

Final Action Plan



A National Climate Change Action Plan for Botswana

12 December 2018

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LIST OF ABBREVIATIONS

AFOLU Agriculture, Forestry, and Land Use

AME Africa and Middle East

BERA Botswana Energy Regulatory Authority

BTO Botswana Tourism Organisation
CAR Centre for Applied Research

COP21 21st session of the Conference of the Parties

CORB Cubango-Okavango River Basin

CORSIA Carbon Offsetting and Reduction Scheme for International Aviation

CLIDAP Climate Data Processing and Production System
CRIDF Climate Resilient Infrastructure Development Facility

°C Degrees Celsius

DEA Department of Environmental Affairs
DFRC Development Finance Resource Centre

DWA Department of Water Affairs

DMS Department of Meteorological Services

DRM Disaster Risk Management
DRR Disaster Risk Reduction
EBA Ecosystem Based Approach
EIA Environmental Impact Assessment
EMP Environmental Management Plan

GACSA Global Alliance for Climate Smart Agriculture

Gg Gigagrams
GHG Greenhouse Gas

GIS Geographic Information System

GNI Gross National Income

HIV Human Immunodeficiency Virus IAE International Energy Agency

ICAO International Civil Aviation Organization

IDIS Information Dissemination and Early Warning System

INDC Intended Nationally Determined Contributions

IPTN Integrated Public Transport Network
IWRM Integrated Water Resources Management
LULUCF Land Use, Land Use Change, and Forestry

M&E Monitoring and Evaluation

MENT Ministry of Environment, Natural Resources Conservation, and Tourism

MM Millimetre

MONIS Monitoring System

MRV Measurement, Reporting, and Verification

NAP National Action Plan

NCCSAP (Botswana) National Climate Change Strategy and Action Plan

NBSAP National Biodiversity Strategy and Action Plan NCCC National Committee on Climate Change

NDP National Development Plan NGO Non-Governmental Organisation

NMES National Monitoring and Evaluation System

NMT Non-motorized Transport
R&D Research and Development
RCM Regional Climate Models

SA South Africa

SADC Southern Africa Development Community
SEA Strategic Environmental Assessment

SEEA System of Environmental and Economic Accounting

REDD Reducing Emissions from Deforestation and Forest Degradation

REWS Regional Early Warning System

SBSTA Subsidiary Body for Scientific and Technical Advice

SDG Sustainable Development Goals
SNC Second National Communication

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TRG Technical Reference Group
TWG Technical Working Group

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change WAVES Wealth Accounting and Valuation of Ecosystems Services

I. The Action Plan

1.1 INTRODUCTION

This action plan serves as a companion document to the Botswana National Climate Change Strategy of 2018. The Action Plan provides a clear pathway for the implementation and monitoring of the strategy by providing targets and indicators for each strategy. As is the case in the strategy, a sectoral approach is adopted, with the additional provision of strategies for cross-cutting themes that are closely linked to effective climate change response. The targets in each strategy follow a specific timeline (2020, 2023, 2026 and 2030), this timeline was adopted for three reasons:

- 1. To be in-line with the United Nations Framework Convention on Climate Change (UNFCCC) Nationally Determined Contribution (NDC) commitments reporting processes;
- 2. To further be in-line with UNFCCC reporting mechanisms, thus allowing new and relevant climate change research to be included into new activities undertaken at a new target date;
- 3. Lastly to be in line with Botswana's National Development Plan (NDP) process which currently runs 2017 2023 and once updated, will run from 2024 2030.

1.2 STRUCTURE

The Action Plan follows the structure of the strategy and is organised into strategies for Adaptation, Mitigation, and Cross-Cutting Themes. The strategies are organised into the following sectors:

Adaptation

- Agriculture and food security
 - Livestock and animal husbandry
 - o Arable agriculture
- Water
- Human health
- Human settlements
- Forest management
- Land use and land use change
- Disaster risk management
- Biodiversity and ecosystems
- Infrastructure development
- Industry and manufacturing
- Tourism

Mitigation

- Sustainable energy
- Transportation
- Waste management
- Agriculture, forestry, and land use
- Extractives and mining
- Carbon budgets and abatement pathways
- Market-based mechanisms

Cross-Cutting Themes

- Gender
- Education, training, and capacity building
- Equality and equity
- Innovation, research, and development
- Communication and knowledge management
- Climate services

1.3 A NOTE ON KEY PERFORMANCE INDICATORS (KPIs)

To ensure a usable and clear action plan, measurable and quantitative KPIs have been suggested wherever possible. The KPIs follow certain assumptions and trends:

- 1. **Programme coverage**: for programmes or projects that have a beneficiary group that can be identified or defined (by those designing and implementing the programme), indicators are staggered as: program launch / 30% uptake / 60% uptake / 90% or more uptake.
- 2. **Training**: for interventions that entail providing training to a select group of persons (based on sector of work or government department or stakeholder categories), indicators have been estimated as the actual number of individuals trained per period. Approximations are linked to the nature of the training, complexity, and relative scale of the beneficiary group.
- 3. **Guidelines**, **policies**, **legal instruments** (new or amended): for interventions that require drafting and issuance of new guidelines or policies, or passage of bills, indicators relate to the formal approval (or endorsement) and official publication of the instruments.
- 4. Institutional structures: for interventions that involve the setting up of new councils, committees, and other institutional entities, indicators relate to the membership being finalised, the entity being constituted, and subsequently a number of quarterly meetings every year (as a measurable proxy for regular and effective functioning).
- 5. Research: for strategies that involve the commissioning and generation of new research, indicators suggested relate to the number of research projects commissioned and underway, as well as (where appropriate) the publication of a certain number of studies. The numbers have been estimated based on the complexity and cross-sectoral nature of the research.
- Funding allocation and incentives: for interventions that entail allocating funding to projects
 or programmes or the creation of a new financial incentives, indicators have been suggested
 based on the sector, the scale of potential beneficiary population, and nature of items to be
 funded.
- 7. Funding application: for interventions that focus on resource mobilization through accessing financial institutions and securing funds (such as from project preparation facilities or the Green Climate Fund etc.), the indicators suggested relate to the number of concept notes and

applications prepared or submitted, and then a steadily narrowing funnel of the numbers of proposals, and finally the number of grants or loans successfully awarded.

During the development of the action plan, both outcome based indicators and process based indicators were considered. For the most part, this action plan integrates process based indicators, but strongly endorses the need for responsible implementing entities to establish baselines for strategic interventions by 2020, and thereby develop outcome based indicators to add to the project or programme design, roll-out, and implementation. This will ensure that Botswana's sector experts themselves generate evidence-based outcome indicators that are achievable and measurable, and it will enable responsible entities to make the necessary judgment calls about which outcomes – of the many possible outcomes that can be linked to any one strategic intervention – are the ones Botswana wishes to incorporate into its M&E system.

To ensure that the process of implementing the Botswana strategy and action plan does indeed kick off and that this document does not get delayed by debates about which outcome based indicator is most appropriate and which is not, and which of many possible outcomes is the one to choose (between competing interests and expert opinions), the action plan that follows prioritizes process indicators.

II. Climate Change Adaptation

1 AGRICULTURE AND FOOD SECURITY

Strategic Intervention S1.1:

Identify key livestock-focused areas of intervention within existing Climate Smart Agriculture (CSA) programmes, and scale-up such programmes with a specific focus on livestock management.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Local Government and Rural Development

Botswana Development Corporation (BDC)

Farmers Associations

The National Strategy Office

2020 Target

Key CSA programmes involving livestock identified where climate smart considerations should be added. Creation of new livestock-specific CSA programmes.

2020 KP indicators:

List of programmes to expand finalised. Expansion action plans completed, including action plans for livestock-specific programme expansion.

2023 Target:

New programme specifically around livestock management and herd resilience has been created and rolled out.

2023 KP indicators:

Programmes rolled out with 30% nationwide uptake by farmers.

2026 Target:

Programmes ongoing.

2026 KP indicators:

Programmes rolled out with 60% nationwide uptake by farmers.

2030 Target:

Programmes ongoing.

2030 KP indicators:

Programmes rolled out with 90% nationwide uptake by farmers.

Strategic Intervention S1.2:

Implement a strengthened livestock disease surveillance and response system to manage outbreaks, thereby maintaining resilience in the livestock sector and protecting the value of Botswana's livestock, with a specific focus on climate related threats and impacts.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Local Government and Rural Development

Tertiary Education, Research, Science and Technology

Farmers Associations

The National Strategy Office

2020 Target:

Strengthen the Botswana Cattle Producers Association (BCPA) as well as other livestock associations and wherever possible, individual farmers to create and utilise a livestock disease surveillance and response system. Undertake a baseline study into location and number of herds nationally. Research into best model of surveillance specific to Botswana.

2020 KP indicators:

Baseline study and research results produced and disseminated.

2023 Target:

National implementation of surveillance system and data gathering underway. Response systems formalised and made available in accessible formats nationally (including through civil society organisations). Figures to be gathered ad published yearly.

2023 KP indicators:

Surveillance system operational. Three annual reports published.

2026 Target:

Response systems formalised and made available in accessible formats nationally (including through civil society organisations). Figures to be gathered ad published yearly.

2026 KP indicators:

Surveillance system operational. Six annual reports published.

2030 Target:

Response system tested and adaptive. Enough data amassed that system becomes both pre-emptive and re-active.

2030 KP indicators:

Surveillance system operational. Nine yearly reports published. 90% involvement of cattle farmers and uptake of programme.

Strategic Intervention S1.3:

Expand the reach of Botswana's existing Climate Smart Agriculture (CSA) programmes, with a specific focus on increasing resilience in production systems and subsequently production (outcome), the midst of climate change and subsequently improved livelihoods (impact), e.g. job creation and market access.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Local Government and Rural Development

Farmers Associations

Private Sector

Research organisations e.g. BITRI, BUAN

The National Strategy Office

2020 Target:

Key CSA programmes to have been identified and replicated in new areas. Ministry to adopt a Smart-Monitoring approach that allows to regularly track changes using a standard methodology based on key variables that capture short-term adaptive processes and changes in states comparing farmers that are (and are not) adopting CSA options in their farms.

2020 KP indicators:

List of programmes to expand finalised. Action plan on how expansion will take place.

2023 Target:

Key CSA programmes to be rolled out nationally.

2023 KP indicators:

Programmes rolled out with 30% nationwide uptake by farmers and increase in yield for farmers in CSA programmes. Smart monitoring system providing key monitoring variables.

2026 Target:

Key CSA programmes to be rolled out nationally.

2026 KP indicators:

Programmes rolled out with 60% nationwide uptake by farmers and increase in yield for farmers in CSA programmes. Smart monitoring system providing key monitoring variables.

2030 Target:

CSA programmes to be nationally accessible even by small-scale farmers with activity along the entire value chain with a focus on both domestic and international markets.

2030 KP indicators:

Programmes rolled out with 90% nationwide uptake by farmers and increase in yield for farmers in CSA programmes Smart monitoring system providing key monitoring variables.

Strategic Intervention S1.4:

Provide low-cost credit (concessionary loans), rebates, and other financial incentives to farmers and farming clusters for the purchase and use of solar-power water pumps and biogas digesters.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Farmers Associations

Cluster Farmers

The National Strategy Office

Private Financial Institutes

2020 Target:

Creation and implementation **of** key incentives. Creation of criteria for access to incentives and templates to support farming communities to apply for the loans and integration into the system.

2020 KP indicators:

Loan finance mechanisms, concept notes, financial models, finance pathways, and criteria designed and published.

2023 Target:

Implementation of financial incentives and capacity building for officials to support the application process. Implementation support and advisory services. Monitoring and evaluation undertaken (in line with NMES system).

2023 KP indicators:

Loans and Concessions systems operational.

2026 Target:

Financial offerings and support mechanisms adjusted to suit both growth in uptake and growth in size of financial offering, as well as implementation processes and success rates. M&E ongoing.

2026 KP indicators:

50% target of access to pumps and digesters nationally.

2030 Target:

Focus on adoption of new digester and pump technology. M&E ongoing as per NMES.

2030 KP indicators:

100% target of access to pumps and digesters nationally.

Strategic Intervention S1.5:

Invest in expanded and advanced agricultural early warning systems across all farming regions in Botswana, including the strengthening of watercourse flow gauge network and integration of weather alerts, with integration with ICT and radio-based technologies (e.g. mobile phone alerts) for dissemination of early warnings and climate information services.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Local Government and Rural Development

Tertiary Education, Research, Science and Technology

Ministry of Transport and Communications (MTC)

Farmers Associations

The National Strategy Office

2020 Target:

Commence research into agricultural seasonal forecast as well as early warning systems that are available and/or already in use in Botswana. Secure terminology/language to be used for early warning, to ensure that the message interpretation is effective.

2020 KP indicators:

Research plan and outline available. Terminology secured, and system creation and expansion and process pathway identified.

2023 Target:

National marketing/awareness campaign rolled out. Successful systems identified and replicated, and key producers of technologies within Botswana identified. Invest in increasing existing providers capacity. Marketing ready for roll out phase.

2023 KP indicators:

Marketing awareness campaign visible nationally. 30% Uptake of technology nationally.

2026 Target:

Increase in type of services available and services tailored to more specifically meet the needs of Batswana secure terminology/language to be used for early warning, to ensure that the message interpretation is effective for farmers.

2026 KP indicators:

Options available in types of services offered, 60% Uptake of technology nationally.

2030 Target:

Promotion of further service providers. Inclusion of non-farm related aspects into communication systems e.g. vaccination drives and other state related communications.

2030 KP indicators:

Non - farm related aspects incorporated into system. 90% national uptake.

2 THE WATER SECTOR

Strategic Intervention S2.1:

Tap into technical and financial support for integrated water resource management projects more specifically, climate resilience projects in Africa's transboundary basins by taking project ideas to project preparation and financing entities.

Responsible Entity:

Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Infrastructure and Housing Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Identification of viable project ideas and financing identities and alignment with existing programmes especially those of a cross boundary nature that are ongoing in the three river basins which Botswana straddles. Identification of examples of successful projects for replication. Projects aligned across role players and proposals started.

2020 KP indicators:

Projects identified, and project preparation and financing entities identified, project preparation commenced.

2023 Target:

Projects submitted to a variety of funds. First funds received, and a portion of projects started.

2023 KP indicators:

At least 5 projects submitted to various funds.

2026 Target:

Rolling submissions to funds where appropriate. Further capacity building at a governmental level of financing entities. Majority of projects commenced and existing projects expanded where fitting.

2026 KP indicators:

Funds received for some first round projects. Further project submissions underway.

2030 Target:

Majority of projects commenced and existing projects expanded where fitting.

2030 KP indicators:

All project applications submitted.

Strategic Intervention S2.2:

Circulate and seek input to guidelines pertaining to the preparation of annual sectoral (Ministerial) budgets to include a climate resilience water conservation, water harvesting and water efficiency line item.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

All Ministries.

2020 Target:

Circulate and seek input towards amending guidelines and notify all ministries of new requirements. Propose budgets to include climate resilience water conservation and water efficiency line item.

2020 KP indicators:

Guidelines circulated, and feedback gained. Guidelines identified and amended (amendment approved by Ministry of Finance).

2023 Target:

Retain climate resilience water conservation, water harvesting, and water efficiency as a line item and create responses to non-compliance.

2023 KP indicators:

Guidelines amended, in force, and adhered to by all Ministries. Non-compliance response system created and operational.

2026 Target:

Retain climate resilience water conservation, water harvesting, and water efficiency as a line item.

2026 KP indicators:

Guidelines amended, in force, and adhered to by all Ministries. Non-compliance response system created and operational.

2030 Target:

Retain climate resilience water conservation, water harvesting, and water efficiency as a line item.

2030 KP indicators:

Guidelines amended, in force, and adhered to by all Ministries. Non-compliance response system created and operational.

Strategic Intervention S2.3:

Utilize the NDP¹ as a channel for accelerating and prioritizing climate resilience in the water sector by making 'water security for all' one of the central strategic pillars.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Office of the President

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) The National Strategy Office

2020 Target:

Formal plan to include 'Water security for all' as a strategic pillar in 2023 NDP formalised.

2020 KP indicators:

Plan to update 2023 NDP formalised, with commitment to water security for all pillar.

2023 Target:

New NDP to include 'Water security for all' as a strategic pillar.

2023 KP indicators:

New 2023 NDP includes 'Water security for all' as a strategic pillar.

2026 Target:

NDP includes 'Water security for all' as a strategic pillar.

2026 KP indicators:

New 2023 NDP includes 'Water security for all' as a strategic pillar.

2030 Target:

NDP includes 'Water security for all' as a strategic pillar.

2030 KP indicators:

New 2023 NDP includes 'Water security for all' as a strategic pillar.

Strategic Intervention S2.4:

Develop a national groundwater identification, characterisation, protection and management strategy with an action plan, to delineate groundwater protection zones in major aquifers, to measure and determine management of increased recharge, and to preserve water quality.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Infrastructure and Housing Development

Tertiary Education, Research, Science and Technology

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Development of a national groundwater protection and management strategy and action plan through a multi stakeholder engagement process undertaken by the Department of Water Affairs.

2020 KP indicators:

Strategy developed and in process of being ratified.

2023 Target:

Undertake actions laid out by the Action Plan.

2023 KP indicators:

Strategy approved and published. Protection zones implemented in all major aquifers.

2026 Target:

Strategy and Action Plan adopted and in use.

2026 KP indicators:

Major aquifers under optimal levels of use, management, and protection.

2030 Target:

Strategy and Action Plan adopted and in use.

2030 KP indicators:

Major aquifers under optimal levels of use, management, and protection.

 $^{^{\}rm 1}$ NDP 12 will be developed for the years 2024 - 2030

Strategic Intervention S2.5:

Provide low-cost credit (concessionary loans) and discounts on utility bills for commercial and industrial enterprises that invest in water harvesting, grey water recycling and re-use systems.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Investment, Trade and Industry

Ministry of Finance and Economic Development

Botswana Development Corporation

Botswana Housing Corporation (BHC)

The National Strategy Office

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Research and Identify viable forms of credit and discounts. Identify criteria for allocation of funds and/or discounts. Create suitable fiscal pathways for allocation and monitoring of credit/discounts. Create marketing/awareness campaign around new credit and discount models to be utilised nationally.

2020 KP indicators:

Official drafts of loan finance mechanisms, concept notes, model and finance pathways and criteria finalised and approved.

2023 Target:

Roll out of credit and discounts. Ongoing monitoring of fair usage and system efficacy.

2023 KP indicators:

Loans and Concessions systems operational. Loan manual and information published and available online and in hard copy.

2026 Target:

Credit and discounts ongoing. Ongoing monitoring of fair usage and system efficacy.

2026 KP indicators:

Loans and Concessions systems operational. Loan manual and information published and available online and in hard copy.

2030 Target:

Credit and discounts ongoing. Ongoing monitoring of fair usage and system efficacy.

2030 KP indicators:

Loans and Concessions systems operational. Loan manual and information published and available online and in hard copy.

Strategic Intervention S2.6:

Develop a programme to scale up the most viable and proven alternatives in Botswana for livestock watering systems (including water hauling, water storage, pump systems, solar pumps etc.).

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Tertiary Education, Research, Science and Technology

Ministry of Agricultural Development and Food Security

The National Strategy Office

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Undertake research into most viable alternative livestock watering systems. Identify key programme delivery partners (including Civil Society Organisations). Creation of programme with key delivery and outcome indicators outlined. Create and utilise marketing/awareness material. Monitoring and Evaluation Systems defined in line with NMES.

2020 KP indicators:

Programme design underway and partners identified. Programme commencement. Awareness material visible nationwide.

2023 Target:

Programme rolled out nationally. First evaluations undertaken, and programme adjusted if need be to be more efficient and fitting.

2023 KP indicators:

Programme operational and accessible for 30% of target population. Evaluation report published and available.

2026 Target:

Full adoption of programme nationally. Second evaluations undertaken. Scan and inclusion of any new watering systems (if appropriate).

2026 KP indicators:

Programme operational and accessible for 60% of target population. Evaluation report published and available.

2030 Target:

Programme operational nationally. Scan and inclusion of any new watering systems (if appropriate).

2030 KP indicators:

Programme operational and accessible for 90% + of population. Evaluation report published and available.

Strategic Intervention \$2.7:

Expand the use of the Botswana Water Accounts – Botswana's System of Environmental and Economic Accounting (SEEA) based on the UN's method and the World Bank's WAVES system – to all Ministries for the calculation of water value and accounting.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

All Ministries.

2020 Target:

Department of Water Affairs to engage with other ministries in training around SEEA methods. Ministries to incorporate SEEA into their accounting and budgeting systems

2020 KP indicators:

Training schedule drawn up of future training. Training materials developed.

2023 Target:

All ministries to have adopted SEEA. Alignment exercise to ensure all ministries are calculating in the same manner and cross ministry tabulations can be made.

2023 KP indicators:

All ministries to have been trained in and adopted SEEA methods.

2026 Target:

All ministries to have adopted SEEA.

2026 KP indicators:

All ministries to have been trained in and adopted SEEA methods.

2030 Target:

All ministries to have adopted SEEA.

2030 KP indicators:

All ministries to have been trained in and adopted SEEA methods.

3 THE HUMAN HEALTH SECTOR

Strategic Intervention S3.1:

Update Botswana's Public Health Act of 2013 as well as other relevant and major health legislation to include provisions that address the public health impacts of climate change.

Responsible Entity: Ministry of Health and Wellness

Key Collaborating Entities:

COHRED, The Council on Health Research for Development

The National Strategy Office

2020 Target:

Identify expert institutions and individuals who can best advise the Ministry of Health and Wellness on the public health impacts of climate change. Identify relevant legislation to update and update act and legislation accordingly.

2020 KP indicators:

Public Health Act and relevant legislation updated, and provisions included.

2023 Target:

Public Health Act and relevant legislation updated.

2023 KP indicators:

Public Health Act and relevant legislation updated, and provisions included.

2026 Target:

Public Health Act and relevant legislation updated.

2026 KP indicators:

Public Health Act and relevant legislation updated, and provisions included.

2030 Target:

Public Health Act and relevant legislation updated.

2030 KP indicators:

Public Health Act and relevant legislation updated, and provisions included.

Strategic Intervention S3.2:

Integrate climate change related surveillance and tracking into the operationalization of Botswana's 2011 National Health Policy, including the policy's clear goal on collection of health information and research, development of a webbased observatory, and setting up of a National Health Research Council.

Responsible Entity: Ministry of Health and Wellness

Key Collaborating Entities:

COHRED, The Council on Health Research for Development Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

The Department of Health Policy, Development, Monitoring and Evaluation (HPDME) to begin multi - stakeholder engagement around the setting up of a National Health Research Council. Identify key institutions and individuals to be involved in the council. Begin process of creating the council. Create web-based observatory. Ministry of Health to integrate climate change related surveillance and tracking into the operationalization of Botswana's 2011 National Health Policy and disseminate information about the process to all relevant parties. Identify areas where priority disease/vector localities require more localised focus. NHRC to undertake baseline study of current effects of climate change on health.

2020 KP indicators:

Engagement designed and disseminated to concerned parties. Key policy updates identified. Council created. Baseline study undertaken and results published.

2023 Target:

Ministry of Health to Integrate climate change related surveillance and tracking into the operationalization of Botswana's 2011 National Health Policy and disseminate information about the process to all relevant parties. Identify areas where priority disease/vector localities require more localised focus.

2023 KP indicators:

Council operational with record of 12 quarterly meetings (over three years) and National Health Policy updated.

2026 Target:

Web based observatory operational and updated constantly. Integration of climate change related surveillance ongoing.

2026 KP indicators:

Council operational with record of 24 quarterly meetings (over six years) and Web based observatory operational.

2030 Target:

Web based observatory operational and updated constantly. Integration of climate change related surveillance ongoing.

2030 KP indicators:

Council operational with record of 36 quarterly meetings (over 10 years) and Web based observatory operational.

Strategic Intervention S3.3:

Develop a national climate change and public health flagship programme to provide training to healthcare professionals on the identification and tracking of climate-related health impacts, including climate-related nutritional, respiratory, and communicable disease impacts.

Responsible Entity: Ministry of Health and Wellness

Key Collaborating Entities:

The newly established National Health Research Council (as per Strategy S3.2)

2020 Target:

Identification of key partners and experts to design and develop programme. Design of programme.

2020 KP indicators:

Programme design finalised. Training schedule completed, and initial trainings undertaken.

2023 Target:

Programme being rolled out nationally.

2023 KP indicators:

Programme rolled out with 30% nationwide uptake in health sector.

2026 Target:

Programme roll out ongoing – with a key focus on rural and inaccessible areas and small remote clinics.

2026 KP indicators:

Programme rolled out with 60% nationwide uptake in health sector.

2030 Target: Programme being rolled out nationally

2030 KP indicators:

Programme rolled out with 90% + nationwide uptake in health sector.

Strategic Intervention S3.4:

Undertake a national 'Climate Change and Health' awareness-raising and educational campaign targeting public understanding of the health impacts of climate change and geared towards promoting resilience-building measures (e.g. heat health responses).

Responsible Entity: Ministry of Health and Wellness

Key Collaborating Entities:

Ministry of Youth Empowerment, Sport and Culture Development

The National Strategy Office

2020 Target:

Creation of campaign material and roll out of campaign nationally.

2020 KP indicators:

Campaign material created and sent out to relevant ministries to circulate.

2023 Target:

Roll out of campaign nationally.

2023 KP indicators:

Campaign visible nationally.

2026 Target:

Campaign updated and ongoing.

2026 KP indicators:

Campaign visible nationally.

2030 Target:

Campaign updated and ongoing.

2030 KP indicators:

Campaign visible nationally.

Strategic Intervention S3.5:

Implement a voluntary community-based monitoring and response system to identify community members most vulnerable to health impacts from climate change (the elderly, young children, immunocompromised individuals, persons with mental health challenges and physical challenges), and to provide community support to these vulnerable members in times of need.

Responsible Entity: Ministry of Health and Wellness

Key Collaborating Entities:

Ministry of Local Government and Rural Development

The National Strategy Office

2020 Target:

Begin a process of community level engagement, identify individuals/organisations in the community to establish forums to design and manage monitoring and response system. Delineate clear paths of action, responsibility and response within the system.

2020 KP indicators:

System design underway. List of individuals and organisations completed. Plan of action created.

2023 Target:

System formalised and ratified. National roll out of the system. Awareness campaign material distributed, and systems set up in.

2023 KP indicators:

System design complete. System launched and rolled out to 30% of population.

2026 Target:

Awareness campaign material distributed, and systems set up in communities. Systems operational and working in conjunction with national healthcare system.

2026 KP indicators:

System operational and accessible to 60% of population.

2030 Target:

Systems operational and working in conjunction with national healthcare system.

2030 KP indicators:

System operational and accessible to 90% + of population.

4 HUMAN SETTLEMENTS

Strategic Intervention S4.1:

Introduce updated climate smart agriculture (including conservation and urban agriculture) courses at the five rural training centres of the Division of Farmer Training (under the Department of Extension Services Coordination).

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Employment, Labour Productivity and Skills Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

The Department of Extension Services Coordination to both create new, and update existing, climate smart agriculture (including conservation agriculture and urban agriculture) courses. The department to start offering these training courses at the five rural training centres of the Division of Farmer Training.

2020 KP Indicators:

Courses created, and course material created. Course started in at least once centre.

2023 Target:

Update and expand training material. Creation of new rural training centres or expansion of existing centres.

2023 KP Indicators:

Courses available in all 5 centres.

2026 Target:

Update and expand training material. Creation of new rural training centres or expansion of existing centres.

2026 KP Indicators:

Courses available in all training centres.

2030 Target:

Update and expand training material. Creation of new rural training centres or expansion of existing centres.

2030 KP Indicators:

Courses available in all training centres.

Strategic Intervention S4.2:

Create a support programme to fund or subsidize the adoption of rainwater harvesting in urban and rural settlements, and to provide rebates or other financial incentives for installation of rainwater harvesting in urban and rural households, and commercial, mining and industrial entities.

Responsible Entity Ministry of Infrastructure and Housing Development

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Botswana Housing Corporation (BHC)

Ministry of Investment, Trade and Industry

Botswana Development Corporation

Botswana Housing Corporation (BHC)

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Ministry of Infrastructure and Housing Development to identify most suitable rainwater harvesting mechanisms. Batswana suppliers of harvesting technologies supported to enable mass production of technologies. Most viable model of rebates/incentives identified, and financial model created. Publication//Awareness material to be developed and disseminated nationally.

2020 KP Indicators:

Suitable mechanisms identified. Support model created to assist businesses to enable mass production of technologies/resources. Awareness material produced and disseminated.

2023 Target

National awareness of the programme created. Programme rolled out and maintained.

2023 KP Indicators:

Programme rolled out and available to 30% of population.

2026 Target:

Programme available to larger population. New technologies explored

2026 KP Indicators:

Programme rolled out and available to 60% of population.

2030 Target:

Programme available nationally. New technologies explored. (Could possibly make it mandatory for any existing or new business to engage in rain water capture as part of business registration/building applications)

2030 KP Indicators:

Programme rolled out and available to 90%+ of population.

Strategic Intervention S4.3:

Investigate feasibility and design of a model to develop an endowment fund (possibly with contributions from private sector profit-making industries), to provide low-cost finance to climate change adaptation projects in rural settlements, drawing on lessons from established endowment funds.

Responsible Entity: Ministry of Infrastructure and Housing Development

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Development Corporation

Botswana Housing Corporation (BHC)

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Start a multi-stakeholder engagement in order to design and house fund in appropriate Ministry or department. Develop a model for the endowment fund and create financial model for implementation as well as fund management and disbursement criteria and plan. (OR: If is not found to be feasible, re-design mechanism or focus elsewhere).

2020 KP indicators:

Feasibility study designed and underway. Model development underway.

2023 Target:

Fund is operational and disbursing funds. Reports generated yearly with both qualitative and quantitative aspects of the funds' beneficiaries' performance is highlighted. Further investment sought for fund in order to enable more or larger allocation of funds to beneficiaries. M&E ongoing as per NMES.

2023 KP indicators:

Fund is operational and disbursing funds. Three annual reports published.

2026 Target:

Fund is operational and disbursing funds. Reports generated yearly with both qualitative and quantitative aspects of the funds' beneficiaries performance is highlighted. Further investment sought for fund in order to enable more or larger allocation of funds to beneficiaries. M&E ongoing as per NMES.

2026 KP indicators:

Fund is operational and disbursing funds. Six annual reports published.

2030 Target:

Fund is operational and disbursing funds. Monitoring and evaluation ongoing. Reports generated yearly with both qualitative and quantitative aspects of the funds' beneficiaries' performance is highlighted. Further investment sought for fund in order to enable more or larger allocation of funds to beneficiaries. M&E ongoing as per NMES.

2030 KP indicators:

Fund is operational and disbursing funds. Nine annual reports published.

Strategic Intervention S4.4:

Create trained capacity within the Ministry of Lands and Housing to guide and manage the harmonization and alignment of policies, strategies, plans, and guidelines related to human settlements in Botswana, with the goal of explicitly harnessing the benefits of projects being implemented across different sectors/role players strengthening and aligning their climate resilience focus.

Responsible Entity: Ministry of Infrastructure and Housing Development

Key Collaborating Entities:

Ministry of Land Management, Water and Sanitation Services

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Identify relevant and expert training body or individuals to create a specific and relevant programme which first identifies gaps in (climate resilience specific) knowledge or capacity within Ministry of Lands and Housing and then tailors a fitting programme to enable the harmonization of policies, strategies, plans, and guidelines related to human settlements in Botswana. Undertake training programme and adjust policies, strategies, plans, and guidelines accordingly.

2020 KP indicators:

Training body identified. Training programme and delivery plan created by training body. Training programme commenced.

2023 Target:

Yearly review of new policies plans and guidelines: Undertake harmonisation activity (if need be) with a specific focus on climate resilience.

2023 KP indicators:

Three yearly review reports published. Harmonisation plan created and implemented.

2026 Target:

Yearly review of new policies plans and guidelines: Undertake harmonisation activity (if need be) with a specific focus on climate resilience.

2026 KP indicators:

Six yearly review reports published. Harmonisation plan implemented.

2030 Target:

Yearly review of new policies plans and guidelines: Undertake harmonisation activity (if need be) with a specific focus on climate resilience.

2030 KP indicators:

Nine yearly review reports published. Harmonisation plan implemented.

5 FOREST, SAVANNA AND WOODLAND MANAGEMENT

Strategic Intervention S5.1:

Commission a multi-year research project in Botswana that reviews and identifies climate change related best practice in the forestry sector from other countries and regions, and evaluates – including through pilot measures – the interventions most suited to Botswana's savannas, woodlands and forests.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT).

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Environment, Natural Resources Conservation and Tourism

The National Strategy Office

Ministry of Agricultural Development and Food Security

Farmers

2020 Target

Best grouping of institutions to conduct research identified. Research plan identified. Research commenced.

2020 KP indicators:

List of institutions to conduct research finalised. Research plan created.

2023 Target:

Research project designed and actively underway.

2023 KP indicators:

Research underway and early research findings published.

2026 Target:

Research project designed and actively underway.

2026 KP indicators:

Research underway and interim research findings published.

2030 Target:

Research results published and disseminated. Research data and learnings used to inform Forestry policy.

2030 KP indicators:

Final research report created and published.

Strategic Intervention S5.2:

Identify, in consultation with communities and stakeholders, as well as research and academic institutions, new climate change research areas and determine needs and gaps most suited to Botswana through promoting exchange, cooperation and networking by government, private sector, nationally, regionally, and internationally.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT).

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Botswana University of Agriculture and Natural Resource

Botswana Institute for Technology Research and Innovation

Community Based Natural Resource Management

The National Strategy Office

Ministry of Agricultural Development and Food Security

Farmers

2020 Target

Best grouping of institutions to conduct research identified. Research plan identified. Needs assessment undertaken. Research commenced.

2020 KP indicators:

List of individuals/institutions to conduct research finalised. Research plan created.

2023 Target:

Research project designed and actively underway. At least one research project focusing on applied research at landscape level.

2023 KP indicators:

Research underway, new focus areas identified, and early research findings published.

2026 Target:

Research project designed and actively underway.

2026 KP indicators:

Research underway, new focus areas identified, and interim research findings published.

2030 Target:

Research results published and disseminated. Research data and learning used to inform Forestry policy and inform sustainable natural resources utilization.

2030 KP indicators:

Final research report created and published. Evidence/applied based research at the landscape and community level.

Strategic Intervention \$5.3:

Identify and include stronger climate change science and considerations into the next revision or update of the National Forest Policy, the National Forestry Action Plan, the Botswana Biodiversity Strategy and Action Plan, and the Forest Conservation Strategy. Include a specific focus on reducing forest and savanna fires, pests and disease break outs.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT).

Key Collaborating Entities:

N/A.

2020 Target

Identify best practice in forest management from a climate resilience perspective. Incorporate best practice into the next revision or update of the National Forest Policy, the National Forestry Action Plan, the Botswana Biodiversity Strategy and Action Plan, and the Forest Conservation Strategy. Incorporate climate change in BSc Forestry and BSc Range Management at Botswana University of Agriculture and Natural Resources.

2020 KP indicators:

Best practice identified and noted.

2023 Target:

All identified and relevant sector plans and strategies updated with stronger climate change considerations and provisions.

2023 KP indicators:

Forestry sector plans and strategies updated with climate change content.

2026 Target:

All identified and relevant sector plans and strategies updated with stronger climate change considerations and provisions.

2026 KP indicators:

Forestry sector plans and strategies updated with climate change content.

2030 Target:

All identified and relevant sector plans and strategies updated with stronger climate change considerations and provisions.

2030 KP indicators:

Forestry sector plans and strategies updated with climate change content.

Strategic Intervention S5.4:

Convene and set up a national forestation and forest degradation task force (with members from government, academia, civil society, rural communities etc.) to provide guidance to the Department of Forests and Range Resources on elephant damage, wildland fires, pest and disease break out, and habitat destruction, aligned with Botswana's wildland fire strategy.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

N/A.

2020 Target:

Identify institutes and experts to make up the task-force with members from government, civil society, forest adjacent communities, etc. ensuring there is expertise in a wide range of areas such as conservation, forestry, animal experts, animal – human interactions, natural resource management, etc. Create task force, task-force agenda and outputs.

2020 KP indicators:

List of institutes and experts finalised. Task force mandate approved. Task force focus defined. Creation of task force underway.

2023 Target:

Task force operational in an advisory capacity to the Department of Forests and Range Resources.

2023 KP indicators:

Task force operational with at least 12 quarterly meetings (over 3 years) and actively providing guidance on key issues.

2026 Target:

Task force operational in an advisory capacity to the Department of Forests and Range Resources.

2026 KP indicators:

Task force operational with at least 24 quarterly meetings (over 6 years) and actively providing guidance on key issues.

2030 Target:

Task force in operation in an advisory capacity to any relevant government Department.

2030 KP indicators:

Task force operational with at least 36 quarterly meetings(over 10 years) and working actively alongside the Department of Forests and Range Resources.

Strategic Intervention S5.5:

Strengthen and further build capacity of the already existing Community Based Natural Resources Management Programme (CBNRM) with a mandate and resources to guide and implement sustainable ecosystem management through the use of both traditional practices and forestry sector best practice, such as establishing community woodlots. Enhance the CBNRM trusts' capacity to monitor, report, and respond to illegal activity in forests.

Responsible Entity:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Youth Empowerment, Sport and Culture Development

The National Strategy Office

CBNRM Committees

2020 Target

Create a specific mandate for a forest management programme within the CBNRM programme. Create clear pathways of interaction and decision making between the CBNRM and existing forestry management mechanisms.

2020 KP indicators:

Plan for creation of a specific forest management programme published by CBNRM. Programme outline available and programmes commenced under CBNRM umbrella.

2023 Target:

CBNRM Forest management program functional and actively involved in all forest management decisions.

2023 KP indicators:

Programmes underway. Woodlots established in relevant areas. Guidelines of best practise published.

2026 Target:

CBNRM Forest management program functional and actively involved in all forest management decisions.

2026 KP indicators:

Programmes underway. Woodlots established in relevant areas.

2030 Target:

CBNRM Forest management program functional and actively involved in all forest management decisions.

2030 KP indicators:

Programmes underway. Woodlots established in relevant areas.

Strategic Intervention S5.6:

Establish a comprehensive monitoring system for forest, savanna and wetland resources and ecosystem conditions through full operationalization and up scaling of the REDD+ Integrated Monitoring System developed under Botswana's REDD+ pilot project, and by carrying out National Forest Inventory data collection and entry in order to determine carbon stock, forest cover and land degradation.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

SADC REDD+

2020 Target:

Identify locations and scale up the REDD+ Integrated Monitoring System from the initial 4 pilot areas.

2020 KP indicators:

Locations for scale-up identified, and data collection plan created.

2023 Target:

Further scaling up of the System.

2023 KP indicators:

Carbon stock, forest cover and land degradation data collected and fed into REDD+ project. Monitoring system scaled up to 30% of all viable areas.

2026 Target:

Further scaling up of the System.

2026 KP indicators:

Monitoring system scaled up to 60% of all viable areas.

2030 Target:

National uptake of the System.

2030 KP indicators:

Monitoring system scaled up to 90% + of all viable areas.

Strategic Intervention S5.7:

MENT to add to the next revision or update of the National Forest Policy, and the National Forestry Action Plan: fire management activities such as prescribed burning, fire detection system, firebreak maintenance, deployment of seasonal fire teams, capacity building on fire management (principles and techniques), procurement of fire equipment, and establishment of community fire management teams. Budget to be allocated to necessary training and roll out.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Land Management, Water and Sanitation Services Ministry of Mineral Resources, Green Technology and Energy Security The National Strategy Office

2020 Target:

Incorporate fire management activities into the next revision or update of the National Forest Policy, and the National Forestry Action Plan. Allocate budget needed and commence necessary training.

2020 KP indicators:

Key actors needed to make additions notified. Wording of amendments agreed upon. Amendment date identified.

2023 Target:

Continued focus on fire management systems and on-going training for necessary systems to be operational.

2023 KP indicators:

Additions made to policy and plan. Budget allocated and disbursed for new activities. Training delivered on at least three new activities.

2026 Target:

Continued focus on fire management systems and on-going training for necessary systems to be operational.

2026 KP indicators:

Further additions made to policy and plan. Budget allocated and disbursed for new activities. Training delivered on at least six new activities.

2030 Target:

Continued focus on fire management systems and ongoing training for necessary systems to be operational.

2030 KP indicators:

Further additions made to policy and plan. Budget allocated and disbursed for new activities. Training delivered on all new identified activities.

6 THE LAND USE SECTOR

Strategic Intervention S6.1:

Introduce ecosystem-based adaptation (EBA) as a core criterion and consideration into Botswana's land use planning legislation and land use master planning quidelines.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Land Management, Water and Sanitation Services

Ministry of Agricultural Development and Food Security

Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

Identify institution or individuals who can train relevant departments in EBA. Undertake training with relevant departments. Each department to define appropriate criteria and include criteria into land use planning legislation and land use master planning guidelines.

2020 KP indicators:

Training institution/individuals identified. Training programme created and roll out plan created. EBA methods identified to introduce into planning guidelines.

2023 Target:

Each department to define appropriate criteria and include criteria into land use planning legislation and land use master planning guidelines.

2023 KP indicators:

Training completed with all relevant parties. EBA methods included in all planning legislation and guidelines.

2026 Target:

EBA criterion included in planning legislation and land use master planning guidelines.

2026 KP indicators:

EBA an integral part of master planning and guidelines.

2030 Target:

EBA criterion included in planning legislation and land use master planning guidelines.

2030 KP indicators:

EBA an integral part of master planning and guidelines.

Strategic Intervention S6.2:

Amend guidelines for preparation of regional master plans, district settlement strategy plans, district integrated land-use plans, and district development plans to include explicit directions for the integration of climate change considerations (such as climate change scenarios and modelling).

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Infrastructure and Housing Development

The National Strategy Office

2020 Target:

Amend guidelines for appropriate climate change considerations (such as climate change scenarios and modelling). Locate all relevant guidelines and update to include relevant considerations.

2020 KP indicators:

Guidelines for amendment identified.

2023 Target:

Guidelines updated and approved.

2023 KP indicators:

Guidelines updated to include explicit directions for the integration of climate change considerations.

2026 Target:

Guidelines further updated as needed, approved, and used in practice.

2026 KP indicators:

Guidelines updated to include explicit directions for the integration of climate change considerations.

2030 Target:

Guidelines further updated as needed, approved, and used in practice.

2030 KP indicators:

Guidelines updated to include explicit directions for the integration of climate change considerations.

Strategic Intervention S6.3:

The Ministry of Finance and Development Planning should develop a guidance document, a toolkit, and training modules for government officials on 'Climate-compatible Decision-making for Development,' including guidance on making administrative decisions despite climate change uncertainty.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Finance and Economic Development

All Ministries.

2020 Target:

Ministry of Finance and Development Planning to identify and commission climate change-based decision-making expert (institution or individual) to create a guidance document, a toolkit, and training modules for government officials on 'Climate-compatible Decision-making for Development,' including guidance on making administrative decisions despite climate change uncertainty.

2020 KP indicators:

Experts chosen. ToR issued, contract awarded, work commenced.

2023 Target:

Programme underway.

2023 KP indicators:

Outputs created. Training modules developed and undertaken. All relevant government officials trained, and literature disseminated.

2026 Target:

Ongoing training.

2026 KP indicators:

All relevant officials to have received training.

2030 Target:

Ongoing training.

2030 KP indicators:

All relevant officials to have received training.

Strategic Intervention S6.4:

Strengthen and further build capacity of the already existing Community Based Natural Resources Management trusts with a mandate and resources to guide and implement ecosystem management on communal lands, and to include the use of both traditional practices and sector best practice.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

The National Strategy Office

Land Boards

Department of Lands

District Councils

CBNRM trusts

2020 Target:

Create a specific mandate for ecosystem management for CBNRM trusts. Create clear pathways of interaction and decision making between CBNRM bodies and existing authorities.

2020 KP indicators:

CBNRM committees' mandates and resources increased. Monitoring and reporting system defined.

2023 Target:

CBNRM land management program functional and CBOs actively involved in all communal lands management decisions.

2023 KP indicators:

CBNRM committees' active in 30% of all wetland/grassland areas. Each committee to have had at least 12 quarterly meetings since 2020.

2026 Target:

CBNRM land management program functional and CBOs actively involved in all communal lands management decisions.

2026 KP indicators:

CBNRM committees' active in 60% of all wetland/grassland areas. Each committee to have had at least 24 quarterly meetings since 2020.

2030 Target:

CBNRM land management program functional and CBOs actively involved in all communal lands management decisions.

2030 KP indicators:

CBNRM committees' active in 90% or of all wetland/grassland areas. Each committee to have had at least 36 quarterly meetings since 2020.

Strategic Intervention S6.5:

Recapacitate the national land rehabilitation programme with an explicit focus on rehabilitating land in a climate resilient manner that promotes biodiversity and conservation concerns. A key aspect of the program should be on restoration through reduction of bush encroachment on land which needs to be rehabilitated.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Land Management, Water and Sanitation Services

Ministry of Agricultural Development and Food Security

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Local Government and Rural Development

The National Strategy Office

2020 Target:

Identify key areas of the existing national land rehabilitation programme which can be mandated with the rehabilitation of land in a climate resilient manner with a key focus on restoration through reduction in bush encroachment on land which needs to be rehabilitated.

2020 KP indicators:

Program ratified and commenced.

2023 Target:

Programme commenced and ongoing.

2023 KP indicators:

Programme ratified and operational. Key areas of land identified, and rehabilitation commenced. Over 30% of target areas rehabilitated.

2026 Target:

Programme ongoing.

2026 KP indicators:

Programme ratified and operational. Key areas of land identified, and rehabilitation commenced. Over 60% of target areas rehabilitated.

2030 Target:

Programme ongoing.

2030 KP indicators:

Programme ratified and operational. Key areas of land identified, and rehabilitation commenced. Over 90% + of target areas rehabilitated.

7 DISASTER RISK MANAGEMENT

Strategic Intervention S7.1:

Update and operationalise a 2019 – 2023 National Disaster Management Strategy (to succeed the current 2013 – 2018 national strategy), with a strong emphasis on the entire disaster management continuum, as well as climate change specific hazards, vulnerabilities, management/capacity building. Capture the integration of climate change adaptation and disaster management in a disaster management legislative framework to give this the power of the law and enforceability.

Responsible Entity: Office of the President (OP)

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

The National Disaster Management Office (NDMO) to update and operationalise a 2019 – 2023 National Disaster Management Strategy with a strong emphasis on the entire disaster management continuum, as well as climate change specific hazards, vulnerabilities, management/capacity building.

2020 KP indicators:

Strategy updated with emphasis added.

2023 Target:

Updated strategies translated into a legislative framework (enforceable acts of parliament).

2023 KP indicators:

Strategy updated, published and operationalised.

2026 Target:

Strategy updated, and legislative framework updated if required.

2026 KP indicators:

Strategy updated, published and operationalised.

2030 Target:

Strategy updated, and legislative framework updated if required.

2030 KP indicators:

Strategy updated, published and operationalised.

Strategic Intervention S7.2:

Develop a national disaster information management portal or platform that allows for consolidation of currently fragmented information, contains a user-friendly database, dashboards that indicate actions taken by different departments, and tracks responses. Ensure this national portal is well-linked to and integrates data from regional and international centres such as the SADC Climate Services Centre.

Responsible Entity: Office of the President (OP)

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) All Ministries.

Local, Regional and International information sources.

SADC Climate Services Centre

2020 Target:

The National Disaster Management Office (NDMO) to collect all existing information and format it into a database friendly format. Commence creation of the national disaster information management portal. Commence creation of systems to integrate local, regional and international centres. Portal marketing/awareness drive to all Ministries and relevant organisations.

2020 KP indicators:

Platform design created and platform production underway.

2023 Target:

Portal updates and maintenance.

2023 KP indicators:

Platform operational.

2026 Target:

Portal updates and maintenance.

2026 KP indicators:

Platform operational.

2030 Target:

Portal updates maintenance.

2030 KP indicators:

Platform operational.

Strategic Intervention S7.3:

Incentivize the private sector's involvement in disaster risk identification, assessment, insurance, prevention, mitigation, adaptation, early warning systems, response and recovery, through financial opportunities (such as, but not limited to, allocating resources to purchase innovative and effective climate services and disaster-related ICT products).

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Office of the President

Ministry of Investment, Trade and Industry

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Finance and Economic Development

Botswana Development Corporation (BDC)

The National Strategy Office

2020 Target:

Identify key large – scale (industry dominant) private sector companies to engage with in disaster risk identification, prevention, mitigation, reduction, early warning systems, response and recovery to design useful climate services for the sector. Create a forum with elected members of the private sector (with a deliberately diverse membership to ensure sector and size representation) to enable discussion and engagement on climate risk related issues between the sector and the state. Commence creation of financial opportunities and criteria for use as well as reporting and monitoring mechanisms.

2020 KP indicators:

List of private sector companies finalised. Forum operationalised and forum plans created and available. Products and financial opportunities generation plan made available.

2023 Target:

Through the forum identify and create useful and relevant private sector climate service tools. Promotion of tools across all sectors. Uptake of tools by major industry leaders and sectors most vulnerable to climate related risk. Offering of finance to enable uptake.

2023 KP indicators:

Products and financial opportunities designed and made available. Uptake of opportunities and resources by 50% of forum members.

2026 Target:

Uptake of tools by major industry leaders and sectors most vulnerable to climate related risk. Uptake by smaller private sector companies. Offering of finance to enable uptake.

2026 KP indicators:

All forum members to have taken up opportunities and resources.

2030 Target:

National uptake across all sectors.

2030 KP indicators:

All forum members as well as a large number of private sector companies outside of forum to have taken up opportunities and resources.

8 BIODIVERSITY AND ECOSYSTEMS

Strategic Intervention S8.1:

Establish a public-private-civil society alien invasive species task force to develop and implement an action plan against Botswana's most damaging invasive species (such as mesquite, Kariba weed or Salvinia, and water lettuce).

Responsible Entity: National Biodiversity Authority

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Investment, Trade and Industry

Civil Society Organisations

Private Sector Companies and Bodies

The National Strategy Office

2020 Target:

Identify key public institutions to engage with and bring into a public-private-civil society task force. Commence the creation of task force and creation of mandate.

2020 KP indicators:

List of institutions finalised. Action plan developed, and pilot implementation projects started.

2023 Target:

Utilising learnings from pilot projects, plans are rolled out nationally and task force equipped to enable roll out. Monitoring systems implemented.

2023 KP indicators:

Action Plan formalised and added to relevant policies/plans. Plan operational over 30% of country.

2026 Target: :

National ongoing management and monitoring of invasive species via the task force.

Plan operational over 60% of country.

2030 Target:

National ongoing management and monitoring of invasive species via the task force.

2030 KP indicators:

Plan operational over 90% + of country.

Strategic Intervention S8.2:

Fully implement and accomplish the targets of the National Biodiversity Strategy and Action Plan (NBSAP) 2016 - 2025, the Community Based Natural Resources Management Policy, and other relevant ecosystem and species-specific strategies and plans.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

N/A.

2020 Target:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) to fully implement the National Biodiversity Strategy and Action Plan (NBSAP) 2016 - 2025. Ministry to finalise and formalise existing draft ecosystem and species-specific strategies and plans, and the Community Based Natural Resources Management Policy.

2020 KP indicators:

National Biodiversity Strategy and Action Plan to be implemented. Community Based Natural Resources Management policy finalised and approved.

2023 Target:

NBSAP, CBNRM Policy, and related ecosystem and species management strategies and plans in full implementation.

2023 KP indicators:

NBSAP and CBNRM policy in extensive implementation.

2026 Target:

NBSAP, CBNRM Policy, and related ecosystem and species management strategies and plans in full implementation.

2026 KP indicators:

New or updated NBSAP and CBNM policy available.

2030 Target

NBSAP, CBNRM Policy, and related ecosystem and species management strategies and plans in full implementation.

2023 KP indicators:

NBSAP and CBNRM policy in extensive implementation.

Strategic Intervention S8.3:

Amend (or issue a notification on) the 2016 NBSAP's (NBSAP 3) target 11 (for goal 3) and target 15 (for goal 4) to explicitly include ecosystem-based adaptation (EBA).

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

N/A.

2020 Target

Amend (or issue a notification on) the 2016 NBSAP's (NBSAP 3) target 11 (for goal 3) and target 15 (for goal 4) to explicitly include ecosystem-based adaptation (EBA).

2020 KP indicators:

(NBSAP 3) target 11 (for goal 3) and target 15 (for goal 4) amended to explicitly include ecosystem-based adaptation (EBA).

2023 Target:

Amendments made and under full implementation.

2023 KP indicators:

Amendments in effect.

2026 Target:

Amended provisions to be reflected in next NBSAP for the post-2026 period.

2026 KP indicators:

Amendments in effect in new NBSAP.

2030 Target:

EBA inclusions in NBSAP to be under full implementation.

2030 KP indicators:

EBA provisions of new NBSAP fully in effect.

Strategic Intervention S8.4:

Amend the Botswana Environmental Impact Assessment (EIA) Act (No. 10 of 2011) to include more stringent requirements related to ecosystem climate resilience in the Environmental Management Plan (EMP) to be submitted as part of the EIA or Strategic Environmental Assessment (SEA) process to DEA.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

N/A.

2020 Target:

Identify requirements related to ecosystem climate resilience. Amend Act accordingly.

2020 KP indicators:

Botswana Environmental Impact Assessment (EIA) Act (No. of 2011) amended.

2023 Target:

All EIAs and SEAs to reflect strengthened ecosystem resilience requirements.

2023 KP indicators:

Stronger EIAs and SEAs developed.

2026 Target:

All EIAs and SEAs to reflect strengthened ecosystem resilience requirements.

2026 KP indicators:

Stronger EIAs and SEAs developed.

2030 Target:

All EIAs and SEAs to reflect strengthened ecosystem resilience requirements.

2030 KP indicators:

Stronger EIAs and SEAs developed.

Strategic Intervention S8.5:

Mandate and capacitate local authorities (district councils and town councils) to require specific climate resilience planning and measures when evaluating and approving building or construction permits within proximity of climate-sensitive ecosystems.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Ministry of Infrastructure and Housing Development

Botswana Housing Corporation (BHC)

The National Strategy Office

2020 Target:

Identify appropriate climate resilience measures for specific eco-system scenarios. Mandate local authorities to require measures.

2020 KP indicators:

Measures identified, mandating process initiated.

2023 Target:

Authorities mandated.

2023 KP indicators:

Authorities mandated, and specific climate resilience planning and measures included in construction permitting process.

2026 Target:

Authorities mandated.

2026 KP indicators:

Authorities mandated, and specific climate resilience planning and measures included in construction permitting process.

2030 Target:

Authorities mandated.

2030 KP indicators:

Authorities mandated, and specific climate resilience planning and measures included in construction permitting process.

Strategic Intervention S8.6:

Accelerate the adoption of natural capital accounting methods developed under Botswana's waves partnership (water accounts, energy accounts, mineral accounts, tourism related land and ecosystem accounts, and macroeconomic indicators such as adjusted national income, adjusted national savings, and adjusted national wealth accounts) into government-wide annual budgeting processes and into the NDP 12.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

All Ministries.

2020 Target:

Begin conducting training for relevant accounting departments in WAVES natural capital accounting methods. Mandate the use of the WAVES data into annual budgeting and include WAVES data in NDP 12.

2020 KP indicators:

Training schedule drawn up of future training. Training materials developed.

2023 Target: All relevant parties trained and proficient in waves accounting methods. Waves data included in annual budgets.

2023 KP indicators:

Training delivered to all relevant parties. Waves accounting integrated into government-wide annual budgeting processes and into the NDP 12.

2026 Target: All relevant parties trained and proficient in waves accounting methods. Waves data included in annual budgets.

2026 KP indicators:

Waves accounting integrated into government-wide annual budgeting processes and reflected in the NDP 12.

2030 Target: All relevant parties trained and proficient in waves accounting methods. Waves data included in annual budgets.

2030 KP indicators:

Waves accounting integrated into government-wide annual budgeting processes and reflected in the NDP 12.

9 INFRASTRUCTURE DEVELOPMENT

Strategic Intervention S9.1:

Develop, under the auspices of the Ministry of Infrastructure and Housing and Development, a planning and implementation guidance document for integration of climate resilience into large infrastructure design and development in Botswana, localizing best practice from across Africa and major development partners.

Responsible Entity: Ministry of Infrastructure and Housing and Development

Key Collaborating Entities:

Botswana Development Corporation

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Botswana Housing Corporation (BHC)

Ministry of Investment, Trade and Industry

Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

Commence engagement with key experts in the development of a guidance document for integration of climate resilience into large infrastructure design and development in Botswana. Development and publication of guidance material. Dissemination and promotion of guidance document to relevant departments and the private sector.

2020 KP indicators:

Experts identified. Guidance material created and published.

2023 Target:

Review and update guidance document with relevant new data and technologies.

2023 KP indicators:

Guidance document disseminated nationally. Updated 2023 version of document available.

2026 Target:

Review and update guidance document with relevant new data and technologies.

2026 KP indicators:

Guidance document disseminated nationally. Updated 2026 version of document available.

2030 Target:

Review and update guidance document with relevant new data and technologies.

2030 KP indicators:

Guidance document disseminated nationally. Updated 2030 version of document available.

Strategic Intervention S9.2:

Develop training modules and workshops for entities like the Botswana Institution of Engineers, the Association of Botswana Building and Civil Engineering Contractors, and the Association of Consulting Engineers Botswana to study the integration of climate resilience into power and water infrastructure.

Responsible Entity: Ministry of Infrastructure and Housing and Development

Key Collaborating Entities:

Botswana Development Corporation

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Botswana Housing Corporation (BHC)

Ministry of Investment, Trade and Industry

Ministry of Mineral Resources, Green Technology and Energy Security

Botswana Institution of Engineers,

The Association of Botswana Building and Civil Engineering Contractors

Association of Consulting Engineers Botswana

The National Strategy Office

2020 Target:

Identify and employ expert institutions or individuals to develop training modules and workshops. Training and workshops developed, promoted and offered to relevant parties.

2020 KP indicators:

Experts identified. Training material created and published.

2023 Target:

Training and workshops updated and offered.

2023 KP indicators:

Training delivered to 10 individuals annually from each organisation (90 in total)

2026 Target:

Training and workshops updated and offered.

2026 KP indicators:

Training delivered to 10 individuals annually from each organisation (120 in total)

2030 Target:

Training and workshops updated and offered.

2030 KP indicators:

Training delivered to 10 individuals annually from each organisation (150 in total)

Strategic Intervention S9.3:

Support climate-related research on infrastructure development through the issuance of publicly-funded research grants, with a focus on preventing or reducing climate-related depreciation and stranded assets.

Responsible Entity: Ministry of Infrastructure and Housing and Development

Key Collaborating Entities:

Ministry of Investment, Trade and Industry

Ministry of Tertiary Education, Research, Science and Technology

Ministry of Employment, Labour Productivity and Skills Development

Higher education and vocational institutions

Botswana Institution of Engineers,

The Association of Botswana Building and Civil Engineering Contractors

Association of Consulting Engineers Botswana

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Commence the process of identifying key research institutes to partner with and fund. Design grant structure, size, type and delivery mechanism. Through a process of multi-stakeholder engagements, identify clear output goals and targets and a key research agenda. Identify reporting mechanisms for reporting on grant use.

2020 KP indicators:

Research institutes identified. Grant design underway. Reporting mechanisms outlined.

2023 Target: Deliver first grants through partner institutions. Grant system operational. Database created of all climate related research outputs. Research agenda updated if need be.

2023 KP indicators:

At least 4 grants released. At least 2 projects completed with reports published and disseminated. Database Operational.

2026 Target: Grant system operational. Database regularly updated and maintained. Research agenda updated if need be.

2026 KP indicators:

At least 8 grants released. At least 4 projects completed with reports published and disseminated. Database Operational.

2030 Target: Grant system operational. Database regularly updated and maintained. Research agenda updated if need be.

2030 KP indicators:

At least 12 grants released. At least 6 projects completed with reports published and disseminated. Database Operational.

Strategic Intervention S9.4:

Conduct a study of public-private partnerships focused on adaptation in the infrastructure sector in Africa and identify project models that could be replicated in Botswana.

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Financial Services Industry

Botswana Development Corporation

Business Botswana and the Botswana Chamber

Commerce and Industry

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Botswana Stock Exchange

The National Strategy Office

2020 Target:

Identify key institute or individuals to conduct study. Design study.

2020 KP indicators:

Relevant institute or individual sourced and study designed.

2023 Target:

Study to have been conducted. Project models identified and utilised for new infrastructure projects.

2023 KP indicators:

Study complete. Results disseminated to relevant parties. At least 3 project models identified.

2026 Target:

Project models identified and utilised for new infrastructure projects.

2026 KP indicators:

Project models have been utilised in at least 3 new projects.

2030 Target:

Project models identified and utilised for new infrastructure projects.

2030 KP indicators:

Project models have been utilised in at least 6 new projects.

Strategic Intervention S9.5:

Solicit guidance and direction from the African Union – European Union Reference Group on Infrastructure regarding the mainstreaming of climate change in infrastructure cooperation.

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Financial Services Industry

Botswana Development Corporation

Business Botswana and the Botswana Chamber

Commerce and Industry

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Botswana Stock Exchange

The National Strategy Office

2020 Target:

Identify department or grouping best suited to solicit guidance. Discuss the mainstreaming of climate change in infrastructure cooperation with the reference group/reference group representative. Commence the process of publishing and dissemination of results to state departments and the private sector.

2020 KP indicators:

Department/Grouping identified. Reference group contacted, and discussion had.

2023 Target:

Results published and incorporated into infrastructure cooperation processes.

2023 KP indicators:

Results published and incorporated into infrastructure cooperation processes.

2026 Target:

Results published and incorporated into infrastructure cooperation processes.

2026 KP indicators:

Results published and incorporated into infrastructure cooperation processes.

2030 Target:

Results published and incorporated into infrastructure cooperation processes.

2030 KP indicators:

Results published and incorporated into infrastructure cooperation processes.

10 INDUSTRY AND MANUFACTURING SECTOR

Strategic Intervention S10.1:

Establish a joint public-private task force (with partners like Business Botswana and the Botswana Chamber of Commerce and Industry) to monitor, advise on, and recommend ways in which industry and manufacturing in Botswana could contribute to broader climate change resilience through more climate-compatible operations.

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Financial Services Industry

Botswana Development Corporation

Business Botswana and the Botswana Chamber

Commerce and Industry

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Botswana Stock Exchange

The National Strategy Office

2020 Target:

Identify key institutions and individuals to serve on task force. Create mandate for task force and formalise advisory pathways. Create and ratify task force. Create yearly agenda for task force.

2020 KP indicators:

Task force participants identified. Task Force initiated, and agenda created. Monitoring system defined.

2023 Target:

Task force in operation and actively included in in industry development processes.

2023 KP indicators:

At least 3 sets of recommendations published by task force for adoption by industry, and monitoring system operational.

2026 Target:

Task force in operation and actively included in industry development processes.

2026 KP indicators:

At least 6 sets of recommendations published by task force for adoption by industry, and monitoring system operational.

2030 Target:

Task force in operation and actively included in industry development processes.

2030 KP indicators:

At least 9 sets of recommendations published by task force for adoption by industry, and monitoring system operational.

Strategic Intervention S10.2:

In the financial services industry, develop de-risking products to help provide finance to climate resilience measures, and develop insurance products for climate-sensitive businesses to help protect against damage and loss from climate-related events

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Financial Services Industry

Botswana Development Corporation

Business Botswana and the Botswana Chamber

Commerce and Industry

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Botswana Stock Exchange

The National Strategy Office

2020 Target:

Engage with key players in the financial industry to develop de-risking and insurance products. Create a forum within the financial services industry to engage with climate related risks.

2020 KP indicators:

Forum participants identified. Forum initiated, and agenda created.

2023 Target:

Forum ongoing and products developed and in use.

2023 KP indicators:

Forum operational and at least 3 products developed.

2026 Target:

Forum ongoing and products developed and in use. Revision exercise undertaken to track adoption of products and redesign of product if necessary.

2026 KP indicators:

Forum operational and at least 3 additional new/updated products developed.

2030 Target:

Forum ongoing and products developed and in use.

2030 KP indicators:

Forum operational and at least 6 widely used products developed.

11 THE TOURISM SECTOR

Strategic Intervention S11.1:

MENT to initiate a study on the potential impacts of climate change on the tourism industry in order to implement effective and high-potential resilience solutions.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Botswana Development Corporation (BDC)

Private Sector companies

Ministry of Investment, Trade and Industry

Business Botswana and the Botswana Chamber

The National Strategy Office

2020 Target:

MENT to initiate and complete an initial study of tourism and climate change.

2020 KP indicators:

Study partner identified, and study designed and commenced.

2023 Target:

MENT to continue to monitor the effects of climate change on the tourism sector and integrate climate change concerns into all tourism sector planning strategies.

2023 KP indicators:

Results of study published, and results incorporated into tourism planning.

2026 Target:

MENT to continue to monitor the effects of climate change on the sector and integrate climate change concerns into all sector planning strategies.

2026 KP indicators:

Results of study published, and results incorporated into tourism planning.

2030 Target:

MENT to continue to monitor the effects of climate change on the sector and integrate climate change concerns into all sector planning strategies.

2030 KP indicators:

Results of study published, and results incorporated into tourism planning.

Strategic Intervention S11.2:

Expand existing cultural tourism pilot projects focused on Botswana's traditional Masimo and Moraka farming and increase marketing campaigns to popularise them and attract tourists, thus diversifying income streams.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Agricultural Development and Food Security

Ministry of Local Government and Rural Development

Botswana Development Corporation (BDC)

Farmers Associations

The National Strategy Office

2020 Target:

Initiate a base line study of existing farmstead cultural tourism models. Creation and roll out of capacity building and marketing campaigns nationally. Farmstead cultural tourism guidelines and handbook development, training programme roll out. Design of impact assessment tools to be conducted every three years. Concept note development to support investment.

2020 KP indicators:

Base line study completed. Marketing campaign designed and rolled out nationally. Impact assessment tools designed. Concept Note completed and published.

2023 Target:

Identification of new farmstead cultural tourism projects and support given to these projects in order to scale up and scale out. Impact assessments undertaken.

2023 KP indicators:

Marketing campaign rolled out nationally and internationally. At least 2 multi-year projects operational.

2026 Target:

Identification of new farmstead cultural tourism projects and support given to these projects in order to scale up and scale out. Impact assessments undertaken.

2026 KP indicators:

Marketing campaign rolled out nationally and internationally. At least 4 multi-year projects operational.

2030 Target:

Farmstead cultural tourism projects that have been successful to be rolled out nationally (in viable areas). National farmstead cultural tourism certification and brand to be used by tour operators and government in promotion of farmstead cultural tourism projects and areas.

2030 KP indicators:

Marketing campaign rolled out nationally and internationally, including with branding by farmstead cultural tourism certification. At least 6 multi-year projects operational.

Strategic Intervention S11.3:

Update the Eco-Tourism Guidelines to include climate-friendly measures for operators to adopt and be graded against, and ensure the guidelines are more broadly adopted.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Agricultural Development and Food Security

Ministry of Local Government and Rural Development

Botswana Development Corporation (BDC)

The National Strategy Office

Botswana Tourism Association

2020 Target:

Guidelines updated.

2020 KP indicators:

Guidelines updated to include include climate-friendly measures for operators to adopt and be graded against. Guidelines published and publicly available.

2023 Target:

Guidelines updated and utilised as grading measures.

2023 KP indicators:

Guidelines updated, published and publicly available.

2026 Target:

Guidelines updated and utilised as grading measures.

2026 KP indicators:

Guidelines updated, published and publicly available.

2030 Target:

Guidelines updated and utilised as grading measures.

2030 KP indicators:

Guidelines updated, published and publicly available.

III. Climate Change Mitigation

12 SUSTAINABLE ENERGY

Strategic Intervention S12.1:

Develop a comprehensive financial and tax incentives program for energy efficiency, energy conservation, and clean energy use in micro, small, and medium enterprises and in rural community enterprises.

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Ministry of Finance and Economic Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Mineral Resources, Green Technology and Energy Security

Mineral Resources, Green Technology and Energy Security, Department of Energy The National Strategy Office

2020 Target:

Identify appropriate financial and tax incentives for energy efficiency, energy conservation, and clean energy use in micro, small, and medium enterprises, as well as in rural communities. Start to apply tax incentives. Create awareness raising publication materials to be distributed nationally.

2020 KP indicators:

Publication materials distributed. Program development plans complete. Program commenced.

2023 Target:

Financial and tax incentives rolled out. Awareness campaign ongoing.

2023 KP indicators:

Program ongoing. Uptake by 30% of potential enterprises.

2026 Target:

Financial and tax incentives rolled out. Awareness campaign ongoing.

2026 KP indicators:

Program ongoing. Uptake by 60% of potential enterprises.

2030 Target:

Financial and tax incentives rolled out. Awareness campaign ongoing.

2030 KP indicators:

Program ongoing. Uptake by 90% + of potential enterprises.

Strategic Intervention S12.2:

Develop a Low Carbon Pathways Methodology and Guidance Toolkit for Botswana, and conduct training workshops for relevant officials in all ministries in home languages, overseeing carbon-intensive sectors to adopt the low carbon pathway approach into their planning cycles as well as into the development of NDP 12.

Responsible Entity: Ministry of Investment, Trade and Industry

Key Collaborating Entities:

Mineral Resources, Green Technology and Energy Security, Department of Energy Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Business Botswana

University of Botswana

The National Strategy Office

2020 Target:

Develop the Low Carbon Pathways Methodology and Guidance Toolkit for Botswana to ensure it contains the latest data. Define a monitoring and evaluation criteria with key targets for the training workshops for relevant officials in all ministries overseeing carbonintensive sectors.

2020 KP indicators:

Toolkit developed. Training program and plan created. Monitoring and Evaluation criteria defined.

2023 Target:

Training ongoing. Conduct an additional multi - stakeholder engagement to refine the Toolkit for Botswana with updated and relevant content. Assess monitoring and evaluation criteria for training workshops for relevant officials in all ministries overseeing carbonintensive sectors by appointing an external evaluator to determine if the targets are being met.

2023 KP indicators:

Training delivered in all relevant ministries 6 times. Toolkit updated to include latest climate change methodologies.

2026 Target:

Develop an online class and textbook on Low Carbon Pathways Methodology and Guidance. Ensure the class is compulsory for key government officials from major sectors.

2026 KP indicators

Training delivered in all relevant ministries 12 times. Toolkit updated to include latest climate change methodologies. Online class accessible.

2030 Target:

Ongoing training. Expansion of training to include private and public sector.

2030 KP indicators:

Training delivered in all relevant ministries 24 times. Toolkit updated to include latest climate change methodologies. Online class accessible.

Strategic Intervention \$12.3:

Adopt and fully implement the Botswana Renewable Energy Strategy finalized in 2017.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security, Department of Energy

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) The National Strategy Office.

2020 Target:

Strategy adopted, and implementation plan commenced.

2020 KP indicators:

Strategy adopted. Roadmap for implementation roll out available.

2023 Target:

Strategy operational.

2023 KP indicators:

Strategy adopted and in implementation.

2026 Target:

Strategy operational.

2026 KP indicators:

Strategy adopted and in implementation.

2030 Target:

Strategy operational.

2030 KP indicators:

Strategy adopted and in implementation.

Strategic Intervention S12.4:

Adopt and fully implement the draft Net Metering guidelines being finalized in 2018, to incentivize growth in domestic and commercial solar power generation and usage.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security, Department of Energy

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) The National Strategy Office.

2020 Target:

Net Metering regulations to be finalized, approved, and implemented. Baseline of grid-connected solar power to be established based on 2019 or 2020 data.

2020 KP indicators:

Net metering regulations published and gazetted. Baseline data published.

2023 Target:

Steady and continued increase in rooftop solar connections feeding into the grid

2023 KP indicators:

15% increase in net metered customers over baseline

2026 Target:

Steady and continued increase in rooftop solar connections feeding into the grid

2026 KP indicators:

30% increase in net metered customers over baseline

2030 Target:

Steady and continued increase in rooftop solar connections feeding into the grid

2030 KP indicators:

45% increase in net metered customers over baseline

Strategic Intervention S12.5:

Increase the levels of incentives to renewable energy and conservation related technologies and equipment under Botswana's Manufacturing Investment Incentive and Import Duty Exemption.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security, Department of Energy

Key Collaborating Entities:

Ministry of Investment, Trade and Industry

Ministry of International Affairs and Co operation

Mineral Resources, Green Technology and Energy Security, Department of Energy Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Identify current volume or value of renewable energy equipment imported. Identify appropriate levels and forms of increased incentives to renewable energy related technologies and equipment imports per import category. Amend levels accordingly.

2020 KP indicators:

Incentives and incentive levels revised and published.

2023 Target:

Incentives amended.

2023 KP indicators:

Incentives amended and a 15% increase in renewable energy technologies imported.

2026 Target:

Re-visit amendments and adapt where necessary to new green technologies and national needs.

2026 KP indicators:

Incentives updated and amended and a 30% increase in renewable energy technologies imported.

2030 Target:

Re-visit amendments and adapt where necessary to new green technologies and national needs

2030 KP indicators:

Incentives updated and amended and a 45% increase in renewable energy technologies imported.

Strategic Intervention S12.6:

Increase the levels of incentives for renewable energy and energy efficiency related technologies and equipment such as solar power to households and businesses.

Responsible Entity: Mineral Resources, Green Technology and Energy Security, Department of Energy

Key Collaborating Entities:

Ministry of Investment, Trade and Industry

Ministry of International Affairs and Co operation

The National Strategy Office

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target

Identify appropriate levels and forms of increased incentives to renewable energy related technologies and equipment for households and businesses. Promote and enable the adoption of such technologies at a household level and in businesses.

2020 KP indicators:

Incentives identified. Levels amended. Publicity materials created and distributed nationwide.

2023 Target:

Significant uptake of solar energy capture and storage at a national level. Increase in targets for such adoption and include new technologies where appropriate.

2023 KP indicators:

Uptake of technologies by 30% of households and businesses.

2026 Target:

Significant uptake of solar energy capture and storage at a national level. Increase in targets for such adoption and include new technologies where appropriate.

2026 KP indicators:

Uptake of technologies by 30% of households and businesses.

2030 Target

Significant uptake of solar energy capture and storage at a national level. Increase in targets for such adoption and include new technologies where appropriate.

2030 KP indicators:

Uptake of technologies by 30% of households and businesses.

Strategic Intervention \$12.7:

Design, put in place, and operationalise a multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system in compliance with UNFCCC standards, to annually measure progress against the NDC target of 15% GHG reduction in absolute terms over the 2010 baseline.

Responsible Entity: Mineral Resources, Green Technology and Energy Security, Department of Energy

Key Collaborating Entities:

Ministry of Finance and Economic Development

Ministry of Investment, Trade and Industry

Business Botswana

University of Botswana

The National Strategy Office

2020 Target:

Design the multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system. Appoint an external evaluator to determine whether the system can be improved and the level of compliance with UNFCCC standards.

2020 KP indicators:

New system designed, finalized, and approved. Evaluator appointed, and assessment undertaken.

2023 Target:

Update the targets, outputs and indicators for the multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system. Conduct a comparison of verification systems internationally to include in the updated system.

2026 KP indicators:

System adapted or new system operational and compliant. System revisited yearly to ensure its efficacy.

2026 Target:

Reassess and report the findings and recommendations of the multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system in a high-level publicly available report.

2026 KP indicators:

System adapted or new system operational and compliant. System revisited yearly to ensure its efficacy. Report available publicly.

2030 Target:

Reassess and report the findings and recommendations of the multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system in a high-level publicly available report.

2030 KP indicators:

System adapted or new system operational and compliant. System revisited yearly to ensure its efficacy. Second Report available publicly.

13 TRANSPORTATION

Strategic Intervention S13.1:

Put into effect and fully operationalise the National Multi-Modal Transport Master Plan developed with the World Bank's support, with accelerated implementation of public transportation and related components.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana - Engineering

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

The National Strategy Office

2020 Target:

Operationalise the National Multi-Modal Transport Master Plan, keeping GHG reductions in mind. Ensure it is accessible online and in hard copy.

2020 KP indicators:

Implement plan and enable plan available online and in hard copy.

2023 Target:

Conduct a national stakeholder workshop to discuss the progress on and effectiveness of the updated National Multi-Modal Transport Master Plan.

2023 KP indicators:

Workshop held, and outcomes fed back into an updated plan.

2026 Target:

Assess whether the recommendations from the national stakeholder workshop have been implemented. Conduct a national stakeholder workshop to guide a post - 2030 plan.

2026 KP indicators:

Assessment of progress and implementation of recommendations published. Workshop to guide post 2030 plan held.

2030 Target:

Develop, finalize, adopt, and begin implementation of a post - 2030 plan.

2030 KP indicators:

New plan drafted, published, adopted, and implemented.

Strategic Intervention \$13.2

Develop an Integrated Public Transport Network (IPTN) framework and plan for Botswana's three most populated cities, including a focus on safety and operational standards and options for regularising and formalizing informal public transportation networks if feasible.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana - Engineering

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

Ministry of Transport and Communications

The National Strategy Office

2020 Target:

Commence the development of an Integrated Public Transport Network (IPTN) framework including new focus areas and standards.

2020 KP indicators:

ITPN framework development plans created and commenced. Plans to include deliverable deadlines.

2023 Target:

Implement the IPTN policies and corresponding guidelines. Develop a capacity building assessment for the department of transport.

2023 KP indicators:

ITPN plans operational in all three cities.

2026 Target:

Monitor implementation of the legislations, policies, strategies and planning tools to enhance promotion of public transport.

2026 KP indicators:

ITPN plans operational in all three cities.

2030 Target:

Monitor implementation of the legislations, policies, strategies and planning tools to enhance promotion of public transport

2030 KP indicators:

ITPN plans operational in all three cities.

Strategic Intervention S13.3:

Put into effect and fully operationalise the National Multi-Modal Transport Master Plan developed with multilateral organisations support, which contains components on the sustainability of the national carrier Air Botswana and Commence preparations and capacity building for Botswana's voluntary participation from 2021 in the International Civil Aviation Organization's (ICAO's) global market-based mechanism – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (ICAO, n.d.)

Responsible Entity: Civil Aviation Authority of Botswana

Key Collaborating Entities:

International Civil Aviation Organisation' (ICAO)

Air Botswana

Botswana Tourism Organisation

University of Botswana - Engineering

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

The National Strategy Office

2020 Target:

Expand and refine the National Multi-Modal Transport Master Plan, keeping GHG reductions from aviation in mind. Ensure it is accessible online and in hard copy. Ensure its alignment with the International Civil Aviation Organization's (ICAO's) global market-based mechanism – Carbon Offsetting and Reduction Scheme for International Aviation.

2020 KP indicators:

Plan implemented and plan available online and in hard copy. Alignment with ICAO system complete.

2023 Target:

Conduct a national stakeholder workshop to discuss the progress on and effectiveness of the updated National Multi-Modal Transport Master Plan.

2023 KP indicators:

Workshop held, and outcomes fed back into updated plan. Botswana actively participating in the 2021 ICAO mechanism

2026 Target:

Assess whether the recommendations from the national stakeholder workshop have been implemented. Conduct a national stakeholder workshop to guide a post - 2030 plan.

2026 KP indicators:

Assessment of progress and implementation of recommendations published. Workshop to guide post 2030 plan held. Botswana actively participating in the 2021 ICAO mechanism

2030 Target:

Develop, finalize, adopt, and begin implementation of a post - 2030 plan.

2030 KP indicators:

New plan drafted, published, adopted, and implemented. Botswana actively participating in the 2021 ICAO mechanism

Strategic Intervention S13.4:

Develop a transport sector emissions reduction target consistent with and to contribute to Botswana's economy-wide NDC 2030 target of 15% GHG reduction in absolute terms over the 2010 baseline.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security Ministry of Investment, Trade and Industry

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) The National Strategy Office

2020 Target:

Commence the creation of a working group to update or finalize existing targets for emissions reduction in the transport sector and appropriate interventions to reach the target. Group to publish updated emissions targets for sector. Target pathways to be included in relevant policy at all levels of government. GHG emission reporting methods for the sector defined and created.

2020 KP indicators:

Working group created, targets updated, and GHG reduction pathways finalized.

2023 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2023 KP indicators:

Measurable reduction in transport sector GHG emissions from 2020 levels.

2026 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2026 KP indicators:

Measurable reduction in transport sector GHG emissions from 2023 levels.

2030 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2030 KP indicators:

Measurable reduction in transport sector GHG emissions from 2026 levels.

Strategic Intervention S13.5:

Develop, publish, issue, and bring into effect under the auspices of the Botswana Bureau of Standards, appropriate vehicular emission standards for motorized transport. Design and operationalise an emissions monitoring and reporting system with private sector involvement as well as an enforcement and penalty system to support the implementation of the vehicular emission standards adopted.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Set and publish emissions limits for all GHGs from vehicular emissions. Identify private sector partners to enable monitoring. Develop a theory of change model to sustain, bring to scale, and evaluate the progress of the emissions monitoring and reporting system as well as an enforcement and penalty system.

2020 KP indicators:

Emissions levels published. Private sector partners identified and included in system design. Monitoring and enforcement system design finalized.

2023 Target:

System operational. Conduct an evaluation of the system by appointing an external evaluator to assess its effectiveness. Update the theory of change model with new outputs, activities, assumptions and outcomes.

2023 KP indicators:

System operational and emissions levels measurably decreased from 2020 levels. First evaluation report published.

2026 Target:

System operational and updated. Conduct a final evaluation by appointing an external evaluator to assess the effectiveness of the monitoring and reporting system.

2026 KP indicators:

System operational and emissions levels measurably decreased from 2023 levels. Second evaluation report published.

2030 Target:

System operational with ongoing M&E as per NMES.

2030 KP indicators:

System operational and emissions levels measurably decreased from 2026 levels.

Strategic Intervention S13.6:

Ensure that Transport sector policy, strategy and planning is fully responsive and addresses climate change issues, providing sustainable solutions for both mitigation and adaptation. Ensure that the Ministry of Transport and Communications creates sector wide strategies, followed by specific strategies for each sub-sector.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

The Ministry of Transport and Communications to begin enacting the strategies outlined by this document and create a climate change working group that meets quarterly to review or update strategies.

2020 KP indicators:

Ministry to commence development of sector wide climate change response plans and implement strategies as per this document.

2023 Target:

Strategies to be written and implemented by transport subsectors including: Road (including hybrid-electric vehicles and biofuel use), Rail, Air, Water, Intermodal, NMT to develop and roll out climate change responsive strategies. Relevant subsectors to create strategies around uptake of non-fossil fuel vehicles as private and state fleet.

2023 KP indicators:

Climate change strategies made and published for the: Road, Rail, Air, Water, Intermodal and NMT. All strategies operational with groups meeting quarterly (12 meetings per group in total)

2026 Target:

All strategies operational with groups meeting quarterly.

All strategies operational with groups meeting quarterly (24 meetings per group in total).

2030 Target:

All strategies operational with groups meeting quarterly.

2030 KP indicators:

All strategies operational with groups meeting quarterly (36 meetings per group in total).

Strategic Intervention \$13.7:

Create and operationalise an Air Quality Monitoring System (AQMS) in locations of heavy transport activities.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Create AQMS working group from relevant experts, practitioners and government officials. Creation of AQMS underway.

2020 KP indicators:

AQMS working group created and working group plan created. Commencement of AQMS system design process.

2023 Target:

AQMS operational and feeding back into NDC systems and BOBS systems and information gained from the system used to inform the relevant sections of the 2023 NDP.

2023 KP indicators:

AQMS system operational. New NDP strategies informed by information gained from the system.

2026 Target:

AQMS operational and feeding back into NDC systems and BOBS systems.

2026 KP indicators:

AQMS system operational.

2030 Target:

AQMS operational and feeding back into NDC systems and BOBS systems.

2030 KP indicators:

AQMS system operational.

Strategic Intervention \$13.8:

Lower GHGs emissions within the transport sector though a relevant taxation system based on GHG emissions by vehicle and use.

Responsible Entity: Ministry of Transport and Communications

Key Collaborating Entities:

Botswana Tourism Organisation

University of Botswana

Botswana International University of Science and Technology

Ministry of Infrastructure and Housing Development

Ministry of Finance and Economic Development

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Formation of new tax system working group. Design of system underway and implementation plan rolled out. National awareness campaign rolled out.

2020 KP indicators:

GHG emissions Taxing working group created and working group plan created. Working group commences design of system. Awareness campaign material in design.

2023 Target:

Taxation system operational. Awareness campaign underway.

2023 KP indicators:

System operational nationwide. Awareness material visible nationally.

2026 Target:

System operational.

2026 KP indicators:

Awareness material visible nationally.

2030 Target:

System operational.

2030 KP indicators:

Awareness material visible nationally.

14 WASTE MANAGEMENT

Strategic Intervention S14.1:

Fully implement the recently concluded opportunities assessment of waste-toenergy projects in Botswana with a view to managing waste as a resource.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism

Key Collaborating Entities:

University of Botswana

Botswana International University of Science and Technology

Ministry of Finance and Economic Development

Ministry of Mineral Resources and Energy, Security

Ministry of Local Government and Rural Development

The National Strategy Office

2020 Target:

Identify, scale up and out existing projects from pilot waste-to-energy projects.

2020 KP indicators:

Findings from opportunity assessment implemented. Scalable projects identified and plan to scale up/out created.

2023 Target:

Scale up and out projects from existing pilot waste-to-energy projects.

2023 KP indicators:

At least 3 new waste-to-energy projects operational.

2026 Target:

Scale up and out projects and incorporate new learnings from projects.

2026 KP indicators:

At least 6 new waste-to-energy projects operational.

2030 Target:

Reassess the effectiveness of the projects and revise plans for post-2030 waste-toenergy projects.

2030 KP indicators:

At least 9 new waste-to-energy projects operational, and an updated post-2030 plan ready to be operationalised.

Strategic Intervention S14.2:

Fully operationalise the Botswana Recycling Guidelines, including components on valorisation and contribution of waste recycling to climate change mitigation.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

University of Botswana

Botswana International University of Science and Technology

Ministry of Finance and Economic Development

Ministry of Mineral Resources and Energy, Security

Ministry of Local Government and Rural Development

The National Strategy Office

2020 Target:

Update and operationalise the Botswana Recycling Guidelines.

2020 KP indicators:

Guidelines updated, and implementation plan created.

2023 Target:

Revise Botswana Recycling Guidelines and the newly draft legislative frameworks if need be. Codify the Botswana Recycling Guidelines by drafting associated legislation and policies to support the guidelines.

2023 KP indicators:

Associated legislation and policy drafted where necessary. Guidelines implemented.

2026 Target:

Guidelines implemented and amended as necessary.

2026 KP indicators:

Guidelines implemented.

2030 Target:

Guidelines implemented and amended as necessary.

2030 KP indicators:

Guidelines implemented.

15 AGRICULTURE, FORESTRY AND LAND USE

Strategic Intervention S15.1:

Become a member of international partnerships and alliances on agriculture sector mitigation to enable Botswana to be exposed to best practices and explore collaborative opportunities with global institutions working to reduce AFOLU emissions.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT).

Key Collaborating Entities:

Ministry of Agricultural Development and Food Security

Ministry of Land Management, Water and Sanitation Services

University of Botswana – Dept. of Agriculture and Natural Resources

Botswana International University of Science and Technology

Local Government and Rural Development

Farmers Associations

Forestry Association of Botswana

Famers committees

South African Sciences Centre for Climate Change and Adaptive Land Management The National Strategy Office

2020 Target:

Become a member of the Global Alliance for Climate Smart Agriculture (GACSA). Identify and join other such groupings.

2020 KP indicators:

Botswana is a member of the Global Alliance for Climate Smart Agriculture (GACSA) and any other relevant groupings.

2023 Target:

Draft guidelines on agriculture sector emissions reduction and abatement in Botswana, incorporating learnings from the GACSA and other such groupings.

2023 KP indicators:

Botswana is a member of the Global Alliance for Climate Smart Agriculture (GACSA) and any other relevant groupings. Guidelines drafted and published.

2026 Target:

Incorporate capacity building workshops for local community organisations on lessons learned from GACSA and such groupings.

2026 KP indicators:

Botswana is a member of the Global Alliance for Climate Smart Agriculture (GACSA) and any other relevant groupings. Workshops delivered in 50% of subdistricts.

2030 Target:

Conduct national stakeholder workshops on how to incorporate learnings from the GACSA and such groupings.

2030 KP indicators:

Botswana is a member of the Global Alliance for Climate Smart Agriculture (GACSA) and any other relevant groupings. Workshops delivered in all subdistricts.

Strategic Intervention S15.2:

Implement and enforce climate change mitigation as a core criterion and consideration into Botswana's land use planning legislation and land use master planning guidelines, to realise the goals of Botswana's National Spatial Plan 2036, which emphasizes the need for spatially targeting climate resilience in key sectors.

Responsible Entity: Ministry of Land Management, Water and Sanitation Services

Key Collaborating Entities:

Ministry of Agricultural Development and Food Security

Farmers Associations

The National Strategy Office

2020 Target:

Identify specific land use planning legislation and land use master planning guidelines to amend. Make amendments to include climate change mitigation as a core criterion.

2020 KP indicators:

Climate change mitigation drafted and incorporated into Botswana's land use planning legislation and land use master planning guidelines. Updated guidelines published.

2023 Target:

Criterion included in all relevant planning legislation and land use master planning guidelines.

2023 KP indicators:

Guidelines and legislation published, gazetted, and in use. Climate change mitigation incorporated into all relevant land use and planning legislation.

2026 Target:

Criterion included in all relevant planning legislation and land use master planning quidelines.

2026 KP indicators:

Guidelines published and in use.

2030 Target

Criterion included in all relevant planning legislation and land use master planning quidelines.

2030 KP indicators:

Guidelines published and in use.

Strategic Intervention S15.3:

Utilising the newly mandated CBNRM programme and its institutions, create a forest wildfire early warning, monitoring and management system to help combat GHG emissions through forest wildfires.

Responsible Entity: CBNRM Programme.

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Land Management, Water and Sanitation Services

Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

Commence the creation of the forest wildfire warning, monitoring and management system.

2020 KP indicators:

Forest wildfire early warning, monitoring and management system design and implementation plan finalised.

2023 Target:

Wildfire monitoring and management system operational.

2023 KP indicators:

System operational as a core programme for the CBNRM programme.

2026 Target:

Wildfire monitoring and management system operational.

2026 KP indicators:

System operational as a core programme for the CBNRM programme.

2030 Target:

Wildfire monitoring and management system operational.

2030 KP indicators:

System operational as a core programme for the CBNRM programme.

Strategic Intervention S15.4:

Identify key livestock-focused areas of intervention within existing Climate Smart Agriculture (CSA) programmes, and scale-up such programmes with a specific focus on manure management through the adoption of new manure storage, handling and treatment technologies in order to lower GHG emissions for the sector.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Ministry of Local Government and Rural Development

Botswana Development Corporation (BDC)

Farmers Associations

The National Strategy Office

2020 Target:

Key CSA programmes involving livestock identified where manure management technologies can reduce GHGs. Creation of new manure management specific CSA programmes.

2020 KP indicators:

List of programmes to expand finalised and action plans created for new manure management programmes under CSA programme.

2023 Target:

New programme specifically around manure management and GHG reduction has been created and rolled out.

2023 KP indicators:

Programmes rolled out with 30% nationwide uptake by farmers.

2026 Target:

Programmes ongoing.

2026 KP indicators:

Programmes rolled out with 60% nationwide uptake by farmers.

2030 Target:

Programmes ongoing.

2030 KP indicators:

Programmes rolled out with 90% + nationwide uptake by farmers.

Strategic Intervention S15.5:

Utilising the new mandated CBNRM programme, implement a National Woodlot Management System in order to create sustainable and managed woodlots.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Youth Empowerment, Sport and Culture Development

The National Strategy Office

2020 Target

Utilise the newly mandated CBNRM programme to create a system for the establishment and management of woodlots.

2020 KP indicators:

Woodlot management system design and implementation plan finalised.

2023 Target:

Woodlot management system operational.

2023 KP indicators:

National Woodlot Management System operational. Woodlots created in all relevant areas.

2026 Target:

Woodlot management system operational.

2026 KP indicators:

National Woodlot Management System operational

2030 Target:

Woodlot management system operational.

2030 KP indicators:

National Woodlot Management System operational

16 EXTRACTIVES AND MINING

Strategic Intervention S16.1:

Develop an extractive (mining and quarrying) sector emissions reduction target consistent with and to contribute to Botswana's economy-wide NDC 2030 target of 15% GHG reduction in absolute terms over the 2010 baseline.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Chamber of Mines

Ministry of International Affairs and Cooperation

Ministry of Investment, Trade and Industry

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Commence the creation of a working group to update or finalize existing targets for emissions reduction in the extractives sector and appropriate interventions to reach the target. Group to publish updated emissions targets for sector. Target pathways to be included in relevant policy at all levels of government. GHG emission reporting methods for the sector defined and created.

2020 KP indicators:

Working group created, targets updated, and GHG reduction pathways finalized.

2023 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2023 KP indicators:

Measurable reduction in extractives sector GHG emissions from 2020 levels.

2026 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2026 KP indicators:

Measurable reduction in extractives sector GHG emissions from 2023 levels.

2030 Target:

Targets revisited and refined based on overall GHG emissions and new technologies available. Ongoing reporting.

2030 KP indicators:

Measurable reduction in extractives sector GHG emissions from 2026 levels.

Strategic Intervention S16.2:

Ensure adoption of GHG reduction initiatives by members of the Chambers of Mines that reflect international best practice from the extractives and mining industry in its approach to climate change including monitoring and evaluation pathways.

Responsible Entity Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Chamber of Mines

International Affairs and Cooperation

Business Botswana

Ministry of Investment, Trade and Industry

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)] The National Strategy Office

2020 Target:

Develop a monitoring and evaluation criteria to determine if the sector emissions are reducing. Build the capacity of the Chamber of Mines to assist with the monitoring and evaluation of sector emission reduction and to present best practice for the sector.

2020 KP indicators:

Monitoring and evaluation criteria created. Training and capacity building plan created for Chamber of Mines. Key GHG reduction initiatives selected.

2023 Target:

Assess with the monitoring and evaluation criteria the reductions in sector emissions. Upscale the capacity of the Chamber of Mines to assist with the monitoring and evaluation of sector emission reduction. Develop new activities for reducing sector emissions. Consider penalties for failure to comply with the reduction target

2023 KP indicators:

Capacity building training delivered 3 times (once annually). Key initiatives to have been implemented nationally and Chamber of Mines to have dedicated GHG emissions sub-committee.

2026 Target:

Roll-out and support new activities for reducing emissions as well as to penalise entities for non-compliance

2026 KP indicators:

Capacity building training delivered 6 times (once annually). Key initiatives to have been implemented nationally and Chamber of Mines to have dedicated GHG emissions sub-committee.

2030 Target:

Continued roll-out and support of new activities for reducing emissions as well as to penalise entities for non-compliance

2030 KP indicators:

Capacity building program delivered 9 times (once annually). Key initiatives to have been implemented nationally and Chamber of Mines to have dedicated GHG emissions sub-committee.

17 CARBON BUDGETS AND ABATEMENT PATHWAYS

Strategic Intervention S17.1:

Prepare a study that determines the most appropriate methodology for calculating short, medium, and long-term sectoral carbon budgets in Botswana, drawing on best practice and models from the region and in alignment with Botswana's NDC target of 15% GHG reductions by 2030.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Botswana Chamber of Mines

International Affairs and Cooperation

Business Botswana

Ministry of Investment Trade and Industry

Ministry of Finance and Investment

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Study to be designed and launched.

2020 KP indicators:

Research partner identified. Study launched.

2023 Target:

Implement the recommendations from the study. Update the study or develop a new study that determines the most appropriate methodology for calculating short, medium, and long-term sectoral carbon budgets in Botswana.

2023 KP indicators:

Study completed, and recommendations implemented.

2026 Target:

Sectoral carbon budgets to be formally adopted and adhered to in all sectors.

2026 KP indicators:

Sector carbon budgets and performance against budgets published.

2030 Target:

Sectoral carbon budgets to be reduced annually.

2030 KP indicators:

Annually reduced sector carbon budgets and performance against budgets published.

Strategic Intervention S17.2:

Issue guidelines for the development of NDP 12 that explicitly mandate the inclusion of sectoral carbon budgets for the period covered by NDP 12.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Chamber of Mines

International Affairs and Cooperation

Business Botswana

Investment Trade and Industry

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target

Guidelines to be developed and published to explicitly mandate the inclusion of sectoral carbon budgets for the period covered by NDP 12.

2020 KP indicators:

Guidelines approved and published.

2023 Target:

Guidelines to be adhered to by sectors during the development of the 2023 NDP.

2023 KP indicators:

Sectoral carbon budgets included and published in NDP 12.

2026 Target:

Codify the inclusion of sectoral carbon budgets into relevant legislation.

2026 KP indicators:

Sectoral carbon budgets included in legislation passed.

2030 Target:

Sectors to meet carbon budgets as part of their performance against the NDP.

2030 KP indicators:

Sectoral carbon budget performance reported in NDP 12 performance.

18 MARKET BASED MECHANISMS

Strategic Intervention S18.1:

Drawing on learnings from other developing countries, develop a comprehensive report that studies, models, and analyses various scenarios for carbon taxes in Botswana, including an evaluation of the sectors or industries that would be taxed, the level of taxation, progressive taxation features, ringfencing of the tax revenues, and multiplier effects on consumption, incomes, and economic activity.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Botswana Chamber of Mines

Ministry of Finance and Economic Development

International Affairs and Cooperation

Business Botswana

Investment Trade and Industry

The National Strategy Office

2020 Target:

Develop and disseminate the report. Commence the process of presenting the report at workshops designed to inform policy discussions on carbon taxes in Botswana.

2020 KP indicators:

Report completed and disseminated. Three national workshops held. Recommendations formally adopted by Government.

2023 Target:

Revise and update the report to reflect global and regional developments on carbon taxes.

2023 KP indicators:

Report updated and recommendations adopted.

2026 Target:

Revise and update the report to reflect global and regional developments on carbon taxes.

2026 KP indicators:

Report updated and recommendations adopted.

2030 Target:

Revise and update the report to reflect global and regional developments on carbon taxes.

2030 KP indicators:

Report updated and recommendations adopted.

Strategic Intervention S18.2:

Drawing on learnings from other developing countries, develop studies, models, and analyses that examine various scenarios for:

- (A) An international emissions or offsets trading mechanisms in Botswana that reflects the guidance from the UNFCCC on the new 'Article 6.4 sustainable development mechanism' and
- (B) A domestic emissions or offsets trading scheme that could enable carbon-intensive industries to meet and reduce their carbon budgets over time.

Responsible Entity: Ministry of Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Chamber of Mines

International Affairs and Cooperation

Business Botswana

Investment Trade and Industry

The National Strategy Office

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Put together a working group to undertake research into international emissions or offsets trading mechanisms for consideration in Botswana that reflect the guidance from the UNFCCC on the new 'Article 6.4 sustainable development mechanism' and domestic emissions or offsets trading schemes that could enable carbon-intensive industries to meet and reduce their carbon budgets over time. Group to identify mechanisms and publish results.

2020 KP indicators:

Working group participants identified and working group created. Working group action plan created. Action plan commenced.

2023 Target:

Research findings to be published, and recommendations to be formally adopted by Government.

2023 KP indicators:

At least 3 studies/models/analyses to have been completed and published.

2026 Target

Research to continue and be updated to reflect global and regional developments on emissions trading mechanisms and carbon markets.

2026 KP indicators:

Research updated and recommendations adopted.

2030 Target:

Research to continue and be updated to reflect global and regional developments on emissions trading mechanisms and carbon markets.

2030 KP indicators:

Research updated and recommendations adopted.

Strategic Intervention S18.3:

Prepare for and lay the foundation for the extremely high level of accounting integrity required under the UNFCCC's global transparency mechanism that will take stock of progress on NDCs every five years, by putting in place a rigorous, multi-sectoral greenhouse gas emissions monitoring, reporting, and verification system in compliance with UNFCCC standards (linked to the NDC 2030 target of 15% GHG reduction in absolute terms over the 2010 baseline).

Responsible Entity: Mineral Resources, Green Technology and Energy Security

Key Collaborating Entities:

Ministry of Finance and Economic Development

Botswana Chamber of Mines

International Affairs and Cooperation

Business Botswana

Ministry of Investment Trade and Industry

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Commence a multi - stakeholder process (including experts, government, private sector and industry) to design a greenhouse gas emissions monitoring, reporting, and verification system to measure NDC progress. Finalise design. Implement System.

2020 KP indicators:

Process participants identified, and process agenda and plan created. Accounting systems designed and operationalised.

2023 Target:

Report on the effectiveness and results from the implemented accounting integrity required under the UNFCCC's global transparency mechanism.

2020 KP indicators:

Accounting systems in place and three yearly reports published.

2026 Target:

Amend and refine the accounting integrity mechanism.

2020 KP indicators:

Accounting systems in place and six yearly reports published.

2030 Target:

Prepare a feedback report on the lessons learned, challenges and recommendations for enhancing the accounting integrity mechanism.

2020 KP indicators:

Accounting systems in place and nine yearly reports published.

IV. Cross-cutting Themes

19 GENDER

Strategic Intervention S19.1:

Develop a national Climate Change Gender Action Plan² (ccGAP), with an emphasis on women as drivers of climate resilience, and women's role in water and energy and healthcare provision in households.

Responsible Entity: Department of Gender Affairs

Key Collaborating Entities:

UN Women

MFNT

Sectoral Ministries

2020 Target:

Adoption of first national ccGAP after its development with support from UN Women and other relevant expert groups.

2020 KP indicators:

National Climate Change Gender Action Plan³ (ccGAP) development plan created and commenced.

2023 Target:

Projects identified under the ccGAP are actively being undertaken

2023 KP indicators:

ccGAP Adopted, published and implemented.

2026 Target:

National ccGAP routinely implemented and updated.

2026 KP indicators:

ccGAP implemented as per plan outlines.

2030 Target:

National ccGAP routinely implemented and updated.

2030 KP indicators:

ccGAP implemented as per plan outlines.

Strategic Intervention S19.2:

Promote equitable participation of women farmers and female-headed households in Climate Smart Agriculture (CSA) programmes, agritourism, and access to conservation agriculture technologies.

Responsible Entity: Ministry of Agricultural Development and Food Security

Key Collaborating Entities:

Gender Affairs Department,

Ministry of Labour and Home Affairs

The National Strategy Office

2020 Target:

CSA, agritourism, and conservation technology support programmes updated to include actions for targeting women farmers.

2020 KP indicators:

Key programmes identified. Updating plan created.

2023 Target:

Climate-related agricultural projects that directly focus on women farmers are in place. Participation in CSA programmes, agritourism, and adoption of conservation technologies includes equitable representation of women and men.

2020 KP indicators:

All plans updated. 30% rise in female participation in programmes.

2026 Target:

Participation in CSA programmes, agritourism, and adoption of conservation technologies includes equitable representation of women and men.

2020 KP indicators:

All plans updated. 60% rise in female participation in programmes

2030 Target

Participation in CSA programmes, agritourism, and adoption of conservation technologies includes equitable representation of women and men.

2020 KP indicators:

All plans updated. 90% + rise in female participation in programmes

² http://genderandenvironment.org/works/ccgaps/

³ http://genderandenvironment.org/works/ccgaps/

Strategic Intervention S19.3:

Ensure equitable gender access to the proposed endowment fund providing low-cost finance to climate change adaptation projects, aligned to existing similar projects.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Gender Affairs Department,

Ministry of Labour and Home Affairs

The National Strategy Office

2020 Target:

Ensure that the endowment fund model explicitly incorporates gender equity in its disbursement principles.

2020 KP indicators:

Endowment fund explicitly incorporates gender equity in its disbursement principles.

2023 Target:

Specific calls for proposals that target women's groups are established.

2020 KP indicators:

At least 3 proposals that target women's groups released by fund.

2026 Target:

Men and women benefit equitably from funding for climate change adaptation projects.

2020 KP indicators:

Fund actively attains 50/50 split in female and male successful access to the fund.

2030 Target:

Men and women benefit equitably from funding for climate change adaptation projects.

2020 KP indicators:

Fund actively attains 50/50 split in female and male successful access to the fund

Strategic Intervention S19.4:

Ensure that women's voices are included in natural resources management through their equitable participation in CBNRM processes.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Ministry of Agricultural Development and Food Security

The National Strategy Office

2020 Target:

Ensure that the gender equity is made explicit in the mandates of the CBNRM and that constitutional documents include a provision for equal gender representation on the executive body of the collective.

2020 KP indicators:

Gender fair provisions incorporated into the design of the CBNRM.

2023 Target:

Women and men participate equitably in CBNRM decisions.

2020 KP indicators:

Gender fair representation in the CBNRM.

2026 Target:

The interests and needs of both women and men are equitably accommodated in CBNRM decisions.

2020 KP indicators:

Gender fair representation in the CBNRM.

2030 Target:

The interests and needs of both women and men are equitably accommodated in CBNRM decisions.

2020 KP indicators:

Gender fair representation in the 'CBNRM.

Strategic Intervention S19.5:

Ensure that gendered differences of climate change are mainstreamed into climate change education.

Responsible Entity: Ministry of Tertiary Education, Research, Science and Technology,

Key Collaborating Entities:

Ministry of Basic Education

Gender Affairs Department

2020 Target:

Ensure the curriculum assessments for determining content needs include gender aspects.

2020 KP indicators:

Curriculum passements updated to include gender aspects.

2023 Target:

All new curricula materials include components on gender and climate change, and that teachers are trained on gender issues.

2023 KP indicators:

New curricula include components on gender and climate change and 30% of all teachers trained.

2026 Target:

All new curricula materials include components on gender and climate change, and that teachers are trained on gender issues.

2026 KP indicators:

New curricula include components on gender and climate change and 60% of all teachers trained.

2030 Target:

All new curricula materials include components on gender and climate change, and that teachers are trained on gender issues.

2030 KP indicators:

New curricula include components on gender and climate change and 90% + of all teachers trained.

Strategic Intervention \$19.6:

Ensure the full participation of women and female-headed households in disaster management public gatherings, to address both the higher vulnerability of women and children, and to plan for the higher post-disaster burden placed on women due to their dual roles as producers and carers.

Responsible Entity: Office of the President

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation and Tourism (MENT) Gender Affairs Department

2020 Target:

The NDMO actively targets women's groups for invitation to and participation in regional gatherings and information dissemination exercises.

2020 KP indicators:

Plan created by NDMO for actively targeting women to increase attendance in disaster management public meetings. Implementation commenced.

2023 Target:

Women are equal participants in yearly disaster management public gatherings.

2023 KP indicators:

Plan implemented. Attendance of women at meetings up by 30%.

2026 Target:

Women are equal participants in yearly disaster management public gatherings.

2026 KP indicators:

Plan implemented. Attendance of women at meetings up by 60%.

2030 Target:

Women are equal participants in yearly disaster management public gatherings.

2030 KP indicators:

Plan implemented. Attendance of women at meetings up by 90% +.

20 STRATEGIES FOR EDUCATION, TRAINING AND CAPACITY BUILDING

Strategic Intervention S20.1:

National school educational curriculum at all levels (primary, secondary and tertiary as well as including professional and technical education) shall be revised and updated to include (distinct from existing environmental education) a study of climate change causes, impacts, responses, and solutions, and a focus on both mitigation and adaptation as core curricula.

Responsible Entity: Ministry of Tertiary Education, Research, Science and Technology

Key Collaborating Entities:

Ministry of Basic Education

Vocational Institutes and Universities

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

The National Strategy Office

2020 Target:

Scan all school curricula to determine what needs to be developed (per subject and year level) in order to include a study of climate change causes, impacts, responses, and solutions, and a focus on both mitigation and adaptation. Define how and in what order new material will be incorporated into existing and new curricula materials. Inform all relevant stakeholders in the process of creation of curricula materials of new content. Creation of teacher training around new content.

2020 KP indicators:

Curricula updating plan created. Teacher training plan created. Commencement of activities.

2023 Target:

All new curricula materials to include new content and ongoing teachers training on new content.

2023 KP indicators:

All new curricula materials include new content. Teacher training on curricula to 100% of all new teachers and 30% of existing teachers.

2026 Target:

All new curricula materials to include new content and ongoing teachers training on new content.

2026 KP indicators:

All new curricula materials include new content. Teacher training on curricula to 100% of all new teachers and 30% of existing teachers.

2030 Target:

All new curricula materials to include new content and all teacher to have been trained on new content.

2030 KP indicators:

All new curricula materials to include new content and 90% + of existing teachers to have been trained on new content.

Strategic Intervention S20.2:

Training modules and knowledge-transfer workshops shall be developed and conducted annually across all spheres of government to strengthen understanding of climate change through continuing education.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

All Ministries.

2020 Target:

Training modules to be created by qualified individuals/institutions. Training roll out plan created. Training commences.

2020 KP indicators:

All modules created. Training plan created. Training commenced.

2023 Target:

Training ongoing.

2023 KP indicators:

Training delivered to all relevant parties yearly (100 individuals trained).

2026 Target:

Training ongoing.

2026 KP indicators:

Training delivered to all relevant parties yearly (200 individuals trained).

2030 Target:

Training ongoing.

2030 KP indicators:

Training delivered to all relevant parties yearly (300 individuals trained).

21 ECONOMIC EQUALITY AND EQUITY

Strategic Intervention S21.1:

The revised and updated national school curriculum to be developed shall include discussions of how climate change affects different social groups distinctly, and how vulnerability as well as adaptive capacity varies amongst women, children, youth, minorities, the elderly, mental health patients, and other vulnerable groups.

Responsible Entity: Ministry of Tertiary Education, Research, Science and Technology

Key Collaborating Entities:

Ministry of Basic Education

Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

2020 Target:

Scan all school curricula to determine what needs to be developed (per subject and year level) in order to include a study of how climate change affects different social groups distinctly, and how vulnerability as well as adaptive capacity varies amongst women, children, youth, minorities, the elderly, mental health patients, and other vulnerable groups. Define how and in what order new material will be incorporated into existing and new curricula materials. Inform all relevant stakeholders in the process of creation of curricula materials of new content. Creation of teacher training around new content.

2020 KP indicators:

Curricula updating plan created. All relevant parties informed of upcoming changes.

2023 Target:

All new curricula materials to include new content and all teachers to have been trained on new content.

2023 KP indicators:

Curricula updated.

2026 Target:

All new curricula materials to include new content and all teachers to have been trained on new content.

2026 KP indicators:

Curricula updated.

2030 Target:

All new curricula materials to include new content and all teachers to have been trained on new content

2030 KP indicators:

Curricula updated.

Strategic Intervention S21.2:

All sectors shall make special allocation of resources, within the overall programme or project budget, for climate change activities to devote to enhancing the involvement of specific groups of beneficiaries. The beneficiary allocation will be disaggregated into specific amounts targeting women, children, youth, minorities, the elderly, mental health patients, and other vulnerable groups.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

All Ministries.

2020 Target:

All sectors and levels of government to be informed of need for new budgeting allocations to ensure that special allocation of resources is made to devote to enhancing the involvement of specific groups of beneficiaries. Relevant individuals to meet in each sector to define allocation and disaggregation of amounts and (if necessary) specific allocation and access pathways.

2020 KP indicators:

Sectors notified. Sector specific plans made around categorisation and budget allocations. Budget allocations incorporated into next round of budgeting.

2023 Target:

Budgets to include special allocations.

2023 KP indicators:

Budgets include special allocations.

2026 Target:

Budgets to include special allocations.

2026 KP indicators:

Budgets include special allocations.

2030 Target:

Budgets to include special allocations.

2030 KP indicators:

Budgets include special allocations.

22 STRATEGIES RECOMMENDED FOR INNOVATION AND R&D

Strategic Intervention S22.1:

Establish publicly funded grants for climate change research – focused on both adaptation and mitigation – for each of the sectors covered by the national climate change strategy and action plan and stipulating that the majority of such grant funding would be disbursed to research institutions located within Botswana.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Tertiary Education, Research, Science and Technology

Research Institutes

Higher Education Institutes

The National Strategy Office

2020 Target:

Establishment of body or identification of pre-existing body to manage and deliver grants. Create grant forms, sizes and criteria. Identify multi-year climate change research focus. First grants delivered.

2020 KP indicators:

Body established. Grant delivery mechanism developed. Research focus defined.

2023 Target:

Research projects underway and first projects published.

2023 KP indicators:

Grants disbursed for eight sectors of strategy (8 in total). Research programmes complete and research results published.

2026 Target:

Research projects underway and first projects published.

2026 KP indicators:

Grants disbursed for eight sectors of strategy (16 in total). Research programmes complete and research results published.

2030 Target:

Research projects underway and ongoing projects funded.

2030 KP indicators:

Grants disbursed for eight sectors of strategy (24 in total). Research programmes complete and research results published.

Strategic Intervention S22.2:

Set up a Climate Innovation Center (CIC) or a Climate Innovation Hub (CIH) to support the generation and growth of climate-compatible business models by providing business incubation, business acceleration, and market access guidance and tools to micro, small, and medium enterprises.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Tertiary Education, Research, Science and Technology

Research Institutes

Higher Education Institutes

Ministry of Investment, Trade and Industry

The National Strategy Office

2020 Target:

CIC/CIH created and ratified. Funding provided to support CIC/CIH. Key programmes/tools/services created. Publication material produced and distributed nationally including via radio campaign.

2020 KP indicators:

CIC/CIH creation plan made. Funding secured. Hub three-year plan created and finalised.

2023 Target:

Businesses being served by CIC/CIH. Growth of centre to ensure access to micro and rural businesses

2023 KP indicators:

Hub operational and has served at least 90 businesses.

2026 Target:

Businesses being served by CIC/CIH. Growth of centre to ensure access to micro and rural businesses.

2026 KP indicators:

Hub operational and has served at least 120 businesses.

2030 Target:

Businesses being served by CIC/CIH. Growth of centre to ensure access to micro and rural businesses.

2030 KP indicators:

Hub operational and has served at least 150 businesses.

Strategic Intervention S22.3:

Establish government support mechanisms through the CIC that enable private sector companies to access climate funds such as the GCF as well as partner with development entities such as JICA, the AfDB etc.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Mineral Resources, Green Technology and Energy Security

Tertiary Education, Research, Science and Technology

Research Institutes

Higher Education Institutes

Ministry of Investment, Trade and Industry

The National Strategy Office

2020 Target:

CIC to create private sector support pathway specifically for large private entities to access funds and/or partner with development agencies.

2020 KP indicators:

CIC/CIH creation plan made. Funding secured. Hub three-year plan created and finalised.

2023 Target:

Businesses being served by CIC/CIH. Funds and linkages successfully created through the CIC

2023 KP indicators:

Hub operational and has served at least 5 businesses.

2026 Target:

Businesses being served by CIC/CIH. Funds and linkages successfully created through the CIC.

2026 KP indicators:

Hub operational and has served at least 10 businesses.

2030 Target:

Businesses being served by CIC/CIH. Funds and linkages successfully created through the CIC.

2030 KP indicators:

Hub operational and has served at least 15 businesses.

Strategic Intervention S22.4:

Ensure the incorporation and utilisation of indigenous knowledge systems in all relevant climate change activities.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

All Ministries.

2020 Target:

Indigenous knowledge systems to be added into all relevant climate planning documents, policies, and programmes.

2020 KP indicator:

Indigenous knowledge systems to added into all relevant climate planning documents, policies, and programmes. Updated information published.

2023 Target:

Indigenous knowledge systems incorporated and utilised wherever appropriate.

2023 KP indicator:

Indigenous knowledge systems to added into all relevant climate planning documents, policies, and programmes. Updated information published.

2026 Target:

Indigenous knowledge systems incorporated and utilised wherever appropriate.

2026 KP indicator:

Indigenous knowledge systems to added into all relevant climate planning documents, policies, and programmes. Updated information published.

2030 Target

Indigenous knowledge systems incorporated and utilised wherever appropriate.

2030 KP indicator:

Indigenous knowledge systems to added into all relevant climate planning documents, policies, and programmes. Updated information published.

23 COMMUNICATION AND KNOWLEDGE MANAGEMENT

Strategic Intervention S23.1:

Create and implement a Climate Change communication and knowledge management strategy in order to enable the effective communication of climate change information between all relevant parties and Batswana.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Transport and Communications

National and Local Media Outlets

Private Sector

The National Strategy Office

2020 Target:

Multi - sector engagement undertaken in order to create the Climate Change

Communication and Media Strategy. Strategy created, and implementation commenced.

2020 KP indicators:

Climate Change Communication and Media Strategy created, published and implemented.

2023 Target:

Strategy operational.

2023 KP indicators:

Strategy operational.

2026 Target:

Strategy operational.

2026 KP indicators:

Strategy operational.

2030 Target:

Strategy operational.

2030 KP indicators:

Strategy operational.

Strategic Intervention S23.2:

Media grants and incentives shall be provided to print and broadcast media platforms to increase content on and dissemination of credible information on climate change.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Ministry of Youth Empowerment, Sport and Culture Development

Ministry of Transport and Communications

Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

Climate Change Communication and Media Body created and ratified responsible for overall management and content inclusion process. Budget to be allocated towards climate change communication grant pot. Grants to be created in differing sizes and with differing access criteria.

2020 KP indicators:

Body created and ratified. Grant delivery mechanism designed. Funding secured.

2023 Target:

Body created and ratified. Funds available and well promoted nationally. Uptake by different forms of media production entities

2023 KP indicators:

Body operational and at least 30 grants awarded in total.

2026 Target:

Funds available and well promoted nationally. Uptake by different forms of media production entities.

2026 KP indicators:

Body operational and at least 60 grants awarded in total.

2030 Target:

Funds available and well promoted nationally. Uptake by different forms of media production entities.

2030 KP indicators:

Body operational and at least 90 grants awarded in total.

Strategic Intervention S23.3:

Community groups, youth groups, NGOs, civil society, and the private sector will be engaged regularly through climate change forums, town halls, and panel discussions to enhance the dialogue on climate change in Botswana with an added focus on learning from and supporting indigenous knowledge systems.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Ministry of Youth Empowerment, Sport and Culture Development

Ministry of Transport and Communications

Ministry of Mineral Resources, Green Technology and Energy Security

The National Strategy Office

2020 Target:

Climate Change Communication and Media Body created and ratified responsible for overall management and content inclusion process. Community engagement process and timelines developed.

2020 KP indicators:

Body created and ratified. Communication Action Plan created. Publication materials created and disseminated nationally (with an explicit aim of reaching very rural areas).

2023 Target:

Programme underway.

2023 KP indicators:

Programme operational. At least 12 engagements per year per sub district.

2026 Target:

Programme underway.

2026 KP indicators:

Programme operational. At least 12 engagements per year per sub district.

2030 Target:

Programme ongoing.

2030 KP indicators:

Programme operational. At least 12 engagements per year per sub district.

24 CLIMATE SERVICES

Strategic Intervention S24.1:

Finalize, adopt, and bring into effect the National Framework for Climate Services (NFCS).

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Agricultural Development and Food Security

Ministry of Local Government and Rural Development

National Early Warning Technical Committee (EWTC)

Inter-Ministerial Drought Committee

The National Strategy Office

2020 Target:

Finalize, adopt, and bring into effect the National Framework for Climate Services (NFCS).

2020 KP indicators:

NFCS finalised and adopted.

2023 Target:

NFCS fully operational.

2023 KP indicators:

At least three key initiatives or products generated under the NFCS.

2026 Target:

NFCS fully operational.

2026 KP indicators:

At least six key initiatives or products generated under the NFCS.

2030 Target:

NFCS operational and periodically revised and updated

2030 KP indicators:

At least nine key initiatives or products generated under the NFCS.

Strategic Intervention S24.2:

With contemporary climate services technologies in place, identify and incubate revenue-generating opportunities through tailored weather and climate information products within Botswana.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Local Government and Rural Development

Ministry of Mineral Resources, Green Technology and Energy Security

Ministry of Investment, Trade and Industry

National Early Warning Technical Committee (EWTC)

Inter-Ministerial Drought Committee

The National Strategy Office

2020 Target:

Conduct an analysis to best understand relevant and viable revenue - generating opportunities through tailored weather and climate information products. Identify best products for development. Identify pathways and entities for development of these products and create development plans. Start product development.

2020 KP indicators:

Analysis designed. Viable products identified. Development plans created.

2023 Target:

Successful development of products with proven uptake and frequent reporting on learnings.

2023 KP indicators:

At least two products created and disseminated.

2026 Target:

Original products strengthened and replicated, and new products being developed.

2026 KP indicators:

Further development of products with at least 5 products created.

2030 Target:

Original products strengthened and replicated, and new products being developed.

2030 KP indicators:

Further development of products with at least 8 products created.

Strategic Intervention S24.3:

Develop sector - specific climate services products for all major sectors in Botswana, ensuring that the unique needs of stakeholders in each sector are catered to in terms of the type of climate information they need and the decisions they use such climate information for.

Responsible Entity: Ministry of Environment, Natural Resources Conservation, and Tourism (MENT)

Key Collaborating Entities:

All other Ministries

The National Strategy Office

Private sector climate services developers and operators in Botswana

Farmers' Associations

Community Disaster Management committees and groups

2020 Target:

Baseline needs assessment completed to identify the unique, specific, and priority climate services needs of all major sectors in Botswana.

2020 KP indicators:

Needs assessment completed and results published.

2023 Target:

Department of Meteorological Services (DMS) to undergo capacity strengthening and training to help transition from a data analysis and distribution institution to a client-oriented, climate services body technically equipped to develop and provide bespoke and targeted climate services and meet different audiences' needs.

2023 KP indicators:

Capacity training held yearly (3 times in total) in each sector. Tailored, client-specific (sector-specific) climate services available in each sector.

2026 Target:

Full range of tailored, client-specific (sector-specific) climate services developed and disseminated on a regular and ongoing basis.

2026 KP indicators:

Capacity training held yearly (6 times in total) in each sector. Tailored, client-specific (sector-specific) climate services available in each sector.

2030 Target:

Full range of tailored, client-specific (sector-specific) climate services developed and disseminated, including with next-generation improvements and iterations.

2020 KP indicators:

Capacity training held yearly (9 times in total) in each sector. Tailored, client-specific (sector-specific) climate services available in each sector.

Strategic Intervention S24.4:

Train a number of officials and technical specialists in every Ministry in Botswana to effectively develop requests for sector-specific climate services from DMS, coordinate with DMS on access to such climate services, and interpret the climate services products delivered to gauge what the implications for the sector are.

Responsible Entity: Department of Meteorological Services (DMS)

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation, and Tourism (MENT)

All other Ministries

The National Strategy Office

Private sector climate services developers and operators in Botswana

Farmers' Associations

Community Disaster Management committees and groups

2020 Target:

Identification exercise completed to pinpoint the specific officials (in terms of roles and titles and mandates) in each Ministry who would receive training as climate services users.

2020 KP indicators:

List of training participants created. Training program and plan created.

2023 Target:

Training completed to equip certain officials from each ministry to become coordinators and focal points for climate services within their ministry, to liaise with DMS and to seek out, utilize, and determine appropriate action based on climate information.

2023 KP indicators:

Training completed with 30 officials.

2026 Target:

Full range of tailored, client-specific (sector-specific) climate services received, accessed, and utilized on a regular and ongoing basis by all ministries.

2026 KP indicators:

Training completed with 60 officials.

2030 Target:

Full range of tailored, client-specific (sector-specific) climate services received, accessed, and utilized on a regular and ongoing basis by all ministries.

2030 KP indicators:

Training completed with 90 officials.

V. Institutional Arrangements

Strategic Intervention S25.1:

Design, establish, and operationalize the institutional arrangements described in the National Climate Change Strategy, ensuring effective and representative membership of the institutional structures so that they are multisectoral and multistakeholder based.

Responsible Entity: Department pf Meteorological Services (DMS)

Key Collaborating Entities:

Ministry of Environment, Natural Resources Conservation, and Tourism (MENT) All other Ministries

The National Strategy Office

The President's Office

Botswana Climate Change Network

2020 Target: Design and membership of all recommended institutions finalized by DMS, in coordination with all relevant ministries, and approved by Parliamentary Committee.

2020 KP indicators:

New institutional structures created, with clear mandates and additional resources.

2023 Target: Recommended institutional structures and coordination mechanisms in place and regularly utilised; mandates and membership updated as needed.

2023 KP indicators:

12 guarterly meetings held and minutes published (four each for three years)

2026 Target: Recommended institutional structures and coordination mechanisms in place and regularly utilised; mandates and membership updated as needed.

2026 KP indicators:

24 quarterly meetings held and minutes published (four each for six years)

2030 Target: Recommended institutional structures and coordination mechanisms in place and regularly utilised; mandates and membership updated as needed.

2030 KP indicators:

32 quarterly meetings held and minutes published (four each for nine years)

VI. Resource Mobilisation

Strategic Intervention S26.1:

Enable access to a variety of climate funds and financing streams through the creation of a Climate Resource Mobilisation Unit (CRMU) within the National Climate Change Unit which is tasked with identifying relevant resources, identifying bankable projects, creation of concept notes and proposals, accessing project preparation funds and driving the entire resource mobilisation process as well as assessing national financial financing pathways.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Finance and Investment

Climate Funds

Private Funds

The National Strategy Office

Relevant participating ministries.

2020 Target:

CRMU created within the existing National Climate Change Unit. CRMU mandated, resourced and operationalised.

2020 KP indicator:

CRMU established and first 3-year plan created.

2023 Target:

CRMU operational with strong links to all climate funds. Resource mobilisation activities underway. Project preparation funds sought on an ongoing basis.

2023 KP indicator:

At least 3 concept notes submitted and 1 proposal. At least one tranche of funding to have been successfully accessed.

2026 Target:

CRMU operational with strong links to all climate funds. Project preparation funds sought on an ongoing basis. Resource mobilisation activities underway.

2026 KP indicator:

At least 6 concept notes submitted and 3 proposals. At least two tranches of funding to have been successfully accessed.

2030 Target:

CRMU operational with strong links to all climate funds. Project preparation funds sought on an ongoing basis. Resource mobilisation activities underway.

2030 KP indicator:

At least 9 concept notes submitted and 6 proposals. At least three tranches of funding to have been successfully accessed.

Strategic Intervention S26.2:

The CRMU to develop and implement a Resource Mobilisation Strategy which locates relevant and appropriate resources to mobilise from global and national funds to combat and address the effects of Climate Change, and sets out specific sectoral pathways to finance.

Responsible Entity: Ministry of Environment, Natural Resources Conservation and Tourism (MENT)

Key Collaborating Entities:

Ministry of Finance and Investment

Climate Funds

Private Funds

The National Strategy Office

Relevant participating ministries.

2020 Target:

CRMU, in conjunction with other relevant stakeholders to develop and finalise a Resource Mobilisation Strategy.

2020 KP indicator:

Resource Mobilisation Strategy published. Strategy implemented.

2023 Target:

Strategy operational.

2023 KP indicator:

Resource Mobilisation Strategy published. Strategy implemented.

2026 Target

CRMU operational with strong links to all climate funds. Project preparation funds sought on an ongoing basis. Resource mobilisation activities underway.

2026 KP indicator:

Resource Mobilisation Strategy published. Strategy implemented.

2030 Target:

CRMU operational with strong links to all climate funds. Project preparation funds sought on an ongoing basis. Resource mobilisation activities underway.

2030 KP indicator:

Resource Mobilisation Strategy published. Strategy implemented.