACTIONS FOR TARGET 18:By 2030, identify and phase out or reform incentives harmful to biodiversity, taking into account national socio-economic conditions, while substantially and progressively reducing them by at least USD 500 billion per year, and ensure that positive incentives are scaled up consistently and in harmony with the Convention and other relevant international obligations.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End

18-1	Identify, phase out, reform or eliminate incentives or subsidies that are potentially harmful to the environment.	Ministry of Agriculture	MET- DEP BIUST BUAN	Farmers Association Agricultural Products Retailers UNDP	Number of incentives/ subsidies phased out, reformed or eliminated	18.1.1 Update and validate the national inventory of subsidies (agriculture, forestry, mining, water, transport, tourism, energy, concessions, financial services) and apply a biodiversity-risk scoring matrix (using BIOFIN/OECD criteria). 18.1.2 For the top 5–8 ranked prioritized subsidies such as VAT exemptions on chemical inputs, Agricultural Income Deductions, ISPAAD/LIMID successors), conduct combined fiscal, distributional and ecological impact assessments that quantify foregone revenue, beneficiaries, likely land-use change, pollution risk and hotspots 18.1.3 Design and Pilot Reform Pathways by Co-design three reform options per priority subsidy: Phase-out schedule with fiscal savings reallocated to nature-positive measures; (B) Redesign with biodiversity conditionalities (; (C) Substitution by positive incentives (payments for ecosystem services, conservation grants, EPR). Pilot the chosen option in 1–2 districts representing different ecological zones. 18.1.4 Introduce Legal and Institutional Instruments for Implementation by Preparing the legal instruments required to make reforms durable: draft ministerial regulations, amendments to the Waste Management Act / Income Tax Act / VAT schedules, and model municipal by-laws for local bans or levies. 18.1.5 Establish an M&E framework with biodiversity, fiscal and social indicators	2026	2030
18-2	Mapping of areas where harmful subsides were used and the rate of recovery after reform or elimination.	Ministry of Agriculture	MET- DEP BIUST BUAN	Farmers Association Agricultural Products Retailers UNDP	Availability of Maps Percentage of Area under recovery Percentage	18.2.1 Identify and map biodiversity hotspots where existing subsidies and incentives overlap with areas of high biodiversity value to inform targeted policy reforms and conservation interventions. 18.2.2 Establish baseline conditions prior to subsidy and incentive reforms to enable effective tracking, assessment, and reporting of ecosystem recovery and biodiversity outcomes.	2026	2030

					of Areas that recovered.	18.2.3 Implement remote sensing and spatial monitoring approaches to detect land-use changes, assess ecosystem degradation, and track vegetation recovery at landscape scale. 18.2.4 Develop restoration and incentive reinvestment mechanisms that direct financial savings generated from subsidy reforms towards ecosystem restoration initiatives, biodiversity conservation actions, and the strengthening of positive incentives. 18.2.5 Develop and implement targeted rehabilitation and restoration plans for priority degraded ecosystems, while engaging local authorities, communities, and relevant stakeholders in monitoring, evaluation, and adaptive management of ecosystem recovery progress.		

STRATEGIC ACTIONS FOR TARGET 19

By 2030, progressively increase the level of financial resources from all relevant sources, including domestic, international, public, and private resources such as a biodiversity finance plan, blended finance schemes, payments for ecosystem services, and green bonds in accordance with Article 20 of the Convention, for the implementation of the NBSAP, by 20 percent of the implementation budget annually.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
19-1	Develop a resource mobilization plan (RMP) for the NBSAP	MET- DEP	MoF	Commercial Banks BSE UNDP NGOs, CBOS Private Sector Civil Society	Availability of a Resource Mobilization Plan Percentage increase of financial resources into the environment sector	19.1.1 Review existing finance diagnostics and compile BFP recommendations and NBSAP costed actions. 19.1.2 Map current funding flows and gaps and update the expenditure and gap analysis by NBSAP goal and priority action. 19.1.3 identify capacities, incentives and barriers for each funding source (government, donors, private sector, tourism, climate funds).	2026	2030

						19.1.4 Set clear mobilization targets categorizing them into short, medium and long-term aimed at closing finance gap. 19.1.5 Prioritize NBSAP actions for funding by ranking actions into biodiversity impact, feasibility and funding readiness as criteria. 19.1.6 Select available funding instruments and sources and match priority actions to instruments including grants, fees, offsets, certification, climate funds, private investment. 19.1.7 Develop project concepts and investment cases for top priority actions (protected area upgrades, CBNRM reforms, offsets, ecotourism certification, invasive species valorization, climate proposals). 19.1.8 Prepare funding packages that combines grants, concessional finance and private co-finance; design blended finance structures where appropriate. 19.1.9 Design revenue retention and benefit-sharing mechanisms to biodiversity e.g., protected area fee retention, CBNRM concession flows, parastatal revenue rules. 19.1.10 Map potential funders and investors including bilateral donors, GCF/GEF, private impact investors, tourism operators, beef value chain buyers. 19.1.11 Prepare tailored outreach materials through investment briefs, pitch decks, cost-benefit summaries and co-financing offers.		
19-2	Strengthen the institutional capacity of the relevant institutions to	MET- DEP	MoF	Commercial Banks BSE UNDP NGOs, CBOS	Number of officers trained on resource mobilisation	19.2.1 Conduct capacity needs assessment of institutions implementing NBSAP.	2026	2030

	implement the resource mobilization plan for the NBSAP			Private Sector Civil Society		19.2.2 Develop and roll out tailored training modules on fundraising, proposal writing, donor engagement, and financial management. 19.2.3 Upgrade infrastructure and analytical tools for financial tracking and reporting. 19.2.4 Define RMP governance lead agency coordination unit and realign functions for implementing structures. 19.2.5 Set up a Resource Mobilization Unit or focal point, with mandate to prepare proposals, manage donor relations and monitor funds.		
19-3	Valuation of Ecosystem Services identified by the National Ecosystem Assessment	MET- DEP	NPC Statistics Botswana DFRR DWNP DCP DAP	Commercial Banks BSE UNDP NGOs, CBOS Private Sector Civil Society	Number of valued ecosystem services	19.3.1 Quantify and assess the physical quantity, quality, and condition of ecosystem services targeted under PES schemes to establish measurable baselines and performance indicators. 19.3.2 Translate biophysical ecosystem service flows into monetary values and determine appropriate payment levels, valuation methodologies, and contractual terms for PES arrangements. 19.3.3 Design and implement equitable, gender-responsive, disability-inclusive, and legally feasible PES schemes, clearly identifying eligible beneficiaries, payment recipients, benefit-sharing mechanisms, and safeguards for vulnerable groups. 19.3.4 Pilot and test PES contracts, institutional arrangements, payment mechanisms, and monitoring systems to assess their effectiveness, feasibility, and scalability. 19.3.5 Mainstream and institutionalise PES mechanisms within national policies, plans, and regulatory frameworks to ensure long-term sustainability of payments, including through fee retention mechanisms,	2026	2030

							biodiversity and environmental offsets, fiscal incentives, and other sustainable financing instruments.		
19-4	Review and implementation of the Biodiversity Finance Plan (BFP)	MET- DEP	DFRR DCP DWNP DNM M	Commercial Banks BSE UNDP NGOs, CBOS Private Sector Civil Society	-Reviewed Biodiversity Finance Plan -Level of implementation of the Biodiversity Finance Plan	19.4.1 19.4.2 19.4.3 19.4.4 19.4.5 19.4.6	Review and align the Biodiversity Finance Plan (BFP) with national biodiversity priorities, the revised NBSAP targets, and identified biodiversity financing gaps to ensure strategic resource allocation and implementation. Strengthen institutional capacity through targeted training and technical support on resource mobilisation, biodiversity finance, financial management, investment planning, and donor engagement. Consolidate and strengthen the National Environmental Fund to provide a coordinated and transparent mechanism for mobilising, managing, and allocating financial resources for biodiversity conservation and sustainable use. Update and institutionalise the Biodiversity Expenditure Review (BER) to track biodiversity-related expenditures, assess financing trends, and inform resource mobilisation and investment decisions. Develop and operationalise a performance monitoring framework for the implementation of the Biodiversity Finance Plan, including clear indicators, targets, responsibilities, reporting mechanisms, and timelines. Produce and disseminate annual progress reports on BFP implementation, documenting financial mobilisation and expenditure, implementation achievements, challenges, lessons learned, and priority actions for the subsequent reporting period.	2026	2030
19-5	Develop a Biodiversity	MET- DEP	BOB MoF	Commercial Banks	Availability of the Biodiversity	19.5.1	Conduct situational analysis of current economic contributions of biodiversity.	2026	2030

	Economic Strategy			BSE UNDP NGOs, CBOS Private Sector Civil Society	Economic Strategy	19.5.2 Map sectoral linkages across agriculture, tourism, forestry, fisheries, and other biodiversity-dependent sectors, including their dependencies and impacts on ecosystems and biodiversity. 19.5.3 Review existing policies, strategies, plans, and economic frameworks to identify opportunities for mainstreaming biodiversity considerations and strengthening policy coherence. 19.5.4 Identify and prioritise high-value biodiversity-based economic opportunities, sustainable value chains, and nature-positive enterprises that can contribute to economic diversification and sustainable development. 19.5.5 Develop a comprehensive strategy with clear objectives, strategic targets, priority interventions, implementation responsibilities, timelines, and a results-based implementation roadmap. 19.5.6 Integrate the strategy and its priority actions into national development planning, sectoral planning, public investment programmes, and budgetary processes to secure sustained implementation and financing.		
19-6	Develop a Green Bond Guidelines	BoB	NBFIRA MET MoF	Commercial Banks BSE UNDP NGOs, CBOS Private Sector Civil Society	-Availability of the Green Bond Guidelines -Number of financial institutions with green bond program	19.6.1 Draft technical guidelines for issuance of green bonds aligned with international standards. 19.6.2 Establish criteria for projects eligible for green bonds. 19.6.3 Develop a monitoring and reporting framework for green bond-funded projects. 19.6.4 Pilot green bond issuance with selected financial institutions.	2026	2030

						Conduct capacity building for banks and government officials on green bond management		
19-7	Develop a Carbon Credits Framework	MET-DMS	MoF DEP	UNDP GIZ FAO Conservation International	Availability of the Carbon Credit Framework Number of companies involved in the carbon credit market in Botswana	19.7.1 Develop the Carbon Credit Framework 19.7.2 Conduct a National Carbon Market Readiness Assessment and Baseline Study 19.7.3 Identify potential carbon credit projects (forestry, renewable energy, waste management). 19.7.4 Develop rules and standards for carbon credit generation, verification, and sale. 19.7.5 Establish mechanisms for communication and dissemination (policy briefs, website, workshops). 19.7.6 Introduce supporting fiscal instruments (carbon tax, plastic levy). 19.7.7 Facilitate private sector participation in carbon credit market. 19.7.8 Benchmarking from international and regional frameworks available and customize.	2026	2030
19-8	Develop Biodiversity Credits Framework	MET-DWNP&DFRR	MoF, DEP	UNDP GIZ FAO Conservation International AWF	- Availability of the Biodiversity Credit Framework -Number of companies involved in the biodiversity credit market in Botswana	19.8.1 Build capacity and raise awareness among relevant stakeholders on the Biodiversity Credit Framework, including its principles, standards, opportunities, and application. 19.8.2 Review and revise the Wildlife Policy to integrate biodiversity credits and establish an enabling policy environment for their development and implementation. 19.8.3 Conduct baseline assessments and undertake planning in potential biodiversity crediting areas to establish ecological, socio-economic, and institutional baselines. 19.8.4 Map priority species, habitats, and ecological corridors to identify areas with high	2026	2030

						biodiversity value and potential for biodiversity credit generation. 19.8.5 Develop and operationalise monitoring protocols and indicators to measure biodiversity outcomes and ensure consistency, transparency, and credibility of biodiversity credits. 19.8.6 Domesticate and adapt appropriate methodologies for the generation, certification, validation, registration, and trading of biodiversity credits within the national context. 19.8.7 Undertake inclusive community consultations to develop equitable benefit-sharing mechanisms and identify community-based enterprises and livelihood opportunities linked to biodiversity credits. 19.8.8 Mobilise and leverage financial resources to support the development, piloting, scaling-up, and long-term implementation of biodiversity credit projects. 19.8.9 Implement ecosystem restoration and biodiversity conservation interventions in priority areas to generate measurable and verifiable biodiversity gains. 19.8.10 Develop and strengthen biodiversity credit markets by establishing appropriate market structures, partnerships, investment mechanisms, and platforms for credit transactions. 19.8.11 Assess and stimulate demand for biodiversity credits among public and private sector actors, investors, conservation organisations, and other potential buyers.		

						19.8.12 Establish and implement robust Monitoring, Reporting and Verification (MRV) systems to ensure the integrity, transparency, additionality, and credibility of biodiversity credits.		
19-9	Introduce new Environmental Taxes, Fines and Levies.	MET- DEP	MoF BURS AGCs	NGOs, CBOS Private Sector Civil Society	Number taxes, fines and levies introduced (Transport Taxes, Pollution Taxes, Resource and Energy Taxes)	19.9.1 Conduct a fiscal review of existing taxes, fines, and levies impacting the environment to identify strengths, weaknesses, and gaps. 19.9.2 Identify gaps and propose new fiscal instruments, including transport taxes, pollution taxes, resource and energy taxes and single-use plastic levies. 19.9.3 Engage stakeholders (government, private sector, NGOs, communities) to validate proposed instruments and gather feedback. 19.9.4 Draft legislative and regulatory instruments to formalize new taxes, fines and levies for government approval. 19.9.5 Establish monitoring and compliance mechanisms to track collection, enforce rules and prevent evasion. 19.9.6 Roll out public awareness campaigns to educate citizens and businesses on the purpose, benefits and application of new fiscal measures	2026	2030

STRATEGIC ACTIONS FOR TARGET 20: By 2030, strengthen capacity-building and development, access to and transfer of technology, and promote the development of and access to innovation and technical and scientific cooperation at all levels, including through national, regional, and international cooperation, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End

20-1	Strengthen the ability institutions at all levels to contribute successfully to realizing the mission of halting and reversing biodiversity loss by improving their knowledge, skills, competencies and attitudes	MET-DEP	All line Ministries and Departments BoB NBFIRA	All NGOs, CBOS Private Sector Civil Society UNDP BITRI	Number of individuals trained with knowledge, skills, competencies and attitudes towards halting biodiversity loss Number of institutions that have mainstreamed biodiversity within their planning	20.1.1 20.1.2 20.1.3 20.1.4	Conduct targeted institutional capacity needs assessments to identify critical capacity gaps, priorities, and opportunities for strengthening biodiversity governance and implementation Design and implement high-impact capacity-building programmes, including targeted training, scholarships, technical exchanges, and benchmarking initiatives. Identify priority institutions and build the capacity of key personnel through tailored competency development programmes ‘ Establish and strengthen strategic transnational partnerships and virtual knowledge-exchange platforms to facilitate collaboration, innovation, sharing of best practices, and access to technical expertise.	2026	2030
20-2	Improve access to and transfer of technologies that have a potential to assist in addressing the ongoing biodiversity loss	MET-DEP	All line Ministries and Departments BoB Research Institutions Academia	All NGOs, CBOS Private Sector Civil Society UNDP Commercial Banks	-Number of adopted technological tools that help address biodiversity loss (Earth Observation, AI and machine learning, DNA barcoding and eDNA mobile applications, blockchain and smart contracts) -Level of investment in capacity building	20.2.1 20.2.2 20.2.3	Identify and assess the latest available technological innovations and tools relevant to biodiversity conservation, monitoring, and management; facilitate their acquisition by relevant institutions while ensuring access to affordable, cost-effective technologies tailored to the needs and capacities of local communities. Design and implement high-impact technology capacity-building programmes, including practical workshops and hands-on training, to strengthen the ability of institutions and local communities to effectively adopt, operate, and apply innovative technological tools for biodiversity management. Deploy and integrate advanced technological solutions, including drones, environmental DNA (eDNA), mobile applications, remote sensing, and other digital platforms, to enhance real-time biodiversity monitoring, data collection, analysis, and decision-making.	2026	2030

						20.2.4 Establish mechanisms for continuous performance monitoring, technology appraisal, system upgrades, and maintenance to ensure the long-term functionality, sustainability, and effectiveness of deployed technological solutions. 20.2.5 Strengthen strategic partnerships and collaboration with regional and international organizations, research institutions, technology providers, and development partners to facilitate access to innovative technologies, knowledge exchange, and technical support for biodiversity conservation.		
20-3	Develop new, transformative and innovative solutions for biodiversity needs and improve access to those solutions.	Botswana Innovation Hub	All line Ministries and Department s BoB Research Institutions Academia (UB, BUAN, BIUST)	All NGOs, CBOS Private Sector Civil Society UNDP BITRI Commercial Banks	Number of innovations and environmental applications utilized Number of initiatives and funding programs towards development of biodiversity solutions	20.3.1 Finance and scale breakthrough innovation programmes by providing targeted support to start-ups, NGOs, research institutions and enterprises developing innovative biodiversity solutions. 20.3.2 Embed circular economy principles and practices by promoting the Reduce, Reuse, Recycle and Repurpose (4Rs) approach across biodiversity-relevant sectors and value chains. 20.3.3 Support research, development and pilot testing of innovative technologies, tools, products and approaches that address biodiversity conservation, sustainable use and ecosystem restoration challenges. 20.3.4 Equip stakeholders with advanced monitoring, assessment and data-collection tools to strengthen the generation, management and application of biodiversity information and support evidence-based innovative solutions. 20.3.5 Develop and implement enabling legal, regulatory and policy frameworks that incentivise investment, research, technology development and adoption of innovative biodiversity solutions.	2026	2030

STRATEGIC ACTIONS FOR TARGET 21: By 2030, develop data management frameworks and information systems to ensure that the best available data is accessible to decision-makers, practitioners, and the public to guide effective and equitable governance and integrated, participatory management of biodiversity. Furthermore, strengthen communication, awareness-raising, education, monitoring, research, knowledge management, and traditional knowledge, innovations, practices, and technologies of local communities, which shall only be accessed with their free, prior, and informed consent in accordance with national legislation.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
21-1	Strengthen the institutional capacity of the relevant departments within line ministries to undertake research to generate information and data	MET - DEP	Local Government MET (DWNP, DFRR, DNMM) Department of Mines Department of Energy Affairs Department of Town and Country Planning Ministry of Lands Research institutions	NGOs, CBOS Private Sector Civil Society	-Number of individuals and institutions undertaking research and generating data -Number of Research papers generated	21.1.1 Assess existing research capacities, institutional staffing levels, infrastructure availability, and technical skill gaps across relevant departments to identify priority areas for strengthening biodiversity research and innovation. 21.1.2 Implement targeted capacity-building programmes to enhance departmental staff competencies in modern research methodologies, biodiversity data management, analysis, and knowledge application. 21.1.3 Strengthen biodiversity monitoring systems by developing and implementing standardized data collection protocols, quality assurance mechanisms, and integrated monitoring frameworks aligned with national and global biodiversity indicators. 21.1.4 Establish and enhance strategic research partnerships with universities, non-governmental organizations, research institutions, and international organizations to promote collaborative research, innovation, and knowledge exchange. 21.1.5 Develop and operationalize mechanisms for the regular reporting, documentation, sharing, and dissemination of biodiversity research findings to inform policy development, decision-making, and conservation actions.	2026	2030

						21.1.6 Develop and improve accessible infrastructure, facilities, and technologies that enable the meaningful participation of persons with disabilities in biodiversity governance, conservation initiatives, research activities, and sustainable use practices.		
21-2	Resuscitate and operationalise the Environmental Information Systems (EIS)	MET - DEP	Local Government MET (DWNP, DFRR, DNMM) Department of Mines Department of Energy Affairs Department of Town and Country Planning Ministry of Lands Research institutions	NGOs, CBOS Private Sector Civil Society	-Availability of the EIS Prototype -Availability of EIS platform -Information and Data deposited into the EIS platform	21.2.1 Develop, configure, and pilot-test an Environmental Information System (EIS) prototype in collaboration with key stakeholders to ensure functionality, relevance, and alignment with national biodiversity monitoring and reporting requirements. 21.2.2 Build institutional and stakeholder capacity by training government officers, community representatives, and relevant data custodians on EIS utilisation, data management, and data entry protocols. 21.2.3 Deploy and operationalise the EIS Portal as a centralised platform for the collection, management, sharing, and dissemination of environmental and biodiversity information. 21.2.4 Populate and continuously update the EIS database by integrating existing environmental datasets from key data producers, including government institutions, research organisations, academic institutions, and non-governmental organisations. 21.2.5 Establish inclusive access mechanisms by providing user-friendly EIS portals and interfaces for communities, private sector actors, Community-Based Organisations (CBOs), and other stakeholders to access and contribute relevant environmental information. 21.2.6 Integrate Geographic Information System (GIS) capabilities and indicator-based dashboards to enable spatial analysis, track biodiversity indicators, support evidence-based decision-	2026	2030

							making, and facilitate real-time monitoring and reporting.		
21-3	Develop data sharing protocols to facilitate data sharing and deposition in the EIS	MET - DEP	Local Government and Traditional Affairs MET (DWNP, DFRR, DEP, DNMM) Department of Mines Department of Energy Affairs Department of Town and Country Planning Ministry of Lands and Agriculture Research institutions	NGOs, CBOS Private Sector Civil Society	-Availability of a Data sharing protocol -National Environmental Information Network (NEIN) developed	21.3.1 21.3.2 21.3.3 21.3.4 21.3.5	Establish and operationalize the National Environmental Information Network (NEIN) as a centralized mechanism for coordinating, managing, and facilitating access to environmental and biodiversity information. Develop, consult on, and validate data-sharing guidelines in collaboration with relevant stakeholders to promote standardized, transparent, and effective exchange of biodiversity and environmental data. Design and establish a secure, centralized digital platform for the systematic deposition, storage, management, and accessibility of biodiversity and environmental datasets. Integrate and deploy digital data management tools to enable automated data validation, metadata generation and tagging, quality assurance, analysis, and reporting in alignment with national and global biodiversity monitoring frameworks. Implement targeted awareness and capacity-building programmes to enhance stakeholder understanding of responsible data management, ethical data-sharing practices, and compliance with Access and Benefit-Sharing (ABS) requirements, including Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT).	2026	2030
21-4	Undertake a national assessment and develop a database of the traditional conservation and sustainable practices	MET - DEP	Local Government and Traditional Affairs, MET (DWNP, DFRR, DEP, DNMM) Department of Mines Department of Energy Affairs	NGOs, CBOS Private Sector Civil Society	-Availability of a National Assessment Study -Availability of a Traditional Conservation practices	21.4.1 21.4.2	Identify, map, and systematically document traditional knowledge systems, indigenous practices, and community-based approaches that contribute to biodiversity conservation and sustainable natural resource management. Conduct participatory field surveys, consultations, and case studies with local communities to capture, validate, and assess traditional biodiversity management practices.	2026	2030

			Department of Research Science and Technology CESRIKI CEPA		inventory list	21.4.3 Establish and maintain a centralized, accessible, and searchable database to compile, store, and manage documented traditional knowledge and associated biodiversity practices. 21.4.4 Analyze and evaluate documented practices to determine their relevance, applicability, and potential integration into national biodiversity conservation policies, strategies, and management frameworks. 21.4.5 Develop, publish, and disseminate knowledge products and technical reports to inform policymakers, researchers, practitioners, and the broader public on the contribution of traditional knowledge to biodiversity conservation. 21.4.6 Establish and facilitate validation platforms and stakeholder engagement forums with community representatives and relevant stakeholders to review, verify, and enhance the accuracy and applicability of documented findings.		

STRATEGIC ACTIONS FOR TARGET 22: By 2030, mainstream gender at every level of government and across all sectors to ensure full, equitable, inclusive, effective, and gender-responsive representation and participation in decision-making, as well as access to justice and information related to biodiversity, for local communities respecting their cultures and traditional knowledge, including women, girls, children, youth, and persons with disabilities.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	Indicative Activities	Start	End
22-1	Strengthen participation of women, youth and persons with disabilities in Natural Resource	DEP	Local Government and Traditional Affairs Office of the President	NGOs CBOS Civil Society	Proportion of women, youth and persons with disabilities in leadership roles	22.1.1 Formulate policies that enable uptake of environmental opportunities by women, youth and persons with disability in service and technologies to support their engagement in the governance, conservation and sustainable use of biodiversity 22.1.2 Design and implement targeted capacity-building programmes for women, youth, and persons with	2026	2030

	Management		(Department of Disabilities) Department of Gender Affairs Department of Wildlife and National Parks Department of Forestry and Range Resources Department of CBNRM		Number of biodiversity related enterprises led by women, youth and persons with disabilities Number of capacity building sessions targeting women, youth and persons with disabilities	disabilities to enhance their participation and leadership in biodiversity conservation, sustainable natural resource management. 22.1.3 Provide suitable infrastructure that enable women, youth and persons with disability to access services and technologies to support their engagement in the governance, conservation and sustainable use of biodiversity 22.1.4 Develop, adopt, and implement affirmative, gender-responsive, and socially inclusive policies and programmes that address barriers to participation and ensure equitable access to biodiversity-related opportunities for disadvantaged and underrepresented groups. 22.1.5 Institutionalize and enforce the mandatory representation and meaningful participation of women, youth, and persons with disabilities within Community-Based Natural Resource Management (CBNRM) structures, conservation initiatives, policy-making processes, and biodiversity governance mechanisms. 22.1.6 Mobilise and train relevant government officials, community leaders, practitioners, and implementing partners on the provisions of the Disability Act to strengthen compliance and promote inclusive biodiversity governance and programme implementation. 22.1.7 Strengthen the capacity of women, youth, girls and persons with disabilities to establish, manage, and expand biodiversity-based enterprises through entrepreneurship development, technical training, mentorship, and market access support. 22.1.8 Implement targeted awareness and outreach programmes to enhance the knowledge, capacity, and meaningful engagement of women, youth, indigenous peoples, local communities, and persons with disabilities in biodiversity conservation and sustainable use.		

						22.1.9 Establish and operationalise targeted financing mechanisms, including seed grants and start-up support schemes, to facilitate the creation, growth, and long-term sustainability of biodiversity enterprises led by women, youth, and persons with disabilities.		
22-2	Ensure legal frameworks protect environmental defenders and recognize customary knowledge.	Department of CBNRM	Local Government Tribal Administration Office of the President (Department of Disabilities) Department of Gender Affairs	NGOs CBOS Civil Society	Availability of a Legal framework in place with provisions protecting environmental defenders.	22.2.1 Review, strengthen, and develop appropriate legal and policy frameworks to recognize, protect, and support environmental defenders in the conservation and sustainable management of biodiversity. 22.2.2 Promote equitable access to natural resources and associated benefits by strengthening mechanisms that enhance the participation and empowerment of women, youth, Indigenous Peoples, local communities, and other marginalized and vulnerable groups in biodiversity conservation and sustainable resource management. 22.2.3 Recognize, document, integrate, and promote the application of customary knowledge and traditional practices within biodiversity governance systems, conservation planning processes, and natural resource management frameworks. 22.2.4 Establish, strengthen, and implement targeted financing mechanisms, incentive schemes, and support programmes to improve access to biodiversity-related funding opportunities for marginalized and underrepresented groups, while promoting their meaningful participation in conservation, restoration, and sustainable livelihood initiatives. 22.2.5 Design, implement, and strengthen targeted awareness-raising, communication, and outreach programmes to enhance knowledge, participation, and uptake of biodiversity initiatives, financing opportunities, rights-based approaches, and benefit-sharing mechanisms among marginalized and vulnerable groups. 22.2.6 Develop and implement inclusive capacity-building programmes to enhance the knowledge, skills, leadership, and institutional capacity of marginalized groups, enabling their effective participation in biodiversity decision-making processes, access to opportunities, and contribution	2026	2030

						to conservation and sustainable natural resource management.		

STRATEGIC ACTIONS FOR TARGET 23: By 2030, ensure gender equality in the implementation of the National Biodiversity Strategy and Action Plan through a gender-responsive approach to the three objectives of the Convention, by recognizing the equal rights and opportunities of all persons to natural resources, and ensuring their full, equitable, meaningful, and informed participation and leadership at all levels of action, engagement, policy, and decision-making related to biodiversity.

	Strategic Actions	Lead institutions	Implementing Partners	Non-Govt Participants	Indicators	**Indicative Activities**	**Start**	**End**
23-1	Ensure Equal opportunity of both women and men and Women in the Implementation of NBSAP	Department of Gender Affairs	Local government Tribal Administration Office of the District Commissioner MET (DWNP, DFRR, DEP, DNMM)	NGOs CBOS Civil Society	Number of consultation deliberate platforms targeted to both women and men Proportion of women and men with access to natural resources.	23.1.1 Review and strengthen the National Gender Policy and related legislative and policy frameworks to ensure the effective mainstreaming of gender considerations in biodiversity conservation, sustainable use, and governance 23.1.2 Establish and institutionalize gender-responsive consultation and engagement mechanisms at community, district, and national levels to ensure the meaningful participation of women and men in biodiversity planning, implementation, and decision-making processes. 23.1.3 Promote and ensure equitable representation and participation of women and men in biodiversity governance, leadership, and decision-making structures, including Community-Based Organizations (CBOs), natural resource management committees, and protected area management boards. 23.1.4 Develop and implement CBNRM regulations requiring CBOs to prepare mandatory, gender-responsive benefit-sharing plans 23.1.5 Facilitate the establishment and strengthening of gender advocacy groups and networks, and ensure their systematic engagement and consultation in biodiversity policy development, programme design, implementation, and review processes. 23.1.6 Develop and implement mechanisms to ensure that	2026	2030

						decisions, agreements and benefit-sharing arrangements related to biodiversity conservation and natural resource management are based on the free, prior, and informed consent of all affected stakeholders, regardless of gender. 23.1.7 Develop and operationalize a gender-responsive monitoring, evaluation, and reporting framework to assess and ensure equitable access to, participation in, and benefits from biodiversity conservation initiatives and projects for both women and men.		

ANNEX 1: KM-GBF INDICATOR ALIGNMENT MATRIX

This annex aligns Botswana's 23 National Biodiversity Targets with the Kunming-Montreal Global Biodiversity Framework (KM-GBF) targets, the updated CBD headline and binary indicators, and the national monitoring Key Performance Indicators (KPIs). It should be used by all ministries, departments, parastatals and non-governmental organizations (NGOs) involved in the implementation of CBD national targets to ensure that national monitoring data supports quarterly and annual national reporting, as well as reporting to the Convention on Biological Diversity (CBD).

Source note: The CBD headline and binary indicators below are aligned with the updated monitoring framework endorsed at COP 16 in decision CBD/COP/DEC/16/31

KM-GBF Target	Botswana National Target Focus	CBD headline / Component/ Complementary indicator	Botswana NBSAP KPI / national indicator	Main data source / means of verification	Frequency	Lead and supporting institutions
Target 1	Target 1: Biodiversity-inclusive spatial planning and zero land-use change in high biodiversity	A.2 Extent of natural ecosystems	Extent of natural ecosystems	DTCP land-use plans, spatial plans, EIA/SEA records, national ecosystem maps.	Annual	DTCP DEP DFRR
			Area of significant	DTCP land-use plans, spatial plans, EIA/SEA records, national ecosystem maps.	Annual	DTCP DEP, DFRR

	areas.		ecosystems converted to other land uses.			
		1.1 % of land and sea area covered by biodiversity inclusive spatial plans	% of ecosystems of ecological significance under spatial planning	DTCP land-use plans, spatial plans, EIA/SEA records, national ecosystem maps.	Annual	DTCP DEP DFRR
Target 2	Target 2: Restore 10% of degraded ecosystems.	2.1 Area under restoration.	Area under restoration	Land degradation monitoring system DFRR Reports Land restoration project report	Annual	DFRR MoLA (DCP) Dep of Mines
Target 3	Target 3: Conserve 30% of land and inland waters.	3.1 Coverage of protected areas and other effective area-based conservation measures.	% of Protected area downgrading, downsizing and gazettement.	Protected-area and corridor datasets, community conservation area records, management plans. Spatial plans	Annual	DWNP DFRR Dep of Lands DTCP
			Proportion of terrestrial, freshwater ecological regions which are conserved by protected areas or OECMS	OECM records, National Forest monitoring system		DFRR DWS DWNP
			Areas of UNESCO designated sites (natural and mixed World Heritage sites)	UNESCO National reports		DNMM

Target 4	Target 4: Halt species extinction, protected genetic diversity and manage Human-Wildlife Conflict	A.3 Red List Index	% of threatened species with stable or improving conservation status.	DWNP species monitoring reports DFRR genetic resources records Red List assessments, recovery plans.	Annual	DWNP DFRR
			Number of threatened species with recovery plans developed, updated and under implementation	DWNP species monitoring reports DFRR genetic resources records Red List assessments, recovery plans.	Annual	DWNP DFRR
			Trends in effective and sustainable management of human-wildlife conflict and coexistence	DWNP human-wildlife conflict records compensation records Community-based natural resource management reports Species monitoring reports	Annual	DWNP
		A.4 proportion of populations within species with effective population size greater than 500.	Proportion of priority wildlife and plant species populations with effective population size greater than 500	DWNP species monitoring reports DFRR genetic resources records genetic diversity assessments	Annual/ Quarterly, depending on assessment cycle	DWNP DFRR
			Number of plant and animal genetic resources	National Seed Bank Reports Animal and Crop Production reports DFRR genetic resources records	Annual	DFRR NARDI MoLA (Crop and

			secured in medium- or long-term conservation facilities	DWNP reports		animal Production)
Target 5	Target 5: Sustainable, legal and safe harvesting, trade and use of wild species.	5.1 Proportion of fish stocks within biologically sustainable levels;	Fish stocks within biologically sustainable levels	DWNP licensing systems, fisheries/wildlife trade permits, patrol records, market and harvest reports.	Monthly	DWNP
		Proportion of legal and illegal wildlife trade consisting of species threatened with extinction.	Legal and illegal wildlife trade consisting of species threatened with extinction.	DFRR and DWNP licensing systems, fisheries/wildlife trade permits, patrol records, market and harvest reports.	Monthly	DWNP DFRR
Target 6	Target 6: Reduce the introduction of invasive alien species by at least 50% and minimize their impacts.	6.1 Rate of invasive alien species establishment	Trends in abundance, temporal occurrence and spatial distribution of invasive non-indigenous species	DFRR DCP DWS reports.	Annual	DFRR DWNP DCP DWS
			Number of invasive alien species on national lists as	DFRR reports	Annual	DFRR

			per the Global Register of Introduced and Invasive Species (GRIIS)			
Target 7	Target 7: Reduce pollution, hazardous chemicals and plastics to levels not harmful to biodiversity.	7.1 Index of Costal eutrophication potential	% Inland water eutrophication potential	DEP and DWS reports	Quarterly Annual	DEP, MoLA (DCP, DAP, DVS) MoLTA (District Council)
		7.2 Pesticide environmental concentration.	Pesticide use per area of cropland	MoLA (DCP) reports	Quarterly Annual	DEP, MoLA (DCP, DAP, DVS) MoLTA (District Council)
		Proportion of domestic and industrial wastewater flow safely treated	Proportion Ambient water quality	DEP and DWS water quality monitoring reports	Quarterly Annual	DEP, MoLA (DCP, DAP, DVS) MoLTA (District Council)
		Hazardous waste generation	Percentage of generated of hazardous waste	DEP, MoLA (Plant Health) District Council reports pollution inventories	Quarterly Annual	DEP, MoLA (DCP, DAP, DVS) MoLTA (District Council)
			Proportion of generated hazardous waste safely treated and disposed			
		Fertilizer use	Fertilizer use per crop land area	DCP pesticides and hazardous chemicals records.	Quarterly Annual	DEP, MoLA (DCP, DAP, DVS)

						MoLTA (District Council)
Target 8	Target 8: Minimize the Impacts of Climate Change on Biodiversity and Build Resilience	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 that include biodiversity	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies.	GHG inventory, National Adaptation Plan, climate vulnerability assessments, ecosystem restoration and NbS project reports.	Annual	National Disaster Management Office (NDMO)
		Above-ground biomass stock in forests (tonnes/hectare)	Above-ground biomass stock in forests (tonnes/hectare)	DFRR National Forest Inventory Reports	Annual	DFRR, Statistics Botswana
		National greenhouse inventories from land use and land use change.	CO2 emissions and removals (Gg)	Inventories from land use and land use change	Annual	DMS, Statistics Botswana
Target 9	Target 9: Manage Wild Species Sustainably to Benefit People benefits.	9.1 Benefits from sustainable use of wild species	Revenue generated from natural resources (CBO's, NTFP's Natural resources based	Statistics Botswana Household/community surveys reports CBNRM reports	Annual	DFRR, DWNP, CBNRM and Statistics Botswana

			enterprises)			
		9.2 % of population in traditional occupations	Number of permanent and seasonal jobs created.	DFRR, DWNP and CBNRM reports	Annual	DFRRR, DWNP, MoLA (DCP, DAP) and CBNRM
		Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making)	Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making)	DFRR, DWNP, CBNRM, Statistics Botswana reports	Quarterly Annual	DFRR DWNP CBNRM, Statistics Botswana
Target 10	Target 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry.	10.1 Proportion of agricultural area under productive and sustainable agriculture	Proportion of agricultural area under productive and sustainable agriculture	DAP reports DFRR forest statistics Apiculture/ Aquaculture record Land-use and production data.	Annual	DFRR, DAP
		10.2 progress towards sustainable forest management.	Area of forest under sustainable management.	DFRR degradation status report	Annual	DFRR

		Proportion of land that is degraded over total land area	Proportion of land that is degraded over total land area	DFRR degradation status report Statistics Botswana Environmental Digest report	Annual	DFRR Statistics Botswana
		Changes in soil organic carbon stocks	Changes in soil organic carbon stocks	Statistics Botswana Environmental Digest report DMS and DFRR Reports	Annual	Statistics Botswana DMS, DFRR
Target 11	Target 11: Restore, maintain and enhance nature's contributions to people.	B.1 Services provided by ecosystems.	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	National Disaster Management Office report Statistics Botswana Environmental Digest SDG reports	Annual	NDMO, Statistics Botswana
			Annual mean levels of fine particulate matter (e.g., PM2.5 and PM10) in cities	DEP Reports	Annual	DEP
			Proportion of bodies of water with good ambient water quality	DWS Reports	Quarterly Annual	DWS
			Level of water stress	DWS reports	Quarterly Annual	DWS

			Proportion of population using safely managed drinking water services	DWS reports	Quarterly Annual	DWS
			Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services	DWS, MOH reports	Quarterly Annual	DWS and MOH
Target 12	Target 12: Enhance Green Spaces and Urban Planning for Human Well-Being and Biodiversity	12.1 Average share of built-up area of cities that is green/ blue space for public use.	Recreation and cultural ecosystem services provided	Urban Development Plans	Annual	DTCP, District Council (Physical Planning)
Target 13	Target 13: Fair and equitable sharing of benefits from genetic resources, DSI and traditional knowledge.	C.1 monetary benefits	Revenue from genetic resources collected	DEP Reports CBNRM reports Ministry of Finance	Quarterly Annual	DEP MoF
		C.2 non-monetary benefits;	Non- monetary benefits received	DEP reports CBNRM reports	Quarterly Annual	DEP CBNRM

		Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit.	Number of permits issued by National Authorities	DWNP reports DFRR reports MoLA (DAP, DCP, DVS) MoH	Quarterly Annual	DWNP DFRR MoLA (DAP, DCP, DVS DEP MoH
		Total number of internationally recognized certificates of compliance published in the ABS Clearing-House	Number of IRC certificates published in ABS Clearing-House	DEP (ABS Clearing- House records)	Quarterly Annual	DEP
		Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	Level of implementation of the National ABS legislation	DEP ABS (Nagoya Protocol report)	Quarterly Annual	DEP
		Total number of permits, or their equivalent, granted for	Number of ABS access permits issued	DEP ABS reports	Quarterly Annual	DEP

		access to genetic resources				
Target 14	Target 14: Integrate Biodiversity in decision-making at every level	Number of countries with implementation of the System of Environmental Economic Accounting	Number of sectoral policies and strategies that integrates biodiversity values.	Sector Reports (Ecosystem accounts, national accounts	Quarterly Annual	DEP DWS DOT MoF MoLA Statistics Ministry of Minerals and Energy
			Number of ecosystem valuation studies conducted.	DEP reports	Annual	DEP
			Number of Natural Capital Accounts Developed and updated	Sectoral reports	Annual	DEP DWS DOT MoF MoLA Statistics Ministry of Minerals and Energy
Target 15	Target 15 Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts	15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity	Number of companies publishing sustainability reports	Cross sectoral sustainability reports (Agriculture, Finance, Business, Tourism, Manufacturing), Environment)	Annual	Ministry of Labour and Home Affairs (MLHA) Ministry of Finance (MoF) Ministry of Environment and Tourism (MET-DEP)

Target 16	Target 16: Enable Sustainable Consumption Choices to Reduce Waste and Overconsumption	Food waste index	Food waste generated per capita	Statistics Botswana reports	Quarterly Annual	Statistics Botswana
		Recycling rate	Recycling rate	DEP Waste Returns reports District Council Waste Generated Reports Statistics Botswana reports	Quarterly Annual	DEP Statistics Botswana District Council
Target 17	Target 17: Strengthen Biosafety and Distribute the Benefits of Biotechnology	Number of countries that have the necessary biosafety legal and administrative measures in place	Progress towards development and implementation of biodiversity legal and administrative measures.	Legal and policy instruments.	Annual	MoLA (DCP)
Target 18	Target 18: Reduce Harmful Incentives by at atleast 10% per Year, and Scale Up Positive Incentives for Biodiversity	18.1 Positive incentives in place to promote biodiversity conservation and sustainable use	Number of reforms adopted and implemented	GDP and fiscal data, budget reviews, subsidy assessments, policy reviews, and Biodiversity Finance Plan reporting.	Annual	MoF DEP MoLA
		18.2 Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased out or	Value of harmful subsidies and incentives	GDP and fiscal data, budget reviews, Subsidy assessments Policy reviews, Biodiversity Finance Plan reporting.	Annual	MoF DEP MoLA
			Value of positive incentives for biodiversity	GDP and fiscal data, budget reviews, Subsidy assessments Policy reviews, Biodiversity Finance Plan reporting.	Annual	MoF DEP MoLA

		reformed.	% reduction in harmful incentives	GDP and fiscal data, budget reviews, Subsidy assessments Policy reviews, Biodiversity Finance Plan reporting.	Annual	MoF DEP MoLA
Target 19	Target 19: Increase biodiversity finance by 5% of NBSAP implementation budget annually.	D.1 International public funding, including official development assistance for conservation and sustainable use of biodiversity and ecosystems	Amount of funds leveraged from international public funding	Project financial reports Donor reports	Quarterly Annual	MoF All Line Ministries and Departments Implementing projects
		D.2 D Domestic public funding of conservation and sustainable use of biodiversity and ecosystems	Amount of funds leveraged from Domestic public funding	National budget Donor reports Project financial reports	Quarterly Annual	MoF All Line Ministries and Departments Implementing projects
		D.3 Private funding (domestic and international) of conservation and sustainable use of biodiversity and ecosystems	Amount of funds leveraged from Private funding (domestic and international	Project financial reports Donor reports	Quarterly Annual	MoF All Line Ministries and Departments Implementing projects
		Amount of funding provided through the Global	Amount of funding provided through the Global	Project financial reports Donor reports	Quarterly Annual	MoF All Line Ministries and Departments Implementing projects

		Environment Facility and allocated to the biodiversity focal area	Environment Facility and allocated to the biodiversity focal area			
Target 20	Target 20: Strengthen capacity-building, technology transfer, innovation and scientific and Technical Cooperation for Biodiversity	20.1 Number of countries that have taken significant action to strengthen capacity-building and development and access to and transfer of technology and to promote the development of and access to innovation and technical and scientific cooperation	Number of functional capacity-building, technology transfer, innovation and scientific cooperation initiatives implemented to support NBSAP delivery.	Ministries/ Departmental reports institutional training records MOUs Project reports MoUs Research agreements Technology transfer records	Quarterly Annual	All Line Ministries and Departments, Academic Institutions implementing NBSAP
		Total amount of funding for developing countries to promote the development, transfer, dissemination	Total amount of funding mobilized for environmentally sound biodiversity technologies	National budget, Ministries/ Departmental project records Donor agreements Development partner reports MoUs Research grants NBSAP finance tracking reports	Quarterly Annual	MET (DEP) MoF Statistics Botswana, Research institutions Development partners

		and diffusion of environmentally sound technologies				
Target 21	Target 21: Ensure That Knowledge Is Available and Accessible to Guide Biodiversity Action Develop biodiversity data management frameworks and information systems accessible to decision makers, practitioners and the public.	21.1 Indicator on biodiversity information for the monitoring the global biodiversity framework	Operational Environmental Information System.	DEP (EIS platform) Statistics Botswana	Quarterly Annual	DEP, Statistics Botswana
			Data-sharing protocols and metadata standards developed.	DEP (EIS platform) Statistics Botswana	Quarterly Annual	DEP, Statistics Botswana
			Percentage of NBSAP indicators supported by accessible and quality-assured biodiversity information.	DEP (EIS platform) Statistics Botswana CBD National Reports	Quarterly Annual	DEP, Statistics Botswana
Target 22	Target 22: Ensure Participation in Decision-Making and Access to Justice and Information Related to Biodiversity for all	22.1 Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their	Percentage of adult women and men, particularly in rural and biodiversity dependent communities, with legally recognized and perceived secure	District land use reports	Quarterly Annual	DEP MoLA(Land Boards Ministry of Youth and Gender Affairs Statics Botswana

		rights to land as secure, by sex and type of tenure.	tenure rights to land, disaggregated by sex, type of tenure and district.			
Target 23	Target 23: Ensure Gender Equality and a Gender-Responsive Approach for Biodiversity Action	Indicator on national implementation of the gender plan of action	Percentage of Botswana NBSAP actions that integrate and implement gender-responsive measures in line with the CBD Gender Plan of Action	NBSAP implementation reports Gender action plans, Training records Stakeholder participation records Budget reports and monitoring reports	Quarterly Annual	DEP Ministry of Youth and Gender Affairs NGO, CBO's

ANNEX 2: DATA COLLECTION AND REPORTING TEMPLATES

These templates are designed to standardize the processes by which implementing institutions collect, validate, submit, and report data for NBSAP implementation. They are intended for use in conjunction with the Environmental Information System (EIS), supported by sector-specific databases, and should be accompanied by corroborating evidence such as monitoring forms, photographs, permits, financial records, meeting minutes, and validated datasets.

The templates are to be completed by each implementing institution and submitted to the Department of Environmental Protection (DEP) within **two weeks** after the end of each quarter.

NBSAP QUARTERLY IMPLEMENTATION REPORTING FORM

For reporting progress on Botswana's National Biodiversity Targets

Instructions: Complete one form for each national target or major intervention. Attach relevant evidence and submit through the designated institutional reporting channel.

1. Reporting Details

Reporting institution / department

.....

Reporting quarter and year

☐ Q1 ☐ Q2 ☐ Q3 ☐ Q4

Year: .....

National target number and short title

.....

.....

2. Planned Implementation

Planned activity or intervention

.....

.....

Planned quarterly output

.....

.....

3. Progress Reporting

Progress achieved during the quarter ***(briefly describe achievements, outputs delivered and locations covered)***

.....

.....

Cumulative progress to date ***(includes progress from previous quarters where applicable)***

.....

.....

.....

Indicator(s) reported ***(include national KPIs, CBD/KM-GBF indicators or other approved indicators)***

.....

.....

4. Budget and Implementation Status

Budget allocated: P ..... **Expenditure to date: P .....**

Implementation status

☐ Not started ☐ On track ☐ Delayed ☐ Completed

Brief explanation for status selected

.....

.....

5. Challenges, Risks and Corrective Measures

Key challenges or risks encountered

.....

.....

Corrective actions and support required

.....

.....

6. Means of Verification Attached

Tick all documents or evidence submitted with this form.

☐ Reports ☐ Datasets ☐ Maps ☐ Photos

☐ Minutes ☐ Permits ☐ Financial records ☐ Other

If other, specify

.....

7. Submission Details

Responsible officer and contacts

Name: .....

Position: .....

Institution / Department: .....

Telephone: .....

Email: .....

Date submitted: ..... **Signature:** .....

8. Internal Review Checklist

For use by the coordinating institution before consolidation of quarterly progress reports.

☐ All required sections completed ☐ Indicator values provided ☐ Evidence attached

☐ Budget/expenditure checked ☐ Challenges captured ☐ Corrective actions identified

Reviewed by

.....

Name: ..... **Date:** ..... **Signature:** .....

Reviewer comments

.....

.....

Template 3.2: Indicator Data Collection Sheet

To be used for each national indicator and CBD/KM-GBF headline or binary indicator reported under the NBSAP MER Framework.

Field	**Information to be completed**
Indicator code and name	
Linked Botswana National Target	
Linked KM-GBF Target and CBD indicator	
Indicator definition	
Unit of measurement	e.g., hectares, %, number, Pula, tonnes, index value
Baseline year and value	2025/2026 baseline, where available
Current reporting period value	
2030 target value	
Data source	Administrative records / survey / GIS / monitoring programme / financial records / ecosystem accounts
Data collection method	
Geographic coverage	National / district / protected area / wetland / community / urban area
Disaggregation	Sex, age, disability, district, ecosystem type, community, tenure, sector, revenue streams where applicable
Data provider	
Date of data collection	
Data quality rating	High / Medium / Low
Validation completed by	
Limitations and assumptions	
Files or evidence submitted	

Template 3.3: Field Monitoring Data Form

To be used for site-level biodiversity monitoring, restoration tracking, invasive species monitoring, wetland monitoring, urban green/blue space assessments and community-based monitoring.

Field	Information to be completed
Site name / locality	
District / village / protected area / wetland	
GPS coordinates / map reference	
Ecosystem type / habitat	
Linked national target and indicator	
Monitoring method used	Transect / plot / patrol / water sample / remote sensing / interview / administrative record
Observed value or measurement	
Condition or status description	
Photos, maps or GPS tracks attached	Yes / No
Community or stakeholder verification	Name of group, representative and date, where applicable
Data collector	
Supervisor / verifying officer	
Date of collection	
Comments and follow-up action required	

Template 3.4: Data Quality Assurance Checklist

To be completed before data are uploaded to the EIS or submitted to DEP for national reporting.

Quality check	Yes / No / N/A	Comments / corrective action
Indicator definition and calculation method are clearly documented.		
Data source is identified and traceable.		
Baseline and reporting period are stated.		
Data complete for the required geographic area and reporting period.		
Units of measurement are consistent with the indicator metadata.		
Disaggregation requirements have been addressed where applicable.		
Data have been checked for duplicates, gaps and outliers/errors		
Supporting evidence or means of verification is attached.		
Responsible institution has reviewed and approved the data.		
DEP / Statistics Botswana validation completed where required.		

Template 3.5: Annual NBSAP Results Reporting Template

To be consolidated by DEP using quarterly submissions, validated sector datasets and indicator updates.

Section	Information to be reported
National target number and title	
Summary of annual progress	
Current status	On track / Partially on track / Delayed / No progress / Completed
Key outputs delivered	
Outcome-level changes observed	
Indicator values and trends	
Contribution to KM-GBF targets and SDGs	
Gender, youth, People living with disabilities and community participation	
Finance mobilized and expenditure	
Case studies or success stories	
Challenges, risks and mitigation actions	
Lessons learnt and adaptive management decisions	
Priorities for the next reporting year	

Template 3.6: CBD / KM-GBF Reporting Template

To be used when consolidating information for CBD national reports, including the 8th National Report in 2028.

Field	Information to be completed
KM-GBF Goal / Target	
CBD headline or binary indicator	
Corresponding Botswana National Target	
National indicator used	
Reported value and year	
Methodology and calculation notes	
Data source and responsible institution	
Disaggregation provided	
Data confidence and limitations	High / Medium / Low, with explanation
National validation process completed	Sector institution / DEP / Statistics Botswana / National Biodiversity Committee
Narrative progress summary	
Submission status	Draft / Validated / Submitted / Revised
Files or evidence linked in EIS / CHM	

Submission and Review Protocol

Step	Protocol
Step 1	Implementing institutions collect field, administrative and financial data using the approved templates.
Step 2	Sector focal officers conduct first-level quality assurance and submit verified datasets and evidence to DEP.
Step 3	DEP compiles target-level progress, updates the EIS and requests technical validation from Statistics Botswana where required.
Step 4	The National Biodiversity Authority (NDBA) reviews consolidated findings and recommends corrective actions.
Step 5	DEP prepares quarterly, annual and CBD reporting products, including submissions through the Clearing-House Mechanism as required.

The NBSAP Updating Process

The revision of Botswana's National Biodiversity Strategy and Action Plan (NBSAP) was undertaken through a collaborative project between the Ministry of Environment and Tourism and the United Nations Environment Programme (UNEP). The process was governed by three core structures: the **Project Steering Committee**, which provided strategic direction; the **Technical Reference Group**, which offered expert technical input; and the **Project Management Unit**, which coordinated day-to-day implementation. The project operated under the oversight of the **National Biodiversity Authority**, the country's highest biodiversity governance body. This multi-tiered governance framework ensured robust oversight, technical rigour, and operational efficiency throughout the update process.

A rapid assessment was conducted to bridge critical alignment gaps, as the previous NBSAP was not fully aligned with the Aichi Biodiversity Targets. This exercise concurrently assessed all existing targets against the Kunming-Montreal Global Biodiversity Framework, resulting in the development of a comprehensive set of new national targets. The assessment provided a clear evidence base for target revision and established a firm foundation for enhanced ambition and national ownership.

A foundational principle of the update process was the adoption of a **Whole-of-Government and Whole-of-Society** approach to ensure inclusivity and national ownership. An interest-influence matrix was employed to systematically identify and categorise stakeholders, catalysing political buy-in and closing representation gaps. Engagement extended across all districts of Botswana and included government sectors, parastatals, tribal administration, land boards, district councils, the private sector, civil society, youth, gender representatives, traditional healers, and community structures. This inclusive framework was instrumental in embedding biodiversity considerations across all sectors and levels of society, thereby strengthening the legitimacy and durability of the updated NBSAP.

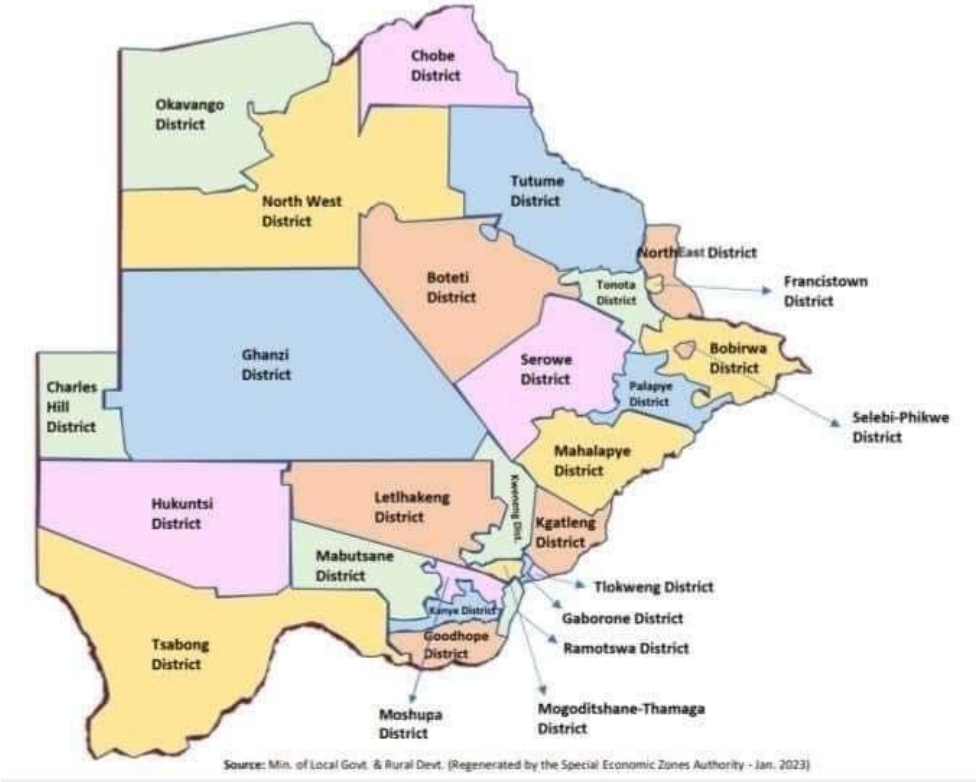
Stakeholder consultations employed a participatory methodology. The first phase focused on orienting participants on Botswana's CBD journey and the Global Biodiversity Framework, followed by group discussions to review the status, successes, and challenges of the previous NBSAP. The second phase was dedicated to "unpacking" the newly aligned targets through plenary discussions conducted in both English and local languages, with participants encouraged to lead the process to foster ownership. Stakeholders then developed actionable activities and projects for implementation. This phased approach ensured that stakeholders were not merely consulted but actively empowered to shape the strategic direction and operational content of the NBSAP.

Parallel to the stakeholder consultations, the project conducted legislative and policy reviews to assess alignment with the Global Biodiversity Framework and identify priority actions for policy coherence and institutional strengthening. The effectiveness of the monitoring framework was evaluated, and gaps in institutional capacity for monitoring were identified. These diagnostic exercises provided critical insights that informed the design of targeted capacity-building interventions and institutional reforms, ensuring that the NBSAP is supported by robust systems for implementation and accountability.

To ensure accuracy and legitimacy, a comprehensive validation process was executed, with findings taken back to stakeholders for verification and interrogation. During this phase, stakeholders validated the strategic actions and developed specific indicator activities. This iterative validation mechanism enhanced the credibility of the final outputs and fostered a shared sense of responsibility for the successful implementation of the NBSAP.

Botswana's NBSAP update process has been characterised by a rigorous, inclusive, and participatory approach that prioritises stakeholder engagement at all levels. The Whole-of-Government and Whole-of-Society framework has ensured broad-based ownership of the updated targets and strategic actions. The comprehensive methodology, encompassing rapid assessments, district-level consultations, technical workshops, institutional capacity assessments, and validation processes, has produced a robust and contextually appropriate set of national biodiversity targets aligned with the Kunming-Montreal Global Biodiversity Framework. The process has not only updated the NBSAP but has also strengthened institutional capacity, enhanced policy coherence, and fostered a collaborative environment for biodiversity conservation and sustainable development in Botswana. As Botswana embarks on the implementation phase, the inclusive and evidence-based foundation established through this process positions the country to make meaningful progress towards its national biodiversity commitments and its contribution to the global biodiversity agenda.

Geographic Coverage of NBSAP Stakeholder Consultations across Botswana;



This map depicts the districts of Botswana that were engaged during the stakeholder consultation process for the revision of the National Biodiversity Strategy and Action Plan. Consultations extended across all districts, reflecting a nationwide, inclusive, and participatory approach to biodiversity planning and target-setting.

Domestic Resource Mobilisation Plan

11.13

11.14 Introduction

Botswana acceded to the Convention on Biological Diversity (CBD) in 1995, affirming its commitment to the conservation and sustainable use of biological diversity and the equitable sharing of benefits arising from the utilisation of genetic resources. The Fifteenth Conference of the Parties (COP 15) to the CBD, held in Montreal, Canada, in December 2022, adopted the Kunming-Montreal Global Biodiversity Framework (K-M GBF), a landmark agreement establishing ambitious global goals and targets for biodiversity conservation through 2030.

As a Party to the Convention, Botswana is obligated to align its National Biodiversity Strategy and Action Plan (NBSAP) with the K-M GBF targets and goals. Critically, Parties recognised the substantial biodiversity financing gaps that impede effective implementation and pledged to intensify efforts to close these gaps through the development of comprehensive Resource Mobilisation Strategies that ensure sustainable and predictable financing arrangements.

Botswana has historically prioritised biodiversity conservation, as evidenced by the designation of over 40% of the country's land area as Protected Areas (PAs). The Government of Botswana (GoB) has established robust legal and policy frameworks for conservation and sustainable utilisation of genetic resources and has allocated significant resources toward biodiversity conservation. However, the scale of current investments remains insufficient to meet the ambitious targets of the updated NBSAP.

In recognition of the need to address the biodiversity finance gap, Botswana joined the Biodiversity Finance Initiative (BIOFIN) in 2016. The BIOFIN initiative, developed in response to CBD COP 10, identified the critical need for improved information on current biodiversity expenditures, financing needs and a comprehensive methodology for developing resource mobilisation strategies (UNDP, 2016). Botswana completed its Biodiversity Finance Plan (BFP) in 2019, which provided the analytical foundation for identifying financing solutions and strategic interventions to bridge the biodiversity financing gap.

This Domestic Resource Mobilisation Plan (RMP) is developed in fulfilment of National Target 19, aligned with K-M GBF Target 19, which requires Parties to progressively increase the level of financial resources from all relevant sources including domestic, international, public, and private resources for the implementation of NBSAPs. Specifically, Botswana commits to increasing financial resources by 20% of the implementation budget annually, in accordance with Article 20 of the Convention and consistent with national priorities as outlined in the National Development Plans (NDPs) and Vision 2036.

The RMP serves as a strategic document outlining how financial and non-financial resources can be mobilised to ensure the successful implementation of the NBSAP. It builds upon the country's BFP and adopts a comprehensive approach to mobilising all necessary resources required for achieving the National Biodiversity Targets. The plan emphasises domestic resource mobilisation while recognising the complementary role of international funding sources in augmenting the biodiversity finance gap.

Objective of the RMP

- **Objective 1**
  To mobilise financial resources totalling BWP 4.4 billion from domestic sources including government budgets, private sector, NGOs and communities over the five-year period (2026–2030).

- **Objective 2:**
  To increase the Ministry of Environment and Tourism's annual budget allocation from the current 1.5% to 3% of the National Budget by 2031.

- **Objective 3:**
  To develop and operationalise innovative financing mechanisms by 2030 (e.g. Payment for Ecosystem Services, domestic carbon market framework, green bond issuance programme, performance bond framework for extractive industries) collectively generating at least BWP 500 million by 2031.

- **Objective 4:**
  To achieve a 50% increase in private sector biodiversity financing from the current estimated BWP 50 million to BWP 75 million annually by 2031 through CSR commitments, PPPs and Green bonds.

- **Objective 5:**
  To enhance the efficiency of biodiversity expenditure by 20% through the application of Cost-Benefit Analysis and Cost-Effectiveness Analysis to all NBSAP projects by 2031.

Financing Needs for the NBSAP

The estimated cost for implementing the NBSAP over the ten-year period (2026–2030) is approximately **BWP 4.4 billion** equating to an annual requirement of **BWP 440 million**.

This estimate is based on:

1. Costing of strategic activities identified in the NBSAP;
2. Previous NBSAP implementation costs adjusted for inflation;
3. Regional benchmarks for biodiversity conservation costs;
4. Expert consultations and stakeholder inputs.

In accordance with the previous NBSAP and the Botswana Finance Plan (BFP), this estimated budget represents the financing gap, defined as the difference between actual expenditure on biodiversity and the realistic budget required for biodiversity conservation and sustainable utilisation. As the NBSAP activities have not been budgeted for by the respective implementing ministries, the current expenditure on NBSAP implementation is effectively zero, resulting in a financing gap of BWP 4.4 billion over the ten-year period.

Guiding Principles

The development and implementation of this Resource Mobilisation Plan is guided by the following principles, which ensure that resources are mobilised sustainably and do not compromise economic growth, social livelihoods or environmental integrity.

Principle 1: Promote Resource Effectiveness and Efficiency

This principle is grounded in the economic concept of scarcity therefore, limited resources must be used efficiently to achieve maximum impact. To ensure that mobilised resources cover a wide range of NBSAP activities while delivering high-impact results, wasteful and unnecessary expenditure will be eliminated. All interventions will be subject to Cost-Benefit Analysis (CBA) and Cost-Effectiveness Analysis (CEA) to optimise the use of limited resources.

Principle 2: Sustainable Financing

Sustainable financing entails the integration of Environmental, Social and Governance (ESG) aspects into financial decision-making and planning. This principle aims to guarantee long-term investments in sustainable economic activities while mainstreaming cross-cutting issues such as climate change and social equity. Resource mobilisation efforts will be conducted with prudence to ensure that other socio-economic activities are not negatively impacted.

Principle 3: Whole-of-Government and Whole-of-Society Participatory Approach

Ecosystems and their diversity are cross-cutting, influencing and being influenced by all government departments and societal actors. The sustainable utilisation and conservation of biodiversity require the participation of all government departments and society. Therefore, the implementation of the NBSAP calls for the active participation of whole-of-government and whole-of-society in mobilising resources. This principle resonates with the CBD's emphasis on a whole-of-government and whole-of-society approach in updating and aligning NBSAPs to the K-M GBF targets.

Principle 4: Promote Co-management Approaches

Protected Areas, including National Parks, Game Reserves and Wildlife Management Areas, have historically excluded communities and the private sector from their management. However, these stakeholders are critical partners with significant potential to mobilise resources through activities such as policing, monitoring, restoration and rehabilitation programmes. Co-management will therefore be emphasised as a key strategy for mobilising resources for NBSAP implementation.

Principle 5: Domestic Centric Funding

International funding has become increasingly challenging due to factors such as shifting donor priorities and global economic slowdowns. Given these changing dynamics, this RMP prioritises domestic funding sources to mitigate the impacts of the current decline in international funding. While recognising the importance of international funding in augmenting the biodiversity finance gap, the RMP is fundamentally domestic centric and based on the country's needs, priorities, capacities, and desired outcomes.

Principle 6: Phased and Adaptive Implementation

Recognising the ten-year implementation period, this RMP adopts a phased and adaptive approach. The first phase (2026–2030) focuses on establishing the necessary structures, systems and partnerships, while the second phase (2031–2030) focuses on scaling up successful interventions. Regular reviews and adaptive management will ensure that the RMP remains responsive to changing circumstances and emerging opportunities

Framework for Developing the Resource Mobilisation Plan

The development of this RMP is anchored on two fundamental documents:

The NBSAP (2026–2030)

The NBSAP establishes the strategic framework for biodiversity conservation and sustainable utilisation in Botswana. National Target 19 specifically aims to mobilise financial resources from all sources for NBSAP implementation. Strategic activities identified to achieve Target 19 include developing financing strategies focusing on Payment for Ecosystem Services (PES), Polluter Pays Principle (PPP) and other resource mobilisation mechanisms.

The Biodiversity Finance Plan (BFP)

The BFP developed through the BIOFIN initiative, provides analytical guidance for the development of this RMP. The BFP identified and prioritised a set of financing sources and strategic activities to raise funding for biodiversity conservation and sustainable utilisation initiatives. Feasible funding solutions identified include PES, PPP, green bonds, Public-Private Partnerships, private sector funding and community participation.

11.15

11.16 Current Biodiversity Funding Landscape

To develop a comprehensive and relevant Resource Mobilisation Plan, it is essential to understand the current funding arrangements for biodiversity conservation in Botswana. This understanding allows for the optimisation of existing funding sources and the identification of gaps and opportunities.

Government Spending

Government public spending is currently the primary source of funding for biodiversity conservation and sustainable utilisation in Botswana. The Ministry of Environment and Tourism (MET) is the lead ministry for biodiversity conservation and comprises seven departments: the Department of Environmental Protection (DEP), Department of Meteorological Services (DMS), Department of National Museum and Monuments (DNMM), Department of Tourism (DoT), Department of Wildlife and National Parks (DWNP), Department of Forestry and Range Resources (DFRR) and Department of Corporate Services (DCS).

The MET's annual budget for the financial year 2024/25 is approximately BWP 1.5 billion, representing about 1.5% of the national budget. Despite biodiversity being a cornerstone of the national economy, MET receives one of the lowest ministerial budgets. According to the BFP, government expenditure on biodiversity was estimated at BWP 5.26 billion between 2012/13 and 2018/19, averaging approximately BWP 0.75 billion annually. (MoF, 2024)

Other key ministries involved in biodiversity conservation include:

- **Ministry of Water and Human Settlement** (formerly Ministry of Land Management, Water and Sanitation Services);

- **Ministry of Lands and Agriculture** (formerly Ministry of Agricultural Development and Food Security).

Over the five-year period from 2013/14 to 2018/19, biodiversity expenditure accounted for approximately 1% of the total government budget (UNDP, 2019). This low level of investment, coupled with limited institutional participation, represents both a challenge and an opportunity for enhanced resource mobilisation.

The government budget for biodiversity must be increased commensurate with its economic importance and the critical ecosystem services it provides. This requires developing robust business cases demonstrating the economic contribution of biodiversity and the potential for revenue generation from biodiversity-related activities.

Environmental Funds

The Government of Botswana has established two biodiversity-related trust funds to supplement public spending and mobilise non-governmental resources for conservation and sustainable utilisation.

- **The National Environmental Fund (NEF**), established under the National Environmental Fund Order, 2010, and administered by the Permanent Secretary of the Ministry of Environment and Tourism is mandated to finance and promote activities aimed at conserving, protecting, and managing Botswana's environment. The Fund covers a wide range of biodiversity-related activities, including sustainable utilisation of natural resources, community-based natural resource management, support to eco-tourism and national heritage sites, rehabilitation of degraded ecosystems, climate change mitigation and adaptation, waste management and pollution control, environmental awareness and education, research and monitoring, capacity building, and compensation for wildlife damage. Although the Act prescribes multiple funding sources including parliamentary appropriations, hunting quota revenues, resource royalties, levies, fines, licenses, grants, donations and investment income the NEF currently relies almost exclusively on the Plastic Levy generating approximately BWP 18 million annually. This single revenue stream severely limits the Fund's capacity and represents a significant untapped opportunity, as additional mechanisms such as carbon levies and tourism levies could be introduced to substantially increase revenue and help close the biodiversity financing gap.

- **The Conservation Trust Fund (CTF),** established under the Conservation Trust Fund Order, 1999, was created specifically to finance elephant conservation and develop community-based projects for communities living adjacent to elephant ranges, with a focus on promoting human-wildlife coexistence. The Fund is financed from revenue generated through the sale of ivory in accordance with CITES decisions, as well as interest income, and currently generates income primarily from the sale of elephants based on annual quotas, with 70% allocated to elephant conservation and 30% to community projects. However, the set elephant quota is never fully realised, which limits the Fund's revenue potential. To enhance the CTF's contribution to biodiversity financing, additional revenue sources should be identified including increasing the number of high-value species available for sustainable use and adjusting species prices to be competitive with regional markets. Furthermore, given that both the NEF and CTF pursue the same overarching objective of biodiversity conservation, consolidating these funds could enhance their collective impact, reduce duplication of efforts, and lower management costs, thereby improving overall efficiency in resource mobilisation for the NBSAP.

Non-Governmental Organisations

Non-Governmental Organisations (NGOs), operate outside government structures to provide support, advocacy, and capacity building for developmental and societal issues affecting communities. Key biodiversity-focused NGOs in Botswana includes, Kalahari Conservation Society, Khama Rhino Sanctuary, Forest Conservation Botswana, Somarelang Tikologo Trust, Birdlife Botswana, Cheetah Conservation Botswana, Mmokolodi Wildlife Foundation, Predator Conservation Trust etc. In 2018/19, major NGOs' biodiversity-related expenditure was estimated at approximately BWP 36 million (UNDP, 2016). These organisations have significant potential to contribute to NBSAP implementation through their expertise, networks, and ability to mobilise funding from international and domestic sources.

The Private Sector

The private sector commands a significant share of Botswana's economy, contributing approximately 39% to the country's Gross Domestic Product (GDP). Private sector funding for biodiversity is primarily channelled through Corporate Social Responsibility (CSR), business operations and innovative financial instruments.

Leading private sector entities involved in biodiversity conservation include:

- **Debswana**: The company has committed to conserving six hectares for every hectare of mined area and aims to achieve zero greenhouse gas emissions through transition to green energies;
- **Wilderness Safari Botswana**: Through its Conservation Team, the company facilitates biodiversity protection and conservation projects, including the Botswana Rhino Reintroduction Project;
- **First National Bank (FNB)**: The bank has funded the development of green spaces around Gaborone;
- **Absa Bank Botswana**: In 2023, Absa launched a BWP 2 billion note programme on the Botswana Stock Exchange to fund biodiversity and social projects.

Financial institutions also have significant capacity to mobilise resources through innovative solutions such as Green Bonds. The National Development Bank (NDB), through the IKI initiative, offers grants to horticulture farmers for renewable energy projects.

Community Participation

Communities offer a pool of tangible and intangible resources that, if fully mobilised, can significantly contribute to NBSAP implementation. Through the Community-Based Natural Resources Management (CBNRM) programme and other initiatives, communities have a long history of successful participation in conservation and sustainable utilisation of biodiversity. Community contributions are primarily in-kind, including volunteering time and labour for activities such as fire management, human-wildlife conflict resolution, wildlife monitoring, and invasive species control. These contributions, while difficult to quantify in monetary terms, are significant and vital for biodiversity conservation and sustainable use.

Multilateral and Bilateral Funding

While this RMP prioritises domestic resource mobilisation, multilateral and bilateral funding sources play a vital role in closing the biodiversity financing gap. Key international funding sources include:

- **Global Environment Facility (GEF)**: In partnership with UNDP, GEF has supported several biodiversity-related projects, including the Okavango Delta Management Plan, Ngamiland Sustainable Land Management, and the Kgalagadi and Ghanzi Dryland Ecosystem Project. GEF also offers a small grants programme targeting communities;

- **Green Climate Fund (GCF)**: Established within the UNFCCC framework in 2010, the GCF aims to enhance developing countries' capacities for climate change adaptation and mitigation. GCF has funded an Ecosystem-based Adaptation and Mitigation project in Botswana's communal rangelands;

- **Kunming Biodiversity Fund (KBF)**: Established to mobilise funding to accelerate the achievement of the global biodiversity targets set out in the K-M GBF, the Fund is co-led by UNEP and the Government of China;

- **Global Biodiversity Framework Fund (GBFF)**: Created in August 2023 to mobilise funding for implementing the K-M GBF, with US$ 386 million pledged by June 2025.

While these international sources are valuable, they are increasingly uncertain due to shifting donor priorities and global economic conditions, underscoring the importance of domestic resource mobilisation.

Mobilisation Strategies

Government as a source

The Government of Botswana is the primary funder of biodiversity conservation accounting for over 95% of total biodiversity expenditure. However, the Ministry of Environment and Tourism currently receives only 1.5% of the national budget, which is insufficient given biodiversity's central role in the national economy and community livelihoods. To address this, several strategies are proposed to increase government budget allocation and enhance revenue generation from biodiversity.

- **Develop a Business Case for Increased Budget Allocation**
  A robust business case should be developed through economic valuation of key ecosystems and theircontribution to the national economy, providing evidence to justify increasing MET's budget allocation from 1.5% to 3% of the national budget by 2031. This will involve quantifying the economic value of ecosystem services provided by wetlands, forests, rangelands and wildlife areas, and demonstrating the direct and indirect contributions of biodiversity to sectors such as tourism, agriculture, water and energy.
- **Introduce Payment for Ecosystem Services (PES) Schemes**
  Several PES scheme should be introduced to generate revenue from economic sectors that benefit from ecosystem services. For the livestock sector, the Herding for Health model, which compresses, structured grazing management can enhance both ecological and economic outcomes will be implemented countrywide. The model integrates ecosystem restoration with improved livestock management, addressing rangeland degradation, livestock losses and market constraints. A water abstraction levy will be introduced to reflect the value of water resources, with revenue directed towards wetland conservation and catchment protection. A biodiversity-offset levy will ensure mining companies contribute to rehabilitation of degraded ecosystems.

- **Review and Adjust Existing PES Fees**
  Existing tourism fees including entrance fees, park fees, camping fees and filming fees should be reviewed and adjusted to align with regional standards. This option has the potential to increase revenue from an estimated BWP 50 million to over BWP 200 million annually which will be partly allocated

to fund NBSAP activities.

- **Develop a Domestic Carbon Market Framework**
  A domestic carbon market framework should be developed to enable the sale of carbon credits generated through afforestation and sustainable woodland management. Community woodlands will be reforested and managed effectively to act as carbon sinks, producing credits that can be sold domestically and internationally to fund NBSAP implementation. Formal legal frameworks will need to be established to facilitate participation in global carbon markets.

- **Issue Green Bonds**
  Through the Bank of Botswana, the government should issue green bonds that the private sector and individuals can purchase to generate revenue for NBSAP implementation. This option has the potential to raise over BWP 1 billion, with a five-year maturity period aligned with the first phase of NBSAP implementation.

- **Apply Cost-Benefit and Cost-Effectiveness Analysis**
  Cost-Benefit Analysis and Cost-Effectiveness Analysis should be applied to all NBSAP funded projects to enhance efficiency of allocated funds. This option targets a 20% improvement in cost efficiency by 2031, ensuring that limited resources support more NBSAP activities.

Strengthening Collaboration with State-Owned Research Institutes

The NBSAP requires extensive research into areas such as invasive species control, biodiversity technologies and genetic preservation. Research expertise within MET departments is limited and could be enhanced through collaboration with state-owned universities and research institutes, including the University of Botswana (UB), Botswana International University of Science and Technology (BIUST), Botswana University of Agriculture and Natural Resources (BUAN) and the Botswana Institute for Technology Research and Innovation. (BITRI)

- **Establish Formal Collaboration Agreements**
  Memorandums of Agreement and Understanding will be established to formalise collaboration with these institutions for implementing NBSAP research activities. These partnerships will facilitate resource mobilisation by providing in-kind contributions of skilled personnel, research infrastructure and technical expertise, thereby reducing the need for additional financial resources.

Enhancing NEF Income Generation and Operations

The National Environmental Fund has significant potential to generate revenue to support NBSAP implementation, but currently relies on a single income stream from the Plastic Levy which is not sufficient given the NBSAP target to reduce plastic usage over time.

- **Review and Adjust the Plastic Levy**
  The Plastic Levy should be reviewed and adjusted to reflect the environmental costs of plastic and its impact on biodiversity, ensuring that the levy remains an effective revenue source while supporting

waste reduction objectives.

- **Introduce a Carbon Levy**
  A carbon levy on petroleum products should be introduced to generate revenue for ecosystem restoration and rehabilitation, diversifying NEF's revenue base beyond the Plastic Levy.

- **Implement the Tourism Levy**
  The tourism levy, previously proposed, should be implemented to raise funds for conservation, providing an additional and sustainable revenue stream for the NEF.

- **Broaden Recipient Eligibility**
  The NEF should be opened to private sector entities and research institutes as potential grant recipients, strengthening partnerships and collaboration while expanding the Fund's reach and impact.

Enhancing CTF Income Generation

The Conservation Trust Fund, established to generate revenue from the sale of ivory, currently generates income from the sale of elephants based on annual quotas. However, the set elephant quota is never fully realised, limiting the Fund's revenue potential.

- **Diversify Revenue Sources**
  Additional revenue sources should be identified, including increasing the number of high-value species available for sustainable use, to broaden the CTF's revenue base beyond elephant sales.

- **Adjust Species Prices**
  Species prices should be adjusted to be comparable with regional markets, potentially increasing revenue from existing quota sales.

- **Consolidate NEF and CTF**
  Given that both NEF and CTF aim for the same objective of biodiversity conservation, consolidating these funds could enhance their collective impact and reduce duplication of efforts and management costs.

Private Sector Funding

The private sector contributes approximately 39% of Botswana's GDP and has significant capacity to contribute to biodiversity financing through Corporate Social Responsibility, Public-Private Partnerships, and innovative financial mechanisms.

- **Promote Public-Private Partnerships**
  A PPP strategy model should be developed identifying NBSAP projects that are economically appealing to the private sector, including Protected Area management, green space development, rehabilitation programmes and recovery programmes for critically endangered species. This will be followed by expressions of interest and contracts to formalise partnerships.

- **Mobilise Corporate Social Responsibility**

CSR should be championed at high levels, such as the Office of the President or Vice President's Office to mobilise private sector contributions. A stakeholder engagement strategy should be developed for private companies, categorising them by sector and developing engagement plans. A national CSR mobilisation campaign should be launched to support NBSAP resource mobilisation.

- **Operationalise Performance Bonds and Guarantees**
  Performance bonds and guarantees should be operationalised for rehabilitation and clean-up initiatives, requiring developers to deposit funds with the relevant authority to ensure compliance. These funds will be refundable once ecosystems have been restored. If rehabilitation is unsatisfactory, funds will be forfeited and utilised for restoration.

- **Strengthen Legal Frameworks**
  Strengthening existing legal frameworks, including the Environmental Impact Assessment Act, Tribal Grazing Land Policy, and Waste Management Act, will require the private sector to invest adequately in environmentally sustainable practices.

- **Encourage Financial Institutions to Issue Green Bonds**
  Coordinated dialogue and collaboration with financial institutions should identify areas requiring additional budget that can be raised through green bonds. Domestic banks such as NDB and others should be encouraged to mobilise funding through these schemes, building on the example of Absa which has already issued green bonds to fund biodiversity projects.

Non-Governmental Organisation Funding Sources

Non-Governmental Organisations have significant potential to contribute to NBSAP implementation through their expertise, networks and ability to mobilise funding from international and domestic sources.

- **Leverage NGO Projects**
  Partnerships and collaboration should be established through MoU/MoA with NGOs such as Cheetah Conservation, Conservation International, Kalahari Conservation Society, and Somarelang Tikologo, which are already engaged in conservation and restoration projects aligned with NBSAP targets. This will enable leveraging of their ongoing projects for NBSAP implementation.

- **Engage NGOs in Community Mobilisation and Capacity Building**
  Identified NGOs should be assigned tasks such as promoting waste management practices, conducting environmental education and capacitating communities on conservation efforts, leveraging their well-established networks with communities

Community Participation

Communities provide vital human resources for undertaking restoration projects, manual labour and policing, harvesting of natural resources, pollution control, and human-wildlife conflict management. Community contributions are primarily in-kind and are significant for biodiversity conservation and sustainable use.

- **Develop a Community Engagement Strategy**
  A community engagement strategy will be developed that clearly outlines the benefits of NBSAP to

communities, expected community contributions through in-kind labour, government contributions, and the overall impact of the programme on community livelihoods. The strategy would leverage existing community structures, including CBNRM programmes and Village Development Committees.

- **Revive Patriotism and Boipelego Initiatives**
  NBSAP projects should be prioritised and championed at a high level to mobilise communities for implementation, building on the success of initiatives such as the University of Botswana's Motho-le-motho Kgomo national campaign.

- **Enhance Data Sharing**
  Improved data sharing will enable communities to understand the critical state of biodiversity, benefits of conservation and necessary actions, thereby increasing their participation and commitment.

- **Invest in Community Capacity Building**
  Communities should be trained to participate fully in NBSAP through on-site sessions, extension services and partnerships with universities, building their capacity for biodiversity monitoring and management.

- **Align CBNRM Incentives with NBSAP Targets**
  NBSAP targets should be mainstreamed into CBNRM initiatives to ensure active community participation, aligning community incentives with national biodiversity objectives.

- **Promote Nature-Based Solutions**
  Nature-based solutions such as biogas production, enhancing value addition of Non-Timber Forest Products, conservation agriculture, apiculture and aquaculture should be promoted to automatically engage communities in NBSAP implementation while generating livelihoods

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Implementation Plan

11.17 Institutional Framework

The successful implementation of this Resource Mobilisation Plan requires the establishment of appropriate institutional structures and systems. The following implementation arrangements are proposed to ensure effective coordination, accountability and achievement of the objectives

- **Establish and resource a Resource Mobilisation Unit**
  A dedicated Resource Mobilisation Unit will be established and resourced within the Department of Environmental Protection, to coordinate and oversee resource mobilisation efforts for the NBSAP. This Unit will be responsible for coordinating resource mobilisation across all implementing ministries and partners, tracking and monitoring progress against targets, preparing periodic reports, engaging with stakeholders and development partners and providing technical guidance on resource mobilisation mechanisms.

- **Establish an Inter-Ministerial Steering Committee**
  An Inter-Ministerial Steering Committee should be established to provide high-level oversight and guidance for RMP implementation. The Committee should comprise, but not limited to representatives

from the Ministry of Environment and Tourism (Chair), Ministry of Finance, Ministry of Lands and Agriculture, Ministry of Water and Human Settlement, Ministry of Local Government and Rural Development, Ministry of Minerals and Energy, Office of the President and Department of Corporate Services.

- **Establish a Multi-Stakeholder working Group**
  A Multi-Stakeholder working Group will be established to ensure broad stakeholder participation in RMP implementation. The Group will include representatives from private sector associations, non-governmental organisations, academic and research institutions, community-based organisations, development partners and financial institutions.

11.18 Capacity Development

To ensure effective implementation of this RMP, the following capacity development initiatives will be undertaken:

- **Training on Budget Mainstreaming and Activity-Based Budgeting**: All relevant departments tasked with implementing NBSAP activities should be trained on mainstreaming activity costs into departmental budgets. Furthermore, personnel should be trained on activity-based budgeting to ensure adequate NBSAP budgeting. Training on cost-cutting measures, with an emphasis on identifying alternative measures should also be conducted.

- **Training on CBA and CEA**: Cost-Benefit Analysis and Cost-Effectiveness Analysis should be emphasised during trainings to promote efficient use of resources. This training will ensure that all NBSAP-funded projects are evaluated based on alternative implementation options, selecting those that are most cost-effective and efficient.

- **Training on Payment for Ecosystem Services**: Training on Payment for Ecosystem Services should be conducted across various departments to highlight its importance in generating revenue for ecosystem restoration and rehabilitation. This will support the expansion of PES schemes and the review of existing fees.

11.19 Stakeholder Engagement and Communication

- **Develop and Operationalise a Stakeholder Engagement Strategy**
  A stakeholder engagement strategy will be developed to engage strategic partners, including the private sector, NGOs, development partners, and communities. The strategy will identify key stakeholders, categorise them by sector, and develop engagement plans for each category.

- **High-Level Advocacy and Championing**
  The Office of the President and Vice President's Office will be engaged to champion CSR and community participation, providing high-level leadership for resource mobilisation efforts. This approach builds on successful models such as the President Housing Scheme, the Bull Scheme and the University of Botswana's Motho-le-motho Kgomo national campaign, which demonstrated the effectiveness of high-level advocacy in mobilising resources.

- **Implement a Communication Plan**

A communication plan should be implemented to raise awareness of the NBSAP and its financing needs, promote opportunities for stakeholder participation, report on resource mobilisation progress and achievements, and acknowledge and celebrate contributions from various stakeholders. Both an engagement and communication team should be assembled for the implementation of the RMP.

11.20 Resource Partner Engagement

Resource partners include the private sector, NGOs, development partners and communities. An engagement strategy will be developed and operationalised to engage these strategic partners. Constant and timely engagement with stakeholders is critical throughout the ten-year implementation phase of the NBSAP. Stakeholders will be regularly updated on resources mobilised, projects implemented, cost efficiency measures in place, and the impact of the mobilised resources on biodiversity and the way forward.

Funding source	Type of resources	Type of instrument	Strategic activities	Objective	Responsible agent	Indicators	Indicative budget
Government public spending	Finance	Government budget	Include NBSAP activities in the departmental budget	To close the NBSAP financing gap	All lead implementors	Departmental budgets	None
		PES	Establish PES scheme for economic sectors that are currently not charged	To raise government revenue to meet the Departmental budgets & protect biodiversity	DEP	Revenue generated	0.5 Million
			Revise and update the fees for the existing PES schemes e.g. park fees		DEP & DWNP & DFRR	Revenue generated	0.25 Million
			Introduce carbon markets		DFRR	Carbon credits sold	0.5 million
		Economic efficiency	Improve efficiency of the NBSAP funds by applying CBA and CEA to select cost effective implementation methods	Efficient use of funds to cover more projects with limited resources	DEP	Cost benefit ratio	1 million
		Green bonds	Issue bonds to raise revenue	To raise revenue through loans	MoF	- Number of bonds issued - Revenue raised	n/a
State-owned research institutions and universities	In-kind	Research initiatives	Strengthen collaboration with state-owned research institutes and universities	Collaboration with State-owned institutions in research	DEP	- Research activities undertaken addressing strategic	n/a

				activities for NBSAP		activities for NBSAP	
Private sector	Finance	PPP	Promote PPP for joint financing and management of profitable ecosystem- related business ventures	To mobilise finance from the private sector through PPP	DEP, DWNP and DFRR	- Number of PPP joint venture established - Finance mobilised	0.5
		CSR	Develop a stakeholder engagement strategy highlighting the roles of CSR in NBSAP	To mobilise finance from the private sector through CSR	DEP	- Number of projects funded through CSR - Revenue raised	0.5
		Performance bonds and guarantee	Develop a framework that operationalise performance bonds and guarantees	To ensure that companies restore and rehabilitate degraded ecosystems	DEP	- Revenue held in Funds on performance bonds	0.5
NGOs	Finance and In-kind (human capital)	Creating leverages and synergies	Strengthen collaboration with NGOs on ongoing projects and proposed projects that are aligned with NBSAP	Ensure that existing and proposed projects are mainstreamed & aligned with NBSAP strategic activities	DEP, DFRR and DWNP	- Number of NBSAP related projects	0.75
			Mobilise communities and train communities to enhance participation	Ensure that the communities are capacitated to participate in	DEP	- Number of community trained	0.25

				NBSAP implementation		- Number of project where community participated	
Communities	Human resource	Community participation	Mobilise the communities to participate in NBSAP implementation	Ensure that the communities actively participate in the NBSAP through monitoring, policing and restoration programmes	DEP, DWNP, DFRR & MLG	- Number of communities involved in NBSAP implementation - Number of projects undertaken by communities	2

11.21 Purpose of Monitoring and Reporting

Monitoring and reporting on the effectiveness of this RMP is of utmost importance for the following reasons: it will identify the strengths and challenges encountered in mobilising resources, enabling the implementation of mitigation measures to ensure a conducive environment for resource mobilisation; it promotes transparency to funders, which can act as positive feedback for continued support; and it ensures accountability in the use of mobilised resources. M&R will be conducted throughout the lifespan of the NBSAP and this RMP (2026–2030).

11.22 Results-Based Monitoring Approach

A results based monitoring approach will be employed to assess the performance of the RMP against the objectives. The monitoring framework will track input indicators (financial resources mobilised by source), process indicators (implementation progress of resource mobilisation activities), output indicators (resources allocated to NBSAP activities), and outcome indicators (impact of mobilised resources on biodiversity conservation and sustainable utilisation).

11.23

11.24 Reporting Schedule and Content

Inception Report: The initial report will constitute the inception report for the commencement of the M&R process and it will be a product of the RMP launch workshop. The inception report will detail the methodology to be employed, the funding targets for the identified sources and the corresponding indicators, and the frequency of data collection and reporting. At the inception meeting, it is crucial that all stakeholders are involved to ensure collective agreement on the M&R process, reports, and formats.

Quarterly Reports: Following the inception report, DEP will collect and analyse data on a quarterly basis. These quarterly reports will track progress against annual targets and identify any emerging challenges requiring corrective action.

Annual Reports: Quarterly reports will be consolidated into annual reports that provide a comprehensive overview of resource mobilisation performance, including resources mobilised by source, allocation to NBSAP activities, progress against objectives, challenges encountered, and lessons learned.

Mid-Term Evaluation: At the midpoint of the NBSAP implementation period (2031), a mid-term evaluation will be undertaken to assess progress, identify areas requiring adjustment, and provide recommendations for the second half of the implementation period. The evaluation will assess overall funds and resources mobilised in monetary value and how they were allocated across NBSAP activities.

Terminal Evaluation: At the end of the NBSAP lifespan (2030), a terminal evaluation will be undertaken on the resources mobilised. The terminal evaluation will assess overall funds and resources in monetary value raised and how they were allocated across the NBSAP activities. The evaluation should also encompass the non-fiscal component of the RMP machinery, including stakeholder (community, private sector, NGO, and technocrats) response in the execution of their assignments to improve implementation and for better preparedness in the next NBSAP. This is important for checking collaboration, cooperation, communication, and transparency; the evaluation will form a comprehensive basis for lessons learned and expose areas that require improvement.

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11.26

11.27 Independent Audits

Audits are critical elements of M&R for verification and transparency purposes. An independent body will be identified to conduct independent audits and verify the M&R report. All reports produced will be submitted to an independent body established under the Ministry of Finance. This is crucial for transparency, which is one of the essential components for attracting international funding and maintaining stakeholder confidence.

11.28 Adaptive Management

Based on monitoring findings and evaluation reports, the RMP will be reviewed and adjusted as necessary. The Resource Mobilisation Unit will be responsible for identifying areas requiring improvement, recommending adjustments to strategies and activities, and implementing changes in a timely manner. Annual review meetings will be convened with the Inter-Ministerial Steering Committee and Multi-Stakeholder Advisory Group to assess progress and make strategic adjustments.