  

**[**Republic of Botswana**]**

**United Nations Development Programme**

**Country: Botswana**

**PROJECT DOCUMENT[[1]](#footnote-1)**

|  |
| --- |
| **Project Title:** Botswana’s Third National Communication (TNC) and First Biennial Update Report (FBUR) |
| **UNDAF Outcome (4): Environment and Climate Change** By 2016, the rural poor, especially women, will enjoy greater benefits from the environment and natural ecosystems.  |
| **UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:**Enhanced national capacity for climate change adaptation and mitigation**UNDP Strategic Plan Secondary Outcome:**  |
| **Expected CP Outcome(s):**Increased capacity for natural resource management, provision of cleaner energy services, and addressing climate change at the central and local government levels. |
| **Expected CPAP Output (s)**Updated Greenhouse Gas (GHG) Inventory and GHG Database.Improved V&A assessments to deal with climate change risk Enhanced capacity for mitigation and adaptationresponse to climate change at local and national levels |
| **Executing Entity/Implementing Partner:** Department of Meteorological Services |
| **Implementing Entity/Responsible Partners:**Department of Meteorological Services, UNDP |

**Brief Description**

The Project will support Botswana to prepare itsThird National Communication (TNC) to the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) and the First Biennial Update Report (BUR) in accordance with its commitments as a non-Annex 1 Party to the Convention.

Main components of the project are:

1. Upgrade and development of the National Greenhouse gas (GHG) inventory and Development of GHG Inventory Database
2. Sectoral studies on mitigation potential; enabling framework for mitigation measures
3. Socio-economic and climate-change modelling scenarios to identify and studies to prepare key adaptation action; enabling framework for their implementation
4. Institutional capacity building to mainstream climate change into decisions at different levels; increased capacity to produce subsequent National Communications NCs
5. Consultation, communication, identification and reporting of the intended Nationally Determined Contribution of Botswana to the 2015 Agreement under the UNFCCC

Programme Period: \_\_\_\_\_\_\_\_

Atlas Award ID: 00086062\_

Project ID: 00093463\_

PIMS # 5316\_\_\_\_\_

Start date: June 2015

End Date May 2019

Management Arrangements NIM\_\_\_\_\_

PAC Meeting Date \_\_\_\_\_\_\_\_

Total resources required USD 1,055,000\_\_\_\_

Total allocated resources: USD 1,055,000\_\_\_\_

* Regular \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other:
	+ GEF USD 952,000\_\_\_\_\_
	+ Government In-kind USD 103,000\_\_\_\_\_

Agreed by (Government):

Date/Month/Year

Agreed by (Executing Entity/Implementing Partner):

Date/Month/Year

Agreed by (UNDP):

Date/Month/Year

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## Acronyms

AC Assistant Coordinator

AIDS Acquired Immune Deficiency Syndrome

APCNEL Air Pollution Control and National Environmental Laboratory

APF Adaptation Policy Framework

APRs Annual Progress Reports

BAMB Botswana Agricultural Marketing Board

BAPA Buenos Aires Plan of Action

BCA BotswanaCollege of Agriculture

BEMP Botswana Energy Master Plan

BHC Botswana Housing Corporation

BMC Botswana Meat Commission

BOCCIM Botswana Confederation of Commerce, Industry and Manpower

BITRI Botswana Institute of Technology Research Centre

BPC Botswana Power Corporation

CBNRM Community Based Natural Resource Management

CBOs Community Based Organisations

CCA Common Country Assessment

CDM Clean Development Mechanism

CEDA Citizen Entrepreneurship Development Agency

CliRep Climate Report

CoP Conference of Parties

COPATH Comprehensive mitigation analysis process of Other Land Uses, Pastures, Agriculture and Harvest

CSO Central Statistics Office

DEA Department of Environment Affairs

DMS Department of Meteorological Services

DSSAT Decision Support for Agrotechnology Transfer

DWA Department of Water Affairs

DWMPC Department of Waste Management and Pollution Control

EAD Energy Affairs Division

EECG Energy Environment Computer and Geophysical Applications Consultants

EFs Emission Factors

EIA Environmental Impact Assessment

ESTs Environmentally Sound Technologies

ET Emissions Trading

FoES Faculty of Environmental Science

GACMO Greenhouse gas Abatement Costing Model

GCM Graphic Climate Model

GCOS Global Climate Observing System

GDP Gross Domestic Product

GEF Global Environment Facility

GFA Gantsi Farmers Association

GHG Greenhouse Gas

GIS Geographic Information System

GPG Good Practice Guidelines

HDRs Human Development Reports

HIV Human Immunodeficiency Virus

HOORC Harry Oppenheimer Okavango Research Centre

INC Initial National Communication

IPCC Intergovernmental Panel on Climate Change

IR Inception Report

IUCN International Union for Conservation of the Nature and Natural Resources

KGC Kalahari Gas Corporation

KP Kyoto Protocol

LEAP Long-range Energy Alternative Planning

LULUCF Land use, land use change and forestry

MAGICC/SCENGEN Model for the Assessment of Greenhouse gas-Induced Climate Change/Scenario Generator

MDGs Millennium Development Goals

MEMBOT Macro-Economic Model for Botswana

MEWT Ministry of Environment, Wildlife and Tourism

MFDP Ministry of Finance and Development Planning

MIASMA Modelling Framework for the Health Impact Assessment of Man-Induced Atmospheric Changes

MMEWR Ministry of Minerals, Energy and Water Affairs

MoA Ministry of Agriculture

MoE Ministry of Education

MoH Ministry of Health

MS Microsoft

MWT Ministry of Works and Transport

MYFF Multi Year Fund Framework

NAMPAADD National Master Plan for Arable Agriculture and Dairy Development

NAP National Action Plan

NAPA National Action Plan for Adaptation

NC National Communication

NCCC National Climate Change Committee

NCDC National Climatic DataCentre

NCSA National Conservation Strategy Agency

NCSP National Communication Support Program

NDP9 National Development Plan 9

NEX National Execution

NGOs Non-governmental Organizations

NPC National Project Coordinator

PC Project Coordinator

PFA Pandamatenga Farmers Association

PIU Projects Implementation Unit

PRS Poverty Reduction Strategy

PRs Progress Reports

QA/QC Quality Assurance/Quality Control

QPRs Quarterly Progress Reports

RIPCO(B) Rural Industries Promotion Company (Botswana)

SADC Southern African Development Community

SBAA Standard Basic Assistance Agreement

SGP Small Grants Program

SMME Small, Medium and Micro Enterprises

SNC Second National Communication

TNA Technology Needs Assessment

TORs Terms of References

TRs Technical Reports

UN United Nations

UNDAF United Nations Development Assistance Framework

UNDP United Nations Development Program

UNDP-CO United Nations Development Program Country Office

UNEP United Nations Environment Program

UNFCCC United Nations Framework Convention on Climate Change

UNOPS United Nations Office for Project Services

V&A Vulnerability and Adaptation

WB World Bank

WUC Water Utilities Corporation

Symbols

CH4 Methane

CO Carbon monoxide

CO2 Carbon dioxide

CO2-eq Carbon dioxide equivalent

Gg Gigagrams

HFCs Hydrofluorocarbons

Mg Megagrams

N2O Nitrous Oxide

NMVOC Non Methane Volatile Organic Compound

NOx Nitrogen Oxides

PFCs Perfluorocarbons

SF6 Sulphur hexafluoride

SOx Sulphur Oxides

T Ton

TjTerajoules

# Situation analysis

Botswana ratified the United Nations Framework Convention on Climate Change on 27 January, 1994 and the Kyoto Protocol on 8 August, 2003. The Department of Meteorological Services under the Ministry of Environment Wildlife and Tourism is the focal point for climate change. A National Committee on Climate Change (NCCC) chaired by the Permanent Secretary Ministry of Environment Wildlife and Tourism was established in 1999 and reconstituted in 2012 to oversee the preparation and implementation of the climate change activities. Botswana is developing her Climate Change Policy which will be supported by a Strategy and Action Plan to operationalize the Policy. The draft climate change policy is currently under-going a public consultation process.The vision of the policy is for Botswana to become a society that is climate resilient, and to craft a development pathway that follows a low carbon development pathway,

Climate change enabling activities under UNDP/GEF has supported capacity development in government and to increase public and political awareness. The preparation of the two previous NCs has led to the preparation of GHG inventories as well as an assessment of impacts, vulnerability, and adaptation to climate change. During the transition period between the first and second NC, Botswana prepared Technology needs assessment (TNA) in key areas of adaptation and mitigation capacity building as well as improvement of systematic observations. In addition, over the time since the Second National Communication, there is an increase in the investment such as the Botswana Police has introduced bicycle patrols at some police stations in the city of Gaboroneand there is support to develop an inventory to assess the carbon stocks and also develop reference emission levels (RELs) in the forestry sector. Activities of the project are ongoing and training on field inventory and calculation of emission factors has been done.

Despite the activities implemented during the preparation of the two previous NCs, challenges still exist with respect to estimation of GHG inventories, projections of climate change and also the integration of climate change into development. The country needs to continue strengthening its technical, financial, institutional and human resource capacities to fully address national and global environmental concerns and to achieve environmental sustainability. Climate change considerations are not fully integrated in sectoral policies and development plans.

The preparation of the two previous NCs has led to the development of expert teams for preparation of GHG inventories as well as the assessment of impacts, vulnerability, and adaptation to climate change. The same expert teams will be used for the preparation of the TNC and BUR in order to ensure the continuity and sustainability of the process as it is recommended in the UNFCCC decisions. Also different stakeholders will be involved in the process, the drafts of the TNC and BUR will be presented and discussed in multiple stakeholder consultation workshops. The TNC and BUR process will also require strengthening of the institutional arrangements.

Botswana’s first Biennial Update Report is expected to be submitted to the UNFCCC in 2015 and the Third National Communications Report submitted at COP 23. The Intended National Determined Contributions (INDCs) is expected to be submitted in September2015 to the UNFCCC.

# Strategy

The preparation and submission of National Communications (NCs) is an obligation and contribution of Botswana to the UNFCCC to fulfil its reporting requirements under Article 12 of the Convention. The project will also facilitate the preparation of Botswana’s First Biennial Update Report.The project will build upon work conducted during the Second National Communication process to enable Botswana to integrate climate change issues into the national development and sectoral planning and policy processes through national capacity building and institution strengthening.

This project will also be key in addressing the implementation of UNDAF Environment and Climate Change Outcome 4: by developing capacity in climate change to develop appropriate mitigation and adaptation measures. The project will also contribute to the development of specific mechanisms and processes at community level to improve natural resource management, conservation and adaptation. The project contributes directly to the achievement of UNDAF target for establishing and enabling environment for the Botswana’s natural ecosystems which require special attention to issues of land use, water resource management and, increasingly, to effectively mitigate the impacts of climate change on livelihoods and health.

The preparation of the TNC and BUR will involve a number of different stakeholders. The stakeholders of the project are the Government of Botswana, the policy makers at national and local level, local communities, the scientific community, industry and all those who could be affected by climate change. At the national level, a National Committee on Climate Change (NCCC) chaired by the Permanent Secretary Ministry of Environment Wildlife and Tourism which was established in 1999 and reconstituted in 2012 will oversee the preparation and implementation of the work programme of the TNC and BUR. The NCCC is composed of members from government Ministries/ Departments, private sector, academia and nongovernmental organizations. Other stakeholders such as community based organizations, women’s organizations and other disadvantaged groups will participate in the project through surveys and stakeholder workshops to share data and information on the impact of adaptation and mitigation policies and measures.

The objective of this project is to prepare and submit Botswana’s Third National Communication (TNC) to the UNFCCC and other new information required to meet Botswana’s obligations under the UNFCCC, which is the biennial update report.The project objective is in line with the GEF’s climate change mitigation strategic objective 3 under GEF-6 which is to Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies, programme 5: Integrate Findings of Convention Obligations and Enabling Activities into National Planning Processes and Mitigation Contributions.

The project will further enhance the national capacities to prepare consecutive BURS and NCs, develop an efficient GHG system, enhance national capacities on V & A assessments and capacities on mitigation analysisand will raise awareness on the climate change issues. It will also contribute to putting climate change issues higher on the national development agenda through strengthened cooperation and increased involvement of all relevant stakeholders in the process. In addition, it will build national capacities for participation in different mechanisms related to GHG mitigation and to fulfilling other commitments to the UNFCCC

The TNC responses to climate change will not just focus on economic and scientific solutions but will address gender concerns by recommending the building of adaptation capacities of both men and women to cope with the adverse impacts of climate change and reduce the negative effects on their livelihoods. The project initiatives of TNC will play a key role in promoting the need to integrate gender dimensions into climate change policy.The TNC process would develop strategies and policies to close the gaps in gender equality towards access to energy security and natural resource management in the context of adaptation towards climate change. Also, there is need for the TNC process to identify resources and expertise for implementing such strategies, which promote gender equality.

. The project objective will be achieved through a series of activities including updating of national circumstances, conducting the national GHGs inventory, and preparing measures for adaptation to the ongoing and future climate changes and for mitigation of climate change.

Outcome1: Updated Report on Botswana’s National Circumstances

This outcome would involve the updating of the information on (i) Geographic profile (ii) Climate profile (iii) Natural resources: water resources, forests, land use, biodiversity (iv) Economic and sector profile: agriculture, livestock, energy, mining, transport, industry, tourism, fisheries, (v) Infrastructure: population, public health, education, environment. (vi) Institutional arrangements relevant to the implementation of the UNFCCC and NC preparation process. Information provided on national circumstances is critical for understanding Botswana’s vulnerability, capacity and options for adapting to the adverse effects of climate change, as well as options for addressing GHG emissions within the context of sustainable development. There is a need to update the climate profile with recent extreme weather events.

Outcome 2: Information of GHG inventory for 2006and 2012

Development of National GHG inventory system: It is necessary to build on the base of existing knowledge of institutions engaged in the preparation of earlier national communications for the estimation of GHG emission Inventories There is need to bridge the gap in activity data identified in inventory preparation of SNC . There is need also to continue with: (i) Institutional arrangements (i.e., the team that worked on GHG emission inventory for SNC) and further strengthening and streamlining of the institutional structure to sustain and take care of long term reporting requirements of national GHG inventory and the estimation of GHG emissions. (ii) Establishment of database management including methodological issues to an extent possible iii) Development of system for archiving and continuous update of the GHG database

The national GHG inventory in the SNC covered the year 2000 as a base year and was prepared using the 1996 IPCC Guidelines. The inventory in the TNC will be done for the years 2006 and 2012 as base years. The energy sector will include inventories of: (a) GHGs from fossil fuel combustion; (b) methane (CH4) emissions from biomass energy combustion; (c) CH4 fugitive emissions from coal mining and post-mining activities.

In the agriculture sector, the following inventories will be conducted: (a) nitrous oxide emissions from croplands; (b) methane emissions from enteric fermentation in domestic livestock; and, (c) methane and nitrous oxide emissions from animal manure management system. Inventory will also include activities from industrial process and waste activities. For the LULUCF sector the emissions by sources and removals by sinks in the LUCF inventory include changes of carbon in forest and other woody biomass stocks, forest conversion and changes in soil carbon. In general, the proposed expanded activities for the TNC Project (relative to the SNC Project) will involve the compilation of a more comprehensive and updated national GHG inventory. There is a need to build capacity in the validation process of forestry sector data, which in most cases are obtained remotely. The experiences gained and linkages established with the various agencies for the NCs and initiatives such as the collaboration between SADC and GesellschaftfürInternationaleZusammenarbeit (GIZ), JICA which have components of producing national forest inventories will be instrumental in the GHG preparation. The outcome will also develop a GHG Inventory Database, create activities for uncertainties reduction and also develop GHG emissions projections for the years 2015 and 2030.Improving the accuracy level of GHG Inventory will also require strengthening the institutional arrangements of the inventory process. Also a shift from TIER 1 to higher TIERS is foreseen, where possible.

Outcome 3: Future climate risk and adaptation measures assessed

This outcome will involve reassessing the vulnerability of the most important socio-economic and resource sectors: agriculture, water resources, ecosystems and human health. The reassessment will look at (i) Preparing socioeconomic scenarios for assessment of both climate change impact and adaptation across differing spatial scales. (ii)Water quality impacts and treatment costs and costs of infrastructure. (iii) Research and development for seeds and techniques, also new infrastructure to adapt like machinery and irrigation systems

The assessment will look at the current vulnerability, estimate the future conditions and vulnerabilities and assess the risks of climate change to these sectors. The activities will include the development of climate projections using multiple GCMs and RCMs and development climate change risk and vulnerability assessment tool and framework and also identify adaptation response measures.

The proposed activities will improve research on vulnerability and adaptation assessment and will also address issues relating to gender. The sectors that are most vulnerable to the impacts of climate change and assessments of the potential impacts were identified in the previous NCs. The TNC will build on the previous NCs and identify sectors that are at greater risks from severe weather events.

The assessments will include inputs from indigenous knowledge report that has been compiled on the use of indigenous and traditional knowledge and practices for adaptation.

Outcome 4: GHG abatement measures

This outcome focuses mainly on the assessment of existing climate change mitigation policies, measures and strategies, and coming up with suggestions for future policies, measures and actions. Assessments will be carried out to determine the feasible policy and technology options for the country in mitigating climate change, as well as the social and economic costs to achieve these mitigation targets. Mitigation Assessments that were undertaken in the NCs will be updated using the new tools like Long-range Energy Alternatives Planning system (LEAP) that were not available during the previous NC preparations. These assessments will contribute to the ongoing work to develop Low Emissions Development Strategies and NAMAs.

Outcome 5: Description of relevant information

Assessment of capacity development needs (including education and training) and Technological Needs Assessment was submitted in the Second National Communication. This information will be updated and new potential needs assessed and incorporated into the revised TNA. Assessment of the status and needs for research and systematic observations and evaluation of financial resources and technical support received from national and international sources. There will be a need to document the capacity built in Botswana in order to sustain quality and timely reporting requirements.

Outcome 6: Compilation and production of National Communication Report

A draft national communication report would be prepared and presented to stakeholders for their input. The outputs of activities under this outcome are expected to further improve the technical inputs of climate change and integrate climate change into development at both local and national levels.

Outcome 7: Preparation of Biennial Update Report (BUR)

BUR will cover an update of the following:

a) Information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis, this will contain updates on development priorities and objectives.

b) A national inventory of anthropogenic emissions by sources and removal by sinks of all Greenhouse Gases (GHGs) not controlled by the Montreal Protocol for the following sectors: energy activities, Industrial processes, agriculture activities, land use change and forestry activities (LUCF), and waste sector activities for the years 2010 and 2011. Information on the improvement of the quality of activity data, capacity building of institutions for GHG data base archiving, including methodologies for estimating GHG emissions will be provided.

c) Information on mitigation actions their effects including associated methodologies and assumptions. The information on mitigation action will be provided in a tabular format providing name and description of the action, methodologies and assumptions, objectives of the action and steps taken, progress on the implementation of the action and information on international markets.

d) Information on domestic measurement, reporting and verification arrangements; nationally relevant MRV approaches and methods will be developed and adopted. Issues that will be addressed under the MRV system will include (i) the scope of MRV, (ii) institutional arrangements (iii) MRV tools (iv) GHG emission reduction target (v) background information of each sector before any regulations/policies (vi) definition of base year and baseline (vii) description of mitigation actions and plans and (viii) coverage and progress indicators.

e) Information on the level of support received to enable the preparation and submission of BURS.

On completion of all activities and expected outcomes including the relevant outputs the First Biennial Update Report will be compiled based on guidelines contained in Annex II of Decision 2/CP.17 for submission to the Executive Secretary of the United Nations Framework Convention on Climate Change.

Outcome 8: Preparation of the iNDC to the 2015 Agreement under the UNFCCC

This outcome will address key feasibility questions regarding national GHG reduction potential through identification and/or validation of findings from ongoing and previous studies. Moreover, appropriate analysis will be carried out to provide essential support for an informed policy decision making process with regards to Botswana’s iNDC. The planned activities within this component may include the assessment/validation of GHG baseline scenarios in specific sectors, the identification/validation of priority sectors for inclusion in INDC, a costing of/needs for action on these priority sectors, in line with COP guidance.

The Third National Communication and First Biennial Update Report of Botswana to the UNFCCC will be developed, submitted and disseminated.

# Project Results Framework:

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| --- |
| **This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:** *Enhanced national Policy Frameworks and Institutional capacities for effective Climate Change Adaptation and Mitigation* |
| **Country Programme Outcome Indicators:***National and sub-national integrated climate change adaptation and mitigation policy, strategy and action plan developed* |
| **Primary applicable Key Environment and Sustainable Development Key Result Area:** *Promote climate change adaptation*  |
| **Applicable GEF Strategic Objective and Program:***CCM-3: Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies**Program 5: Integrate findings of Convention obligations and enabling activities into national planning processes and mitigation targets* |
| **Applicable GEF Expected Outcomes:***Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation* |
| **Applicable GEF Outcome Indicators:***Number of countries meeting convention reporting requirements and including specific GHG reduction targets* |
|  | **Indicator** | **Baseline** | **Targets** **End of Project** | **Source of verification** | **Risks and Assumptions** |
| **Project Objective[[2]](#footnote-2)****(equivalent to output in ATLAS)****The immediate objective of the project is to assist the country in the preparation and submission of its Third National Communication (TNC) and First Biennial Update Report to the Conference of the Parties to the UNFCCC**  | Third National Communication (TNC), First Biennial Update Report and iNDCEndorsed by Gov (FBUR) and submitted to UNFCCC | Botswana’s Second National Communication | * Botswana’s First Biennial Update Report **(FBUR)** to be endorsed and submitted to the UNFCCC in 2015
* Botswana’s Third National Communication Report **(TNC)** to be endorsed and submitted to the UNFCCC at COP23 in 2017
* The iNDC to be submitted in September 2015 to the UNFCCC.
 | * Official Launch.
* Government endorsement decision.
* UNFCCC website uploaded.
 | * Political support from all relevant stakeholders and the Government.
* Technical capacities
* Climate Change is mainstreamed into national development plans
 |
| **Outcome 1[[3]](#footnote-3)****Intended Nationally Determined Contribution to 2015 Agreement** | Consultation, communication, identification and reporting of the intended Nationally Determined Contribution of Botswana to the 2015 Agreement under the UNFCCC | No iNDC currently | * Intended nationally determined contributions document prepared, launched and presented.
 | * iNDC to the 2015 Agreement prepared and communicated to the UNFCCC
* Project reports
* Baseline reports
* Policy report
* Recommendations
* Workshop reports
 | Difficulty meeting with the stakeholders with the requisite informationLack of dataLack of national agreement on INDCData available, accessible and reliable. |
| **Outcome 2****National Circumstances**  | National circumstances chapter | INC and SNC  | * National circumstances chapter for the TNC
* National circumstances chapter for the BUR
 | * Project preparation guidelines
* National Circumstances chapters
* Expert review reports
 | Availability of dataClimate change is included in the curriculumProject is supported by the media |
| **Outcome 3[[4]](#footnote-4)****National GHG Inventory and Development of GHG Inventory Database** | National GHG Inventory for 2006, 2010, 2011 and 2012GHG Inventory database | National Inventory Report under SNC | * National GHG Inventories for TNC (for the years 2006 and 2012) and BUR (for the base year 2010 and 2011)
* National GHG Database
* Institutionalization of the GHG process
* GHG emission projections for the years 2015 and 2030
 | * National and international statistical sources
* GHG chapter for BUR and TNC
* GHG Database established
* Expert review reports
 | Availability of dataCapacity exists to carry out GHG exercise |
| **Outcome 4****Vulnerability and Adaptation to Climate Change: Future climate risk and adaptation measures assessed** | Climate change projections using Regional Climate change ModelsImpact Assessment and adaptation measures for key sectors | V& A chapter under the SNCPast research on climate change impacts | * Improved understanding of climate change projectionsusing multiple GCMs and RCMs
* Improved understanding of climate change impacts projections for the key sectors
* Assessment of gender specific impacts of Climate change in the water, agriculture, ecosystem services, health, human settlements
* V& A chapter for the TNC
* Adaptation framework describing measures currently implemented and proposed measures.

adaptation action plans | * IPCC climate change scenarios; PRECIS HardleyCentre.
* V&A chapter
* UNDP Guidebook for assessment of vulnerability and preparation of adaptation measures
* Expert review reports
 | V&A data is used to manage different disasters such as floods and management of animal diseasesCapacity exists to carry out assessment exercise  |
| **Outcome 5****Climate change mitigation: GHG abatement measures** | Mitigation Team establishedMitigation Options | Information from INC and SNCExisting knowledge on and CDM from the DNAExisting knowledge on NAMA and CDM from UNFCCCUNFCCC NAMA Registry | * Increased understanding of GHG mitigation policies and measures.
* Improved capacity on NAMA development
* NAMA chapter for the TNC
* NAMA chapter for the BUR
 | * Project preparation guidelines
* Expert review reports
 | Capacity exists to carry out assessment exercise |
| **Outcome 6****Other Info**considered relevant to the achievement of the Convention | Description of relevant information (systematicobservations,research on climate change, public awareness and understandingof climate changetechnical and financial constraints). | INC and SNC | * Status and needs for research on Systematic observations of climate documented
* Report on public awareness and understanding of climate change prepared
* Report on technical and financial constraints prepared
* Documentation on Climate Change Communication Strategy made available
* Better understanding of climate resilience pathways feasible for Botswana ensured
* Debate on the search for long term solutions to climate change stimulated
* Options for integrating anticipated climate change impacts, with current and future social vulnerabilities and mitigation into development described and evaluated
* Linking climate change responses with sustainable development
 | * Project preparation guidelines
* Expert review reports
* Other Info chapter
 |  |
| **Outcome 7****Compilation and production Botswana’s First Biennial Update Report and****Compilation and production of National Communication Report** | FBUR andTNC Document | INC and SNC | BUR Report:* National circumstances updated
* National inventory for the base year 2010 and 2011 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities prepared
* Information on climate change NAMAs described
* Constraints and gaps, and related financial, technical and capacity needs explained
* Information on the level of support received to enable the preparation and submission of BUR provided
* Domestic measurement reporting and verification options assessed
* Information on the level and nature of support required developed

TNC report* National Circumstances, Executive Summary,
* National GHG Emission Inventory,
* Future climate risk and adaptation measures,
* Climate change mitigation, measures, options and actions
* Other information considered relevant to the achievement of the objective of the Convention
* Findings fromNational

Communicationprocess integrated into national developmentpolicies, sectoral plans and climate change strategies | * UNFCCC Guideline for preparation of non-Annex I BUR.
* Expert review reports
* FBUR document endorsed by Government and submitted to UNFCCC Secretariat
* UNFCCC Guideline for preparation of non-Annex I NC.
* Expert review reports
* TNC endorsed by Government and submitted to UNFCCC Secretariat
 |  |
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# Total budget and work-plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Award ID:**  | 00086062 | Project ID(s): | 00093463 |
| **Award Title:** | Botswana’s Third National Communication (TNC) and First Biennial Update Report (FBUR) |
| **Business Unit:** | *BWA10* |
| **Project Title:** | Botswana’s Third National Communication (TNC) and First Biennial Update Report (FBUR) |
| **PIMS no** | *5316* |
| **Implementing Partner (Executing Agency)**  | Department of Meteorological Services |

| **GEF Outcome/Atlas Activity** | **Responsible Party/** **Implementing Agent** | **Fund ID** | **Donor Name** | **Atlas Budgetary Account Code** | **ATLAS Budget Description** | **Amount Year 2015 (USD)** | **Amount Year 2016 (USD)** | **Amount Year 2017 (USD)** | **Amount Year 2018 (USD)** | **Total (USD)** | **See Budget Note:** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTCOME 1:**Preparation of INDCs to the 2015 UNFCCC agreement | **DMS** | **62000** | **GEF** | 71200 | International consultants | $20,000 |  |  |  | $20,000 | 1 |
| 71400 | Contractual services -  | $30,000 |  |  |  | $30,000 | 3 |
| 71600 | Travel | $20,910 |  |  |  | $20,910 | 4 |
| 74500 | Miscellaneous | $3,000 |  |  |  | $3,000 | 9 |
| 75700 | workshops | $17,000 |  |  |  | $17,000 | 10 |
|  | **Total Outcome 1** | **$90,910** |  |  |  | **$90,910** |  |
| **OUTCOME 2:** National Circumstances | **DMS** | **62000** | **GEF** | 71300 | Local Consultants |  | $13,000 |  |  | $13,000 | 2 |
|  | **Total Outcome 2** |  | **$13,000** |  |  | **$13,000** |  |
| **OUTCOME 3:** Greenhouse gas Inventory | **DMS** | **62000** | **GEF** | 71200 | International consultants | $10,000 |  |  |  | $10,000 | 1 |
| 71400 | Contractual services -  | $54,000 | $23,000 |  |  | $77,000 | 3 |
| 71600 | Travel | $5,000 | $5,000 |  |  | $10,000 | 4 |
| 74500 | Miscellaneous | $2,000 | $2,000 |  |  | $4,000 | 9 |
| 75700 | Training workshops | $4,000 |  |  |  | $4,000 | 10 |
|  | **Total Outcome 3** | **$75,000** | **$30,000** |  |  | **$105,000** |  |
| **outcome 4:**Vulnerability and Adaptation  | **DMS** | **62000** | **GEF** | 71200 | International Consultants | $10,000 |  |  |  | $10,000 | 1 |
| 71400 | Contractual services -  | $60,000 | $50,000 | $50,000 |  | $160,000 | 3 |
| 74500 | Miscellaneous | $2,000 | $2,000 | $1,000 |  | $5,000 | 9 |
| 75700 | Training workshops | $5,000 |  |  |  | $5,000 | 10 |
|  | **Total Outcome 4** | **$77,000** | **$52,000** | **$51,000** |  | **$180,000** |  |
| **OUTCOME 5:**Mitigation actions | **DMS** | **62000** | **GEF** | 71200 | International Consultants |  | $10,000 |  |  | $10,000 | 1 |
| 71400 | Contractual services -  |  | $50,000 |  |  | $50,000 | 3 |
| 74500 | Miscellaneous | $2,000 | $3,000 |  |  | $5,000 | 9 |
| 75700 | Training workshops | $5,000 | $5,000 |  |  | $10,000 | 10 |
|  | **Total Outcome 5** | **$7,000** | **$68,000** |  |  | **$75,000** |  |
| **outcome6:**Other information considered relevant to the achievement of the Convention | **DMS** | **62000** | **GEF** | 71300 | Local Consultants | $10,000 |  | $5,000 |  | $15,000 | 2 |
| 71600 | Travel | $5,000 | $7,000 | $5,000 | $5,000 | $22,000 | 4 |
| 74200 | Audio Visual & Print Prod Cost |  | $5,000 |  | $5,000 | $10,000 | 11 |
| 74500 | Miscellaneous | $2,000 | $2,000 | $2,000 | $5,000 | $11,000 | 9 |
|  | **Total Outcome 6** | **$17,000** | **$14,000** | **$12,000** | **$15,000** | **$58,000** |  |
| **outcome7:**Compilation and production of and TNC | **DMS** | **62000** | **GEF** | 71300 | Local Consultants |  | $7,000 | $8,000 |  | $15,000 | 2 |
| 74200 | Audio Visual & Print Prod Cost |  | $10,545 | $8,000 |  | $18,545 | 11 |
|  | **Total Outcome 7** |  | **$17,545** | **$16,000** |  | **$33,545** |  |
| **outcome8:**Botswana’s first Biennial Update Report Completed and submitted to UNFCCC | **DMS** | **62000** | **GEF** | 71200 | International consultants | $50,000 |  |  |  | $50,000 | 1 |
| 71400 | Contractual services -  | $215,000 |  |  |  | $215,000 | 3 |
| 71600 | Travel | $10,000 |  |  |  | $10,000 | 4 |
| 74200 | Audio Visual & Print Prod Cost | $10,000 |  |  |  | $10,000 | 11 |
| 74500 | Miscellaneous | $5,000 |  |  |  | $5,000 | 9 |
| 75700 | workshops | $10,000 |  |  |  | $10,000 | 10 |
|  | **Total Outcome 8** | **$300,000** |  |  |  | **$300,000** |  |
| **outcome9:**MONITORING, &EVALUATION |  |  |  | 74100 | Professional Services |  |  | $10,000 |  | $10,000 | 8 |
|  | **Total Outcome 9** |  |  | **$10,000** |  | **$10,000** |  |
| **PROJECT MANAGEMENT** | **DMS** | **62000** | **GEF** | 71400 | Contractual services | $20,000 | $20,000 | $20,000 |  | $60,000 | 4 |
| 72800 | IT equipment | $10,000 |  |  |  | $10,000 | 7 |
| 72500 | Office supplies | $2,500 | $2,000 | $2,000 |  | $5,500 | 6 |
| 74500 | Miscellaneous | $2,000 | $2,000 | $2,000 | $545 | $6,545 | 9 |
| 74598 | Direct costs | $4,500 |  |  |  |  |  |
|  | **Total Project Management** | **$38,000** | **$24,000** | **$24,000** | **$545** | **$86,545** |  |
|  |  |  |  |  | **Project totals** | **$604,910** | **$218,545** | **$113,000** | **$15,545** | **$952,000** |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Summary of Funds:[[5]](#footnote-5)** |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | AmountYear 1 | AmountYear 2 | AmountYear 3 | AmountYear 4 | Total |
|  |  |  |  | **GEF**  | $604,910 | $218,545 | $113,000 | $15,545 | $952,000 |
|  |  |  |  | **Government In-kind** | $26,000 | $26,000 | $26,000 | $25,000 | $103,000 |
|  |  |  |  | **TOTAL** | $603,910 | $244,545 | $139,000 | $40,545 | $1,055,000 |

Project Budget Notes

|  |  |  |
| --- | --- | --- |
| 1. International consultants
 | 71200 | International experts in Green House Inventory, Vulnerability and Adaptation and Mitigation to oversee and guide works of local experts  |
| 1. Local consultants
 | 71300 | Local experts Green House Inventory, Vulnerability and Adaptation and Mitigation |
| 1. Contractual Services- Individuals
 | 71400 | National officers assigned to coordinate and assist Inventory process, vulnerability and staff assigned to technical backstopping activities  |
| 1. Travel
 | 71600 | Travel includes internal travel associated with coordination, consultation. supporting outreach and data collection requirements  |
| 1. Contractual Services Companies
 | 72100 | Services supporting to consultation and development processes  |
| 1. Office Supplies
 | 72500 | Support for project management functions |
| 1. IT Equipment
 | 72800 | Laptop and one desktop unit |
| 1. Professional Services
 | 74100  | Annual Project audits , Terminal report |
| 1. Miscellaneous
 | 74500 | Miscellaneous support to project activities and management |
| 1. Workshops
 | 75700 | Training/capacity building workshops |
| 1. Audio Visual & Print Prod Cost
 | 74200  | Printing and dissemination of Communication report  |

| Outputs/activities | **Year 1** | **Year 2** | **Year 3** |
| --- | --- | --- | --- |
| **1st Q** | **2nd Q** | **3rd Q** | **4th Q** | **1st Q** | **2nd Q** | **3rd Q** | **4th Q** | **1st Q** | **2nd Q** | **3rd Q** | **4th Q** |
| **1.Project Inception workshop** |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. **National Circumstances** |  |  |  |  |  |  |  |  |  |  |  |  |
| Review and assess national circumstances based on SNC |  |  |  |  |  |  |  |  |  |  |  |  |
| Draft Chapter for BUR  |  |  |  |  |  |  |  |  |  |  |  |  |
| Review and assess national circumstances based on BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Draft Chapter for TNC |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3. Greenhouse gas inventory** |  |  |  |  |  |  |  |  |  |  |  |  |
| National coordination /training workshop |  |  |  |  |  |  |  |  |  |  |  |  |
| Choose methods and identify activity data |  |  |  |  |  |  |  |  |  |  |  |  |
| Collect the necessary activity data from available sources. |  |  |  |  |  |  |  |  |  |  |  |  |
| Quality control the activity data |  |  |  |  |  |  |  |  |  |  |  |  |
| Review emission factors |  |  |  |  |  |  |  |  |  |  |  |  |
| Conduct the uncertainty analysis for all key source categories |  |  |  |  |  |  |  |  |  |  |  |  |
| Undertake national GHG inventories for the year 2006, 2010, 2011 and 2012 according to the guidelines for the preparation of National Communications (17/CP.8) |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement QA/QC procedures for key sectors/source categories |  |  |  |  |  |  |  |  |  |  |  |  |
| Estimate inventory 2006, 2010, 2011, 2012  |  |  |  |  |  |  |  |  |  |  |  |  |
| Expert review on the results obtained from the 2010,2011 GHG Inventory |  |  |  |  |  |  |  |  |  |  |  |  |
| Final GHG Inventory 2010, 2011 |  |  |  |  |  |  |  |  |  |  |  |  |
| Expert review on the results obtained from the 2006, 2012 GHG Inventory  |  |  |  |  |  |  |  |  |  |  |  |  |
| Final GHG Inventory 2006, 2012 |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop national GHG inventory strategy |  |  |  |  |  |  |  |  |  |  |  |  |
| **4. Programmes containing measures to facilitate adequate adaptation to climate change** |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.1. Organize a national training/coordination workshop |  |  |  |  |  |  |  |  |  |  |  |  |
| V&A team setup |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.2. Revise the scenarios for climate change,  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.3. Analyse the climate scenario |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.4Prepare the report |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop socio-economic scenarios |  |  |  |  |  |  |  |  |  |  |  |  |
| Conduct V &A analysis for the specific sectors |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare the report |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize workshop to review V&A report |  |  |  |  |  |  |  |  |  |  |  |  |
| Final Vulnerability assessment and national adaptation plan,  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5. Programmes containing measures to mitigate climate change** |  |  |  |  |  |  |  |  |  |  |  |  |
| Establish the Team |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize training workshops |  |  |  |  |  |  |  |  |  |  |  |  |
| Select methodology |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop a series of mitigation scenarios to abate the increase of the GHG emissions |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyse socio-economic consequences  |  |  |  |  |  |  |  |  |  |  |  |  |
| Draft Mitigation Report |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize workshop to review mitigation |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare report on mitigation for TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| Review mitigation actions based on BUR guidelines |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify constraints and gaps |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare report on mitigation for BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize awareness activities |  |  |  |  |  |  |  |  |  |  |  |  |
| Review constraints and gaps |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify constraints and gaps related to financial, technical etc. |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a report for constraints and gaps for BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify priority support received and needed |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a report for BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize a training workshop on measurement reporting and verification (MRV) |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a report on information on domestic MRV for the BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| **6. Other information considered relevant to achievement of the objective of the Convention** |  |  |  |  |  |  |  |  |  |  |  |  |
| Update information of the national programmes for research and systematic observation and assess the needs of research and observation |  |  |  |  |  |  |  |  |  |  |  |  |
| Update information on institutional framework for implementation of Article 6 of the Convention, implemented and planned activities; |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide information on capacity-building activities in accordance with the decision 2/CP.7 focusing on coordination and sustainability of capacity-building process and integration of climate change adaptation programmes into medium and long-term planning. |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a report for TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| **7. Constraints and gaps and related financial, technical and capacity needs**  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify gaps, needs and priorities for education, training and public awareness on climate change; |  |  |  |  |  |  |  |  |  |  |  |  |
| Provide information on financial, technical and capacity needs while undertaking the activities, measures and programmes to implement the Convention and improve the national communication on the continuous basis |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a report for TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| **8. Preparation and submission of the TNC/BUR** |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a Draft BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize workshops to review the BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Revise the BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Prepare a Draft TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| Organize workshops to review the TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| Revise the TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| submission of the BUR |  |  |  |  |  |  |  |  |  |  |  |  |
|  submission of the TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| Publication of the BUR |  |  |  |  |  |  |  |  |  |  |  |  |
| Publication of the TNC |  |  |  |  |  |  |  |  |  |  |  |  |
| 9. **Preparation of the INDC to the 2015 Agreement under the UNFCCC** |  |  |  |  |  |  |  |  |  |  |  |  |
| assessment/validation of a GHG baseline scenarios in specific sectors |  |  |  |  |  |  |  |  |  |  |  |  |
| identification/validation of priority sectors for inclusion in INDC |  |  |  |  |  |  |  |  |  |  |  |  |
| assessment/validation of GHG mitigation potential of priority sectors and a costing of/needs for action |  |  |  |  |  |  |  |  |  |  |  |  |
| Priority sectors will be identified, |  |  |  |  |  |  |  |  |  |  |  |  |
| adaptation measures suggested, cost-benefit analyses done |  |  |  |  |  |  |  |  |  |  |  |  |
| costing of/needs for action on these sectors made |  |  |  |  |  |  |  |  |  |  |  |  |

**KEY: BROWN- INDC**

**RED- BUR**

**GREEN-TNC**

# Management Arrangements

The Department of Meteorological Services under the Ministry of Environment, Wildlife and Tourism is the Implementing Partner and will implement the project following National Implementation Modality (NIM) guidelines and requirements. The DMS remains accountable for managing the project, achieving agreed outputs and for the effective use of UNDP resources.

The Government of Botswana will provide in-kind support through the provision and Chairing of a Project Steering Committee, managing the project, the use of a Project office, use of office equipment, facilities for meetings and the provision of transport.

A National Committee on Climate Change (NCCC) chaired by the Permanent Secretary Ministry of Environment Wildlife and Tourism will oversee the preparation and implementation of the work programme of the Third National Communication and DMS acts as the secretariat to the NCCC. The Institutional framework for the Third National Communication will build on the one put in place for the Initial National Communication and SNC.

A Project Implementation Unit i.e. the Climate Change Office within the MEWT will consist of a Project Manager (PM) and a Project Administrator (PA). The Implementing Partner appoints the Project Manager. The Project Manager is responsible for day-to-day management and decision-making for the project, including planning, quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. PA provides project administration and management support to the PM as required by the needs of the project or the PM, i.e. circulating discussion papers and draft reports, raising public awareness of project activities and coordinating consultations and workshops.

Project Manager carries out day-to-day management and decision-making for the project based on agreed work plans. A team of national experts will carry out the technical work and will work closely with the project manager.

At policy level the NCCC that was established during the preparation of the Initial National Communication (INC) will continue to set the policies and make institutional and executive management decisions for the project at implementation. The NCCC is the body that approves all the reports for the project.The NCCC provides project assurance reviews at designated decision points during the running of the project or as necessary when raised by the PM. Considering the wide range of requirements the NCCC will establish Technical Teams which will also be used in the preparation of the Burs and NC.

UNDP will act as the implementing agency/senior suppler for the project and will also provide oversight and monitoring functions. Staff and consultants will be contracted according to the established rules and regulations of the United Nations and all financial transactions and agreements will similarly follow the same rules and regulations.

**Project Manager**

**Project Board**

**Senior Beneficiary:**

**National Climate Change Committee (NCCC)**

**Executive: Ministry of Environment Wildlife and Tourism**

**Senior Supplier: UNDP/GEF**

**Project Assurance**

UNDP, NCCC, UNFCCC

**Project Support**

UNDP, Consultants

**Project Organisation Structure for Preparing the Third National Communication**

**TEAM A**

Greenhouse gas Inventory

**TEAM C**

Mitigation

**TEAM B**

Vulnerability and Adaptation assessments

# Monitoring Framework and Evaluation

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

**Project start:**

A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

1. Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
2. Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
3. Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
4. Discuss financial reporting procedures and obligations, and arrangements for annual audit.
5. Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

**Quarterly:**

* Progress made shall be monitored in the UNDP Enhanced Results Based Managment Platform.
* Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
* Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
* Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

**Bi-annual progress:**

* Status Survey Questionnaires to indicate progress and identify bottleneckes as well as technical support needs will be carried out twice a year.

**Periodic Monitoring:**

A detailed schedule of project reviews meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

*Day to day monitoring of implementation progress* will be the responsibility of the Project Coordinator, Director or CTA (depending on the established project structure) based on the project's Annual Work plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

*Periodic monitoring of implementation progress* will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

**End of Project:**

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project’s results.

**Audit clause:**

Audit on project will follow UNDP Financial Regulations and Rules and applicable Audit policies.

**Learning and knowledge sharing:**

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

**Communications and visibility requirements:**

Full compliance is required with UNDP’s Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The [GEF logo](http://www.thegef.org/gef/GEF_logo) can be accessed at: <http://www.thegef.org/gef/GEF_logo>. The [UNDP logo](http://intra.undp.org/coa/branding.shtml) can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF’s Communication and Visibility Guidelines (the “GEF Guidelines”). The GEF Guidelines can be accessed at: <http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf>. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

 **M& E work-plan and budget**

| **Type of M&E activity** | **Responsible Parties** | **Budget US$***Excluding project team staff time* | **Time frame** |
| --- | --- | --- | --- |
| Inception Workshop and Report | * Project Manager
* UNDP CO, UNDP GEF
 | Indicative cost: 4,000 | Within first two months of project start up  |
| Measurement of Means of Verification of project results. | * UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.
 | To be finalized in Inception Phase and Workshop.  | Start, mid and end of project (during evaluation cycle) and annually when required. |
| Measurement of Means of Verification for Project Progress on *output and implementation* | * Oversight by Project Manager
* Project team
 | To be determined as part of the Annual Work Plan's preparation.  | Annually prior to ARR/PIR and to the definition of annual work plans  |
| ARR/PIR | * Project manager and team
* UNDPCO
* UNDP RTA
* UNDP EEG
 | None | Not applicable |
| Periodic status/ progress reports | * Project manager and team
 | None | Quarterly |
| Mid-term Evaluation | * Project manager and team
* UNDP CO
* UNDP RCU
* External Consultants (i.e. evaluation team)
 | None | Not applicable for EA projects |
| Final Evaluation | * Project manager and team,
* UNDP CO
* UNDP RCU
* External Consultants (i.e. evaluation team)
 | None  | Not applicable for EA projects |
| Project Terminal Report | * Project manager and team
* UNDP CO
* local consultant
 | 0 | At least three months before the end of the project |
| Audit  | * UNDP CO
* Project manager and team
 | Indicative cost per year: 2,000  | Yearly |
| Visits to field sites  | * UNDP CO
* UNDP RCU (as appropriate)
* Government representatives
 | For GEF supported projects, paid from IA fees and operational budget  | Yearly |
| **TOTAL indicative COST** Excluding project team staff time and UNDP staff and travel expenses  |  US$ 10,000 (+/- 5% of total budget) |  |

# Legal Context

**Botswana signed the** [***Standard Basic Assistance Agreement (SBAA)***](http://intra.undp.org/bdp/archive-programming-manual/docs/reference-centre/chapter6/sbaa.pdf) **on 15th May 1975**

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP’s property in the implementing partner’s custody, rests with the implementing partner.

The implementing partner shall:

1. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
2. assume all risks and liabilities related to the implementing partner’s security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

# annexes

## Annex A. Risk Analysis

**Risk Analysis**. *Use the standard UNDP Atlas* [*Risk Log template*](http://content.undp.org/go/prescriptive/Project-Management---Prescriptive-Content-Documents/download/?d_id=1266198&)*. For UNDP GEF projects in particular, please outline the risk management measures including improving resilience to climate change that the project proposes to undertake.*

## Annex B. Terms of Reference:

**The Project coordinator (PC) will have the following duties:**

* Prepare a detailed Initial Year Work Plan divided in quarterly timeframe with activities, progress indicators and project budget, prepared on the basis of the Work Plan in the Project Document;
* Prepare a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of program related partners;
* Prepare a detailed schedule of project review meetings in consultation with stakeholder representatives and incorporate it in the Project Inception Report;
* Develop a Project Inception Report including the above requirement immediately following the Inception Workshop.
* Conduct day-to-day monitoring of implementation progress on the project’s Annual Work Plan and its indicators
* Prepare and submit to MEWT and UNDPquarterly progress and financial reports;
* Coordinate and oversee the preparation of the outputs of the SNC;
* Ensure effective communication and adequate information flow with the relevant authorities, institutions and government departments in close collaboration with the NCCC;
* Ensure appropriate stakeholder participation in the project implementation and coordinate the work of all stakeholders under the guidance of the MEWT and NCCC and in consultation with the UNDP office;
* Ensure that information is available to the NCCC about all Government, private and public sector activities, which impact on capacity development;
* Maintain and establish additional links with other related national and international programs and National Projects;
* Prepare the Terms of Reference for consultants and experts and ensure their timely hiring;
* Guide the work of consultants and experts and oversee compliance with agreed work plan;
* Identify training needs at contracted national institutions and for other project stakeholders;
* Organize and coordinate the procurement of services and goods under the project;
* Coordinate, manage and monitor the implementation of the Project assignments undertaken by the working groups, local experts; consultants, sub-contractors and co-operating partners;
* Assume overall responsibility for the proper handling of logistics related to all project workshops and events;
* Manage the Project finance, oversee overall resource allocation and where relevant submit proposals for budget revisions with the help of the UNDP officer;
* Undertake any other actions related to the Project as requested by the MEWT or by UNDP.

**Qualifications and Skills**

* Advanced university degree in the fields related to climate change and environmental management
* Minimum of 5 years of working experience in the area relevant to the project;
* Substantial involvement in the preparation of the national GHG inventory and the initial NationalCommunication
* Demonstrated ability in managing projects, and in liaising and cooperating with all project stakeholders including government officials, scientific institutions, NGOs and private sector;
* Familiarity with International Organizations operations and structure;
* Substantial experience in Government and in inter-departmental procedures
* Fluent written and oral communication in Setswana and English
* Strong communications and interpersonal skills
* Excellent computer knowledge (MS Office, Internet)
* Botswana citizenship

**GHG TEAM**

Scope of Work

The GHG TEAM will act as key institution for preparing GHG Inventory. It will ensure performing specific activities outlined below, as well as coordination with the outputs of other consultants engaged outside the institution. The activities undertaken by the national institutions will contribute to strengthening institutional arrangements for compiling, archiving, updating and managing GHG inventories.

 Duties and Responsibilities

* Methodologies for GHG inventory estimates analysed, selected and validated
* Undertake national GHG inventories for the year 2010, according to the guidelines for the preparation of National Communications (17/CP.8)
* Gather available data from national sources to fill inventory data gaps
* Identify barriers to obtaining existing data for key sources and propose solutions
* Establish GHG database
* Describe procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories, as well as efforts to make this a continuous process, including information on the role of the institutions involved
* Utilize the deliverables under the regional project, such as the National Strategy for improvement of the GHG Inventory, Manual of procedures for GHG Inventory and the ACESS database
* Conduct QA/QC and uncertainty management, following IPCC technical guidelines in the preparation of inventory;
* Organize (in cooperation with the Project Manager) a workshop for presentation and discussion on the results obtained from the GHG Inventory
* Prepare a summary on GHG Inventory that will go into the Third National Communication and BUR
* Prepare final report on GHG Inventory

Qualifications and Skills

The institutions contracted for undertaking project activities should meet the following minimum criteria:

* Sound and broadly-recognized scientific expertise on climate research
* Prior experience in inventory preparation work.
* Highly qualified persons working in the fields of emission factor development or data collection methods
* Familiarity with the UNFCCC, IPCC methodology

 Expected output:

A completed and approved GHG Inventory report GHG inventories for the year 2000, according to the guidelines for the preparation of National Communications (17/CP.8) and any other latest guidelines. The report should be extended with information on the other non-direct GHGs: HFCs, PFCs and SF6 as well as CO, NOx, SOx and NMVOCs, and with information on emissions for years 2010 and 2011 BUR and 2006 and 2012 TNA for the sectors Agriculture, Energy, Industrial processes and Waste to the extent possible.

**VULNERABILITY ASSESSMENT AND ADAPTATION TEAM**

Scope of Work

The V&A team will act as key institution for preparing vulnerability assessment and adaptation. It will ensure that specific activities outlined below are undertaken. The activities undertaken by other national institutions will contribute to the strengthening of systematic climate observation, data management and control, processing and updating of meteorological and agrometeorological data.

 Duties and Responsibilities

* Develop climate trends by using available methodologies.
* Develop environmental-socio-economic trends and risks (water resources, agriculture, forests, tourism, population and settlements).
* Describe links between climate, and socio-economic baseline conditions of the country in the most vulnerable sectors
* Develop adaptation response measures, identify barriers and opportunities.
* Identify the data needs, availability and suitability, and establish datasets baselines of the assessment.
* Review the vulnerability assessment of the following sectors: agriculture, water resources, natural ecosystems, forestry, and human health, including identification of vulnerable areas that are most critical, according to the scenarios developed
* Based on the output of the vulnerability assessment, evaluate the feasibility of available adaptation measures to meet their specific needs and concerns arising from the adverse effects from the climate change
* Prepare a national action plan to implement those measures being of highest priority including clear distinction of responsibilities among the relevant stakeholders, timeframe for fulfilment/implementation of the recommended measures, financial means for implementation of the measures, and identification of possible barriers and risks.
* Carry out cost-benefit analysis of proposed adaptation measures
* Develop the draft chapter of the V&A.
* Organize a national workshop to highlight findings from the V&A study and get more comments.
* Finalize the V&A chapter to be submitted as a part of the TNC of Botswana.

Qualifications and Skills

The institutions contracted for undertaking project activities should meet the following minimum criteria:

* Sound and broadly-recognized scientific expertise on climate research
* Prior experience in vulnerability assessment and adaptation process.
* Highly qualified persons working in the fields of climate observation and vulnerability analysis in the specific sectors
* Familiarity with the UNFCCC, IPCC methodology, MAGICC/SCENGEN

 Expected output:

Completed and approved report on vulnerability assessment and adaptation strategy for the following sectors: agriculture, water resources, natural ecosystems, forestry and human health.

**GHG ABATEMENT TEAM**

 Scope of Work

The GHG Team will act as key institution for preparing GHG mitigation analyses. It will ensure performing specific activities outlined below, as well as coordination with the outputs of other consultants engaged outside the institution.

Duties and Responsibilities

* Necessary data and relevant information for scenario development collected analysed and fend into the scenario development.
* A revised GHG baseline scenario developed for all sectors.
* The tier of GHG abatement measures / technology options revisited and revised.
* GHG abatement scenario developed / updated
* GHG abatement priority measures / technologies selected
* A GHG abatement analysis completed for the period 2000-2035.
* Develop the draft mitigation chapter
* Organize a national workshop to highlight findings from the mitigation study and get more comments
* Finalize the GHG abatement analysis chapter to be submitted as a part of the TNC
* Archive and document all the GHG abatement analysis related studies and estimates.

 Qualifications and Skills

The Team contracted for undertaking project activities should meet the following minimum criteria:

* Sound and broadly-recognized scientific expertise on climate research
* Experience in preparing scenarios for GHG abatement
* Highly qualified persons working in the related areas: Energy, Industry, Agriculture, Forestry, Waste
* Familiarity with the UNFCCC, software modelling tools such as (Decision Support for Agrotechnology Transfer) DSSAT, GACMO and others

 Expected output:

A Completed and approved GHG Abatement report and National action plan for effective response to the GHG emissions.

**TERMS OF REFERENCE FOR THE NATIONAL CLIMATE CHANGE COMMITTEE**

Functions of the NCCC include to:

1. Advise Government on implications of commitments under the United Nations Framework Convention on Climate Change.
2. Oversee the preparation of the National Communication to the UNFCCC Secretariat and the Conference of the Parties.
3. Provide guidance in the formulation of appropriate national responses to climate change issues.
4. Provide guidance on the development and implementation of the national climate change policy and strategy.
5. Provide advice on all regulatory instruments including policy, which are related to or have a bearing on climate change.
6. Ensure sectorial and cross-sectorial implementation of climate change mitigation and adaptation measures as well as access to climate finance through concerted activities of its member agencies.
7. Oversee the establishment of communication networks for sharing climate change-related information in order to facilitate an optimal response and public participation.
8. Provide guidance on priorities for national response to Climate Change
9. Provideguidance and undertake research in Climate Change related issues.
10. Take a lead in resource mobilization for climate change issues.
11. Develop negotiating positions and strategies for the Government of Botswana in relation to the UNFCCC process.
12. Advice on the size and composition of Botswana’s delegation to the Climate Change Negotiation Meetings of the UNFCCC.
13. Recommend and review a roster of scientists who are available for specific research projects on climate change issues, its impacts and response strategies.
14. AdviceGovernment on any other issues relating to other relevant Conventions particularly on issues related to climate change.
15. Provide guidance on national public awareness and public education programs on climate change issues.
16. Advice the NCCC Secretariat (DMS) on any upcoming issues related climate change.
17. The NCCC may establish Technical Working Groups to fulfil specific responsibilities within its duties.

**Meetings of the NCCC**

The Committee reports to the Permanent Secretary Ministry of Environment, Wildlife and Tourism. The secretariat is the Department of Meteorological Services and it is mandated to prepare and submit quarterly progress reports. Membership to the committee shall comprise of a substantive and an alternate.

Meeting schedule, procedural issues

1. Meetings shall be convened by the Permanent Secretary Ministry of Environment, Wildlife and Tourism.
2. The NCCC shall meet on quarterly basis, unless there is need for special meetings.
3. Regular meetings shall be announced three weeks in advance and special meetings one week before the meeting.
4. Attendance is compulsory for the member.

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## Annex C. Stock/stakeholder -Assessment Exercise

The main objective of the stocktaking exercise was to review progress of climate change activities carried out since the SNC. The tools that were used for the stocktaking: (i) desk top review of relevant documents; (ii) general public in district and kgotla meetings; (iii) sectoral representations ;( iv) thematic technical expert sessions; The experiences gained and lessons learnt during the first National Capacity Self-Assessment project were applied for this exercise.

The main objectives, of the national stakeholder consultations were: (a) to generally raise awareness on climate change; (b) to ascertain baseline information in terms of capacity, gaps, priority actions in terms of adaptation and mitigation, and (c) to seek further inputs on the development of the SNC.

The consultations were conducted in ten districts where more than 1000 people attended.The discussions during the consultation workshops were preceded with presentations summarizing findings of the SNC and group discussions were done by stakeholders (government officials, civil society and leaders, researchers, etc.).The public consultations comprised of the general members of the public with diverse expertise and experiences notably indigenous knowledge. The consultations were conducted through public kgotla meeting and specific sectoral groups. The sectoral group targeted some major economic drivers in Botswana being crop production, animal husbandry and wildlife as a tourism driver.

The main output of this exercise was to identify gaps and validate priorities for further studies and new areas of work to be carried out in preparation of the TNC the identification of Synergies with related programmes; selection of methodologies and identification of expected results; analysis of institutional arrangements;. It also provided an assessment of uncertainties, barriers and lessons learnt during previous and ongoing activities. This exercise resulted in a comprehensive list of stakeholders consulted, and extended roster of national experts working in the thematic areas of the SNC. It also contributed to identifying list of references, documents and available sources of information relevant to the climate change. The information from the consultations serves as input to the development of the draft SNC

**Institutions and Individuals involved**

National experts were contacted, each from the sectors of Energy, Industrial processes, Waste, Agriculture, Forestry, Water resources and Health. Their main task was to prepare report identifying the gaps and uncertainties within the SNC for the specific sector, and to recommend new areas of work for the TNC. Meetings were arranged with the above sectors and a workshop conducted for stakeholders. Consultations were extended to other industries and private companies considered relevant and to Non-Governmental Organizations

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## Annex D. Summary of the main findings of the stock-take exercise

**National Circumstances**

The information provided so far on national circumstances lacks the following:

Country development context, including national development priorities indicating whether climate change is addressed under the country’s development agenda;

Knowing the nature of change of many of economic sectors that are relevant to the NC in the course of the years, there is need to update the sector profiles, especially for energy, transport, agriculture, land use change and forestry (LULUCF,) industrial processes, water and waste.

* Information on Botswana’s development priorities,
* Policies and programs
* Updated information on Geography and geological profile
* Updated information on climate,
* Updated information on natural resources sectors (Water, Forests and Land use)
* Updated information on the economic profile
* Updated information on agriculture
* Updated information on energy, mining and transportation.

**GHG**

The GHG emission inventory for Botswana’s INC was compiled using sources and sinks. During the Estimates for Botswana’s Initial national GHG inventory have been made for the base year 2000. The national inventory has considered three direct GHGs such as CO2, CH4 and N2O

The major technical constraints in the GHG inventory process are related to lack of activity data as emissions from savannah burning were not included in the SNC inventory and Industrial process only included emissions from beverage production. The other challenge identified was lack of emission factors. The Team of experts for GHG identified capacity building as a challenge since the inventory process was not institutionalised. It was also observed that the population and number of settlements will increase with time and that as a result the demand for resources, particularly fossil fuel based resources for energy, transport and for other beneficiary sectors such as mining and industry will all grow. Greenhouse gas emissions of Botswana are therefore destined to increase. There is also need for a survey to obtain data on how much fertilizer is applied yearly.

New Areas of work GHG

* National GHG Inventory
* Development of GHG Inventory Database
* Create activities for uncertainties reduction
* Develop GHG emissions projections for the years 2000 to 2012

**V&A assessment**

Assessments were carried out for Water, Livestock, Forestry, Crops and Health sectors and adaptation options were identified. The V&A assessment put emphasis on the expected climate changes and their impact on the relevant sectors. There is need to develop the baseline scenarios further to include the socio-economic scenarios under the TNC and develop climate change scenarios using Precis. In some of the instances, linkages of the climate related stressor to global warming and climate change may not necessarily be clear so there is need to identify linkages between impact and vulnerability in order to develop adaptation coping strategies. Emphasis was placed on the simpler concept of vulnerability to climate change, impacts of global warming and increased climate variability and adaptation to climate change was given high priority.

Wildlife, similar to livestock, is also vulnerable to the impact of climate variability and change on rangeland quality, and therefore consigning wildlife to increased risk of mortality from drought, so the impact of climate change on tourism should be related to the impact of climate change on wildlife.

When deciding on adaptation options there should be linkages to traditional cultural practices and endogenous knowledge. There is need to identify and investigate the trends in the climate related disasters and their projected impact on Botswana and also to factor in climate change into ecological zones.

New areas of work

* Develop climate change scenarios using regional climate models
* Capacity development to assess future climate risk and adaptation measures for the sectors agriculture, water resources, ecosystems, settlements and human health. Assessment of gender-specific impacts of climate change in the water, agriculture, ecosystem services, health, human settlements
* Capacity enhancement to develop an Adaptation framework describing measures currently implemented and proposed measures
* Develop Adaptation action plans, NAPs, including project profiles for key adaptation options prepared

**Mitigation measures**

A number of abatement options identified in the INC and SNC for both the energy and non-energy sectors are being implemented at various scales in Botswana such as the promotion of photovoltaic energy supply, electricity prepaid meters, efficient lighting systems and mini grid photovoltaic system and water pumping using solar.

Botswana like some developing countries has challenges in increasing demand for private vehicles which is outpacing the development of transport infrastructure. The transport sector plays a crucial and growing role in energy use and emissions of GHGs in Botswana. It is necessary to regulate public transport and reward those who will use it and hence reducing GHG emissions. There is need to promote innovation in buildings and should be built to use solar energy and air flow as Botswana has these natural resources in abundance. The TNC should Identify GHG mitigation measures and also address the socio-economic risks associated with global warming and climate change.

New areas of work

* Assessment/validation of a GHG baseline scenarios in specific sectors
* Revise GHG abatement measures / technology options including methodologies constraints related to access to technologies and technology transfer; financial assistance needed for technology transfer and capacity development; Increased understanding of GHG mitigation policies and measures through macroeconomic assessment of GHG mitigation measures.
* Assessment/validation of GHG mitigation potential of priority sectors and a costing of/needs for action on these priority sectors;
* Identify funding required for mitigation measures as outlined in the national climate change action plan.

**Other information considered relevant to the achievement of the objective of the Convention**

Ensure a rigorous public education programme people were ignorant of Climate Change, Capital investment on solar power devices and rainwater to encourage investment in the technologies to reduce the impacts of Climate Change. There is a need to develop information and knowledge on the effects and impact of climate change on the ecosystem, the burden to Botswana’s ecosystem and opportunities for ensuring climate resilience of such ecosystems. Also there is need to refine the current information and identify knowledge gaps.

The government is committed to mobilizing resources that are necessary for realization of climate change response measures. This mobilization includes financial resources, technical cooperation and technology transfer at local, national, bilateral, regional and international levels. This will enable the private and public sectors to take part in the policy implementation.

* Status and needs for research on Systematic observations of climate documented
* Enhance public awareness and understanding of climate change
* Identify technical and financial constraints
* Documentation on Climate Change Communication Strategy made available
* Enhance understanding of climate resilience pathways feasible for Botswana
* Identify Options for integrating anticipated climate change impacts, with current and future social vulnerabilities and mitigation into development described and evaluated
* Link climate change responses with sustainable development

**Gender** is a cross cutting issue and as poverty was rampant in female led households and that they were more susceptible to the effects of climate change. This is more so that natural resources are diminishing at faster rates and the natural resources (thatching grass, basket reeds, and other) not able to sustain their traditional way of lifelike fuel wood harvesting. The TNC must incorporate gender considerations to ensure it takes into consideration women issues. Ensure that climate change response measures are gender sensitive particularly the recognition of women’s vulnerability to climate change impacts. Gender mainstreaming the climate change responses must include (a) Empowering communities especially women and youth to actively participate in the implementation of climate change response measures at both rural and urban areas and (b) Adoption of strategies that are targeted at increasing resilience of most vulnerable groups such as women, children and disabled people to climate change impacts through provision of means of implementation such as technologies, finance and capacity building..

**Updated Report on Botswana’s National Circumstances**

Information provided on national circumstances is critical for understanding Botswana’s vulnerability, capacity and options for adapting to the adverse effects of climate change, as well as options for addressing GHG emissions within the context of sustainable development. There is a need to update the climate profile with recent extreme weather events.

This outcome would involve the updating of the information on

1. Geographic profile (ii)
2. Climate profile (iii)
3. Natural resources: water resources, forests, land use, biodiversity
4. Economic and sector profile: agriculture, livestock, energy, mining, transport, industry, tourism, fisheries,
5. Infrastructure: population, public health, education, environment.
6. Institutional arrangements relevant to the implementation of the UNFCCC and NC preparation process.

**Information of GHG inventory for 2006and 2012**

Development of National GHG inventory system: It is necessary to build on the base of existing knowledge of institutions engaged in the preparation of earlier national communications for the estimation of GHG emission Inventories There is need to bridge the gap in activity data identified in inventory preparation of SNC . There is need also to continue with:

1. Institutional arrangements (i.e., the team that worked on GHG emission inventory for SNC) and further strengthening and streamlining of the institutional structure to sustain and take care of long term reporting requirements of national GHG inventory and the estimation of GHG emissions.
2. Establishment of database management including methodological issues to an extent possible
3. Development of system for archiving and continuous update of the GHG database

The national GHG inventory in the SNC covered the year 2000 as a base year and was prepared using the 1996 IPCC Guidelines. The inventory in the TNC will be done for the years 2006 and 2012 as base years.

The energy sector will include inventories of:

* GHGs from fossil fuel combustion;
* methane (CH4) emissions from biomass energy combustion;
* CH4 fugitive emissions from coal mining and post-mining activities.

In the agriculture sector, the following inventories will be conducted:

* nitrous oxide emissions from croplands;
* methane emissions from enteric fermentation in domestic livestock; and,
* Methane and nitrous oxide emissions from animal manure management system.

Inventory will also include activities from industrial process and waste activities. For the LULUCF sector the emissions by sources and removals by sinks in the LUCF inventory include changes of carbon in forest and other woody biomass stocks, forest conversion and changes in soil carbon. In general, the proposed expanded activities for the TNC Project (relative to the SNC Project) will involve the compilation of a more comprehensive and updated national GHG inventory. There is a need to build capacity in the validation process of forestry sector data, which in most cases are obtained remotely. The experiences gained and linkages established with the various agencies for the NCs and initiatives such as the collaboration between SADC and GesellschaftfürInternationaleZusammenarbeit (GIZ), JICA which have components of producing national forest inventories will be instrumental in the GHG preparation. The outcome will also develop a GHG Inventory Database, create activities for uncertainties reduction and also develop GHG emissions projections for the years 2015 and 2030.Improving the accuracy level of GHG Inventory will also require strengthening the institutional arrangements of the inventory process. Also a shift from TIER 1 to higher TIERS is foreseen, where possible.

**Future climate risk and adaptation measures assessed**

This outcome will involve reassessing the vulnerability of the most important socio-economic and resource sectors: agriculture, water resources, ecosystems and human health. The reassessment will look at

1. Preparing socioeconomic scenarios for assessment of both climate change impact and adaptation across differing spatial scales.
2. Water quality impacts and treatment costs and costs of infrastructure.
3. Research and development for seeds and techniques, also new infrastructure to adapt like machinery and irrigation systems

The assessment will look at the current vulnerability, estimate the future conditions and vulnerabilities and assess the risks of climate change to these sectors. The activities will include the development of climate projections using multiple GCMs and RCMs and development climate change risk and vulnerability assessment tool and framework and also identify adaptation response measures. The proposed activities will improve research on vulnerability and adaptation assessment and will also address issues relating to gender. The sectors that are most vulnerable to the impacts of climate change and assessments of the potential impacts were identified in the previous NCs. The TNC will build on the previous NCs and identify sectors that are at greater risks from severe weather events. The assessments will include inputs from indigenous knowledge report that has been compiled on the use of indigenous and traditional knowledge and practices for adaptation.

**GHG abatement measures**

This outcome focuses mainly on the assessment of existing climate change mitigation policies, measures and strategies, and coming up with suggestions for future policies, measures and actions. Assessments will be carried out to determine the feasible policy and technology options for the country in mitigating climate change, as well as the social and economic costs to achieve these mitigation targets. Mitigation Assessments that were undertaken in the NCs will be updated using the new tools like Long-range Energy Alternatives Planning system (LEAP) that were not available during the previous NC preparations. These assessments will contribute to the ongoing work to develop Low Emissions Development Strategies and NAMAs.

**Description of relevant information**

Assessment of capacity development needs (including education and training) and Technological Needs Assessment was submitted in the Second National Communication. This information will be updated and new potential needs assessed and incorporated into the revised TNA. Assessment of the status and needs for research and systematic observations and evaluation of financial resources and technical support received from national and international sources. There will be a need to document the capacity built in Botswana in order to sustain quality and timely reporting requirements.

**Compilation and production of National Communication Report**

A draft national communication report would be prepared and presented to stakeholders for their input. The outputs of activities under this outcome are expected to further improve the technical inputs of climate change and integrate climate change into development at both local and national levels.

**Preparation of Biennial Update Report (BUR)**

BUR will cover an update of the following:

1. Information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis, this will contain updates on development priorities and objectives.
2. A national inventory of anthropogenic emissions by sources and removal by sinks of all Greenhouse Gases (GHGs) not controlled by the Montreal Protocol for the following sectors: energy activities, Industrial processes, agriculture activities, land use change and forestry activities (LUCF), and waste sector activities for the years 2010 and 2011. Information on the improvement of the quality of activity data, capacity building of institutions for GHG data base archiving, including methodologies for estimating GHG emissions will be provided.
3. Information on mitigation actions their effects including associated methodologies and assumptions. The information on mitigation action will be provided in a tabular format providing name and description of the action, methodologies and assumptions, objectives of the action and steps taken, progress on the implementation of the action and information on international markets.
4. Information on domestic measurement, reporting and verification arrangements; nationally relevant MRV approaches and methods will be developed and adopted. Issues that will be addressed under the MRV system will include (i) the scope of MRV, (ii) institutional arrangements (iii) MRV tools (iv) GHG emission reduction target (v) background information of each sector before any regulations/policies (vi) definition of base year and baseline (vii) description of mitigation actions and plans and (viii) coverage and progress indicators.
5. Information on the level of support received to enable the preparation and submission of BURS.

On completion of all activities and expected outcomes including the relevant outputs the First Biennial Update Report will be compiled based on guidelines contained in Annex II of Decision 2/CP.17 for submission to the Executive Secretary of the United Nations Framework Convention on Climate Change.

**Preparation of the INDC to the 2015 Agreement under the UNFCCC**

This outcome will address key feasibility questions regarding national GHG reduction potential through identification and/or validation of findings from ongoing and previous studies. Moreover, appropriate analysis will be carried out to provide essential support for an informed policy decision making process with regards to Botswana’s iNDC. The planned activities within this component include the assessment/validation of a GHG baseline scenarios in specific sectors, the identification/validation of priority sectors for inclusion in INDC, the assessment/validation of GHG mitigation potential of priority sectors and a costing of/needs for action on these priority sectors.

Likewise, needed and affordable climate adaptation measures will be studied, building upon the findings from ongoing and previous work, particularly conducted in the context of the NCs. Priority sectors will be identified, a set of adaptation measures suggested, cost-benefit analyses done for these measures and a costing of/needs for action on these sectors made.

## Annex E. STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

Dear [*name of government official*],

1. Reference is made to consultations between officials of the Government of *[the name of programme country]* (hereinafter referred to as “the Government”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:

(a) Identification and/orrecruitment of project and programme personnel;

(b) Identification and facilitation of training activities;

1. Procurement of goods and services;

4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project

the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions of the [*Insert title and date of the UNDP standard basic assistance agreement withthe Government*] (the “SBAA”), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signed on behalf of UNDP

*[Name]*

*[Title: Resident Representative*]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the Government

[*Name/title*]

[*Date*]

Attachment

**DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES**

1. Reference is made to consultations between [*insert name of Designated institution*], the institution designated by the Government of [*name of programme country*] and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed programme or project [*insert programme or project number and title*], “the Programme” [*or “the Project*”].

2. In accordance with the provisions of the letter of agreement signed on [*insert date of agreement*] and the programme support document [*or projectdocument*], the UNDP country office shall provide support services for the Programme [*orProject*] as described below.

3. Support services to be provided:

|  |  |  |  |
| --- | --- | --- | --- |
| Support services(insert description) | Schedule for the provision of the support services | Cost to UNDP of providing such support services (where appropriate) | Amount and method of reimbursement of UNDP (where appropriate) |
| 1. |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
|  |  | Total: USD 4,500 |  |

4. Description of functions and responsibilities of the parties involved:

1. For UNDP supported GEF funded projects as this includes GEF-specific requirements [↑](#footnote-ref-1)
2. *Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR* [↑](#footnote-ref-2)
3. *All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.* [↑](#footnote-ref-3)
4. *All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.* [↑](#footnote-ref-4)
5. *Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc...*  [↑](#footnote-ref-5)