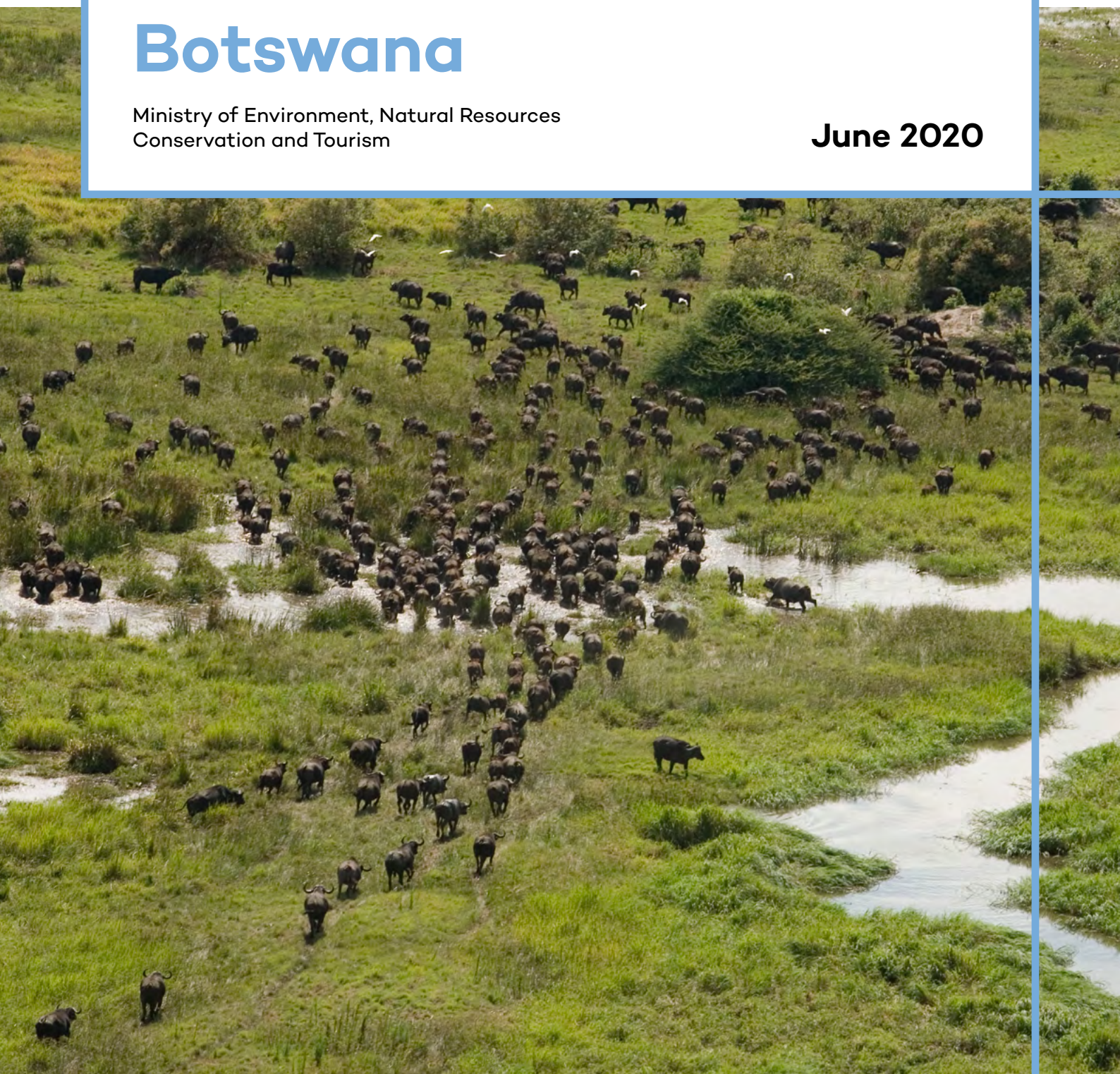
National Adaptation Plan Framework for Botswana

Ministry of Environment, Natural Resources
Conservation and Tourism

June 2020



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The National Adaptation Plan (NAP) Global Network was created in 2014 to support developing countries in advancing their national adaptation processes, and help accelerate adaptation efforts around the world. To achieve this, the Network facilitates sustained South–South peer learning and exchange, supports national-level action on NAP development and implementation, and enhances bilateral support for adaptation and climate-sensitive sectors through donor coordination. The Network's members include participants from more than 140 countries involved in developing and implementing National Adaptation Plans, as well as 11 donor members. Financial support for the Network has been provided by Austria, Canada, Germany and the United States. The Secretariat is hosted by the International Institute for Sustainable Development (IISD). For more information, visit www.napglobalnetwork.org

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Foreword

Botswana is already facing the negative impacts of climate change as evidenced by the endemic droughts, heavy rainfall, heat waves, and severe thunderstorms. The country's frequent exposure to these climate extremes, the fragile ecosystem and reliance on natural resources as well as inadequate capacity makes it vulnerable to climate change. Botswana's assessments of vulnerability to climate change indicate that several sectors including agriculture, water, health and biodiversity are most vulnerable. Botswana's vulnerability to climate change necessitates adaptation to be a priority for the country both in the long term vision and national development, planning in order to build a climate resilient society.

Transformative effort beyond the norm is required in the country's approaches to build resilience of sectors and communities from current and future impacts of climate change. The National Adaptation Plan (NAP) process will assist in building the country's adaptive capacity and resilience and facilitate the integration of climate change adaptation into relevant policies, programmes and activities, in particular development planning processes and strategies. The Ministry of Environment, Natural Resources Conservation and Tourism through the Department of Meteorological Services is pleased to present the NAP Framework for Botswana as an important foundational document that should be used in NAP process. The NAP Framework has been developed to guide and advance the country's NAP process to address the medium and long-term adaptation needs. It also stipulates the approaches and guiding principles to be used. It further provides direction in the coordination, implementation and resource mobilization of NAP process. I urge all relevant sectors and actors to use this Framework as a guide in pursuing climate change adaptation planning.

I am immensely grateful for the financial and technical support provided by International Institute for Sustainable Development (IISD) in formulating this NAP Framework.

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Executive Summary

In reaction to the inevitable impacts of climate change on the national economy and as obliged by its commitment to the United Nations Framework Convention on Climate Change, the Government of Botswana (GoB) has recognized the need to treat climate change adaptation as a development issue and integrate it into its development planning process. In order to comprehensively address adaptation and ensure holistic mainstreaming, a National Adaptation Plan (NAP) Framework has been developed with assistance from the International Institute for Sustainable Development, which is the secretariat of the NAP Global Network.

The NAP Framework was developed as a strategic document to give guidance to the design and implementation of the NAP process. It represents the next stage of the country's NAP process following the Botswana Climate Change Response Policy draft of 2016, which gave the authority for the development of the NAP. Consequently, the NAP Framework provides the foundation for the NAP process for Botswana.

To give guidance to the development of the NAP process, the NAP Framework highlights the approaches and guiding principles that will be followed. The NAP Framework also details workable institutional arrangements based on existing governmental structures that will enhance the coordination of efforts through vertical and horizontal integration to enhance the implementation of the process.

Finance and resource mobilization is an important component of Botswana's NAP process. Over the years, the GoB has allocated a significant percentage of its annual budget to adapting to climate-related impacts, including droughts and disease outbreaks. Adaptation measures, including drought relief programs, water-transfer schemes, and health-responses to disease outbreaks or prevention, have been nationally funded. Therefore, this NAP Framework emphatically calls for continued national funding, given that adaptation has been identified by the government as a developmental issue. It also outlines the strategic and innovative approaches to mobilizing and accessing climate finance from international sources.

Finally, issues of monitoring and evaluation (M&E) are also highlighted, outlining the need to use the existing national M&E planning systems.

Table of Contents

Abbreviations and Acronyms

BCCRP	Botswana Climate Change Response Policy
BOCONGO	Botswana Council of Non-Governmental Organizations
CbA	community-based adaptation
CSO	civil society organization
DCCC	District Climate Change Committees
DDP	District Development Plan
EbA	ecosystem-based adaptation
GCF	Green Climate Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoB	Government of Botswana
M&E	monitoring and evaluation
NAP	National Adaptation Plan
NCCC	National Committee on Climate Change
NCCU	National Climate Change Unit
NCCSAP	National Climate Change Strategy and Action Plan
NDC	Nationally Determined Contribution
NDP	National Development Plan
NGO	non-governmental organization
NMES	National Monitoring and Evaluation System
NSO	National Strategy Office
R&D	research and development
UNFCCC	United Nations Framework Convention on Climate Change
VDC	Village Development Committee

1.0 Introduction

The Government of Botswana (GoB), as a Party to the United Nations Framework Convention on Climate Change (UNFCCC), has, over the years, been actively involved in climate change vulnerability assessments, adaptation and mitigation efforts (GoB, 2019). Climate change vulnerability assessments paint a gloomy future for the country (GoB, 2019). Fundamentally, the assessments have concluded that climate change is imminent, and the country is already affected by some of the adverse impacts of climate change (GoB, 2019). Some of the highlighted risks associated with climate change include increased frequency and intensity of droughts, unprecedented heatwaves, floods and hailstorms. It is projected that, by 2050, rainfall will decline by a maximum of 14%, temperature will increase by as much as 2oC, and drought will occur more frequently and with greater severity (GoB, 2019). As climate change is a cross-cutting phenomenon, major economic sectors (agriculture, biodiversity, health, water, construction, service, transportation, communication, and tourism) could be significantly impacted.

Recognizing the inevitable impacts associated with climate change, the GoB has taken proactive measures to adapt to climate change impacts. These adaptation measures aim to reduce sectoral vulnerability to climate change and to avoid reversing the economic gains that the country has achieved. Major adaptation milestones include the development of the Botswana Climate Change Response Policy (BCCRP) draft of 2016, the Climate Change Strategy and Action Plan of 2018 and the Nationally Determined Contributions (NDCs). Additionally, the GoB, through its Vision 2036, a strategic document that outlines the country's long-term economic aspirations over a 20-year period, has identified climate change as a developmental challenge that has the potential to reverse economic developments made over time. Consequently, Vision 2036, BCCRP, the NDCs, and the Second and Third National Communications have explicitly highlighted the need for the country to undertake national adaptation measures to climate change to safeguard the economy and livelihoods. However, to design and implement a comprehensive NAP process, a NAP Framework must be developed and endorsed. The NAP Framework is meant to guide the NAP process, ensuring it takes a holistic approach and that it mainstreams and integrates climate change adaptation into all levels of planning and implementation at national and subnational levels.

The approach is in line with the UNFCCC, which established the NAP process under the Cancun Adaptation Framework. The Cancun Adaptation Framework calls for countries to develop and implement NAP processes by following a logical process of identifying and prioritizing medium- and long-term adaptation needs and developing and implementing strategies and programs to address those needs (UNFCCC, 2012). Effectively, the NAP process must be continuous, progressive, country-driven, gender-sensitive, participatory and fully transparent (UNFCCC, 2012).

Therefore, the NAP Framework is developed to be an overarching guiding document that will contribute to an enabling environment and facilitate the development and implementation of the NAP process in a seamless manner. The NAP process will work toward achieving the BCCRP, NDCs, the National Disaster Risk Reduction Policy, the country's National Communications to the UNFCCC, and the National Development Plans (NDPs).

1.1 Purpose and Objectives of the NAP Framework

The purpose of the NAP Framework is to give direction and guidance to the development, implementation, and monitoring of the country's NAP process. The NAP Framework aims to achieve this ambitious task by highlighting fundamental and critical aspects that should guide the development and implementation of the NAP process. These include guiding principles, coordination and institutional arrangements, resource mobilization, and financing. The NAP Framework provides guidance regarding how the NAP process should be conducted.

The specific objectives of this NAP Framework are to:

1. Describe the principal factors that should be prioritized in the development of the NAP process for the country. These priority areas are highlighted under the guiding principles.
2. Ensure that the NAP process is aligned with the existing legal and policy framework. Effectively, this will create a conducive environment for the seamless interaction and mainstreaming of the NAP process in the national and subnational planning processes.
3. Promote effective and efficient development and implementation of the NAP process in the country by proposing workable and efficient institutional arrangements based on existing structures.
4. Facilitate mainstreaming and the integration of climate change adaptation, in a coherent manner, into relevant legal frameworks, programs, and planning processes and strategies within all relevant sectors and at different levels, as appropriate.
5. Ensure that the NAP process is centrally coordinated to promote its prioritization into planning and budgetary processes.

1.2 NAP Framework Development Approaches

The NAP Framework is a high-level strategic document that aims to guide adaptation processes in the country to ensure that national vulnerability to climate change is significantly reduced. Therefore, its development called for a holistic and all-inclusive approach that ensures that the majority of key sectors of the economy are represented in the NAP process. Effectively, methods consisting of a national workshop, desktop review, and consultation with the key economic sector stakeholders were employed.

An extensive literature review covering the relevant national policies, acts, and climate change action plan was undertaken to safeguard that the NAP Framework is aligned and consistent with

the existing legal frameworks. Secondly, a desktop review was undertaken at a higher level with a focus on the UNFCCC, the NAP process, guiding principles at a higher level, and financing. Additionally, existing NAP Frameworks developed by other countries were also reviewed. The purpose of the international desktop review was to incorporate international best practices into the NAP process development. Essentially, the desktop review shaped the structure and components of the NAP Framework for Botswana.

The second method that was employed was a national consultation (see Annex 1). The NAP process must be totally country-driven, gender-sensitive, participatory, and fully transparent. Effectively, this called for a series of consultations to sensitize key stakeholders on the development of the NAP Framework, incorporate their views to ensure that they drive the NAP Framework, and fundamentally ensure their meaningful participation throughout the NAP process. Key sectors (biodiversity, agriculture, education, finance, forestry, land, water, and waste) were consulted. The consultations were conducted through two national workshops: the first was the inception meeting and the second included a validation workshop where stakeholders had the opportunity to deliberate on the draft NAP Framework. The second part of the consultation involved focus group discussions with the relevant departments, organizations, and non-governmental organizations (NGOs). The consultations were based on structured questions that targeted the structure and various components of the NAP Framework. Consequently, the stakeholders consulted included government departments, civil society organizations (CSOs), and research institutions.

2.0 NAP Process

The NAP process for the GoB will be aligned with the BCCRP draft of 2016, the National Climate Change and Action Plan, the Second and Third National Communication to the UNFCCC, the UNFCCC NAP process, Vision 2036, NDP 11, and, most importantly, the existing legal frameworks. It will hinge on the BCCRP draft of 2016, which gives direction for the development of the NAP process. Subsequently, it will be developed and implemented in a coherent and logical manner involving the following processes:

1. Identification and prioritization of the medium- and long-term adaptation measures and programs as informed by scientific research and assessments.
2. Development of a NAP document detailing institutional arrangements, resource mobilization, and M&E.

2.1 NAP Process Mandate in the Country

The mandate of the NAP process for the country originates from the BCCRP draft of 2016. Specifically, the BCCRP draft calls for national adaptation planning to ensure that the country's vulnerability to climate change is reduced. The BCCRP draft and Vision 2036 unequivocally refer to the NAP process through the development of adaptation measures and their integration into the existing development processes and activities. Furthermore, the BCCRP draft explicitly calls for the integration to be undertaken through the formulation of strategies, programs, and regulatory frameworks that will create a conducive environment for inclusive stakeholder participation in implementation.

Similarly, NDP 11 also provides key strategies, plans, and goals that serve as a mandate for the development and implementation of the NAP process for the country (GoB, 2017). Specifically, under the thematic area of sustainable environment, NDP 11 has highlighted strategies for climate change adaptation and mitigation. NDP 11 recognizes the importance of developing a National Climate Change Strategy and Action Plan (NCCSAP) to address climate change. The preparation of the NCCSAP has been completed and is awaiting approval. The adaptation component of the NCCSAP will be an input to the NAP process.

Other important documents that make explicit reference to climate change adaptation measures are the NDC and the Second and Third National Communications to the UNFCCC. These documents highlight strategic sectoral adaptation projects and programs to be implemented to reduce the country's vulnerability to climate change.

Last, as a party to the UNFCCC, with obligations to fulfill, the GoB should also take advantage of available opportunities for developing countries to enhance action on adaptation. For instance, under the Cancun Adaptation Framework, country parties are requested to develop, prioritize, and implement their adaptation plans.

3.0 Approaches Underpinning the NAP Process

The approaches that underpin the NAP process for the country were devised with the nature of climate change in mind. First, and probably most important, is the fact that climate change is a cross-cutting phenomenon that affects socioeconomic and ecological sectors. Ultimately, the country's national income will be affected by climate change, though no detailed economic assessment has been undertaken to estimate the national economic value of the impacts. This thus calls for the involvement of all sectors in the NAP process. Secondly, the approaches were developed bearing in mind the fact that climate change impacts will vary both spatially and temporally. Temporally, climate change impacts will be medium- to long-term, and the youth will bear most of these impacts. The characteristics of climate change thus call for paying attention to different settlements (urban and rural) and different socioeconomic groups in the development of the plan, such as people with disabilities, youth, women, and marginalized groups. Therefore, issues of spatial and temporal scale were given priority in the development of the approaches. Another pertinent factor that was given priority was the fact that climate change affects communities; hence, for the NAP process to be effective, it must involve local communities at the grassroots level. There is also a need to ensure that the NAP process in the country is both community- and youth-centred.

The NAP process should have an effective governance structure, including operational institutional arrangements, political-will, and advocacy. This demands effective horizontal and vertical integration of the NAP process in and across ministries, districts, and communities at the grassroots level.

Another factor of particular importance is the realization that ecosystems provide services that support all economic activities (World Bank, 2011). Therefore, the sustainable management of ecosystems in the NAP process must be priotized to ensure the continuous flow of ecosystem services.

Based on the above climate change characterization and the BCCRP priorities, the following approaches were developed to inform and guide the development and implementation of the NAP process for the country.

3.1 Horizontal and Vertical Integration

One of the imperatives for successful NAP implementation is the presence of a robust horizontal and vertical integration. Horizontal and vertical integration interlinks and connects national and subnational entities to ensure information flows between them throughout the NAP process.

Horizontal integration connects ministries and departments at the national level to create an enabling environment to ensure the infusion of climate change adaptation into their mandates. This is done by creating a platform for linkages that will facilitate acknowledging and addressing cross-sector issues. Currently, the National Committee on Climate Change (NCCC) is a multi-sectoral platform that has been created to facilitate horizontal integration. Horizontal integration of climate change issues will ensure effective coordination at the national level across ministries and the various departments. Consequently, the NAP process must reinforce this platform by developing the terms of reference for this committee. Furthermore, there is also a need for a cross-ministerial NAP Committee, which will work hand-in-hand with the NCCC.

NDP 11 and the BCCRP draft of 2016 patently call for the various ministries to integrate and mainstream climate change adaptation into their mandates. In addition, Vision 2036 calls for national planning and decision-making to take into account climate change mitigation and adaptation.

Vertical integration, as defined by the International Institute for Sustainable Development, is a "process of creating intentional and strategic linkages between national and sub-national adaptation planning, implementation, and monitoring and evaluation" (Dazé et al., 2016). In the context of Botswana, the subnational structure from the highest to the lowest levels consists of the district, village, ward and kgotla. Effectively, vertical integration will involve a cascade of NAP process implementation activities and ensuring consistent information flow from ministries to departments, districts, grassroots, and vice versa (see Figure 1 for more on the institutional arrangement for the NAP process).

At the district levels, each district produces its District Development Plan (DDP), which takes issues of climate change adaptation into account. Thus, the DDPs will align with the NAP process through the process of vertical integration. To ensure effective vertical integration, there is a need to establish District Climate Change Committees (DCCCs) that will link the subnational with the national level.

3.2 Promoting an Ecosystem-Based Adaptation Approach

Central to the NAP process will be the promotion of ecosystem-based adaptation (EbA), an approach for the sustainable management, conservation, and restoration of ecosystems to provide services that enable communities to adapt to climate change impacts. Vision 2036 recognizes the multiple functions and services that are provided by the ecosystems, which support economic activities and community resilience to disasters. Furthermore, Vision 2036 calls for the promotion of healthy ecosystems that support the economy, livelihoods, and our cultural heritage and enhance overall resilience to climate change. Maintaining healthy ecosystems will involve improved and increased conservation and management efforts by pursuing green growth strategies.

An EbA approach will promote the sustainable use and management of ecosystems to ensure that they continually yield maximum services that will support communities and economic activities such as agriculture and tourism, among others (GoB, 2019). Emphasis on sustainable management and the conservation of ecosystems is based on the premise that healthy ecosystems can support the economy—even in periods of drought—relative to degraded ecosystems (GoB, 2019). Thus, an EbA approach will be used to promote community resilience and reduced vulnerability to climate change impacts.

The EbA approach is a cost-effective adaptation measure with multiple co-benefits, which are also pro-poor (Nill et al., 2016). In addition to contributing to economic growth, the EbA approach can also contribute to poverty alleviation by enhancing the flow of ecosystem services that support rural community livelihoods and contribute to rural household income generation.

Subsequently, promoting an EbA approach would align the NAP process with Vision 2036. It also aligns the NAP process to NDP 11, which requests the prudent and sustainable use of natural resources.

The approach also aligns the NAP process with the Wealth Accounting and Valuation of Ecosystem Services (WAVES), a World Bank project that Botswana is a party to (World Bank, 2011). The project aims to promote sustainable development by mainstreaming natural capital in development planning and national economic accounting systems, based on the System of Environmental-Economic Accounting.

Importantly, adopting the EbA approach in the NAP process will also align it with the Community-Based Natural Resource Management policy of 2007. The policy aims to promote the sustainable use of local resources through the delegation of resource-use rights to community-based organizations. Other strategies and policies that the NAP process will be aligned with, based on the EbA approach, include the Community-Based Rural Development Strategy of 1996 and the Revised Rural Development Policy of 2002, which encourage community-based sustainable development through the sustainable use and conservation of natural resource-based systems.

To implement an EbA approach, it must be comprehensively mainstreamed into adaptation projects and programs at both national and local levels. EbA goes hand-in-hand with the landscape approach for ecosystems management, recognizing the interconnectivity between flora and fauna ecosystems. This will involve the design of wildlife migratory corridors to facilitate the interconnectivity of landscapes and ecosystems. Lastly, it is imperative that community-based adaptation (CbA) (see Section 3.3) is emphasized.

3.3 The CbA Approach

Communities will feel the brunt and direct impacts of climate change, as they are engaged in socioeconomic activities that are directly dependent on climate variables. These activities

include rainfed crop production/dry farming, subsistence livestock farming and veldt production processes. These systems will be adversely affected by climate change, as highlighted in the BCCRP draft of 2016. Due to the direct relationship between climate change and communities, the NAP process must be community-centred. This thus calls for a CbA approach. According to Nill et al. (2016), CbA focuses on the full inclusion and participation of the local communities in the planning and implementation of adaptation interventions at the grassroots level.

The features of the CbA approach include working with the communities at a local level where vulnerability is pronounced, developing adaptation strategies in a participatory process, implementing adaptation in a common process, using local capacities, and building on pre-existing cultural norms. Furthermore, the approach ensures that local interests, concerns, and factors that create vulnerabilities are thoroughly considered (Nill et al., 2016).

CbA is closely linked to the EbA approach and the principles of vertical integration. Therefore, the combination of the three approaches will help to ensure that communities are totally involved in the NAP process design and implementation.

Adopting the CbA approach aligns the NAP process to the BCCRP draft, the Community-Based Natural Resource Management policy of 2007, the Revised Rural Development Policy of 2002, and NDP 11, all of which explicitly highlight the need for community participation and involvement in planning and decision-making.

3.4 Engaging and Leveraging the Private Sector

A successful NAP process relies significantly on the robust involvement and participation of the private sector. The private sector is highly diversified and includes actors such as financial institutions, research and development institutions, private financiers, commercial banks, microfinance and private insurance companies, and commercial enterprises. The private sector can play a critical role in the country's NAP process. Firstly, insurance companies can develop insurance schemes against climate change impacts that can reduce communities' and sectors' vulnerability to climate change. Importantly, insurance schemes can be used as adaptation programs. Other financiers, such as commercial and development banks, including the National Development Bank (NDP), Botswana Development Corporation and the Citizen Entrepreneurial Development Agency, can finance adaptation programs, particularly in the agriculture sector.

In addition to insurance and financing, private sector actors can also be active implementers of the NAP process. Farmers, for example, can implement adaptation programs through the use of climate-smart agriculture. Research and development (R&D) organizations can develop products and services useful to adaptation efforts, including weather forecasting technologies.

The roles of the private sector are clarified and prioritized in the BCCRP draft policy. It explicitly notes that the private sector is affected by climate change and is instrumental in green-technology investments as well as providing finance.

Therefore, identifying incentives and options for private sector engagement in the NAP will be given priority to mobilize and raise revenue, and also to implement adaptation in the NAP process. Leveraging the private sector will align the NAP process to the BCCRP draft of 2016, the Vision 2036, and NDP 11, which emphasizes the need for public–private partnerships in development.

The NAP process will continuously create a conducive environment to support the private sector through activities such as the provision of data for robust decision-making, capacity development to conduct independent vulnerability assessments and adaptation plans, developing guidelines for incorporating climate risks, and facilitating access to affordable financing.

3.5 Gender-Responsive and Human Rights Approach

Climate change will affect gender groups differently due to socioeconomic and spatial attributes (Dazé & Dekens, 2017). Various studies have concluded that women are among some of the most vulnerable groups to climate change, as they frequently have limited access to productive assets, including fertile land or education (United Nations Development Programme, 2019). Women may also work more often in natural-resource reliant sectors, which are subject to the impacts of climate change. In the agricultural sector in Botswana, for example, arable farming can often be a predominantly female activity (Omari, 2014). Arable farming has and will be subject to climate change impacts—including drought and rainfall variability—that may jeopardize reliant livelihoods. Furthermore, many women rely on veldt products collection as a main source of income, an activity that is expected to be increasingly vulnerable due to projected highly variable rainfall, including a decline over the years (Omari, 2014). It is worthwhile to highlight that livestock farming in Botswana is male-dominated. Nevertheless, both sectors (crop and livestock) are highly vulnerable to climate change due to the fact that they are mainly practised at a subsistence level and, hence, have low adaptive capacities to climate variabilities.

Despite these vulnerabilities, it is important as well to highlight women—and other vulnerable groups—as key agents of change. In the agricultural sector, as aforementioned, women play a predominant role. Their input and engagement in adaptation will therefore be highly influential and integral to the success of the NAP process and subsequent agricultural strategies and programs.

The NAP recognizes that all gender groups are affected differently by climate change, and their vulnerability differs. It is thus fundamental that the NAP process for Botswana is gender-responsive. By being gender-responsive, the NAP process acknowledges the fact that gender groups have different vulnerabilities but also different capacities. Hence, there is a need to systematically and holistically address the vulnerabilities and capacities of gender groups to enhance their adaptive capacity.

The mainstreaming of gender issues has also been identified as a key requirement under the UNFCCC (Dazé & Dekens, 2017). Consequently, the NAP will be aligned to UNFCCC's Cancun Adaptation Framework. The BCCRP draft also highlights the need for mainstreaming gender and vulnerable groups into development and climate change adaptation processes.

One of the imperatives for a gender-responsive NAP process is to ensure that there is full gender representation in all decision-making platforms such as the NCCC and the DCCC. Therefore, climate change committees at all levels of the NAP process should be gender-representative.

Gender-responsiveness is an integral component of maintaining and promoting human rights and inclusion through the NAP process. Human rights are enshrined in the country's constitution. The NAP process will, therefore, prioritize human rights and ensure compliance with international human rights treaties. Botswana's commitments to international human rights treaties will take precedence in the NAP process design and implementation.

3.6 Risk-Based Approach

A risk-based approach to climate change is a process that involves identifying potential risks, then developing and implementing adaptation strategies to reduce the probability of occurrence and impacts. It aims to identify optimal policy solutions based on a robust assessment (Yohe & Leichenko, 2010; Gaichas et al., 2014). As already alluded to in the framework, climate change will inevitably result in major risks that will negatively impact economic development (GoB, 2016). The NAP process will therefore adopt a risk-based approach. A risk-based approach aims to minimize the costs associated with disaster by systematically evaluating the risks, improving early warning systems, implementing disaster risk reduction programs and establishing highly resilient systems. Through such initiatives, climate change risks vulnerability will be reduced.

This approach will align the NAP process with the National Disaster Reduction Policy draft of 2018, the BCCRP draft, and NDP 11.

3.7 Rural and Urban Areas Planning Interfacing Approach

Rural and urban areas are economically distinct. Rural areas in Botswana are characterized by high poverty levels relative to the urban settlements. This is mainly due to high unemployment and the prevalence of low-income economic activities, including subsistence agriculture and veldt products collection. High poverty levels and reliance on activities that are climate-sensitive for livelihoods result in low adaptive capacities of the rural communities. Hence, rural communities are highly vulnerable to climate change events (droughts, floods, and fires).

The urban settlements are also vulnerable to climate change from a different perspective. Due to the high population concentration, they are vulnerable to water drought. Other factors that increase urban vulnerability include infrastructural developments that cause a heat island effect and flooding from poor drainage systems.

Subsequently, the NAP process will build on the existing districts and urban development plans by mainstreaming adaptation planning and interventions into development plans. Additionally, the DDP efforts will be increased to accelerate the economic development of rural areas, subsequently enhancing the capacity to adapt in these areas.

4.0 Guiding Principles

The NAP guiding principles were informed through stakeholder consultations and are consistent with the BCCRP guiding principles. Thus, in addition to the BCCRP draft guiding principles of sustainable development, precautionary principles, public participation, vulnerability, polluter-pays principle, common but differentiated responsibilities, and respective capabilities, the following principles were developed for Botswana's NAP process.

4.1 Inclusive Participation of all Stakeholders in Planning and Implementation

Climate change is a cross-cutting issue affecting most sectors (agriculture, water, biodiversity, health, construction, infrastructure, transport, telecommunication, infrastructure, service, tourism). It also impacts community groups differently. For the NAP process to be effective in reducing communities' and sectors' vulnerability to climate change, it is important that all stakeholders from the national (cabinet, Parliament, ministries, departments) and subnational levels (district commission office, traditional leaders and Village Development Committees [VDCs]), CSOs, and the private sector play an active role in the design and implementation of the NAP process. This could be ensured through a multisectoral committee such as the NCCC platform and the formation of the subnational multisectoral committees (DCCCs). It is also important that existing village structures such as the VDCs play an active role and incorporate the NAP process in their mandate. Moreover, there should be strong linkages between the proposed DCCCs and the VDCs. This will cement the vertical integration process.

Inclusive participation of all stakeholders at all planning and implementation levels will cement their continued ownership and engagement in NAP implementation.

4.2 Youth-Centred

Climate change will have medium- to long-term impacts; this implies that the youth will bear most of the burden of climate change over a long period relative to the elderly. Consequently, it is most appropriate that the NAP process engages the youth. Ensuring that the youth are given more of a role in the design and implementation of the NAP process will require an active role from the Ministry of Youth Empowerment, Sport and Culture Development. In addition, a proactive approach where economic opportunities are created

for the youth is essential to increase their adaptive capacity through employment creation and accelerated economic growth and development.

This guiding principle is consistent with the BCCRP draft, which highlights the need for empowering communities, especially women and youth, to actively participate in the implementation of climate change response measures in both rural and urban areas.

4.3 A Pro-Poor and Vulnerable Group-Focused NAP Process

Climate change will affect the already vulnerable populations (the poor, elderly, people with disabilities, marginalized groups) disproportionately to other groups. For the NAP process to be effective in addressing the needs of the poor and other vulnerable groups, it is fundamental that issues of poverty, gender, and the interlinkages with climate change are mapped and addressed. It is also vital that the context-specific nature of poverty and community groups are holistically addressed and that context-specific poverty and vulnerable group programs are designed to address climate change.

For the interventions to be pro-poor and pro-vulnerable groups, they must target improving the climate change awareness and knowledge of resources-poor households and vulnerable groups. In addition, there is a need to improve markets and accessibility to markets for the poor to improve their adaptive capacity with an emphasis on agricultural products.

4.4 Robust Decision-Making and Implementation

There are several uncertainties in climate change science surrounding future scenarios that may complicate the employment of vulnerability assessment studies and research. These uncertainties reduce the reliability of the projections and thus can hinder adaptation efforts due to the skepticism of policy-makers. Despite these uncertainties, it is important that cost-effective adaptation measures are identified, designed, and implemented based on robust evidence-based decision-making supported by scientific (integrated models) research and technology. This will ensure that the NAP process is implemented to achieve a no-regrets situation. The NAP process will be based on precautionary principles. Adaptation measures with co-benefits will be prioritized for implementation despite the uncertainty surrounding climate change (GoB, 2016). The NAP process will therefore focus on climate-proofing the economy and enhancing economic growth.

Equally important is the application of cost-efficient analysis to the identified adaptation projects and programs. This approach will be adopted to ensure that resources are allocated efficiently to maximize economic growth. Adopting the stance of cost-effective analysis will result in the identification of adaptation projects that generate positive benefits regardless of climate change, and hence further cement the no-regrets option. In addition, robust decision-making in the NAP process will ensure that trade-offs and opportunities are better managed with optimal outcomes.

Finally, the NAP process must make continuous efforts to reduce uncertainty by improving on the existing climate data collection and analysis.

4.5 Maximizing Co-Benefits From Adaptation Projects and Programs

Linked to the guiding principle of robust decision-making is the principle of maximizing the co-benefits of NAP projects and programs. The NAP process takes a proactive stance of ensuring that the design and implementation of the projects do not slow economic growth but contribute to accelerated economic growth. This principle will be achieved by prioritizing projects with multiple benefits. In line with NDP 11 and the Sustainable Development Goals, projects with multiple co-benefits will be prioritized based on economic analysis. Emphasis will be placed on projects with aspects of poverty eradication, promoting environmental and ecological sustainability and contributing to economic growth. Therefore, pro-poor environmental initiative programs will be deliberately targeted. Additionally, sustainable land management programs will also be emphasized to achieve co-benefits, based on the EbA approach.

This principle is consistent with the UNFCCC Paris Agreement and the Sustainable Development Goals, which emphasize that adaptation programs maximize co-benefits to ensure accelerated economic growth.

4.6 Climate Change as a Cross-Cutting Issue and Ensuring Effective Mainstreaming

Climate change is a cross-cutting phenomenon that will affect major economic sectors (agriculture, biodiversity, water health, mining, energy, and tourism) and ecological systems. For instance, rainfall deficiency may result in drought, which affects the agriculture, health and water sectors. Diminished water quantities will in turn affect construction, tourism, services, and more. The impacts of climate change ripple to other sectors through negative feedback.

As highlighted, economic sectors such as agriculture and biodiversity are highly vulnerable to climate change due to their dependence on rainfall events. Crop production in Botswana is mainly rainfed, while livestock is dependent on rangeland productivity, which is also a function of rainfall. Secondly, there are currently uncoordinated climate change efforts and low adaptive capacity of various sectors. The NAP process can reduce vulnerability by improving coordination and allocating resources to increase the economic sector's adaptive capacity.

For the NAP process to be effective, it is imperative that adaptation is seen and treated as a developmental and economic growth issue. Failure to treat climate change as a developmental issue will result in a regression in economic development. To ensure that climate change is effectively and efficiently managed, it must be treated as an integral part of the development process.

There is thus a need for all the sectors to integrate and mainstream climate change into the sector development plans and the DDPs. This will ensure that the horizontal and vertical integration approach is achieved at national and subnational levels.

4.7 Improving Markets as an Imperative for Effective Adaptation

For the private sector and communities to adapt to climate change, there is a need to improve market access, especially in regards to smallholder farmers and vulnerable groups. This will

involve improving infrastructures, such as roads, slaughter facilities for livestock, and improved transportation and storage systems for perishable commodities. This principle is consistent with engaging and leveraging the private sector. Consequently, improved markets will also result in accelerated economic growth and ensure that the private sector and business communities have the resources to adapt to climate change. Improved accessibility to markets will reduce the vulnerabilities of many sectors and also ensure that poor and vulnerable groups can sell commodities and invest in effective adaptation measures.

4.8 Infusion of Indigenous and Traditional Knowledge and Science into the NAP Process

An effective NAP process is community-centred and ensures that communities play an active and participatory role in the planning and implementation processes. For the communities to actively participate in the NAP process, it is critical that their customs, practices, and Indigenous and Traditional Knowledge are utilized in addition to technical or scientific approaches. This participation will reinforce that they are equal partners and stakeholders in decision-making. This approach is highlighted by the BCCRP draft, which promotes the use of Indigenous knowledge and traditional forest management practices that contribute to increased forest cover and land rehabilitation. In addition, Indigenous and Traditional Knowledge must also be prioritized and encouraged in early warning systems.

However, it is important to highlight that, similar to modern science, the use of Indigenous and Traditional Knowledge and practices must be subjected to thorough evaluation and assessment to ensure robust decision-making. This principle is consistent with the BCCRP draft, which emphasizes the use of Indigenous and Traditional Knowledge and practice.

To promote the use of Indigenous and Traditional Knowledge in the NAP process, the following processes must be undertaken. First, pilot projects should be implemented that use Indigenous and Traditional Knowledge practices. Second, a cost-effectiveness analysis study should be undertaken, and information should be disseminated on the results to promote buy-in from the stakeholders on the use of Indigenous and Traditional Knowledge and lobbying for national upscaling.

4.9 Information Management and Dissemination Strategy

Information dissemination is a key component of an effective NAP process. The information must be collected and packaged in a manner that is palatable and user-friendly to all stakeholders. The information must aim to raise awareness and understanding of climate change issues at all levels. Fundamentally, the information must cover aspects of vulnerabilities and adaptation measures, while also detailing feedback on the uptake of the adaptation measures. At the grassroots level, the social work office, in association with the VDC, should be the entry point for information dissemination to target the vulnerable and marginalized groups.

The BCCRP draft (2016) highlights the need for the development of robust information dissemination and communication strategy. In light of this need, the NAP process will develop a communication strategy that will be used to disseminate adaptation information to all stakeholders. A multi-sectoral and stakeholder approach will be employed to disseminate the information in a palatable manner to each sector group.

5.0 Links and Alignment to the Existing National Policies and International Framework

The NAP process in Botswana is guided and coherently aligned to the various existing national policies and international frameworks. The cross-cutting developmental issue of climate change necessitates that the NAP process is aligned to sectoral policies to infuse it into the planning and budgetary process. Importantly and foremost is the BCCRP draft of 2016, which guides the design and the implementation of the NAP process in Botswana. Its overarching objective is to mainstream sustainability and climate change into development planning to enhance the country's resilience and adaptive capacity to climate change impacts. Consequently, the NAP process will facilitate the integration and implementation of some provisions of the BCCRP. Another strategic national document that the NAP process is aligned with is the Botswana Climate Change Strategy and Action Plan of 2018. This document identifies the key performance areas for adaptation indicators based on a sectoral approach.

Equally important is NDP 11, which is the first medium-term plan toward the implementation of the country's Vision 2036. NDP 11 has six national priorities: developing diversified sources of economic growth, human capital development, social development, sustainable use of national resources, consolidation of good governance and strengthening of national security, and the implementation of an effective M&E system. Climate change falls under the sustainable use of the national resources theme. NDP 11 makes reference to the formulation of the BCCRP. Furthermore, NDP 11 emphasizes the need for mainstreaming climate change adaptation and mitigation into planning and development processes as a comprehensive approach to addressing climate change.

The NAP process will also be aligned with various sectoral plans, including the Disaster Risk Reduction Policy, the National Conservation Strategy, the National Biodiversity Strategy and Action Plan, the Wildlife Conservation Policy, the Botswana National Spatial Plan 2036, and the Land-Use Policy, among others. The NAP process will be implemented through these policies by mainstreaming adaptation programs into sectoral plans.

Internationally and regionally, the NAP process will be aligned to the treaties and obligations that the country is a signatory to. Foremost is the UNFCCC and the Paris Agreement of 2015, which Botswana has been party to since 2016. The GoB has also submitted its NDCs, which highlight adaptation and mitigation targets. Equally important are the National Communications submitted to the UNFCCC, which detail the sectoral vulnerabilities and adaptation measures to reduce sectors' exposure to climate change. The NAP process will also be aligned to other international obligations that Botswana is party or signatory to, including the United Nations Convention to Combat Desertification, the Convention on Biodiversity, the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015–2030, and the Africa Union Agenda 2063 (African Union, 2015).

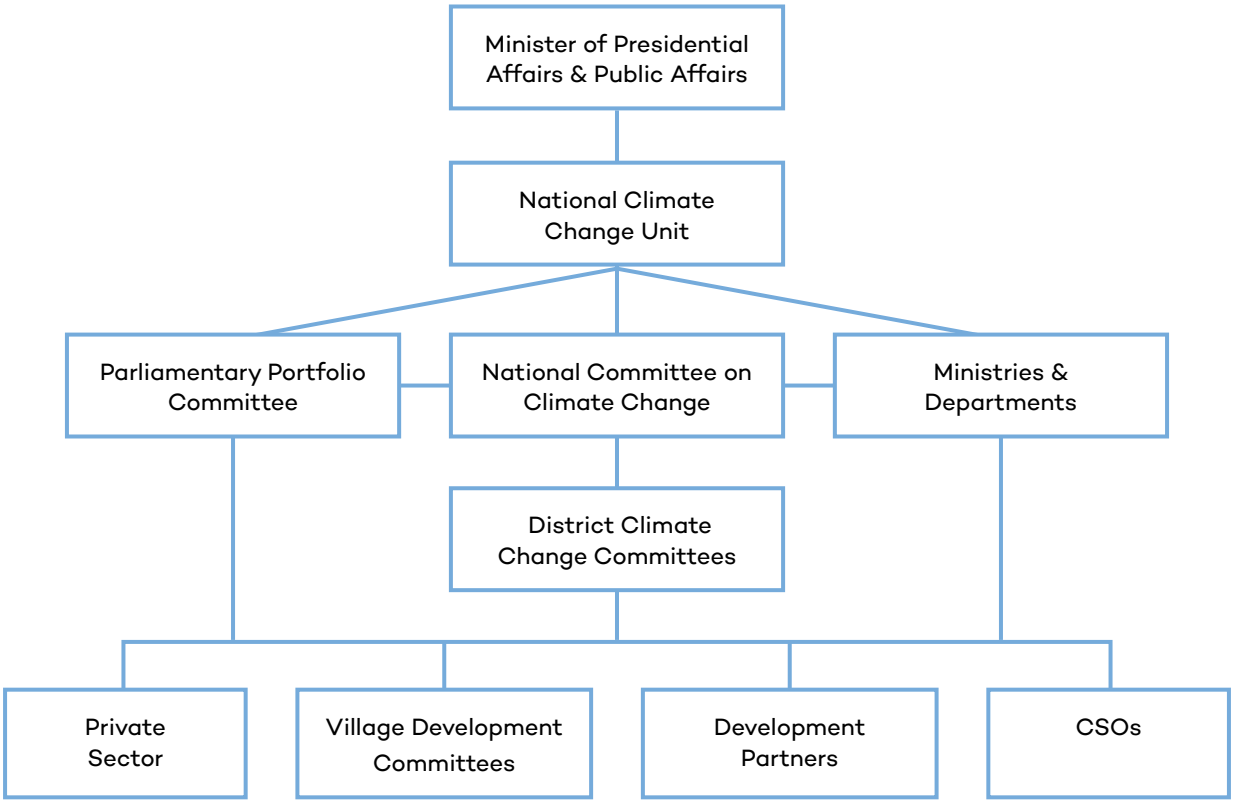
6.0 Institutional Arrangements for Botswana's NAP Process

For the NAP process to be a success, a sound and robust institutional arrangement must be designed such that it contributes to the achievement of the guiding principles and approaches, and especially the approaches of CbA, gender and human rights, and horizontal and vertical integration. Equally important is that the institutional arrangements must be designed to allow for well-coordinated efforts in the implementation of the NAP process.

Nevertheless, it is logical for the NAP process to be established within the existing institutional arrangements to avoid inefficiencies or duplications of activities. The structures at both the national and subnational levels should be adequately resourced to implement the NAP process in Botswana.

In line with the BCCRP, the guiding document for the NAP process, a schematic representation of the institutional arrangement is depicted in Figure 1.

Figure 1. Institutional arrangements for the NAP process



THE NATIONAL CLIMATE CHANGE UNIT

The BCCRP draft calls for the establishment of the National Climate Change Unit (NCCU), whose mandate will include implementation, monitoring, and compliance with climate change response measures (GoB, 2016). Due to the economic implications of the NAP process, the NAP Framework recommends escalating the proposed NCCU to a directorate. The directorate will be strategically placed under the Office of the President to ensure coordination across sectoral government business. The directorate will be resourced by competent personnel from various fields representing the various sectors affected by climate change.

In addition to other responsibilities, the NCCU will design an integrated strategy that will ensure horizontal integration across the various ministries and departments. Moreover, the NCCU will oversee the implementation of the NAP process for Botswana.

THE NATIONAL COMMITTEE ON CLIMATE CHANGE

The NCCC has been established as an advisory body to the government. The committee comprises members from government departments and ministries, NGOs, academia, and the private sector; hence, it is multisectoral. Fundamentally, the NCCC must have a good representation from the academia and the R&D sector to enhance the guiding principles of robust decision-making and implementation, and integrate Indigenous and Traditional Knowledge and science into the NAP process.

The committee shall advise on matters relating to national responsibilities on climate change and international obligations and the implementation of response measures. The NCCU shall develop guidelines and methods of engagement to facilitate the work of the NCCC. The NCCC will report to the NCCU.

MINISTRIES AND GOVERNMENTAL DEPARTMENTS

Climate change is a cross-cutting developmental issue that requires the collaborative efforts of all governmental departments. All ministries and governmental departments will be required to play an active role in the design and implementation of the NAP as well as sectoral plans. The various ministries will undertake vulnerability assessments and design adaptation plans and modalities for mainstreaming adaptation plans into their sectoral developmental plans. Various ministries and departments will work in close collaboration with each other to enhance horizontal integration and avoid a siloed approach. To ensure effective horizontal and vertical integration, each sector at the ministerial level will have a focal person or desk personnel coordinating the sectoral or ministerial NAP process.

The ministries and departments will work closely with the NCCC in the development and implementation of the sectoral plans and will report to the NCCU/directorate. Similarly, the ministries and departments will enhance vertical integration by working closely with the CSOs, the private sector, and development partners.

PARLIAMENTARY PORTFOLIO COMMITTEE ON WILDLIFE, TOURISM, NATURAL RESOURCES AND CLIMATE CHANGE

The BCCRP draft recognizes the role of the Parliamentary Portfolio Committee on Wildlife, Tourism, Natural Resource and Climate Change to provide oversight for the realization of policy response measures. The committee shall take the lead in promoting the establishment of an enabling environment that would facilitate the implementation of the policy. Primarily,

the committee shall review existing legislation to determine legal requirements to support institutional and regulatory requirements.

DISTRICT CLIMATE CHANGE COMMITTEES

The BCCRP draft calls for the establishment of the DCCCs to support the implementation of adaptation measures into the DDPs. The committees will be responsible for mainstreaming adaptation measures and programs and assist in building climate-resilient development planning at local levels.

The committees shall work with the district councils on adaptation processes at the district level and be supported by the NCCU on capacity development and grassroots mobilization. It is important that the DCCCs report to the NCCU to cement horizontal and vertical integration.

VDCs

VDCs were established by Presidential Directive in 1968 (Brown-Ferguson, 1996). The functions of VDCs include, among others, to identify and prioritize local developmental needs, develop proposals for the solutions to the identified developmental needs, mobilize the community and its institutions for development activities, and represent the community in development matters (Molosi-France & Dipholo, 2017). The VDCs will thus be responsible for coordinating the development and implementation of the adaptation plans at the community grassroots level. This will be done in liaison with the DCCCs, the District Commissioners' Offices, and the NCCU. Furthermore, the VDCs will be instrumental in mobilizing communities in the implementation of adaptation projects.

THE PRIVATE SECTOR

The private sector is an important stakeholder that must play an active role in the development and implementation of adaptation measures. Therefore, the private sector will be involved in the design and implementation of adaptation measures at the individual scale and also come up with products and services that are tailor-made for adaptation. This will include insurance schemes, financing mechanisms, and technology development. The private sector will work with the DCCC at the district level, the NCCC, the NCCU, and ministries in the implementation of their plans. Additionally, it will collaborate with communities, the VDCs, civil communities, and development partners during the NAP process. The focal point for the engagement of the private sector will be Business Botswana, a business association representing employers in all sectors of the economy. It advocates for an enabling environment to do business in the country and also for the private sector in Botswana.

THE CSOs

Members of the CSOs in the country are engaged in resource mobilization, awareness, and advocacy for various thematic areas, including sustainable development, food security, natural resource management, climate change, human rights, and education. CSOs are important strategic partners in climate change, as they work mainly with the

communities at the grassroots level. As effective adaptation will involve grassroots participation, it is important that civil society is fully engaged. CSOs' responsibility will involve advocacy for climate change adaptation, awareness, and training on adaptation measures and resource mobilization for the implementation of adaptation measures. They will work with district offices, as well as directly with the communities through traditional leaders, ministries, and departments. The focal point for the engagement of the CSOs in matters relating to the NAP process will be the Botswana Council of Non-Governmental Organisations (BOCONGO). BOCONGO was established in 1995 to coordinate the work of NGOs in Botswana. One of its functions is working with NGOs and relevant stakeholders to strengthen the CSOs by coordinating the sectors' contributions to the country's development.

DEVELOPMENT PARTNERS

International development partners, mainly multilateral agencies and bilateral donors, are key to successful adaptation measures and programs in Botswana. The NAP process recognizes the role of development partners in resource mobilization, capacity development, and technology development for adaptation measures and activity. The NAP process will also leverage South–South cooperation, which is potentially vital for transboundary adaptation measures.

7.0 Monitoring, Evaluation, and Learning

The GoB recognizes the importance of a comprehensive M&E system in evaluating the performance of policies, strategic plans, programs, and projects (National Strategy Office [NSO], 2019) as enshrined in overarching national policies, namely NDP 11 and Vision 2036. NDP 11 emphasizes the need to develop a policy framework and review guidelines for M&E, build capacity for M&E, ensure that policies and strategies are harmonized, and provide a means for information to be disseminated.

To actualize a comprehensive M&E strategy, the government, through the NSO, developed a National Monitoring and Evaluation System (NMES), which is performance-focused.

> Key elements of the NMES are regular monitoring and evaluation of policies, strategic plans, programmes, and projects; integration of strategic planning, budgeting and performance management functions; definition of institutional roles and responsibilities; dissemination of results information and citizen feedback on public sector performance and service delivery. (NSO, 2019)

The NMES will monitor and evaluate NDP 11 annually, quarterly, and at mid- and end-term reviews. NDP 11, which contains M&E indicators, will be monitoring and reporting on six thematic working groups; the sustainable environment theme covers climate change mitigation and adaptation strategies.

It is fundamental that M&E for the NAP process be integrated, with its indicators, into the existing NMES. This should be done through the mainstreaming of climate change adaptation into all six NDP 11 thematic working groups. The NSO will perform M&E at the national level.

It is also important that the NAP process is monitored and evaluated at the district level. The NAP process will be built into the DDPs to ensure mainstreaming. The design and implementation of the DDPs will focus on performance-based indicators to ensure consistency in M&E with the national level.

The role of academia in NAP M&E cannot be overemphasized. Thus, the institutions of higher learning—mainly the University of Botswana, Botswana International University of Science and Technology, Botswana Universities of Agriculture and Natural Resource and other private universities—must be involved in the NAP process, including the M&E stage.

8.0 NAP Financial Resource Mobilization

Adequate finance is one of the critical determinants of a successful NAP process for the country. A robust resource-mobilization strategy is needed to raise sufficient resources to support the NAP process. Resources will be mobilized from domestic and international sources, as discussed below.

8.1 Domestic and National Funding

The domestic or internal sources of funding from public and private sources are considered an important and reliable mechanism to support the NAP process. This is consistent with the government stance, which regards adaptation as a development issue. As the strategy is to mainstream climate change adaptation into the NDP and the DDPs, it is vital that all ministries and corresponding departments, as well as local authorities, include adaptation in their planning and budgets. This strategy will internally raise sufficient funding for the NAP implementation.

Furthermore, it is expected that the private sector will also play an active role in financing adaptation projects and programs through commercial banks and lending institutions. This should be done by creating an enabling environment through appropriate financial incentives. Additionally, improving access to markets will ensure that the private sector can raise resources and implement individual adaptation measures.

8.2 International and South–South Funding

International funding from multilateral sources includes the Adaptation Fund, the Green Climate Fund (GCF), and the Global Environment Facility, which can be leveraged to finance the NAP process in Botswana.

Over the years, Botswana's access to the available climate change funding opportunities has been low, mainly due to low capacity to access funding and the lack of a National Implementing Entity, a key requirement to facilitate access to funds and the GCF readiness and preparatory programs.

Efforts to improve access to international funding include establishing the Ministry of Finance and Economic Development as the National Designated Authority for the GCF in 2018. Second, Botswana's fund application to the GCF readiness and preparatory technical support program was approved in February 2019. The program, which is implemented in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), will strengthen the capacity of the National Designated Authority, assist in developing a country program, and enhance private sector engagement.

There are also funding opportunities from bilateral sources, including the Danish Development Agency and GIZ. The GoB, in partnership with CSOs and other partners, will mobilize resources

to tap into the existing international climate finance to support the NAP process.

Additionally, the African Development Bank has established the African Climate Change Fund, which is a multi-donor trust fund. Its aim is to assist African countries to access larger amounts of climate finance and to use the funds more effectively. The NAP process will thus concentrate efforts to tap into this vital fund.

Furthermore, the country recognizes the importance of South–South cooperation in mobilizing resources for the NAP process and will gear resource-mobilization efforts in that direction.

9.0 The Process Moving Forward: Next steps and milestones

The following are the envisaged next critical activities for the NAP process:

Approval and endorsement of the NAP Framework: The NAP Framework gives direction for the establishment of the NAP process. Upon approval and endorsement of the NAP Framework, it is envisaged that a NAP process will be initiated formally, resulting in the development of the NAP document. Some ministries, such as the Ministry of Health and Wellness, have taken initial steps toward the development of their sector NAPs. Ultimately, this will culminate in the mainstreaming of the NAP process into the NDP and the DDPs.

Stock-taking exercise on gaps and needs for the NAP process: This is a critical step that will commence the development of the NAP process. It involves an analysis of the available information on climate change impacts, vulnerability, and adaptation based on the First, Second, and Third National Communications to the UNFCCC and other reports. It will also involve a gaps and needs assessment for the NAP process. This step will result in creating an enabling environment for the design and implementation of adaptation activities. The NCCU will lead this phase of the NAP process.

Design and implementation of sectoral NAP processes: The third step will be the development and implementation of the sectoral adaptation measures as informed by the stock-taking exercise. The sectoral plans will detail the projects and programs to be undertaken, outlining the proposed activities, budgets, time frames, and projected climate change impacts reductions and co-benefits. Based on the developed guidelines, the sectoral NAPs will be mainstreamed into sectoral planning processes at the national and subnational levels.

Guidelines for mainstreaming of the NAP process at the national and sectoral levels: The principal aim of the NAP process is to promote adaptation as a development issue and to subsequently mainstream adaptation into development and planning processes. For sectors to mainstream adaptation into their mandates and planning activities, guidelines need to standardize mainstreaming. This calls for the development of national mainstreaming guidelines to guide sectors. This will be done by the NCCU.

Creation of an information-exchange platform: A successful NAP process requires a comprehensive information-exchange platform among the stakeholders on project practices, lessons learned, and best practices, given the cross-cutting nature of climate change. The information-exchange platform is vital for cross-fertilization of adaptation and mainstreaming. This will also facilitate the maximization of the co-benefits of the projects across sectors.

Development of institutional arrangement engagement strategy: This NAP Framework has highlighted a workable institutional arrangement for the NAP process. It is fundamental that an institutional arrangement engagement strategy develops the detailed roles and responsibilities of each stakeholder, the reporting mechanism, and methods of communication. Such a strategy will enhance engagement among the stakeholders.

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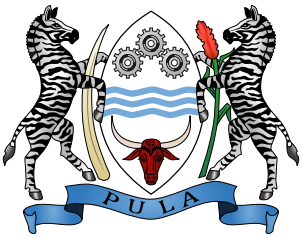
Annex 1. List of Stakeholders Consulted

Organization	Department	Personnel
Office of President	Disaster Management Office	Moagi Baleseng
		Nkosiyabo Moyo
		Tebogo Modiakgotla
Office of the President	National Strategy Office	Kealeboga Gaboeletswe
		Dr. Tabengwa
Ministry of Agricultural Development and Food Security	Livestock section	John Mthetho
Ministry of Agricultural Development and Food Security	Crop section	G.T. Ramokapane
		Grace G. Mafhoko
		Bapsy Bapaphi Jibichibi
Ministry of Agricultural Development and Food Security	Department of Agriculture Research	Nametso F. Monametsi
Ministry of Environment, Wildlife and Tourism	Department of Environmental Affairs	Charles Mojalemotho
Ministry of Environment, Wildlife and Tourism	Department of Forest and Range Resources	Godiraone Phunyeka
Ministry of Environment, Wildlife and Tourism	Department of Wildlife and national Parks	Dr. Cyril Taolo
Ministry of Finance and Development planning	Development	Catherine Matongo
		Boineelo Sealetsa
Ministry of Land Managements, Water and Sanitation Services	Department of Town and Regional Planning	T. Tshamekang
		M. Motsewabathata
Ministry of Land Management, Water and Sanitation Services	Department of Water Affairs	Ogopotse Pule
		Serufo Ntsabane

Organization	Department	Personnel
Ministry of Land Management, Water and Sanitation Services	Department of Lands and Housing	Charles Mpatane
Ministry of Local Government and Lands	Department of rural planning	Tshegofatso Lejawa
		Mothusi Maliehe
		Amongelang Pitso
		Billyboy Siabatho
Ministry of Youth Empowerment, Sport and Culture Development	Department of Youth	N. Lesiela
NGO	Botswana Climate Change Network	Tracy Sonny
NGO	Somarelang Tikologo	Chenesani Tamocha
NGO	Humana People to People	Moses Zulu
		Francis E. Ngambi
NGO	Kalahari Conservation Society	Keneilwe mathaba
		Mogi Radipata
NGO	BOCONGO	Rosi Mabotho
		Maipelo Phale
Parastatal	Botswana Institute of Technology and Research Institute	Prof Nnyaladzi Batisani
Parastatal	Botswana Institute of Development and Policy Analysis	Prof Patrick Malope
		Ikanyeng Gaodirelwe
University of Botswana	Faculty of Science	Prof Julius Atlhopheng


PULA