COUNTY GOVERNMENT OF BUSIA

BUSIA COUNTY CLIMATE CHANGE ACTION PLAN (BCCCAP)

2023-2027

WORLD BANK GROUP KFW German cooperation giz Sweden Sverige

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BUSIA COUNTY CLIMATE CHANGE ACTION PLAN (BCCCAP) 2023-2027

MAY, 2023.

FOREWARD

Climate change has impacted our economy and is a threat to socio-economic strides which Busia County has made over time. We have developed structures and institutional framework to adapt and mitigate against climate change. In line with the objectives of National Climate Change Strategy paper (2010), Kenya Vision 2030, Paris Agreement (2015), National Adaptation plan (2015-2030), The National Climate Change Act (2016) and the National Climate Change Action Plans (NCCAP 2018-2022), Green Economy Strategy and Implementation Plan (GESIP) 2016 -2030; Busia County has developed a County Climate Change Act (2021), which outlines elaborate steps in addressing climate change in the County. These documents were a foundation to the preparation of Busia Climate Change Action Plan (2023-2027) which has been elaborated comprehensively through a participatory process.

The sectoral and participatory methodology used in developing the plan considered inclusivity and dialogue opportunities to the people of Busia. For the climate Change agenda to be effectively understood, a Climate Information and a Knowledge Management Centre will be established at the Climate Coordination Unit. Climate change is now recognized as a crosscutting thematic area in our planning process. In line with the County Integrated Development Plan CIDP (2023-2027), the County shall mainstream climate change into sectoral planning to guide climate action. Looking forward (2023-2027) the plan has positioned bold steps to ensure sustainable development is achieved despite adverse climate impacts, including prolonged dry spell, floods and other extreme climate events that have negatively affected Busia County in the recent past. Some of the key actions will include implementation of the County Disaster Management Act 2015, increasing tree and forest cover to 3% and implementation of the County Energy Act 2017, which stresses on improvement of renewable energy uptake in the community.

To protect and conserve our water catchment areas and other fragile ecosystems, concerted efforts with key stakeholders and partners have been recommended in the plan. In agriculture, promotion and adoption of Climate Smart Agriculture (CSA) technologies to boost food & nutrition security; and enhance soil fertility as well as increase on-farm tree cover. These actions will contribute to the achievement of the updated Nationally Determined Contributions under the Paris Agreement. The plan also provides tools and templates for facilitating effective Monitoring, Reporting, Verification and Evaluation (MRV) for the actions throughout the five- year period. I

am confident that our collective contributions as the County Government, private sector, civil society, other non-state actors, and individual citizens, this action plan (2023-2027) will deliver expected sustainable outcomes. Having enacted the commitment of 2% of the development budget (County Climate Act, 2021) to support climate change interventions across sectors, we are optimistic of a sustainable mechanism for climate action. Therefore, I appeal and request local and international development partners, well-wishers and civil society to enormously support the climate actions alluded to in this plan for a prosperous and visionary County.

H.E. DR. PAUL NYONGESA OTUOMA.
GOVERNOR,
COUNTY GOVERNMENT OF BUSIA.

ACKNOWLEDGEMENT

Busia County Climate Change Action Plan (2023-2027) is a five-year plan to guide climate change adaptation and mitigation actions. The Plan is a requirement by the National Climate Change Act, 2016, and the Busia County Climate Change Act, 2021.It will guide the County towards the achievement of Kenya's updated Nationally Determined Contribution under the Paris Agreement.

The Country's updated Nationally Determined Contribution (NDC) includes; greenhouse gas emission reductions by 32% by 2030 from the 'business as usual scenario' through mainstreaming of climate change into the County's Integrated Development Planning processes and implementation of adaptation and mitigation actions. I commend the efforts of the Chief Officer for Water, Irrigation, Environment, Natural Resources and Climate Change for ensuring that the technical team was given an enabling environment and time to deliver the task.
The development of the action plan was guided by a Technical Working team appointed for this specific purpose under the leadership of the County Climate Change secretariat. I also appreciate the contributions from the key stakeholders, Faith Based Organizations and Community Based Organizations for their valuable contribution to this process.

Busia Climate Change Action Plan (2023-2027) was prepared through an extensive consultation process. Over 250 stakeholder's representatives from the County Climate Change Coordination Unit, community members and the county technical team, civil society including vulnerable groups were consulted. These are gratefully acknowledged for their immense contribution that formed the basis for this plan. It is appreciated that effective implementation of the action plan (2023-2027) will require continued consultation from these stakeholders.

H.E. ARTHUR PAPA ODERA,

DEPUTY GOVERNOR,

COUNTY GOVERNMENT OF BUSIA.

CLIMATE CHANGE ACTION PLAN TASK FORCE

No.	Name of Member	Designation
1.	**ISABELLA ODUWOLI ODOLO**	Chief Officer – DWIENR & CC
2.	**DAN OTEBA OPILIO**	Director – Climate Change
3.	**HUDSON MUGENDI**	Monitoring and Evaluation Officer
4.	**PAUL N KOMBO**	Environment Safeguard Officer
5.	**PROTUS MAKOKHA**	Fund Administrator
6.	**EDISON MICHAEL OJOJI**	Irrigation Engineer
7.	**MAGDALINE PERPETUA AGOYA**	County Geographical Information Systems Officer (GIS)
8.	**EUPHERESIA OKWAKORI**	Communications Officer
9.	**IRENE MAJALE**	Social Safeguard Officer
10.	**ESEME FREDRICK**	Chief Environment Officer
11.	**FREDRICK MAKOKHA**	Procurement Officer
12.	**FRED AGONG**	Accountant
13.	**PATRICK MAKIO ANDERA**	Ex Officio

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ACRONYMS

BUWASCO	Busia Water and Sewerage Services Company
BCCCAP	Busia County Climate Change Action Plan
CBO:	Community Bases Organization
CC	Climate Change
CCCAP:	County Climate Change Action Plan
CCRI:	County Climate Resilience Investment
CGB:	County Government of Busia
CIDP:	County Integrated Development Plan
CISP	Climate Information Service Plan
DWIENR&CC	Department of Water, Irrigation, Environment, Natural Resources and Climate Change
FLLoCA:	Financing Locally Led Climate Action
GESIP:	Green Economy Strategy and Implementation Plan
GIS:	Geographical Information Systems
ICBT:	Informal Cross Border Trade
KALRO:	Kenya Agricultural and Livestock Research Organization
KMD:	Kenya Meteorological Department
LREB	Lake Region Economic Bloc
MRV	Monitoring Reporting and Verification
NAP:	National Adaptation Plan
NCCAP:	National Climate Change Action Plan
NCCRS:	National Climate Change Response Strategy
NCCRS:	National Climate Change Response Strategy
NDCs:	Nationally Determined Contributions
NEMA:	National Environmental Management Authority

PCRA:	Participatory Climate Risk Assessment
RCP	Representative Concentration Pathway
SDG	Sustainable Development Goal
TWG:	Technical Working Group
UNFCCC:	United Nations Framework Convention on Climate Change
WRUA:	Water Resources Users' Association

DEFINITION OF TERMS

Adaptation: An adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects in order to moderate harm or exploit beneficial opportunities.

Adaptive capacity: The ability of a system to adapt to the impacts, cope with the consequences, minimize potential damages, or take advantage of opportunities offered by climate change or climate variability.

Climate change: A change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period of time;

Geospatial Technology: The various modern tools and systems that help us to map the earth's surface, understand societies and interpret spatial patterns.

Global warming: Observed or projected gradual increase in global surface temperature. Itis one of the consequences of Climate Change.

Greenhouse gases: Gases that absorb and emit radiant energy within the thermal infrared range. The main GHGs measured in a GHG inventory are, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), per-fluorocarbons (PFCs), hydro-fluorocarbons (HFCs), sculpture hexafluoride (SF6) and nitrogen tri-fluoride (NF3).

Mitigation: Preventing, reducing or slowing down the increase of atmospheric greenhouse gas concentrations by limiting current or future emissions and enhancing potential sinks for greenhouse gases;

Resilience: The ability of a social, economic or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization and the capacity to adapt to stress and change;

Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a system to the impact of hazards;

EXECUTIVE SUMMARY

The Climate Change Act, 2016 requires County Governments to develop Climate Change Action Plans in order to outline mitigation and adaptation measures towards mainstreaming of Climate Change into County plans and functions. The County Climate Change Action Plan, 2023-2027 is a framework for coordinating prioritization and implementation of community resilience investments. The Climate Change Action plan is to form the basis of implementation of projects under the County Climate Change Fund, into which at least 2% of the County Development Budget is apportioned for climate action in line with the County Climate Change Act, 2021. In addition, having a County Climate Change Action Plan is one of the requirements for accessing the County Climate Resilience Investment (CCRI) Grant under the National Treasury's Financing Locally Led Climate Action (FLLoCA) Program. A climate change action plan is a critical tool for mobilization of resources for climate action from external sources.

Building up on the Participatory Climate Change Risk Assessment (PCRA) with Guidelines from the National Treasury under the FLLoCA program, the process of formulating this Climate Change Action Plan involved: Formation and training of the Technical Working Group, community engagements at ward level to prioritize actions for risks identified during the PCRA, multi-stakeholder and validation workshops at the County level. This Action plan proposes response strategies for climate risks and their impacts identified during the Participatory Climate Risk Assessment in the County. The risks include: prolonged dry spells, erratic rainfall patterns, flash floods, emerging pests, diseases and noxious weeds, hailstones, and lightning. Impacts of climate hazards include; soil erosion, mudslides, rock falls and gulleys which lead to environmental degradation. In addition, floods lead to; crop destruction, destruction of physical infrastructure, disease outbreaks among others. The noxious weeds lead to reduction of vegetation cover and reduced crop production. Prolonged dry spell leads to; reduced agricultural productivity, reduced access to water and food insecurity.

This action plan prioritizes response actions per sector. Adaptation strategies for water sector include conservation and restoration of water catchment areas and wetlands, promotion of rain water harvesting and adoption of green energy for water pumping, afforestation,

improved drainage and integrated watershed management and investment in climate resilient water storage and reticulation infrastructure.

In agriculture sector, identified strategies include promotion of climate smart agriculture, diversification of livelihoods, strengthening extension services, soil and water conservation and regulation of human activities in riparian areas. Other strategies include integrated pest and disease management to be achieved through establishing crop pest and disease surveillance and capacity building and promotion of insurances in agricultural sector.

Prioritized response strategies for environmental degradation include: afforestation and reforestation, protection of fragile ecosystems, awareness raising and capacity building. County physical plan was proposed to be undertaken to guide settlement and land use for optimal returns on land resources. Adoption of solar and biogas were proposed as promotion of clean and renewable energy at both institutional and household level.

Strategies proposed for addressing climate related disaster risks include: development of Early Warning Systems and enhancing dissemination of weather/climate information, strengthening disaster risk management planning and institutional framework, contingency planning and capacity building, strengthening response capacity, pest surveillance, strengthening extension services and resource mobilization as well as installation of lightening arrestors in strategic public institutions.

CHAPTER ONE: BACKGROUND AND CONTEXT

1.1 Introduction and Background

Busia is one of the 47 Counties in Kenya located in the western part. Its headquarters is located in Busia town along Busia-Kisumu Road. Busia is a cosmopolitan county whose residents are predominantly of Luhya and Teso ethnicities. Others include Luo, Somali, Kisii, Kikuyu, among others. Abakhayo, Abamarachi, Abasamia and Abanyala are the major Luhya sub-tribes in Busia while the Teso community is a mono-tribe. Busia County is a member of the 14 counties of the Lake Region Economic Bloc (LREB) situated around Lake Victoria and its environs. Other members are; Kisumu, Kericho, Siaya, Nandi, Kisii, Bomet, Kakamega, Bungoma, Trans Nzoia, Homabay, Nyamira and Migori. The main objective of the regional bloc is to leverage on economies of scale in the region thus promoting cross county trade. The Lake Region Economic Bloc (LREB) presents the socioeconomic aspirations of 14 counties in the Lake Basin Region and seeks to boldly secure and shape the region's destiny.

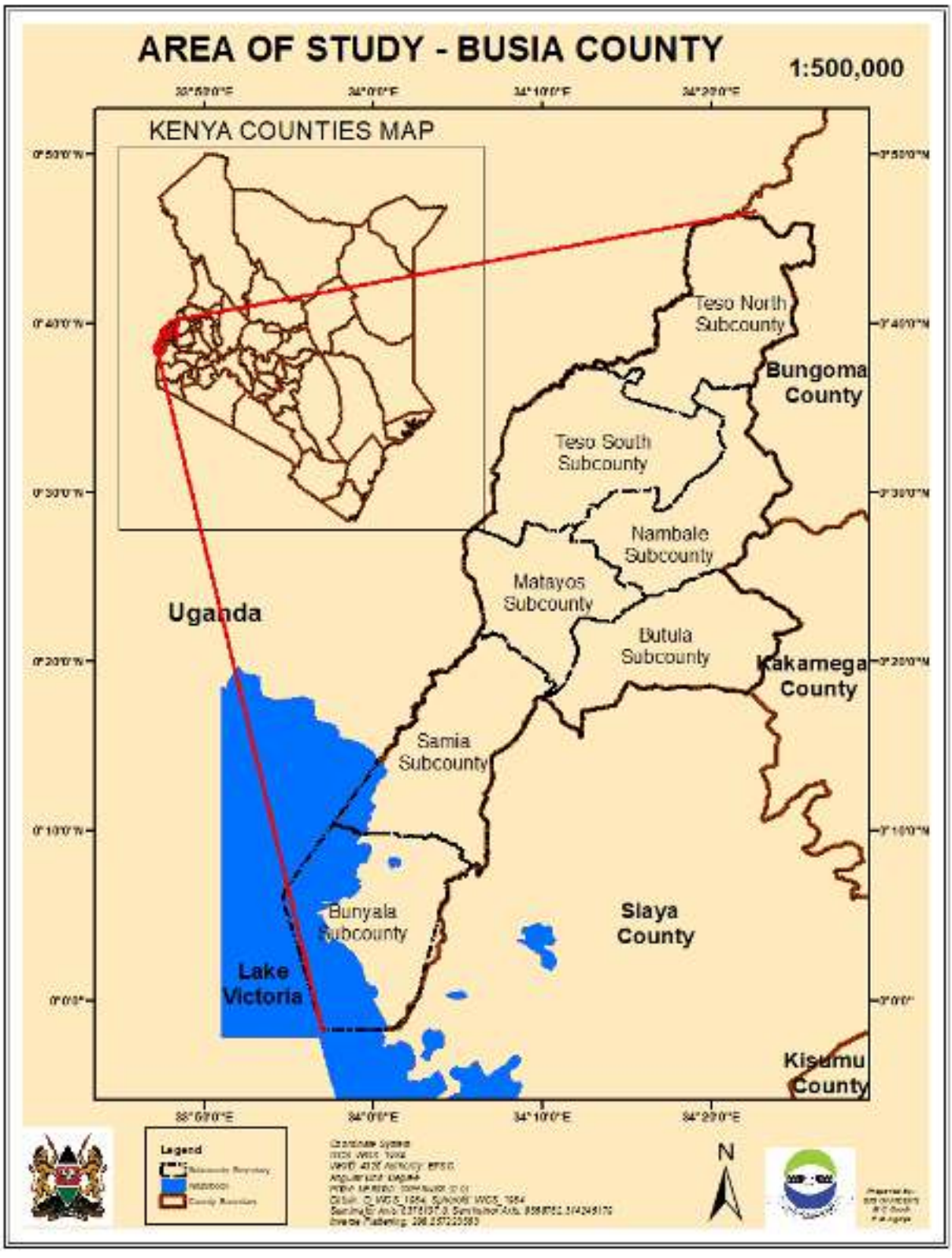

Figure 1: Position of Busia County

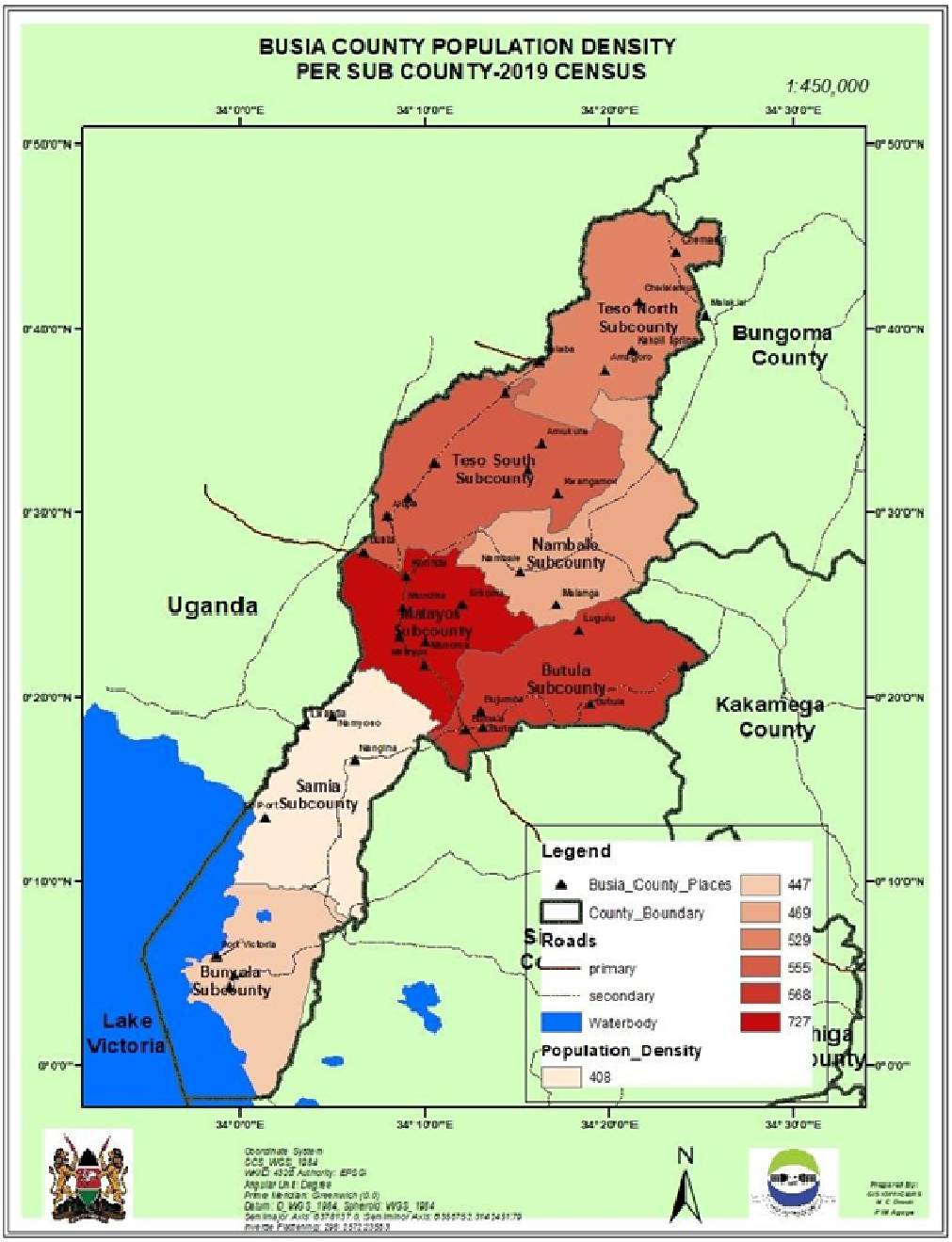

Figure 2: Population Density per Subcounty

Table 1:Population density of Busia County

Sub County	Total	Total Households	Area Sq. Km	Population per Sq. Km
BUNYALA	85977	19,039	192.2	**447**
MATAYOS	142408	33,160	196.0	**727**
BUTULA	140334	32,213	247.1	**568**
NAMBALE	111636	23,892	238.1	**469**
SAMIA	107176	23,884	262.4	**408**
TESO NORTH	138034	29,395	261.0	**529**
TESO SOUTH	**168116**	**36,569**	**302.9**	**555**

1.2 Purpose and Process of the CCCAP

1.2.1 The Purpose

The Busia County Climate Change Action Plan (BCCCAP, 2023-2027) is the framework for coordination of climate action in the County. Building on the Participatory Climate Risk Assessment, the action plan documents major climate risks, drivers of vulnerability and prioritizes response actions to address the identified risks. The County Climate Change Action Plan is also one of the conditions for accessing the Climate Resilience Investment Grants from the National Treasury's Financing Locally Led Climate Action, (FLLoCA).

Specific objectives of the Action Plan are:

I. To identify and prioritize climate change risks at community level through the PCRA Process.
II. To prioritize response measures to address the identified climate risks.
III. To guide the mainstreaming of climate action in various sectors in the county.
IV. To enable the County to Access the County Climate Resilience investment grants from the FLLoCA program and provide basis for budgeting of County Climate Change Fund.

1.1.2 The Process of developing BCCCAP, 2023-2027

The climate change action plan started with the participatory climate risk assessment through which communities identified climate risks. These were then validated by various stakeholder fora and formed the basis for climate action planning. The Busia County Climate Change Action Planning process is as summarized in the table 2 below:

Table 2: Steps for Developing BCCCAP2023-2027

Step	Activity	Output
Step 1:	**Constitution of the Technical Working Group (TWG) and Review of Key Documents:** A technical working group was appointed by the Chief Officer Responsible for Climate Change. The TWG drew membership from various sectors such as environment, water, public administration and gender, national government agencies and the civil society. Key documents reviewed include; The National Climate Change Action Plan, 2017-2022, Climate Change Act, 2016, The Busia County Climate Change Act 2021, the PCRA Report among other documents.	Theoretical understanding of the Climate Change Action Planning. Secondary data input into the action plan collected.
Step 2:	**Collection of Public Input**: Ward level engagements were held to collect inputs of the communities in the action plan. Deliberate efforts were made to ensure inclusion of the PLWDs, Women, Youth, Community Interest Groups, Civil Society Organizations and technical officers at ward level were involved. 12 members of the community were engaged in the Focused Group Sessions per ward.	Views of the Communities, the marginalized and technical officers working at the ward level on climate change issues integrated into the action plan
Step 3:	**Drafting the Action Plan:** The TWG held workshops to develop the first draft of the action plan based on the secondary data reviewed and the data collected from ward level community discussions	Draft Climate Change Action Plan developed
Step 4:	**Validation of the Action Plan:** The Action Plan was validated by experts drawn from various sectors. Community representatives, PLWDs, youth, women	Climate Change Action Plan Validated by sector experts and communities.

	and other marginalized segments of society were mobilized for the task.	
Step 5:	**Second Drafting Workshop**: To incorporate the inputs of the validation workshop into the draft action plan.	Draft 2 Climate Change Action Plan.
Step 6:	**Feedback on the Action Plan**: Sharing of the Action Plan with CSOs, Researchers, Policy makers and other key stakeholders for feedback. The TWG incorporated the feedback into the Action Plan.	Voices of the Civil society, academia and other stakeholders incorporated into the Action Plan.
Step 7:	Presentation of the Action Plan to the Cabinet: The Action Plan was presented to the cabinet.	Cabinet Endorsed the Action Plan.
Step 8:	Approval by the County Assembly.	County Assembly approved action plan.
Step 9:	Publishing and dissemination	Copies of BCCCAP document.


Figure 3:Training of the TWG in Busia County

Figure 4:Stakeholder engagement in PCRA process at Bukhayo Central ward, Nambale, Busia County

Figure 5:Stakeholder engagement in PCRA process in Ageng'a Nanguba ward, Samia in Busia County

1.2 Underlying Climate Resilience Context

1.2.1 Impacts of Climate Hazards in the County

The spatial distribution of climate hazards across the 35 Wards is determined by the prevailing landscape formation and the human activities. Due to the small geographical size, there are very minimal spatial variances of climate hazards across the county. This section outlines impacts of climate hazards across the County as prioritized in the Participatory Climate Risk Assessment (PCRA) which are; Prolonged dry spell, floods, erratic rainfall patterns, increased prevalence of crop pests and disease vectors, degradation of water catchment and sand mining among other disaster risks.

1.2.2 County Climate Hazard Map

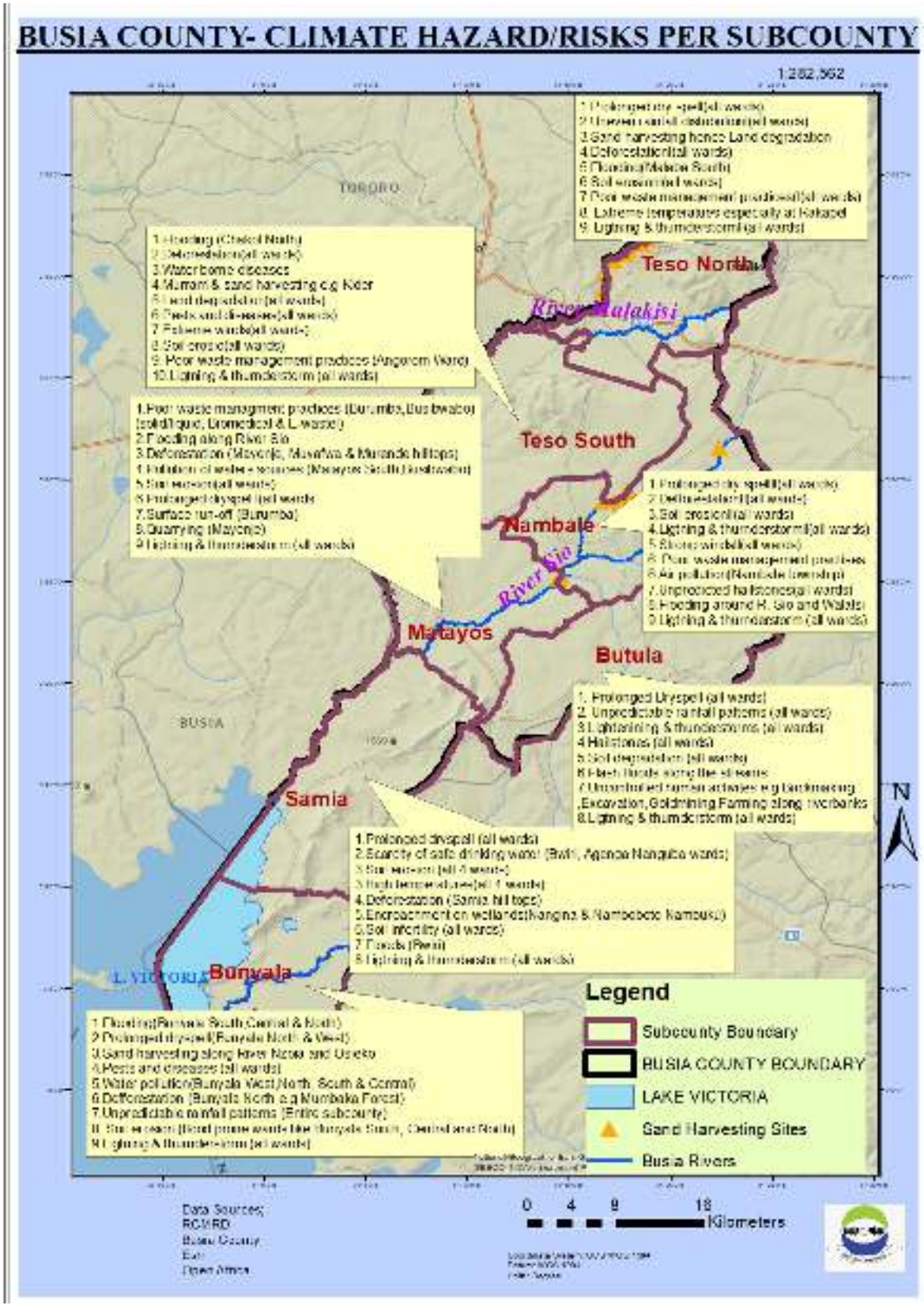

Figure 6: Busia County Climate/Hazard Risks per subcounty Identified at Ward Level

1.2.3 Summary of Differentiated Climate Exposure and Vulnerability of Key Groups and Livelihoods in the County

Projected climatic trends indicate that Busia County shall receive enhanced rainfall for the short rain season and reduced rainfall for the long rains season. Consecutively dry days within and between rainy seasons are expected to increase by an average of 5 days suggesting a marginal increase in incidences of prolonged dry periods with likelihood of crop failure and reduced quantities of water from natural sources. The maximum number of running rainy days will average 5 days which indicates risks of floods; flash floods; infrastructure and crops destruction.

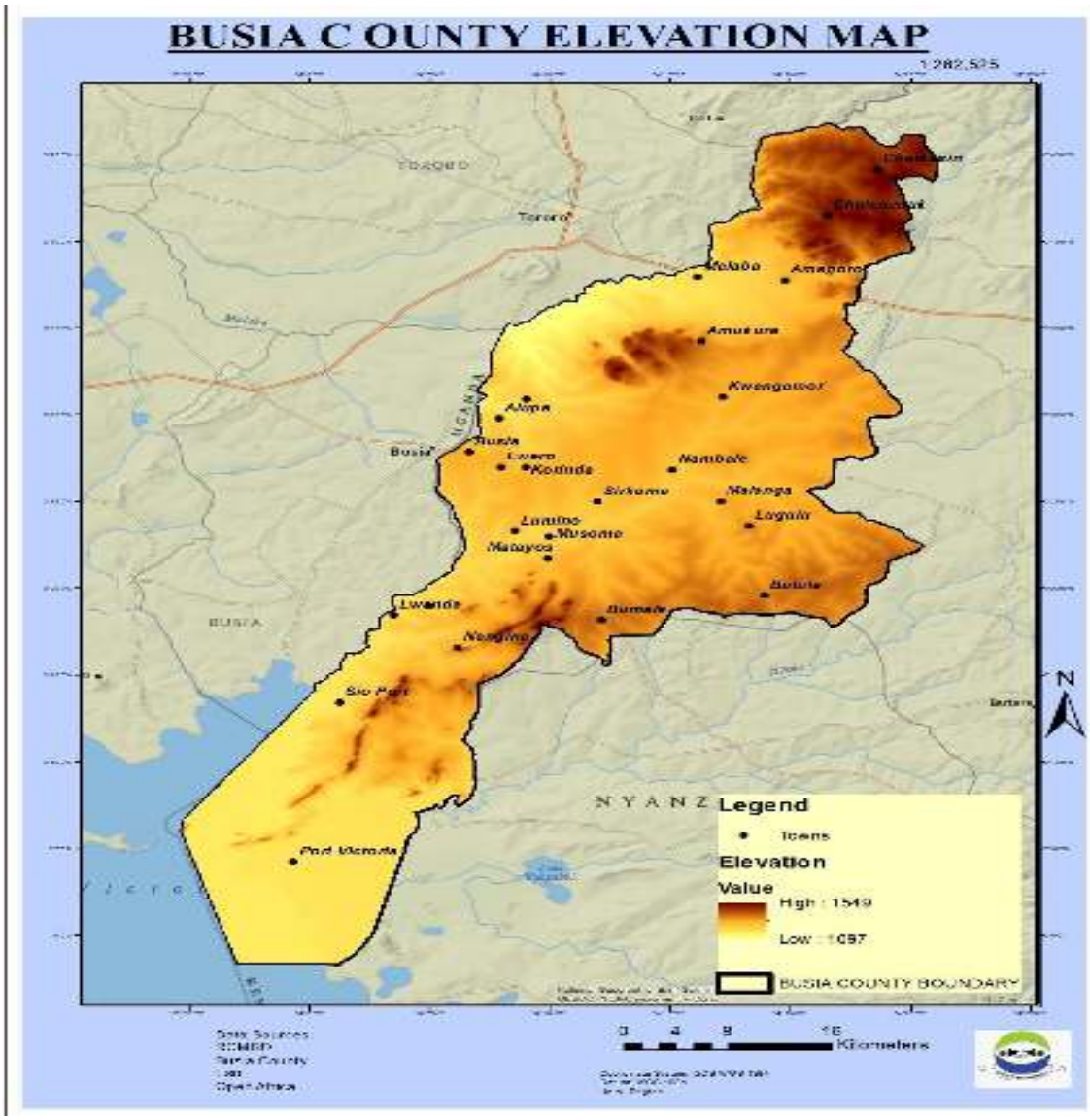

Figure 7- Busia County elevation profile - Bunyala subcounty vulnerable to flooding

Increase in disease vectors such as mosquitoes affect children, the expectant mothers, the elderly and the terminally ill are more due to lower levels of immunity hence predisposed to contract malaria more than the rest of the population. Reduced quality of water also affects the mentioned categories to water-borne diseases.

The Elderly and Persons Living with Disabilities (PLWDs) were found to be more vulnerable to reduced water availability as a physical limitation barring them from competing for the resource in the periods of reduced yields. It was also noted that destruction of infrastructure during periods of excess rainfalls paused more challenges for the PLWDs. Reduced quantities of water affects women more because culturally, women bear the responsibility of fetching water for their families and carrying out cleaning chores. As water in the springs and wells declines during periods of prolonged dry spell, women take more time on queues at water points. For cultural reasons, most women have no rights towards ownership of the land resources which limits the extent to which they can make decisions with regards to investment on land.

Table 3-Summary of the impacts of climate hazard across sector

Sector	Impacts of Climate Change
Agriculture (Crop, Livestock and Fisheries)	• Prolonged dry spells which lead to reduction in Agricultural productivity. • Erratic rainfall patterns result to disruption of farmers planting calendar, reduction in agricultural productivity. • Floods which result to farmland and crop destruction. • Episodes of crop and animal pests invasion have become more frequent and severe. • Destruction of fish ponds due to flooding.
Disaster Management and Risk Reduction	• Mudslides pose risks to human life and property. • Heavy rainfall results into storm water which leads to massive land degradation (mudslides and gullies).

	• Prolonged dry spells which result in drying up of water sources.
Environment	• Environmental degradation such as deforestation, poor cultivation practices, growing of eucalyptus trees in catchment areas aggravates climate risks • Heavy rainfall episodes lead to mudslides especially in Teso South Sub-County. • Poor waste management lead to production of methane.
Water	• Prolonged dry spell reduces quantity of water. • Reduced quality of water as a result of pollution (from erosion).
Health	• High rainfall intensity and prolonged dry spells result in pollution of water sources and water scarcity respectively leading to increased water-borne diseases, such as cholera, and typhoid.
Public infrastructure	• Damage to infrastructure, including roads and bridges, during heavy rainfall increases cost of infrastructure maintenance.

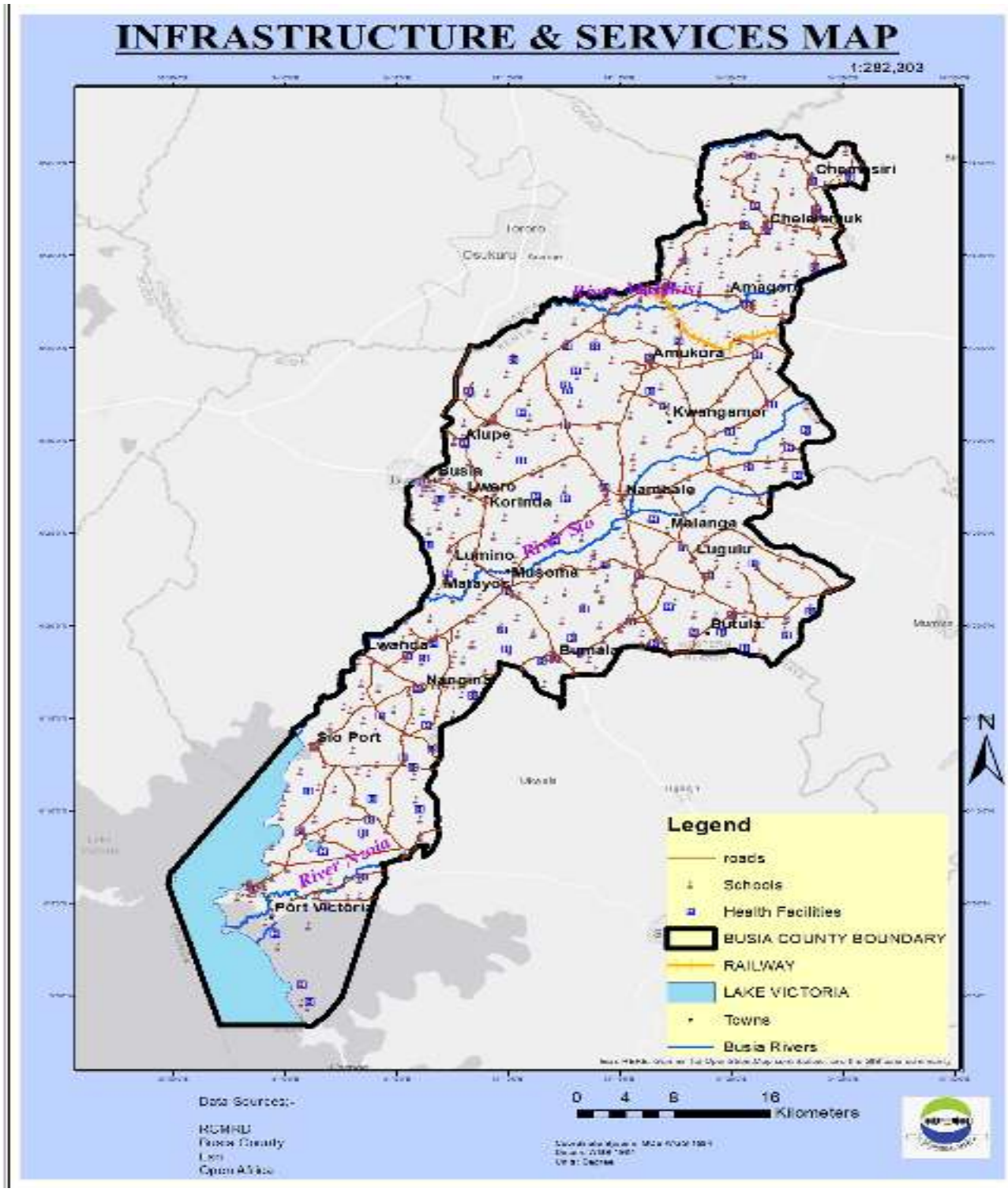

Figure 8-Infrastructure and Services affected by climate change in Busia County

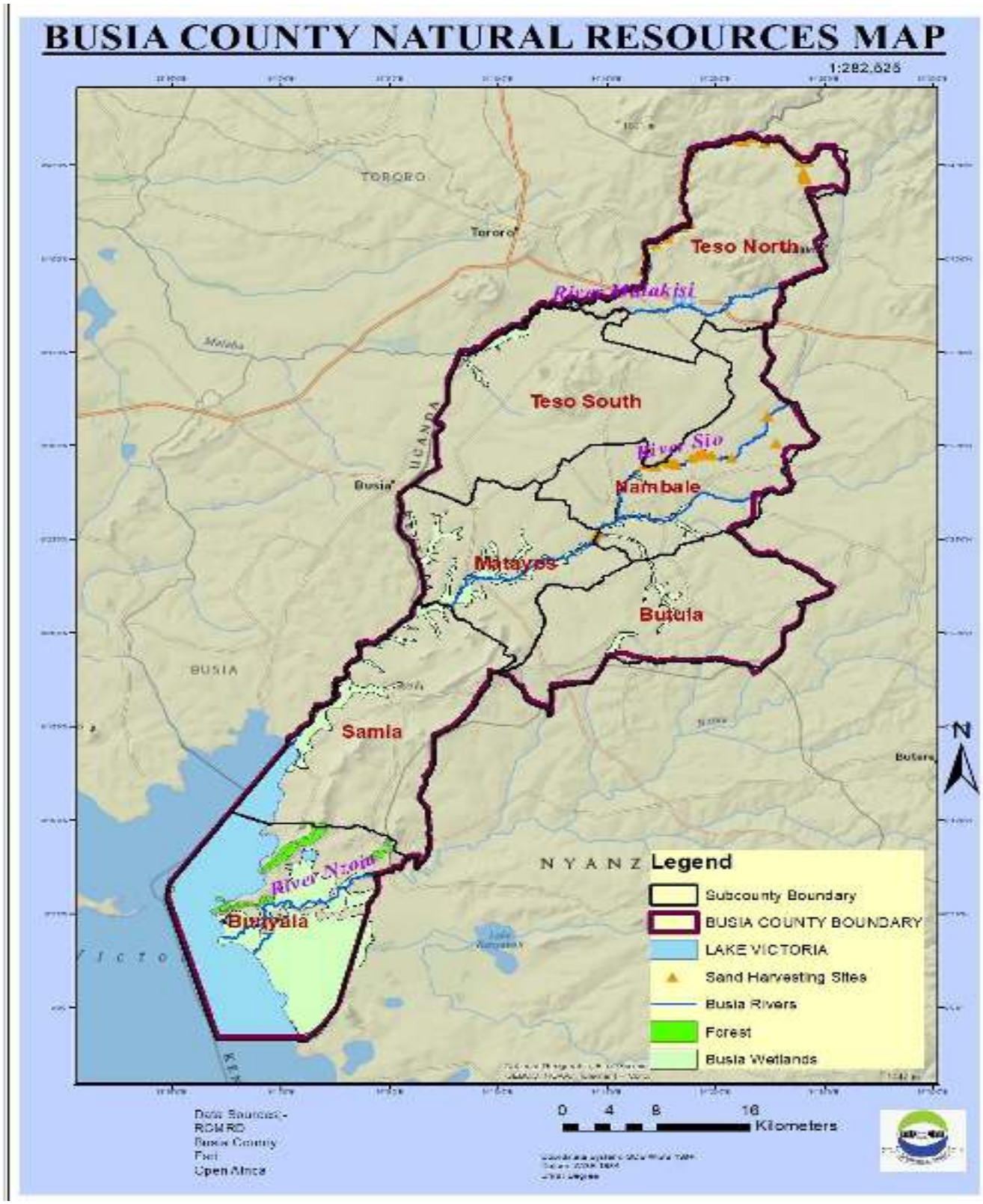

Figure 9-Natural Resources affected by climate change in Busia County

1.3 Brief Overview of Climate Change Actions in the County

1.3.1 Mainstreaming of NCCAP in County Actions

The County Government of Busia is implementing strategies to strengthen the capacities of the vulnerable groups as required by the National Climate Action Plan. This is through review and mainstreaming climate adaptation in its policies, strategies and plans. The Busia County CIDP, 2023-2027 has mainstreamed climate actions as required by the NCCAP. By establishing a climate change fund anchored on an act of County Assembly, the county has ensured continuous, regular flow of climate finances for climate action as required by the NCCAP. Through establishing ward committees for climate change at ward level, encompassing the women, youth, PLWDs, the county has ensured that voices of the marginalized is integrated in climate action and decision making.

At the National level, a robust regulatory framework comprising laws, policies, plans, and institutions has been progressively established and Busia County has been cascading these legislations to address climate change. The foundation of the institutional and legal framework for climate change action is the Constitution of Kenya (2010). Article 10 sets out national values and principles of governance, such as sustainable development, devolution and share of power; and public participation, these are mandatory when making or implementing any law or public policy decisions. This has informed the participatory approach adopted by Busia County in formulating and developing PCRA and BCCCAP. Article 42 provides for the right to a clean and healthy environment for every Kenyan, which includes the right to have the environment protected for the benefit of present and future generations.

The Climate Change Act, 2016 (Amended 2023) is the main legislation guiding Kenya's climate change response through mainstreaming climate change into sector functions, and it is the legal foundation of the NCCAP. In addition, Kenya has developed the National Climate Change Response Strategy (2010), first NCCAP (2013-2017), National Adaptation Plan (2015-2030), Kenya Climate Smart Agriculture Strategy (2017-2026), Climate Risk Management Framework (2017), National Climate Change Policy (2018), and National Climate Finance Policy (2018), among other sector plans and policies that address aspects of

climate change. All these legal documents have been mainstreamed in Busia County development agenda.

1.3.2 Climate Change in CIDP

This Climate Change Action Plan, 2023-2027 is anchored on the Busia County Integrated Development Plan (CIDP) 2023-2027. The CIDP prioritizes enhancing capacity at community and county levels for effective identification, implementation, monitoring and reporting of climate action for climate change adaptation and mitigation. Specifically, the CIDP provides for community training programs, exchange programs, capacity building of staff and awareness creation.

The CIDP calls for establishment of Climate Information Services and Early Warning System for reduced climate-triggered disaster risks. In addition, the County has planned for enhanced climate change research, conferences and learning sessions. Mainstreaming of Climate Change across various sectors has been prioritized for enhanced climate financing and action. The CIDP provides for implementation of ward level climate resilience investments. The Climate Change Research Centre proposed by the CIDP to be operationalized in partnership with Research/Policy Institutions shall be instrumental in gathering evidence for informed decision making. These shall be in line with the climate change impacts identified in the Participatory Climate Risk Assessment Process and the programs prioritized in this Action Plan.

1.3.3 Other key climate actions/strategies in the County

The County is promoting climate smart agriculture through strategies such as irrigation and promoting soil and water conservation. In addition, the County has a fish hatchery with a capacity of 100,000 fingerlings per month to promote aquaculture among communities. In water sector, the county is conserving water catchment and promoting use of solar in pumping of water.

CHAPTER TWO: POLICY ENVIRONMENT

2.1 National Policy Context

2.1.1 The National Perspective

Kenya suffers from climate change impacts such as droughts, floods, increased prevalence of pests and diseases and erratic rainfall patterns. Drought has most recently been witnessed during 2010-2011, 2016-2017 and 2020-2023. The 2020-2023 droughts have been the most severe and longest, exposing more than 4.2 million people to acute food insecurity. Severe floods are projected to leave about 5.4 million people in Kenya without adequate access to food and water between March and June 2023, while Erratic Rainfall Patterns adversely affect agricultural productivity given the high (98%) dependence on rain-fed agriculture.

Through her Nationally Determined Contribution, Kenya commits to abate GHG Emission by 32% by 2030 relative to 'Business as Usual Scenario' with a financing ambition of USD 62B. Kenya's priority actions in line with the Paris agreement to Strengthen capacities at all levels for accurate prediction and response to climate change disasters strengthen coping ability while incorporating an early warning system.

In addition, Kenya seeks to upscale uptake of technologies towards clean and affordable energy, food security, affordable housing, clean and safe water for all. This is to be attained through mobilization of Climate Finances through an ambition to raise USD 62B for adaptation and mitigation initiatives in her Nationally Determined Contributions.

2.1.2 National Legal and Policy Framework

Article 42 of the Constitution of Kenya, 2010 provides for the right to a clean and healthy environment for every Kenyan, which includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures. Further, the National Climate Change Act, 2016 provides for the development, management, implementation and regulation of mechanisms to enhance climate change resilience and low carbon development for the sustainable development of Kenya. To achieve these, the act establishes governance structures (Climate Change Steering Committee and the Directorate of Climate Change) and guides climate change action planning. A fund for climate change is established under section 25 of the Act. National Climate Change Action Planning is undertaken in a 5-year cycle. Part IV (Section19) of the Act requires county governments to

mainstream climate change in performance of their functions. The main policies, plans and frameworks that influence and guide climate change actions in Kenya are described in the table below;

Table 4-Kenya's National Climate Change Legal and Policy Framework

Climate Policy Framework	Description
Kenya Vision 2030 (2008) and its Medium-Term Plans	Recognized climate change as a risk that could slow the country's development. Climate change actions identified in the Third Medium Term Plan (2018-2022) recognized climate change as a crosscutting thematic area and mainstreamed climate change actions in sector plans.
National Climate Change Response Strategy (2010)	This was the first national policy document on climate change. It aimed to advance the integration of climate change adaptation and mitigation into all government planning, budgeting and development objectives.
National Climate Change Action Plan (2013-2017)	Kenya's National Climate Change Action Plan, 2013-2028 was a five-year plan that aimed to further Kenya's development goals in a low carbon climate resilient manner. The plan set out adaptation, mitigation and enabling actions and calls for mainstreaming of climate action across various sectors.
National Adaptation Plan (2015-2030)	Kenya's National Adaptation Plan 2015-2030 was submitted to the UNFCCC in 2017. The NAP provides a climate hazard and vulnerability assessment and sets out priority adaptation actions in the 21 planning sectors in MTP II.
Kenya's Nationally Determined Contribution (NDC) (2016)	This is a commitment under the Paris Agreement of the UNFCCC for mitigation and adaptation contributions. Through her NDCs Kenya commits to abate her Green House Gas emissions by 30% by 2030 relative to the BAU scenario of 143 MtCO2eq.
Climate Change Act	This is the first comprehensive legal framework for climate

[No. 11 of 2016] Amended,2023	change governance for Kenya. The objective of the Act is to "Enhance climate change resilience and low carbon development for sustainable development of Kenya." The Act establishes the National Climate Change Council (Section 5), Climate Change Directorate (Section 9), and Climate Change Fund (Section 25).
Kenya Climate Smart Agriculture Strategy (2017-2026)	The objectives of the Kenya Climate Smart Agriculture Strategy (KCSAS) are to adapt to climate change and build resilience of agricultural systems while minimizing greenhouse gas emissions. The actions will lead to enhanced food and nutritional security and improved livelihoods.
Climate Risk Management Framework (2017)	The Climate Risk Management Framework for Kenya integrates disaster risk reduction, climate change adaptation, and sustainable development so that they are pursued as mutually supportive rather than stand-alone goals. It promotes an integrated climate risk management approach as a central part of policy and planning at National and County levels.
National Climate Change Framework Policy (2018)	It aims to integrate climate change considerations into planning, budgeting, implementation and decision-making at the National and County levels and across all sectors.
National Climate Finance Policy (2018)	The National Climate Finance Policy promotes the establishment of legal, institutional and reporting frameworks to access and manage climate finance. The goal of the policy is to further Kenya's national development goals through enhanced mobilization of climate finance that contributes to low carbon climate resilient development goals.

2.2 County Enabling Legal & Policy Framework

In order to effectively plan, finance and implement climate change programs, the County Government of Busia has enacted legislative and planning instruments that include: The Busia County Climate Change Act, 2021 which is the principal legislative framework for planning, budgeting and implementation of climate action. Anchored within the Act, the Busia County Climate Change Fund (CCCF) into which 2 per cent of county development budget is to be apportioned for financing climate change initiatives is established. In addition, climate change governance structures at the wards and county levels are also established. The Busia County Climate Change Steering Committee chaired by the Deputy Governor comprises of CECMs from climate change related departments, private sector representatives and strategic direction for climate action.

The Busia County Climate Change Planning Committee is responsible for planning and coordination of climate change programs, projects and activities in the county. For effective locally-led climate action, Ward Climate Change Planning Committees are established and capacity-built to provide a platform for public participation, consultation and involvement in climate change governance in every ward in the County. The ward committees guarantee inclusion to the lowest levels of governance because of their membership which is drawn from every village and incorporates the most vulnerable such as women, youth, PLWDs and the elderly among others. The Climate Change Directorate is also established for coordination of climate action in the County. Below is the summary of county climate change legal framework.

Table 5-Below Summarizes the County's Climate Change Legal Framework

County Framework	Description
County Integrated Development Plan 2023-2027.	Has mainstreamed climate change by prioritizing strengthening of research. The CIDP also calls for enhanced awareness and implementation of community prioritized climate change programs.
Busia County Climate Change Act, 2021	The Act provides for establishment of the County Climate Change Fund; Climate Change governance structures; Climate Change Adaptation and Mitigation Plans; and up-scaling of climate information services. This is in order to facilitate community-prioritized climate action.
Busia County Climate Change Fund Regulations	The Regulations operationalize the Busia County Climate Change Act. It provides for financial management, communication and reporting pathways and provides a specific framework for execution of the CCCF.

CHAPTER THREE: PRIORITY CLIMATE CHANGE ACTIONS

3.1 Identification of Strategic Climate Action Priorities in the PCRA

The major climate risks and hazards identified by stakeholders across the seven sub-counties in Busia include; unpredictable rainfall patterns, prolonged dry seasons, mudslides, flash floods, environmental degradation, hailstorms and emerging pests, diseases and noxious weeds which are felt across the county. During community consultation forums and the County Level Multi-stakeholder workshop, the climate hazards in the county prioritized at ward level were presented in the view of the current and projected climate outlook. The main climate change risks identified in the PCRA are:

3.1.1 Floods

Floods which occur in some parts of the County as a result of high rainfall intensity lead to destruction of property and infrastructure as well as proliferation of water related diseases such as typhoid, cholera among others. Floods also lead to destruction of crops, scarcity of water due to pollution of water bodies, and destruction of other vegetation causing reduction in the quality of pastures and increased soil erosion resulting in gully formation. Floods are common in low lying areas along rivers in Bunyala and Teso North Sub-Counties.

3.1.2 Prolonged Dry Spells

The impact of prolonged dry spells includes drying up of water sources, reduced pasture for livestock and low crop production. These effects of prolonged dry spells have been felt in most of the wards across the county. These effects have further caused post-harvest losses in crop and livestock losses which present a threat to food security in the entire County. Growing of Eucalyptus trees in water catchment areas further compounds the impact of prolonged dry spells on water resources.

3.1.3 Mudslides and soil erosion

Impacts of climate hazards such as eroded soils, mudslides, Quarry are more common in hilly and sloppy areas in the county. Some of the Wards in the County such as Walatsi, Bunyala North, Bunyala South and Bunyala Central are particularly more vulnerable to mudslides

while community members bordering wetlands were more exposed to erosion due to the steep slopes and human activities that clears vegetation cover. Those residing on hillslopes and other steep slope areas such as Amukura Hills are also exposed to topsoil erosion, rock falls and mudslides which occur as a result of anthropogenic activities such as sand and murram harvesting.

3.1.4 Increased prevalence of insect pest and diseases

Crop pests and emerging diseases have become more frequent and more severe in the recent pasts. Fall army worms are particularly more common with the latest invasion recorded in 2022 being one of the most severe.

3.1.5 Unpredictable rainfall pattern

This has affected all the thirty-five wards within the county leading to crop failure and delayed planting hence affecting agricultural production

3.1.6 Lightning and thunderstorms

This hazard was prevalent across the county as it affects all the sub counties. The effect is adverse as in most cases it leads to death and destruction of property.

3.1.7 Poor waste management practices

This was reported in most urbanized wards, especially those within the municipalities and with major market outlets. It is proportional to the human population density.

3.1.8 Pests, Diseases and noxious weeds

Emergence of pests and diseases affect crops, livestock as well as humans. These were reported in most wards as noxious weeds such as dodder plant and striga are prevalent and have adverse effects on the vegetation and crop production.

3.2 Priority County Climate Change Actions

Identification of climate hazards was followed by sector-wise identification and prioritization of the response actions for the identified climate risks. This section presents the prioritized strategies for addressing climate risks and their impacts in four priority areas namely water, agriculture, environment and disaster management and the ward specific climate actions.

Table 4. Prioritized climate change actions

Water and Irrigation	Agriculture	Environment	Disaster management
Prolonged dry spell			
• Enhance water harvesting and storage structures.(water pans, dams, rooftop catchment). • Rehabilitate, protect and conserve water sources. e.g community springs conservation. • Up scaling of solar energy use in water supply. • Ensure capacity building of WRUA on watershed management. • Establishment of smallholder community managed irrigation schemes.	• Adopt climate Smart Agriculture technologies such as conservation agriculture and integrated farm management practice. • Adoption of irrigation technologies, and early maturing and drought tolerant varieties and breeds and certified seeds. • Enhance livelihood diversification such as apiculture and aquaculture. • Promotion of seed banks.	• Improve environmental conservation and protection. • Establish fruit tree nurseries and agro forestry. • Capacity builds and mobilizes resources towards environmental conservation.	• Strengthen early warning systems. • Improve climate information systems. Scale up and improve the existing local weather stations.

Water and Irrigation	Agriculture	Environment	Disaster management
Floods			
• Enhance protection of riparian zones and river banks. • Establishment of flood control structures, e.g. Dykes and Drainage Structures • River training/ Dredging	• Adoption of water tolerant crops, e.g. Paddy Rice • Providing services for climate-smart agriculture and sustainable agro forestry systems.	• Promotion of bamboo • Improve Physical planning requirements • Promote conservation of riparian zones.	• Strengthen disaster response institutional capacity • Enhance community capacity building on Disaster Risk Reduction • Strengthen early warning systems.

Water and Irrigation	Agriculture	Environment	Disaster management
Emerging pests, diseases and noxious weeds			
• Prevent water pollution in relation to pest control.	• Strengthen crop pest and disease surveillance. • Promote pest tolerant varieties and nature-based solutions to pests. • Strengthen agricultural extension services.	• Promote environmentally friendly pesticides management practices (use of organic pest repellants) • Strengthen capacity to monitor and control use of agrochemicals.	• Set up of an agricultural emergency kitty • Strengthen extension services.

Environmental degradation (deforestation, soil erosion, gulleys, water catchment destruction, abandoned sand mining site)			
Water and Irrigation	**Agriculture**	**Environment**	**Disaster management**
• Encourage climate proof water and Irrigation infrastructure and rehabilitation of existing infrastructure. • Promotion of clean energy in water supply services. • Promotion of integrated water resource management.	• Promote agro forestry through provision of seedlings . • Enhance soil erosion control through construction of gabions terracing, grass striping and cover cropping with focus on ecosystem-based solutions.	• Conservation of water catchment areas to be achieved through afforestation and reafforestation programs. • Strengthen use of green energy e.g. biogas and solar. • Enhance capacity building and awareness creation on environmental conservation. • Restoration, rehabilitation, and management of degraded lands to be improved as	• Strengthen the existing disaster response units. • Promote research and strengthen early warning systems. • Dissemination of information through local Radio Stations, social media platforms etc.

		carbon sinks.	
Hailstorms			
• No hailstorm risks were identified in water sector	• Promote crop insurance. • Agricultural enterprise diversification. • Use of agricultural nets • Promotion of indigenous knowledge.	• Enhance capacity building of residents on livelihood diversification and livelihood resources such as Apiculture, Aquaculture etc.	• Strengthen early warning system on hailstones. • Promote crop insurance schemes.
Intense rainfall/ erratic rainfall			
• Enhance water harvesting and storage, i.e. roof and surface runoff. • Promote use of farm ponds.	• Promote cover cropping. • Undertake soil conservation measures, i.e. Grass stripping, trenching, terracing, gabions among others.	• Encourage tree planting.	• Strengthen climate information systems.
Lightning and thunderstorms			
• Installation of Lightning arrestors on solarised water			• Strengthen mapping of lightning prone areas, carry out

systems			sensitization and install lightning arrestors.

OTHER RELATED SECTORS	• PRIORITY ACTIONS
Health	• Developing green, resource-efficient and climate-resilient health infrastructure projects. • Supporting the sustainable supply of energy-efficient medical equipment through green energy use. • Strengthening and expanding public health and disease monitoring and surveillance systems to track and respond to changes in climate-sensitive diseases and health conditions. • Increasing the preparedness of the health systems to the effects of climate change on infrastructure (e.g. water and electricity continuity in emergencies).

CHAPTER FOUR: DELIVERY MECHANISM FOR THE CCCAP

4.1 Enabling Factors

4.1.1 Enabling Policy and Regulations

A range of crosscutting enabling actions is required to implement the adaptation and mitigation actions to enhance resilience against climate change. Availability of the Busia County Climate Change Act, 2021 and the Busia County Climate Change Fund Draft Regulations, 2022, established institution framework. The governance framework is comprised of the Climate Change Steering Committee; which provides strategic direction during implementation, County Climate Change Planning Committee and Directorate of Climate Change which provide technical coordination. The Ward Climate Change Coordination Committee facilitates community participation in implementation of the action plan. The County Climate Change Fund shall provide financing for the action plan.

4.1.2 Mainstreaming in CCAP in the CIDP

This Action Plan is mainstreamed in the County Integrated Development Plan, 2023-2027 through: Capacity building of local communities for effective implementation, promotion of partnerships for research, and implementation of community-led climate action with a focus on disaster risk reduction, environmental conservation, water resources conservation, and climate smart agriculture. Furthermore, the plan promotes the use of clean energy, ecosystems restoration, implementation of green growth and circular economy strategies and uptake of clean energy which shall be achieved through implementation of this action plan.

4.1.3 Multi - stakeholder participation processes

This BCCCAP was developed through a multi-stakeholder participatory process. The identification of climate risks and the response strategies involved multi-stakeholder consultative processes. The process involved participation of communities at ward level, women, youth, PLWDs among others. In addition, the process involved engagement of practitioners in technical, professional and academic spheres in the relevant sectors. The stakeholder engagement processes shall continue in the implementation of the action plan as guided by the Busia County Climate

Change Act, 2021, which calls for community consultation forums, with all-inclusive participation before implementation of any climate change projects at the ward level.

Figure 10: Busia County Multi-Stakeholders Level Workshop

4.1.4 Finance - County Climate Change Fund

The Busia County Climate Change Fund is established under the County Climate Change Act, 2021. The Act apportions at least 2% of the county development budget into the Fund for implementation of community prioritized climate action. Specifically, the act proposes that Monies in the Act shall be used to support administrative functions of the ward committees, research, awareness on climate change and implementation of community prioritized climate change resilience projects at ward and county level. Climate finance and resource mobilization have been stipulated in the Busia County Climate Change Fund Bill, 2022 for the purpose of facilitating Climate Finance in the County.

4.1.5 County Government Structures

Implementation of the action plan shall be guided by the County Executive Committee where cabinet endorsement is required for high level decision making. The County government has appointed a CECM and a Chief Officer responsible for climate change affairs who provides executive leadership in climate action implementation. The implementation shall further draw support from the county government for functions such as accounting, auditing, procurement, communication, transport and logistics, and accommodation. The county assembly shall provide oversight during the process of implementation. The County Climate Change Directorate is the lead technical agency at the county level in the implementation of this Action Plan. It is also the secretariat of all the Climate Change Planning Committees that prepare and submit operational and statutory reports to the relevant authorities.

4.1.6 Governance - Climate Change Planning Committees

Guided by the legal frameworks enacted, the County Government has established Climate Change Coordination Committees at county and ward level. County Climate Change Steering Committee is chaired by the Deputy Governor and is mainly composed of County Executive Committee Members whose sectors are heavily impacted by climate change impacts. The Steering Committee is mandated to provide strategic direction during implementation of this Action Plan.

The County Climate Change Planning Committee is a technical committee mandated in supervising implementation of climate action at county level. On the other hand, Ward Climate Change Committees are established to provide an interface between the County Government and the communities during planning and execution of climate change adaptation initiatives. These committees are popularly selected among community members and they typically comprise of representative of: women, youth, and PLWDs, Faith-Based Organization in the wards, the elderly, and Community-Based Organizations.

The table below summarizes actions required for effective implementation of this Plan:

Table 5 Enabling Actions for implementation of the Action Plan

Enabling Actions	**Coordinating Institution**	**Process Indicator**
Operationalization of the County Climate Change Fund with a special purpose account, including management and oversight of the Fund; annual budgeting and reporting.	County Department of Water, Irrigation, Environment, Natural Resources and Climate Change, County treasury, Climate Change Unit	CCCF operationalized, and the oversight management in place.
Enhance the capacity of the climate finance management through mobilization, tracking and reporting of financial flows. The Busia County Climate Change Act, 2021 provides for mobilization of resources from international sources, National Government, County Government, Grants and Donations.	County treasury All other relevant County departments	County Climate resource mobilization strategy implemented Capacity building of county treasury staff in tracking and reporting
Capacity building of the local community, private sector and civil society to develop bankable projects. The Busia County Climate Change Act, 2021, provides for capacity building of the ward climate change planning committees to develop project proposals from the project priorities identified for funding.	Climate Change unit All other relevant county departments Ward based Climate Change Committees	Project proposals submitted with elaborate feasibility studies.

4.1.7 Climate Information Services & Climate Data Access

The County Department of Meteorological Services and GIS is responsible for generating climate/weather information. Timely dissemination of climate information is required for enhanced resilience of citizens against climate shocks. The County Government shall partner with the KMD in generation and dissemination of climate data such as: historical data, weather Forecasts, early warnings and advisories.

4.1. 8 Resilience Planning Tools

Climate Information Service plan (CISP) presents a communication strategy for sharing Climate information and knowledge in the County. The main objective of the CISP is to provide location and sector specific climate information for services at devolved level, to harness and integrate existing climate information services and provide a platform for early warning systems based on climate information. The Participatory Climate Change Risk Assessment (PCRA) shall be continually undertaken to enable communities identify the climate change hazards, their impacts, and propose practical solutions for evidence-based County Climate Change Action Planning and implementation of climate action. Based on the findings of the PCRA the County Government of Busia shall prioritize strengthening climate change governance institutional framework through strengthening capacity of the directorate of climate change, mainstreaming of climate change across all sectors and strengthening capacity to monitor and report climate action across the sectors at the County and ward level.

4.1.9 Measurement, Reporting and Verification (MRV)

Effective implementation of this Action Plan 2023-2027 is highly dependent on feedback generated through Monitoring, Reporting and Verification. The Climate Change Directorate is primarily responsible for monitoring, evaluation and reporting on climate action implementation. The directorate will work closely with the ward committees in monitoring the implementation of projects at ward level and report to the county climate change planning and steering committees. In addition, the directorate shall be responsible for monitoring and reporting back to any partners who give financial support towards implementation of this action plan.

At all times, the directorate shall keep data in its repository to ensure that reported actions are verifiable. The GIS systems shall provide an ideal platform for verification of projects. The county department of Economic Planning shall also support in integration of climate change reports into County reports.

4.1.10 Monitoring and Evaluation Matrix

This section provides monitoring and evaluation framework that will be used to track progress on implementation of County Climate Change Action Plan 2023-2027. It shows the proposed monitoring and evaluation structures to be used in detailing projects and programmes and implementation agencies as well as selected monitoring tools and indicators.

Monitoring is a systematic and routine collection of information from projects and programmes while evaluation is a practice of assessing completed project and programmes in terms of effectiveness, efficiency, impact and sustainability. It involves checking projects/programmes' progress against plans and information gathered. The results, processes and experiences are documented and used as basis for steering decision making to review progress. Monitoring serves the following purposes:

- Learning from experience and practices so as to ensure future improvement.
- Accountability for resources used in a project/programme and results obtained;
- Providing implementers of project/programme with the ability to make informed decisions in future; and,
- Promoting empowerment of beneficiaries.

Table 6:Indicator Reporting

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
Building resilience through Water supply services	Development of Water infrastructure	Resilient water supplies	Water points developed	Number of water points developed	49	66	Directorate of Water
				No. of boreholes drilled	6	9	Directorate of Water
			Solarized water systems	No. of water systems solarized	63	90	Directorate of Water
			Water pipeline constructed	KMs of pipeline developed	66	86	Directorate of Water
			Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	53	76	Directorate of Water
			Storage facilities constructed	Total volume of storage developed (M3)	44	58	Directorate of Water
			Water systems/schemes repaired and maintained	Number of systems/schemes repaired & maintained and volume of non-revenue water reduced	20	36	Directorate of Water
Climate resilient	Development of irrigation	Climate Resilient	Irrigation/ drainage Schemes	No. of schemes rehabilitated	5	7	Directorate of Irrigation

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
Irrigation and Land reclamation	infrastructure	irrigation and Land reclamation infrastructure	rehabilitated	No. of schemes solarized	3	6	Directorate of Irrigation
			Distribution/ drainage channels and Irrigation systems extended	Length (KM) pipeline/canal extended	0	3	Directorate of Irrigation
			Irrigation schemes established	No. of schemes established	3	5	Directorate of Irrigation
			Water storage facilities developed	No. of Dams/pans/weirs constructed/ rehabilitated	0	0	Directorate of Irrigation
	Soil conservation and drainage management		conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	7	12	Directorate of Irrigation
Forestry development and management	Afforestation & agroforestry	Improved forest and tree cover	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	41	70	Directorate of Environment &Forestry
			Institutional greening implemented	Number of schools (eco school) and public institutions planted	168	268	Directorate of Environment &Forestry
			Bamboo planted	Area under bamboo	15	23	Directorate of Environment &Forestry

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
			Green spaces Established	No. & Area under Green spaces	1	1	Directorate of Environment &Forestry
			Farm forests developed	No. of farm forests developed.	0	0	Directorate of Environment &Forestry
	Catchment & watershed conservation (especially hilltops and watershed areas)		Catchment & watershed conserved	Catchment Area conserved in Ha.	22	37	Directorate of Environment &Forestry
			Springs protected	No. of springs protected	8	10	Directorate of Environment &Forestry
	Nature-based livelihoods		Nature-based enterprise promoted (Tree nurseries apiculture etc.)	No. of nature-based enterprise	0	0	Directorate of Environment &Forestry
				Non timber forest products promoted	0	0	Directorate of Environment &Forestry
Environmental conservation and protection	Waste management	Improved environmental conservation and protection	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No.of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	12	18	Directorate of Environment &Forestry

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
			Conversion of organic waste into manure and poultry feeds through insect farming	No. of households/institutions practicing insect farming	0	0	Directorate of Environment &Forestry
			Incinerators constructed in health facilities	No. of incinerators & volume of waste recycled	3	4	Directorate of Environment & Department of Health
			Eco toilet Constructed in markets	No. of Eco toilets	4	6	Directorate of Environment &Forestry
			Air pollution meters acquired	No. of meters acquired	0	0	Directorate of Environment &Forestry
Renewable Energy Development	Renewable energy development	Enhanced climate proof energy infrastructure	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of	3	4	Directorate of Energy
			Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	8	13	Directorate of Energy & Health
				Sub-County Facilities	5	7	Directorate of Energy &Department of Health
			Bio-digester units installed	No. of biodigesters installed	1	1	Directorate of Energy

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
Agricultural diversification and development	Crop diversification and development	Increased Agricultural Productivity	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	29	35	Directorate of Agriculture/Crops
			kitchen garden demo Established	No.of kitchen garden demo established & No. of farmers trained.	1	1	Directorate of Agriculture/Crops
			Fruit park established	No. of fruit park established	2	3	Directorate of Agriculture/Crops
			Horticulture park established	No. of horticulture park established	3	4	Directorate of Agriculture/Crops
	Post-harvest management		Digital Grain moisture meter acquired	No. of moisture meters distributed.	26	35	Directorate of Agriculture/Crops
			Fabricated fish cold room containers Solarized	No. of cold rooms solarized	1	1	Directorate of Fisheries
			Solar driers installed	No. of solar driers	4	4	Directorate of Energy & directorate of Agriculture
	Livestock diversification and development		Tsetse fly crush pens constructed	No. of crush pens	4	4	Directorate of Livestock
			Livestock Fodder established	Acreage of fodder established	3	3	Directorate of Livestock
			Modern Piggery unit constructed	Number of Piggery units constructed	0	0	Directorate of Livestock

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
			Beehives established	No.of beehives established & No. of farmers practicing	242	332	Directorate of Livestock
			HDPE fish cages Installed	No. of fish cages & No. of farmers practicing	10	10	Directorate of Fisheries
			solarized poultry hatchery established	No. of solarized poultry hatchery	5	5	Directorate of Livestock
			fish Hatchery solarized	No. of hatchery solarized	1	1	Directorate of Fisheries
			backyard fish ponds Established	No. of fish ponds	3	3	Directorate of Fisheries
			Aquaparks Established	No. of aquaparks established	4	4	Directorate of Fisheries
Disaster risk management and reduction	Disaster preparedness	Strengthened adaptive capacity to disasters	Enhanced early warning systems	Climate Change information hub Established	1	1	Directorate of Climate Change& Directorate of Disaster Management
				No. of Seasonal forecasts reports generated	6	10	KMA& Directorate of Disaster Management
			Improved response time to disaster occurrence	Number of water hydrants established	8	12	Directorate of Disaster Management & Directorate of Water
				Number of rescue boats purchased	1	1	Directorate of Disaster Management

Programme	Sub-Programme	Outcome	Output	Performance Indicators	Mid Term Target	End Term Target	Reporting Responsibility
			Reduced number of disaster incidences	Number of lightning arrestors installed	29	55	Directorate of Disaster Management
			Reduced flooding	Number of dams constructed	0	0	Directorate of Irrigation
				Length (km) of Water ways/ canals opened	0	0	Directorate of Irrigation
				Number of Km's of dykes constructed	7	9	Directorate of Irrigation & Directorate of directorate of Disaster management
				No. of Climate proof culverts constructed	18	27	Directorate of Transport& Public Works

4.1.10 Institutional Roles and Responsibilities

Successful implementation of this Action Plan shall be enabled by collaboration and coordination among various institutions at county and ward levels. Table 7. below demonstrates various institutions and roles expected to play in the implementation.

Table 7:Table Showing Role of Climate Change Coordination Unit

Institution	Role
County Climate Change Steering Committee	Provide Strategic direction in implementation of climate action
County Climate Change Planning Committee	Oversee implementation of climate change programs and budgets
County Climate Change Directorate	Coordinate implementation of Climate Change programs and is the secretariat of all committees
Ward Climate Change Planning Committee	Facilitates community participation in climate action
County Assembly	Provides oversight, approves budgets for climate action
County Treasury	Disbursement of funds for implementation of climate action

4.2 Implementation and Coordination Mechanisms

4.2.1 Directorate of Climate Change

The Directorate of Climate Change shall be the principal implementation and coordination entity for this Climate Change Action Plan in line with the Climate Change Act, 2021. The directorate shall coordinate the community consultation fora for project identification, guide ward

committees in proposal writing, mobilize County Climate Change Committees in evaluation and decision making with regards to ward proposals.

The directorate shall also coordinate technical support to ensure that projects are implemented within the set timelines and budget, while ensuring quality for optimal value for money. The directorate shall document and keep records of all activities implemented towards achievement of this action plan.

4.2.2 County Climate Change Planning Committee

In line with the Climate Change Act, 2021, the County Climate Change Planning Committee shall ensure need-based allocation of the moneys available in the fund with regard to the projects received from the Ward Planning Committees. The committee shall also provide linkages between the county executive committee and the county assembly with regard to the Climate Change Fund. The Planning committee is responsible for evaluation of project proposals from ward committees to ensure that the projects to be implemented are socially, environmentally and economically viable.

4.2.3 Office of the Chief Officer responsible for Climate Change Affairs

The Chief Officer shall coordinate technical support for the director of climate change in procurement, accounting and logistical facilitation for effective implementation of this action plan. In addition, the Chief Officer shall ensure deployment of sufficient personnel required for implementation of the action plan.

4.3 Implementation Matrix

COUNTY CLIMATE CHANGE ACTION PLAN 2023-2027 PROGRAMMES

Table 8: Implementation Matrix

Programme: Building resilience through Water supply services													
Programme Objective: To enhance resilience of water supplies													
Programme Outcome: Resilient water supplies													
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
Development of Water infrastructure	Spring developed	Number of water spring developed	6.1	12	4.8	19	7.6	18	7.2	10	4	7	2.8	26.4
	Borehole drilled	No. of boreholes drilled	6.1	0	0	2	4	4	8	2	4	1	2	18
	Solarized water point	No. of water point solarized	7.2,6.1	10	25	8	20	6	15	5	12.5	3	7.5	80
	Water pipeline constructed	KMs of pipeline developed	6.1	25	46	23	42.32	18	33.12	16	29.44	4	7.36	158.24
	Roof rain water harvesting structures developed in public institutions(Health facilities and	No. of institutions	6.1	12	12	23	23	18	18	14	14	9	9	76

Programme: Building resilience through Water supply services													
Programme Objective: To enhance resilience of water supplies													
Programme Outcome: Resilient water supplies													
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
	learning institutions)													
	Storage facilities constructed	Total volume of storage developed (M3)	6.1	13	26	17	34	14	28	9	18	5	10	116
SUB-TOTAL														**474.64**

Programme: Climate resilient Irrigation and Land reclamation													
Programme Objective: To build resilience through irrigation and land reclamation													
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure													
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	2.4	1	9	1	9	2	18	2	18	0	0	54
		No. of schemes solarized	2.4	1	8	2	16	2	16	1	8			48
	Distribution/ drainage channels and Irrigation systems extended	Length (KM) pipeline/canal extended				1.5	3		1.5	3				6
		Length (km) of Water ways/ canals opened	11.5, 13.1	0	0	3	12	4	16	3	12			40
		Number of Km's of dykes constructed	13.1,11.5	4	20	4	20	4	20					60
	Irrigation schemes established	No. of schemes established	2.4	1	20	1	20	1	20	1	20			80

Programme: Climate resilient Irrigation and Land reclamation												
Programme Objective: To build resilience through irrigation and land reclamation												
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure												
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**								**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
	Water storage facilities developed	No. of Dams/pans/weirs constructed/ rehabilitated	**2.4**	1	22	2	44							66
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	**2.4**	4	32	2	16			3	24			72
SUB-TOTAL														**426**

Programme: Forestry development and management													
Programme Objective: To improve forest and tree cover													
Programme Outcome: Improved forest and tree cover													
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**									**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**	
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries (tree nurseries)	15.1	9	4.5	17	8.5	15	7.5	16	8	13	6.5	35
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	11.7,15.1	37	7.4	61	12.2	70	14	56	11.2	44	8.8	53.6
	Bamboo planted	Area under bamboo	15.2	4	20	5	25	6	30	5	25	3	15	115
	Green spaces Established	No. & Area under Green spaces		1	20									20

Programme: Forestry development and management													
Programme Objective: To improve forest and tree cover													
Programme Outcome: Improved forest and tree cover													
Sub Programme	**Key Output**	**Key Performance Indicators**	**Links to SDG targets**	**Planned Targets and Indicative Budget (Ksh. M)**									**Total Budget Ksh. M)**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**	
				Target	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	**Target**	**Cost**	
Catchment & watershed conservation (especially hilltops and watershed areas)	Catchment & watershed conserved	Catchment Area conserved in Ha.	6.6, 15.3, 15.4, 15.5	5	12.5	10	25	7	17.5	7	17.5	8	20	92.5
	Springs protected	No. of springs protected	6.6	2	5	3	7.5	3	7.5	2	5			25
Nature-based livelihoods	Nature-based enterprise promoted (Tree nurseries apiculture etc.)	No. of nature-based enterprise	1.2, 15.2	70	35	70	35	70	35	70	35	70	35	175
		Non timber forest products promoted	1.2, 15.2	1	3	1	3	1	3	1	3	1	3	15

Programme: Forestry development and management														
Programme Objective: To improve forest and tree cover														
Programme Outcome: Improved forest and tree cover														
Sub Programme	Key Output	Key Performance Indicators	Links to SDG targets	Planned Targets and Indicative Budget (Ksh. M)										Total Budget Ksh. M)
				Year 1		Year 2		Year 3		Year 4		Year 5		
				Target	Cost	Target	Cost	Target	Cost	Target	Cost	Target	Cost	
SUB-TOTAL														531.1

Programme: Environmental conservation and protection														
Programme Objective: To improve environmental conservation and protection														
Programme Outcome: Improved environmental conservation and protection														
Waste management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalised groups in	No.of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	**12.5,** 1.4, 8.6,	3	30	5	50	4	40	4	40	2	20	105
	Conversion of organic waste into manure and poultry feeds through insect farming	No. of Markets practicing insect farming	9.5	2	5	1	2.5	1	2.5	1	2.5	1	2.5	15
		No. of institutions practicing insect farming	9.5	7	6	7	6	7	6	7	6	7	6	30
	Incinerators constructed in health facilities	No. of incinerators & volume of waste recycled	12.4	1	18	1	18	1	18			1	18	72
	Eco toilet Constructed in markets	No. of Eco toilets	6.2	1	0.5	2	1	1	0.5	1	0.5	1	0.5	3
	Noise pollution meters acquired	No. of meters acquired	12.4	7	0.7	0	0	0	0	0	0	0	**0**	0.7

SUB-TOTAL														**225.7**

Programme Name: Renewable Energy Development														
Objective: To enhance climate proofing of energy infrastructure														
Outcome: Enhanced climate proof energy infrastructure														
Sub-Programme	**Key Output**	**Performance Indicators**	**linkages to SDG targets**	**Planned targets and indicative Budget (Ksh Millions)**										**Total Budget**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		**Ksh (M)**
				Target	**cost**	**Target**	**cost**	**Target**	**cost**	**Target**	**cost**	**Target**	**cost**	
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of	7.1, 12.5	1	8	1	8	1	8	1	8			32
	Hybrid Solar power back up system installed at health faciities	No. of health facilities installed with solar power back up.	7.2	2	3	3	4.5	3	4.5	2	3	3	4.5	19.5
		Sub-County Facilities	7.2	1	6	2	12	2	12	1	6	1	6	42
	Bio-digester units installed	No. of biodigesters installed	7.2	1	8.75	1	8.75	1	8.75					26.25

SUB-TOTAL														**119.75**

Programme Name: Agricultural diversification and development														
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector														
Outcome: Increased Agricultural Productivity														
Sub Program	**Key Output**	**Key Performance Indicators**	**Linkage to SDGs targets**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total budget (Ksh M**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	**cost**	**Target**	**cost**	**Target**	**cost**	**Target**	**cost**	**Target**	**Cost**	
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	1.5, 2.1, 2.3, 2.4	22	0.66	2	0.06	5	0.15	1	0.03	5	0.15	1.05
	kitchen garden demo Established	No.of kitchen garden demo established & No. of farmers trained.	2.3, 2.4	1	0.5	0	0	0						0.5
	Fruit park established	No. of fruit park established	2.3, 2.4	3	18					1	6			24
	Horticulture park established	No. of horticulture park established	2.3,2.4	3	18					1	6			24
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	12.3	22	2.64	2	0.24	2	0.24	1	0.12	8	0.96	4.2

Programme Name: Agricultural diversification and development														
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector														
Outcome: Increased Agricultural Productivity														
Sub Program	**Key Output**	**Key Performance Indicators**	**Linkage to SDGs**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total budget**
	Fabricated fish cold room containers Solarized at Bukani Aqua park	No. of cold rooms solarized	12.3	1	3.5									3.5
	Solar driers installed	No. of solar driers	7.2	3	6			1	2					8
Livestock diversification and development	Tsetsefly crush pens constructed	No. of crush pens	2.4			2	2	2	2					4
	Livestock Fodder established	Acreage of fodder established	2.4, 2.5	3	2.4									2.4
	Modern Piggery unit constructed	Number of Piggery units constructed	2.4, 2.5	1	1									1
	Beehives established	No.of beehives established & No. of farmers practicing	2.4, 2.5	92	3.1	30	3	120	12	30	3	60	6	27.1
	HDPE fish cages Installed	No. of fish cages & No. of farmers practising	2.3,2.5	10	10									10

Programme Name: Agricultural diversification and development														
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector														
Outcome: Increased Agricultural Productivity														
Sub Program	**Key Output**	**Key Performance Indicators**	**Linkage to SDGs**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total budget**
	solarized poultry hatchery established	No. of solarized poultry hatchery	7.2, 2.4,2.5	3	10.5			2	7					17.5
	fish Hatchery solarized	No. of hatchery solarized	7.2, 2.4,2.5	1	3.5									3.5
	backyard fish ponds Established	No. of fish ponds	2.4, 2.5	1	5			2	10					15
	Aquaparks Established	No. of aquaparks established	2.4, 2.5	3	15			1	5					20
SUB-TOTAL														**112**

Program: Disaster risk management and reduction													
Objective: To strengthen disaster preparedness, mitigation and response													
Outcome: Strenghtened adaptive capacity to disasters													
Sub Program	**Key Output**	**Key Performance Indicators**	**Linkage to SDGs targets**	**Planned Targets and Indicative Budget (Ksh. M)**									**Total budget (Ksh M**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**	
				Target	cost	Target	cost	Target	cost	Target	cost	Target	**cost**
Disaster preparedness	Enhanced early warning systems	Climate Change information hub Established	13.3	0	0	1	15						15
		No. of Seasonal forecasts reports generated	13.3	2	1	2	1	2	1	2	1	2	**1** 5
	Improved response time to disaster occurrence	Number of water hydrants established	13.1	3	9	4	12	1	3	2	6	2	6 36
		Number of rescue boats purchased	11.5, 13.1	1	10								10
	Reduced number of disaster incidences	Number of lightning arrestors installed	13.1	15	33	7	15.4	7	15.4	3	6.6	23	50.6 121
		No. of Climate proof culverts constructed	11.5, 13.1	10	100	2	20	7	70	1	10		200
Sub Total													**387**

Program: County Climate Change Information Service Hub														
Objective: To disseminate climate related information across all the sectors														
Outcome: Informed community on climate change issues														
Sub Program	**Key Output**	**Key Performance Indicators**	**Linkage to SDGs targets**	**Planned Targets and Indicative Budget (Ksh. M)**										**Total budget (Ksh M**
				Year 1		**Year 2**		**Year 3**		**Year 4**		**Year 5**		
				Target	cost	Target	cost	Target	cost	Target	cost	Target	**cost**	
Climate Information Service Hub	County Climate Information Service Hub	Climate Information Service Hub Established	13, 9	1	20									20
	Seasonal forecasts reports	Seasonal forecasts reports generated	13, 9	1	1	1	1	1	1	1	1	1	**1**	5
	c	County Climate Change Geodata Base established and maintained	13, 9	20	3	30	5	30	5	30	5	15	**2**	20
Sub Total														**45**
GRAND TOTAL														**2,321.19**

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ANNEXES

ANNEX 1: SUMMARY OF SPECIFIC INVESTMENT PRIORITIES AS IDENTIFIED BY THE VARIOUS WARDS

Risk/Hazard	Priority Areas of Investment		
1. **Prolonged dry spell**	Agriculture and Livestock	Adoption of Climate Smart Agriculture Practices i.e Apiculture, Agroforestry, aquaculture	All wards
		Promotion of drought tolerant crops	Across the County
		Promotion of early maturing/ drought escaping crops.	Across the County
		Crops and disease surveillance	Across the County
		Promotion of crop and livestock insurance	Across the County
		Adoption of irrigated agriculture	Across the County
		Promotion of soil and water conservation measures	Across the County
		Creation of awareness on conservation Agriculture	Across the County
	Water and Irrigation	Borehole Drilling, Equipping and solarisation	Across the County
		Springs rehabilitation and Protection	Across the County

Risk/Hazard	Priority Areas of Investment		
		Roof catchment Water harvesting	Across the County
		Rehabilitation of water supply schemes	All affected wards
		Rehabilitation of dams and water pans	For affected wards
		Rehabilitation of irrigation schemes	For affected wards
	Environment/Natural Resources Livelihoods	Increasing County Forest/Tree Cover	All hills, rivers, planting of bamboo along the river as and wetlands, School Greening programs, Degraded Landscapes, Farms
		Promotion of Nature Based Enterprises	Across the County
		Integrated waste management	Across the County
		Spring protection	Across the County
		Establishment of tree nurseries	Across the County
		Promotion of bamboo	Across the County
		Integrated watershed and catchment protection	For affected wards

Risk/Hazard	Priority Areas of Investment		
	Energy	Promotion of renewable energy Sources	Across the County
		Promotion of energy efficient devices	Across the County
	Health	Climate related Disease Surveillance or Monitoring	Across the County
		Capacity building	Across the County
2. Floods	Environment/Natural Resources	Promotion of bamboo	Across the County
	Water and Irrigation	Construction of water pans and water dams	In the affected wards
		Rehabilitation of Riparian areas	Across the County
		De-silting of rivers and dams	In the affected wards
	Health	Surveillance of water and vector borne diseases	Across the County
3. Increase prevalence of Pests and	Agriculture	Integrated Pest Management Practices	Across the County

Risk/Hazard	Priority Areas of Investment		
Diseases			
4. Unpredictable rainfall patterns	Agriculture	Planting of drought tolerant crops Water harvesting Soil and water conservation	Across the County
5. Land degradation due to sand harvesting	Environment/Natural Resources	Capacity building on proper sand harvesting methods to control the activity Site restoration/ rehabilitation Quarry reclamation	Across the County
6. Deforestation	Environment/Natural Resources	Afforestation and reforestation programs Bamboo planting along the rivers Riparian areas restoration Wetland management capacity building	Across the County
7. Poor Waste Management practices	Lands, Environment/Natural Resources	Integrated Waste Management Practices Conversion of organic waste into organic mature and poultry fish feeds using black soldier farming.	All major towns within affected wards

Risk/Hazard	Priority Areas of Investment		
8. Lightning and thunderstorms	Disaster management	Installation of lightning arrestors	Across the County
9. Mudslides and soil erosion	Environment/Natural Resources	Landscape conservation and management	Across the County

ANNEX 2: PROPOSED CLIMATE RESILIENCE PROJECTS

TESO NORTH SUBCOUNTY

ANGURAI EAST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST(MILLIONS)
Water					
	Angurai East	Solarisation of Akobwait primary school borehole	√		6.5
		Development of Aloet Dispensary Borehole	√		6.5
		Development of Kopia Borehole	√		6.5
		Solarisation of Atapara village borehole	√		6.5
Agriculture					
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management through Digital Grain moisture meter	√		0.12
Environment					
		Establishment of two Tree nurseries at, and afforestation programs in public institution.	√		5
Irrigation and Land Reclamation					
		Soil conservation structures at Katakwa		√	7
		Rehabilitation of Akibui dam for irrigation	√		9
		Rehabilitation of Kolanya weir for irrigation			8
Disaster Risk Reduction					
		Installation of lightning arrestors at Ang'aro		√	2.2

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST(MILLIONS)
Energy and Health					
		Human waste to energy conversion biogas project at Kolanya girls' high school		√	8.75
		Roof to water harvesting at Kolanya and Changara dispensaries	√		3
Total					**69.1**

ANGURAI NORTH WARD INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
	Angurai North	Development, protection and Solarisation of Ebombo Spring, construction of water point and storage tank and pipeline extension	√		7.6
		Development of Mongodewa Borehole	√		6.5
Agriculture					
		Bee Keeping	√		3
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management through Digital Grain moisture meter	√		0.12
Environment					
		Establishment of Tree nurseries at, katotoi and afforestation programs in public institutions like schools	√		5
Irrigation and Land Reclamation					
		Construction of Soil conservation structures at Kolaiti		√	6
Disaster Risk Reduction					
		Lightning arrestors at Bishop Sulumeti Girls, Adanya Primary, Apokor Secondary, Oduya Oprong secondary and Kakurikit Secondary		√	4.4

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Construction of climate proof box culverts at: 1 box culvert at Kekalet-Kaejo road,		√	11
Energy and Health					
		Roof top rain water harvesting at Ang'urai health center, Chelelemuk and Moding dispensaries	√		4
		Construction of an eco toilet at Ang'urai market		√	0.5
Total					**48.15**

ANGURAI SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
Teso North	Angurai South	Rehabilitation and Solarisation of Emago Spring, construction of water point and storage tank and pipeline extension	√		7.1
		Rehabilitation of solar pumping system at Kolanya borehole and pipeline extension	√		2.8
Agriculture					
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management through Digital Grain moisture meter	√		0.12
		Establishment of aqua park at Toto Kakile in 3 acres to improve food security and nutrition	√		5
Environment					
		Establishment of two tree nurseries and afforestation programs in all public institutions and Kocholya hills	√		5
		Catchment protection at kocholya hills Emago spring	√		2.5
Irrigation and Land Reclamation					
	Angurai South	Construction of Soil conservation structures, gabions, drop structures at Aedemoru		√	8

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Disaster Risk Reduction					
		Erection of lightning arresters in; Aboloi, Akolong, Aedomuru and Aboloi , Akichelesit, Kekalet and Kang'elemuge.		√	6.6
Energy and Health					
		Roof top rain water harvesting at Akichelesit, Akolong', Aboloi, Rwatama dispensaries	√		6
Environment					
Total					**43.15**

MALABA CENTRAL WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
Teso North	Malaba Central	Solarisation, construction of storage tank, water point and pipelined extension for Orodi borehole	√		5.2
		Solarisation, construction of storage tank, water point and pipelined extension for Asanjio borehole	√		6.5
Agriculture					
Teso North		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management through Digital Grain moisture meter	√		0.12
Environment					
		Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Malaba, Amagoro and Kocholia		√	15
		establishment of tree nurseries and afforestation programs in public schools.	√		5
Disaster Risk Reduction					

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Construction of dykes and river training in Malaba Central		√	20
		Establishment of 3 Hydrants at Malaba town		√	3
		Lightning arrestors at St Thomas Girls Amogoro secondary		√	2.2
		Construction of climate proof box culverts at: Amogoro-Akiapijan		√	11
Energy and Health					
		Roof top water harvesting at Malaba dispensary	√		1
Total					**69.05**

MALABA NORTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
Teso North	Malaba North	Pipeline extension (Bishop Kitui water Kamuriai, Agong'et water project Kamurai, Osere Chiefs Office water Kamuriai, Milele and Kakinei water project Okuleu) 2 kilometers per project	√		9.2
Agriculture					
		Bee keeping in Kamuriai	√		3
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management through Digital Grain moisture meter	√		0.12
Environment					
		Establishment of Tree nurseries at Koruruma and Osere city and afforestation programs in public institutions like schools.	√		5
Irrigation and Land Reclamation					
		Construction of Soil conservation structures (terraces, contour bunds) at Awata, Kamuriai		√	8

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Construction of Soil conservation structures (Riverbank Erosion Control Structures) at Amagoro Village		√	4
Disaster Risk Reduction					
		Construction of climate proof box culvert at Awata-Jairos junction		√	11
	Energy and Health				
		Roof top water harvesting at Kamuriai dispensary	√		1
Total					**41.35**

MALABA SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
Teso North	Malaba South	Roof catchment Water harvesting and storage at Kocholia Secondary School and Kamolo Secondary school	√		4
		Solarisation of St Jame Koteko borehole, construction of Storage tank, Water point and pipeline extension	√		7.6
		Rehabiltate and solarise Akapijan Primary School borehole,construction of Storage tank, Water point and pipeline extension	√		7.6
	Agriculture				
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post harvest management through Digital Grain moisture meter	√		0.12
		Establishement of aqua park at Toto Kakile in 3 acre to improve food security and nutrition	√		5
	Irrigation and Land Reclamation				
		Enhancement of Ongaroi water pan and irrigation pipeline extension	√		6
		laying of Soil conservation structures at Osurete		√	12
		Construction of Drainage system at Totokakile		√	8
Disaster Risk Reduction					

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Construction of climate proof box culverts at:Kalalaran-Free Pentecost.		√	11
		Erection of arrestors at Kamolo.		√	2.2
	Energy and Health				
		Hybrid solar power back up at Kocholia Sub County Hospital		√	5.894
		Roof top rain water harvesting at Kamolo dispensary	√		1
Total					**70.444**

TESO SOUTH COUNTY

AMUKURA CENTRAL WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD		PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Teso South	Amukura Central					
			Equipping and Solarisation of Katelenyang borehole, construction of water point , storage tank and pipeline extension	√		6.5
			Equiping and Solarisation of Okatekok Primary School borehole, construction of water point, storage tank and pipeline extension	√		6.5
			Protection of Springs at Ong'aroi, Agogomo, Atapar	√		1.2
Agriculture						
Teso South	Amukura central		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management throughDigital Grain moisture meter	√		0.12
			Bee keeping across the ward 30 hives per site for 2 sites	√		3
			Solarized fabricated container fish cold room to improve post-harvest management at Kamarinyang	√		3.5
			Horticulture park	√		6
			Cassava bulking	√		1
Environment						
	Amukura Central		Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Amukura Market		√	3.5
			Catchment protection at Adoket Kemong , chakol stream ongaroi, agogom and Atapar	√		2.5

SUBCOUNTY	WARD		PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
			Establishment of Tree nurseries and afforestation programs (including fruit trees) at kwangamor catholic church and public institutions.	√		5
Irrigation and Land Reclamation						
	Amukura Central		Construction of Soil conservation structures at Apatiti		√	8
Disaster Risk Reduction						
Teso South	Amukura Central		Construction of climate proof box culverts at: Kalachamong.		√	11
Teso South	Amukura Central		Storm water management and stage improvement of Amukura Market Access roads		√	15
Total						**72.85**

AMUKURA EAST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Teso South	Amukura East		Equiping, Solarization and construction of storage tank and pipeline extension of Kwangamor Village borehole	√		6.5
			Drilling, developing and equipping a hand pump borehole at Akokong	√		2
Agriculture						
	Amukura East		Fodder establishment and conservation in 5 acres	√		0.8
			Establishment of solarized poultry hatchery	√		3.5
			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Amukura East		Establishment of Tree nurseries and afforestation programs (including fruit trees) at kwangamor catholic church and public institutions.	√		5
			Catchment protection of water resources.at Akobwait steam,kabosokipi stream, kamunuit,kosera, kwang'amor	√		2.3
Irrigation and Land Reclamation						
	Amukura East		Construction of Soil conservation structures at Kachilameri		√	12
			Construction of Soil conservation structures at Kabosokipi		√	12
Disaster Risk Reduction						

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Teso South	Amukura East		Establishment of 1 Hydrants at Amukura town		√	1
			Energy and Health			
	Amukura East	Energy	Hybrid solar power back up at Amukura health center		√	5.894
			Installation of Solar back up at Kwangamor dispensary		√	2.7
		Health	Water harvesting at Amukura health center	√		3
			Construction of an Incinerator		√	14
			Construction of eco toilet at Amukura market		√	0.5
Total						**71.344**

AMUKURA WEST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Teso South	Amukura West		Drilling, equiping and solarisation a borehole at Odiria Village, construction of storage tank, water point and pipeline extension	√		8.2
			Construction of storage tank, water point and pipeline extension for Parater borehole water project	√		3.6
			Rehabilitation and solarisation of Aderema Spring, construction of water point and storage tank and pipeline extension	√		7.1
Agriculture						
	Amukura west		Establishement of aqua park at Parater (30 fish ponds) in 3acre to improve food security and nutrition.	√		5
			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Amukura West Ward		Establishment of Tree nurseries at Odioi, and afforestation programs (including fruit trees) in public institutions like schools. Catchment protection of Osia springs, Aderema springs	√		5
Irrigation and Land Reclamation						
	Amukura West		Construction of Soil conservation structures at Odioi		√	4
			Construction of Drainage system for Paratere area		√	6
Disaster Risk Reduction						

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Teso South	Amukura West		Construction of climate proof box culverts at: Achurut, Kokong, Parater, Kabura, Odioi		√	11
Teso South	Amukura West		Installation of lightning arrestor at Okwata, Parater, Odioi, Akatagoroit and Aderema		√	4.4
Teso South	Amukura West		River training aburi-Lukolis-Okwata River 10Km		√	10
Energy and Health						
	Amukura West	Energy	Installation of Solar back up system at Lukolis health center		√	2.7
			Installation of Solar back up syatem at Okook, Akiriamasi and Okwata dispensaries		√	5.1
		Health	Water harvesting at Lukolis, Okook, Akiriamasi and Okwata facilities	√		4
Total						**76.25**

ANGOROM WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Teso South	Angorom		Rehabilitation and solarisation of Aget Spring, construction of water point and storage tank and pipeline extension	√		7.1
			Equiping and Solarisation of Township borehole, construction of water point , storage tank and pipeline extension	√		6.5
Agriculture						
	Angorom		Establishment of Horticulture park	√		6
			Establishement of aqua park at Alupe (30 fish ponds) in 3acre to improve food security and nutrition.	√		5
			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post harvest management throughDigital Grain moisture meter	√		0.12
Environment						
	Angorom		Establishment of Tree nurseries at Alupe primary and afforestation programs (including fruit trees)in public institutions like schools.	√		5
			catchment protection of Aget spring			1
Irrigation and Land Reclamation						
	Angorom		Rehabilitation of Alupe dam and irrigation system		√	20
Disaster Risk Reduction						
Teso South	Angorom		Construction of climate smart box culvert on Asiriam to Alupe,		√	11

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Energy and Health						
	Angorom	Health	Roof top rain water catchment at Alupe sub county hospital	√		2
			Construction of eco toilet at Alupe market		√	0.5
Total						**64.25**

CHAKOL NORTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Chakol North		Rehabilitation and solarisation of Esamait Spring, construction of water point and storage tank and pipeline extension to Morukarisa	√		7.1
			Rehabilitation of Apegei water project and Pipeline extension to Ngelechom dispensary	√		2.1
Agriculture						
	Chakol North		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Chakol North		Establishment of Tree nurseries and afforestation programs (including fruit trees)	√		5
Irrigation and Land Reclamation						
	Chakol North		Construction of Soil conservation structures at Akatagoroit		√	6
Disaster Risk Reduction						
Teso South	Chakol North		Construction of climate proof box culverts at: okopiro-Okwata Primary		√	11
Energy and Health						
	Chakol North	Energy	Installation of solar power back up system at Morukarisa and Ng'elechom dispensaries		√	2.4
		Health	Roof top rain water harvesting at Morukarisa and Ng'elechom dispensaries	√		2
Total						**35.75**

CHAKOL SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Teso South	Chakol South		Rehabilitation and hybridisation of Olepito borehole, storage tank and pipeline extension		√	5
			Rehabilitation of Kemodo-Ochude dispensary 4 kilometres pipeline	√		3.2
			Roof top catchment water harvesting at Amongura Secondary school	√		2
Agriculture						
	Chakol South		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
			Installation of solar dry for Rice mall at Asinge	√		2
			Solarization of Poultry Park	√		3
			Solarization of Okerebwa fish Nursing Hatchery	√		3
Environment						
	Chakol south ward		Establishment of Tree nurseries and afforestation programs (including fruit trees)	√		5
Irrigation and Land Reclamation						
	Chakol South		Construction of Drainage system Asing'e Aludeka area		√	7
Energy and Health						
	Chakol South	Health	Roof top rain water harvesting at Ochude and Among'ura dispensaries	√		4
		Energy	Installation of solar power back up system at Amaase dispensary		√	1.2
Total						**35.55**

NAMBALE SUBCOUNTY

NAMBALE TOWNSHIP WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Nambale	Nambale Township		4 kilometre Pipeline extension for Okatekok borehole and water point construction	√		4.3
			Solarization of Nambale market borehole and construction of water point, storage tank and pipeline extension		√	5.5
			Solarisation, construction of storage tank, water point and pipeline extension at Ikondokhera borehole water project		√	7.6
			Construction of 50 cubic metre storage tank at Nambale Subcounty hospital	√		3
			Pipeline extension of Kwilare borehole and augmentation to the Nambale township pipeline	√		4.3
Agriculture						
	Nambale Township		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
			Fish pond renovation and water quality management	√		5
Environment						
	Nambale Township		Establishment of Tree nurseries and afforestation programs (including fruit trees) in public schools	√		5
			Riparian land conservation along River Walatsi	√		3.5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Nambale Town		√	5
Irrigation						
	Nambale Township		Rehabilitation of Siekunya drainage scheme		√	6
Disaster Risk Reduction						
Nambale	Nambale Township		Installation of lightning arrestors in Kisoko Schools Complex,Nambale AC secondary,st Peters Khwirale and st Marys Nambale		√	8.8
Nambale	Nambale Township		Establishment of 2 Hydrants at Nambale town		√	2.0
Energy and Health						
	Nambale Township	Energy	Installation of solar power back up system(18KW) at Nambale sub county hospital		√	5.894
Total						**66.044**

BUKHAYO EAST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Nambale	Bukhayo East		Equiping and solarising of Ekisumo borehole, construction of water point and storage tank	√		4.6
			2 kilometres Pipeline extension of Mungatsi TVET borehole	√		1.9
			Solarization , pipeline extension, construction of water point and 10 cubic metrestorage tank Elwanikha Girls secondary school borehole.	√		6.5
			Solarization of borehole and storage tanks at Mudembu dispensary	√		4.6
Agriculture						
	Bukhayo East					
			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Bukhayo East		Establishment of two tree nurseries afforestation programs (including fruit trees) in public institutions	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalized groups in Buyofu Market.			5
Disaster Risk Reduction						

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Nambale	Bukhayo East		Installation of lightning arrestors in Ekisumo , Madende Seconday, Elwanikha Primary, Sikinga Seconday, Namaindi, Mungatsi and Buyofu Secondary		√	13.2
Energy and Health						
	Bukhayo East	Energy	Installation of solar power back up systems at Midembu, Khayo and Buyofu dispensaries		√	4.5
Total						**45.45**

BUKHAYO NORTH/ WALATSI WARD INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
			Water			
Nambale	Bukhayo North/ Walatsi Ward		Solarisation, construction of storage tank, water point and pipeline extension at Kapina borehole water project	√		7.6
			Solarisation, construction of storage tank, water point and pipeline extension at Musokoto Market borehole water project	√		7.6
			Solarisation, construction of storage tank, water point and pipeline extension at Igara Market borehole water project		√	7.6
Agriculture						
Nambale	Bukhayo North/Walatsi	Agriculture	Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post harvest management throughDigital Grain moisture meter	√		0.12
			Establishment of horticulture park	√		6
Environment						
	Bukhayo North/ Walatsi Ward	environment	Establishment of Tree nurseries and afforestation programs (including fruit trees)	√		5
			Planting of bamboos in the water resources along river walatsi	√		5
Disaster Risk Reduction						
Nambale	Bukhayo North/Walatsi		Installation of Lightning arrestors at Musokoto secondary, Igara secondary, Lupida Secondary, siera secondary and Katira		√	13.2
Energy and Health						
	Bukhayo North/Walatsi	Energy	Installation of solar power back up system at Kapina dispensary		√	1.5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Health	Roof top rain water harvesting at Igara, Kapina and Lupida dispensaries	√		4.5
Total						58.15

BUKHAYO CENTRAL WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST(MILLIONS)
Water						
Nambale	Bukhayo Central		Hybridisation of Mabunge RC primary borehole, construction of storage tank and pipeline extension		√	15.1
Agriculture						
	Bukhayo central		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Bukhayo Central Ward		Establishment of Tree nurseries and afforestation programs (including fruit trees)	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Malanga Market			5
Disaster Risk Reduction						
Nambale	Bukhayo Central		Installation of lightning arrestors in Esidende primary/TVET, Malanga seconday, Sibembe Primary, Maolo Secondary, Lwanyange and Mabunge		√	13.2
Energy and Health						
	Bukhayo Central	Energy	Solar power back up system at Sidende dispensary		√	1.5
		Health	Rain top water harvesting at Sidende, Lwanyange and Madende dispensaries	√		4.5

BUTULA SUBCOUNTY

ELUGULU WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Butula	Elugulu		Rehabiltation, protection Lugulu Spring and solarisation and pipeline extension	√		6.5
			Drilling, equiping and solarisation a borehole and supply of water at Esibembe Girls Secondary	√		6.5
			Solarisation, construction of storage tank, water point and pipelined extension for St. Paul's Lugulu Catholic church borehole	√		7.6
			Solarisation, construction of storage tank and water point Sikura borehole	√		7.6
			Solarisation, construction of storage tank and water point of Bulwani borehole	√		7.6
			Drilling, solarization and pipeline extension at Bulemia primary School	√		2
			Hybridisation, construction of a waterpoint, storage tank and pipeline extension at Namusala		√	9.4
Agriculture						
Butula	Elugulu		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Butula			Post-harvest management through Digital Grain moisture meter	√		0.12
Butula			Bee keeping across the ward 30 hives per site for 2 sites	√		3

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Environment						
	Elugulu		Establishment of Tree nurseries and afforestation programs (including fruit trees).	√		5
			Spring protection of Lugulu spring at	√		2.3
Irrigation and Land Reclamation						
	Elugulu		Development of Namusala irrigation system	√		10
Disaster Risk Reduction						
Butula	Elugulu		Construction of climate smart box culverts at Lugose and Rerekwe streams		√	11
Butula	Elugulu		Installation of lighting arrestors at Lugulu Secondary		√	2.2
Energy and Health						
	Elugulu	Health	Roof top rain water harvesting at Bwaliro, Sikarira and Namusala dispensaries	√		3
Total						**83.85**

KINGANDOLE WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST(MILLIONS)
Water						
Butula	Kingandole		Hybridisation of Khunyangu Subcounty Hospital Borehole, construction of a waterpoint and 10 cubic metre storage tank		√	5.2
			Solarisation of Kingandole Secondary borehole, construction of waterpoint and storage tank and pipeline extension		√	6.5
			Drilling, equipping and solarization of borehole at Nyalwanda dispensary	√		7
Agriculture						
Butula	Kingandole		Installation of solar driers at Bumwaya	√		1.8
Butula			Installation of solar hatchery	√		3.5
Butula			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Butula			Post-harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Kingandole		Establishment of Tree nurseries and afforestation programs (including fruit trees) in public schools	√		5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST(MILLIONS)
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalized groups Murumba Market.			5
Energy and Health						
	Kingandole	Health	Roof top rain water harvesting at Nyalwanda dispensary	√		1
Total						**35.15**

MARACHI CENTRAL WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Agriculture						
Butula	Marachi central	Agriculture	Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Butula			Post harvest management throughDigital Grain moisture meter	√		0.12
Butula			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Environment						
	Marachi Central	Environment	Establishment of Tree nurseries and afforestation programs (including fruit trees).	√		5
			Catchment protection on the upstream side of Lerekwe stream	√		3
			Promotion of cottage industries (craft industry – Marachi sofa, baskets, mats, bamboo products etc.)			5
Irrigation						
	Marachi Central		Rehabilitation of Neela and Neela B irrigation scheme.	√		10
Disaster Risk Reduction						
Butula	Marachi Central		Installation of lightning arrestors in bukhalarire secondary School and Busiada Girls Secondary		√	4.4
Energy and Health						
	Marachi Central	Energy	Installation of solar power back up system(18kw) at Khunyangu sub county hospital		√	5.894
		Health	Roof top rain water harvesting at Bukhalalire, Igula, Burinda and Neela dispensaries	√		6
Total						**42.444**

MARACHI EAST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
	Marachi East	Equiping and Solarisation of Bumala B borehole, construction of water point, storage tank and pipeline extension.	√		6.5
		Rehabiltation/Protection, solarisation, construction of water point, sump and 50 cubic metre storage tank and pipeline extension at Makwara spring	√		12.25
		Mafubu dispensary borehole rehabiltation and pipeline extension	√		3
Agriculture					
		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
		Post-harvest management throughDigital Grain moisture meter	√		0.12
		Fodder establishment and conservation in 5 acres at Buduma dairy park	√		0.8
Environment					
		Establishment of Tree nurseries and afforestation programs (including fruit trees).	√		5
		Planting of bamboos in the water resources at Makwara springs	√		2.3
Irrigation and Land Reclamation					
		Desiltattion and catchment protection of Buduma dam (Bumala B) for irrigation	√		20
Disaster Risk Reduction					
		Installation of lightning arrestors in Buhuyi secondary school, Bumala B health centre and Tingolo primary		√	6.6
Energy and Health					
		Roof to rain water harvesting at Bumala B health center, Musibiriri and Mafubu dispensaries	√		3
Total					**59.6**

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)

MARACHI NORTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Butula	Marachi North		Rehabiltation of pumping system and flushing at DCs, Water Office yard and Butula Market boreholes and pipeline extension	√		6
			Rehabilitation and Solarisation of Nandi Spring in Sikarira, construction of water point and storage tank and pipeline extension	√		7.1
			Rehabilitation and Solarisation of Sibina C Spring, construction of water point and storage tank and pipeline extension	√		7.1
			Hybridisation, construction of a waterpoint, storage tank at Konjera water project		√	9.4
			Pipeline extension (Sigulu and Muruka water projects) 2 kilometers per project	√		4
Agriculture						
Butula	Marachi North		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Butula			Post harvest management through Digital Grain moisture meter	√		0.12
Butula			Solarized fabricated container fish cold room to improve post harvest management at Siunga aqua park	√		3.5

Butula			Construction of flood control structure (dyke and cut drainage at Siunga Aqua park	√		1.9
Environment						
	Marachi North		Establishment of Tree nurseries and afforestation programs (including fruit trees).	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups Butula Market.			5
Irrigation						
	Marachi North		Construction of flood control structures at Siunga aquapark- dyking and cut off drains		√	8
			Rehabilitation and fencing of Nyapera water pan for irrigation, tree nursery establishment and recreation.	√		15
Disaster Risk Reduction						
Butula	Marachi North		Installation of lighting arrestors at Butula Boys High school.		√	2.2
Energy and Health						
	Marachi North	Energy	Human waste to energy conversion biogas project at Butula Boys high school		√	7.5
Total						**81.85**

MARACHI WEST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Marachi West		Bukhakhala Spring hybridisation, storage tank rehabilitation and pipeline extension		√	7.6
Agriculture						
Butula	Marachi West		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Butula			Post-harvest management throughDigital Grain moisture meter	√		0.12
Butula			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Environment						
	Marachi West		Establishment of Tree nurseries and afforestation programs (including fruit trees) in public schools and at Bukhakhala springs	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups Bumala.		√	5
Disaster Risk Reduction						
Butula	Marachi West		Establishment of 2 Hydrants at Bumala town		√	2
Energy and Health						
	Marachi West	Health	Roof top rain water harvesting at Bumala A health center, Bujumba and Ikonzo dispensaries	√		3

			Construction of eco toilets at Bumala market area		√	0.7
Total						**26.45**

MATAYOS

BUKHAYO WEST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Bukhayo West		Spring protection and chlorination of: Siwongo Ongoro, Malaya, Nakhasirumbi, Munongo, Buyende, Ong'ono, Mundulusia, Haget, Bugeng'I, Okomoli, Bukesa-Alfred Orengo Mundulusia springs.	√		4.2
			Hybridisation, and pipeline extension of Budokomi community borehole to munongo dispensary		√	8.5
			Equiping and solarising of Bugengi Dip borehole, construction of water point and storage tank	√		6.5
Agriculture						
Matayos	Bukhayo West		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Matayos			Post harvest management throughDigital Grain moisture meter	√		0.12
Matayos			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Matayos			Establishement of aqua park (30 fish ponds) in to improve food security and nutrition at Nakhomake stream	√		5
Environment						
	Bukhayo West		Establishment oftwo Tree nurseries at Esirisia and Eamseno and afforestation programs (including fruit trees) in Public institution	√		5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
			catchment protection at, siwongo, Ongoro,malaya, nakhasirumbi, Munongo, Buyende, Ongono, Mundulusia, Khaget, Bugengi, Okomoli, Bukesa and Alfed Orengo Mundulusia	√		2.3
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Mundika Market.			5
Irrigation						
	Bukhayo west		Rehabilitation of Namalenga dam and the irrigation scheme	√		15
Disaster Risk Reduction						
Matayos	Bukhayo West		Construction of climate smart box culverts at Namalenga dam spillway		√	11
Energy and Health						
	Bukhayo West	Health	Roof top rain water harvesting at Munongo and Bukalama dispensaries	√		2
Total						**67.65**

BURUMBA WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Agriculture						
Matayos	Burumba	Agriculture	Establishment of kitchen garden demo sites at Busia ATC	√		0.5
Matayos			Installation of solar drier at ATC	√		1.8
Matayos			Establishment of backyard fish ponds at Busia ATC	√		3
Matayos			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Matayos			Post-harvest management through Digital Grain moisture meter	√		0.12
Environment						
	Burumba		Establishment of two Tree nurseries at Bukesa stream and afforestation programs (including fruit trees) in public institutions	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Busia Municipality.		√	5
			Creation of green spaces and establishment of green gardens within Busia Municipality	√		20
Energy and Health						
	Burumba	Health	Installation of LPG cooking unit at BCRH		√	10
			Repair of the incinerator at BCRH		√	3.5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
		Energy	Installation of solar power back up system at BCRH(main Lab, new born unit, theatre, dialysis-renal unit		√	5.894
		Health	Rain water harvesting at Burumba dispensary	√		1
			Construction of eco toilet at weigh bridge area		√	0.5
		Energy	Operationalization of biodigesters-Biogas demonstration at ATC.		√	3
Total						**59.344**

BUSIBWABO WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

BUSIBWABO WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)						
SUBCOUNTY	**WARD**	**SECTOR**	**PROJECT NAME**	**ADAPTATION**	**MITIGATION**	**COST (MILLIONS)**
Water						
	Busibwabo		Hybridisation and pipeline extension of Nasewa Water project		√	7.6
			Hybridisation and pipeline extension of Nasira water projects		√	7.6
Agriculture						
Matayos	Busibwabo		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Matayos			Post-harvest management through Digital Grain moisture meter	√		0.12
Matayos			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Matayos			Installation of solar hatchery	√		3.5
Matayos			Pond renovation and water quality management at Busibwabo	√		5
Environment						
	Busibwabo		Establishment of two Tree nurseries at Busibwabo and Nasira. afforestation programs (including fruit trees) in public institutions	√		5
Energy and Health						
	Busibwabo	Health	Roof to rain water harvesting at Busibwabo health center and Nasira dispensary	√		2

Total						**33.85**

MATAYOS SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

MATAYOS SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)						
SUBCOUNTY	**WARD**	**SECTOR**	**PROJECT NAME**	**ADAPTATION**	**MITIGATION**	**COST (MILLIONS)**
Water						
	Matayos South		Rehabilitation and solarisation of Nabisiongo Spring, construction of water point and storage tank and pipeline extension	√		7.1
			Rehabilitation and solarisation of Luliba Spring, construction of water point and storage tank and pipeline extension	√		7.1
Agriculture						
Matayos	Matayos South		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Matayos			Post-harvest management through Digital Grain moisture meter	√		0.12
Matayos			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Matayos			Installation of solar hatchary	√		3.5
Environment						
	Matayos South		Establishment of two Tree nurseries at Lwanya Primary and Lung'a primary and afforestation programs (including fruit trees).in public institution	√		5

			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalized groups in Matayos Market.			5
			Protection of River Sio banks by planting of bamboos and protection of Nabisiongo and Luliba springs	√		5
Disaster Risk Reduction						
Matayos	Matayos South		Installation of lighting arrestors at Nangoma Secondary		√	2.2
Energy and Health						
	Matayos South	Health	Roof top rain water harvesting at Matayos health center and Nasewa dispensary	√		2
Total						**40.05**

MAYENJE WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Mayenje Ward		Hybridisation of Mayenje community borehole, storage tank, water point and pipeline extension		√	7.6
			Drilling, equiping and solarisation of a borehole at Buyosi Dispensary, construction of storage tank, water point and pipeline extension	√		8.2
Agriculture						
Matayos	Mayenje		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Matayos			Post-harvest management through Digital Grain moisture meter	√		0.12
Matayos			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Environment						
	Mayenge Ward		Establishment of Tree nurseries at Bwamani and Mayenje primary and afforestation programs (including fruit trees).	√		5
Irrigation						
	Mayenje ward		Rehabilitation of Mayenje Drainage Scheme		√	6
Energy and Health						
	Mayenje	Health	Roof top rain water harvesting at Mayenje and Bwamani dispensaries	√		2
Total						**31.95**

SAMIA SUBCOUNTY

AGENG'A NANGUBA WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Samia			Augmentation of Bukiri market and Bukiri Secondary boreholes to Ojibo water project and Pipeline extension to Ageng'a Health centre, Ageng'a primary, Mulukhoni market, Buburi primary, Buburi polytechnic and Buburi market.	√		12
			Drilling, equiping and hybridisation of borehole in Bujwanga village, construction of 50 CM steel tank and pipeline extension to Sioport hospital, Bujwang'a secondary, Bujwang'a Primary, Namasali primary, and Namasali polytechnic and wtaer point at Sioport market.	√		11.5
			Roof top rain water harvesting at Bumulimba, Muramba, Bunandi and Nabutuki	√		8
Agriculture						
Samia	Agenga/ Nanguba		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Samia			Post-harvest management through Digital Grain moisture meter	√		0.12
Samia			Bee keeping across the ward 30 hives per site for 2 sites	√		3
			Establishment of Fruit park			6
			Promotion of poultry farming	√		5
Environment						
	Ageng'a/ Nanguba Ward		Establishment of Tree nurseries and afforestation programs (including fruit trees) In public institutions (Namasali Polytechnic and St. Mark Bukiri Secondary school) in Ageng'a Nanguba ward.	√		5
			Promotion of modern waste recycling technologies, among			5

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
			the youth groups, women groups and other marginalised groups in Sioport Market.			
Irrigation						
	Ageng'a/ Nanguba		Establishment of Soil conservation measures around Agenga hills		√	10
			Establishment of Irrigation scheme at Matinga dam.		√	20
Disaster Risk Reduction						
Samia	Agenga Nanguba		Installation of Lightning arrestor at Ageng'a dispensary and Nandereka Primary school		√	4.4
Samia	Agenga Nanguba		Construction of storm water drainage systems and improvement of Muramba-Bukiri Road		√	15
Energy and Health						
	Agenga Nanguba	Energy	Human waste to energy conversion biogas project at Sigalame Boys high school		√	8.75
		Energy	Installation of solar power back up system at Sio-port sub county hospital		√	6
		Health	Roof top rain water harvesting at Agenga health center, Rumbiye and Buduta dispensaries	√		3
Total						**122.694**

BWIRI WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Bwiri		Hybridisation, construction of a 225 CM Masonry tank at Busijo water supply and pipeline extension to Ganga, Hakati, Nanderema Secondary, Nanderema Primary, Bukeko Primary, Bunandi primary, Namunyweda secondary, and Bumbe Technical institute.		√	26.5
			Roof top rain water harvesting at Namuduru, Munyanja and Hakati primary schools.			6
Agriculture						
Samia	Bwiri		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Samia			Post-harvest management through Digital Grain moisture meter	√		0.12
Samia			Bee keeping across the ward 30 hives per site for 2 sites	√		3
Samia			Establishment of Fruit Park	√		6
			Establishment of Horticulture Park at Namasango Dam	√		7
Environment						
	Bwiri		Establishment of Tree nurseries and afforestation programs (including fruit trees).in public instituions(Nabalaki primary and Hakati Primary) in Bwiri ward.	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Ganga Market.			5
Irrigation						
	Bwiri		Rehabilitation of water pans- Matabi and Namasango for irrigation and livestock watering	√		15
Disaster Risk Reduction						

Samia	Bwiri		Construction of storm water drainage systems and improvement of Busembe-Namunyweda Road in Bwiri ward.		√	15
Energy and Health						
	Bwiri	Health	Roof top rain water harvesting at Busembe, Hakati and Namuduru dispensaries	√		3
Total						**91.65**

NAMBOBOTO/ NAMBUKU WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Namboboto/ Nambuku		Hybridisation and pipeline extension of Nambuku dam water project, storage tank rehabilitation, pumping system and pipeline extension		√	10
			Pipeline extension to Mulwanda Ginnery			4
			Roof top rain water harvesting at Sichekhe, Mukonjo and Mudoma primary schools	√		6
Agriculture						
Samia	Namboboto Nambuku		Establishment of Fruit park	√		6
Samia			Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Samia			Post-harvest management through Digital Grain moisture meter	√		0.12
Samia			Solarized fabricated container fish cold room to improve post-harvest management at Bukani Aqua park(cold starage)	√		3.5
Environment						
	Namboboto/ Nambuku		Establishment of Tree nurseries and afforestation programs (including fruit trees) In public institutions(Buyingi dispensary and Sichekhe primary).	√		5
			Protection of natural water streams-at Namundiri,	√		2

			Catchment protection of Ludacho stream	√		2.3
Irrigation						
	Namboboto/ Nambuku		Development of Namboboto dam for irrigation and domestic water usage	√		20
			Establishment of Soil conservation measures on the upstream end of Ludacho stream		√	4
Energy and Health						
	Namboboto/ Nambuku	Health	Roof top rain water harvesting at Nambuku health center, Mukonjo and Buyingi dispensaries	√		3
Total						**65.95**

NANGINA WARD INVESTMENT CLIMATE RESILIENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Samia	Nangina		Hybridisation of Munana water supply, constructionof 2No. 100CM at Kadimbworo and Bufuma villages respectively and pipeline extension to Luchululo, Mumbao, Dadira, Sifuyo villages and Sigalame high, Sigalame primary, muramba secondary and Muramba primary schools.		√	23
			Drilling, equiping and solarisation a borehole at Bukhulungu D Village, construction of storage tank, water point and pipeline extension	√		7.1
			Drilling, equiping and solarisation a borehole at BwangangiVillage, construction of storage tank, water point and pipeline extension	√		7.1
`			Drilling, equiping and solarisation a borehole at Malaya Village, construction of storage tank, water point and pipeline extension	√		7.1
			Drilling, equiping and solarisation a borehole at Sirekeresi Village, construction of storage tank, water point and pipeline extension	√		7.1
			Drilling, equiping and solarisation a borehole at Bulori Village, construction of storage tank, water point and pipeline extension	√		7.1

			Rehabilitation of the pumping system at Alema Water supply and augmentation to Munana water supply station.	√		4
Agriculture						
Samia	Nangina	Agriculture	Improvement soil fertility through Portable PH Meter and reagents	√		0.03
Samia			Post-harvest management through Digital Grain moisture meter	√		0.12
Samia			Establishment of a pigery	√		1
Environment						
	Nangina	Environment	Establishment of two Tree nurseries and afforestation programs (including fruit trees).in public institutions (Wakhungu Primary and Sijowa primary) in Nangina ward.	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Funyula Town.		√	5
Irrigation and Land Reclamation						
	Nangina		Construction of Soil erosion control structures in Kabwodo, Bukhulungu and Bwangangi		√	9
			Upgrade Irrigation scheme in Munana to pipeline system	√		10
Disaster Risk Reduction						
Samia	Nangina		Construction of storm water drainage systems and improvement of Audu Road in Nangina ward		√	15

Samia	Nangina		Installation of Lightning arrestor at Nangina girls, Luchululo and Sigulu primary schools		√	6.6
Samia	Nangina		Establishment of 2 Hydrants at Funyula town			2
Energy and Health						
	Nangina	Health	Roof top rain water harvesting at Nangina, Wakhungu, Kabuodo dispensaries	√		3
			Construction of eco toilets at Nangina market		√	0.5
Total						**119.75**

BUNYALA SUBCOUNTY

BUNYALA CENTRAL WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Bunyala	Bunyala Central		Hybridisation, Rehabiltation of Mukhobola water project, Construction of 50CM high steel storage tank at Busagwa Polytechnic and Pipeline extension to Siamugu, St. Anne's Bunyala Girls secondary, Makunda High school, Mundika primary, Mubwayo primary and Buwongo primary		√	23
			Hybridisation , Construction of storage tank, water point and Pipeline extension of Mubwayo Primary water project		√	7
			Hybridisation of Siamungu Borehole and pipeline extension to Busagwa TVET and construction of water point and storage tank at St Annes Bunyala Girls Secondary School.		√	8.9
			Mukhobola health centre borehole pipeline extension			1.9
			Roof top rain water harvesting at Mubwayo,and Mundika, Buwongo, Makunda and Mukhobola, Primary Schools			10
Agriculture						
	Bunyala Central		Improvement soil fertility through Portable PH Meter and reagents	√		0.3
			Post-harvest management through Digital Grain moisture meter	√		0.12

			Establishment of horticulture at Mulanya	√		6
			Installation of solar dry for Rice mall at Magombe	√		5
Environment						
	Bunyala Central		Establishment of Tree nurseries and afforestation programs including fruit trees in public schools.	√		5
			Promotion of cottage industries (craft industry – baskets, mats, bamboo products)			5
Disaster Risk Reduction						
Bunyala	Bunyala Central		Installation of lighting arrestors at Busagwa Secondary		√	2.2
Energy and Health						
	Bunyala Central	Health	Roof top rain water harvesting at Mukhobola health center and Busagwa dispensary	√		2
Total						**76.42**

BUNYALA NORTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
Bunyala	Bunyala North		Hybridisation, construction of 225 CM storage tank at Busia Hills, water points and pipelined extension to Ruganwa, Siakula Budebu, Sifugwe, Nambengele, Budalang'i, Mudembi, Namalo and Rwambwa for Sisenye Water Supply.		√	32
			Rooftop rain water harvesting at Ruganwa village, Siakula, and Budebu	√		8
			Rooftop water harvesting and storage at Budalangi, Sifugwe, Mudembi, Sibuka, Bududusi and Mundere Primary	√		4
Agriculture						
	Bunyala North	Agriculture	Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
			Bee keeping across the ward 30 hives per site for 2 sites	√		3
			Establishment of Fruit park	√		6
			Promotion of Poultry farming as alternative source of livelihood	√		5
Environment						

Bunyala	Bunyala North Ward	Environment	Establishment of Tree nurseries and afforestation programs in Mumbaka forest and in public schools	√		10
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Budalangi Town.		√	5
Irrigation						
	Bunyala North		Construction of Namonye water pan for irrigation, animal water and flood control.		√	22
Disaster Risk Reduction						
Bunyala	Bunyala North		Supporting uninterupted radio broadcast at Bulala FM radio Station; Boost of solar system to ensure uninterrupted 24 hour broad cast at Bulala FM/ Budalangi Health Centre		√	2
Energy and Health						
	Bunyala North	Health	Roof top rain water harvesting at Budalangi, Sisenye and Sirimba dispensaries	√		3
Total						**100.15**

BUNYALA SOUTH WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water						
	Bunyala South		Pumping system rehabilitation and pipeline extension in Mahoma water project	√		2
			Pumping system rehabilitationand Pipeline extension of Rukala water project	√		2
			Roof top rain water harvesting at Makunda, Lugale, Rugunga, Rukala, Runyu, Budala and Musoma Primary Schools			14
Agriculture						
	Bunyala South		Improvement soil fertility through Portable PH Meter and reagents	√		0.03
			Post-harvest management through Digital Grain moisture meter	√		0.12
			Bee keeping across the ward 30 hives per site for 2 sites			3
Environment						
	Bunyala South		Establishment of two Tree nurseries and afforestation programs including fruit trees in public schools	√		5
			Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalised groups in Mau Mau Market.			5
Irrigation						

SUBCOUNTY	WARD	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Bunyala			Land reclamation of water logged areas in Osieko.		√	10
			Creation of 20Km of water ways/excavation of drainage canals		√	40
Disaster Risk Reduction						
Bunyala			Acquistion of 1 rescue motor boat		√	10
Energy and Health						
			Roof top rain water harvesting at Osieko, Rukala, Khajula, Bulwani dispensaries	√		4
			Installation of solar power system for the off-grid facility at Bulwani dispensary		√	2.2
Total						**97.35**

BUNYALA WEST WARD CLIMATE RESILIENT INVESTMENT PRIORITIES (2023-2027)

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Water					
Bunyala	Bunyala West	Hybridisation, Rehabiltation of Namenya storage tanks, Construnction of 225 CM masonry storage tank at John Osogo and Pipeline extension for Port Victoria supply to Bukoma, Siginga, Lunyofu, Bumadeya, Bulemia, Khainga, Lugare, Musoma, Rugunga, Siagonjo, Mabinju and Maumau.		√	34
		Roof top rain water harvesting at Bukoma secondary and Lunyofu primary.			4
Agriculture					
		Improvement soil fertility through Portable PH Meter and reagents	√		0.3
		Post-harvest management through Digital Grain moisture meter	√		0.12
		Installation of 10 HDPE fish cages	√		10
Environment					
		Establishment of Tree nurseries and afforestation programs including fruit trees in public schools	√		5
		Water bottling and plastic recycling plant at Marenga beach by youth groups		√	10
		Promotion of modern waste recycling technologies, among the youth groups, women groups and other marginalized groups in Port Victoria Town.			5

SUBCOUNTY	WARD	PROJECT NAME	ADAPTATION	MITIGATION	COST (MILLIONS)
Disaster Risk Reduction					
		Installation of lighting arrestors at Namenya Girls Secondary		√	2.2
		Establishment of 2 Hydrants at Port-Victoria town		√	2
Energy and Health					
		Installation of solar power back up system at Port Victoria sub county hospital		√	6
		Installation of an incinerator at Port Victoria sub county hospital		√	18
Total					**96.514**

COUNTYWIDE PROJECTS

COUNTY	SUB COUNTY	SECTOR	PROJECT NAME	ADAPTATION	MITIGATION	COST (M)
Busia	Entire County	GIS and Meteorology	Establishment of Climate Change Information System Hub	√		20
Busia	Entire County	GIS and Meteorology	Generation of Seasonal forecasts reports	√		5
Busia	Entire County	GIS and Meteorology	Establishment of County Climate Change Geo-data Base	√		20
Busia	Entire County	Environment and Agriculture	Conversion of organic waste into manure and poultry feeds through insect farming	√		15
					TOTAL	**60**

ANNEX 3: WARD MONITORING AND EVALUATION PLANS

TESO NORTH SUB-COUNTY								
ANGURAI EAST CENTRAL WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
	Solarized water point	No. of water point solarized	No.	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions (Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly

	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Water storage facilities developed	No. of Dams/pans/weirs constructed/ rehabilitated	No.	2	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	3	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree	No.	2	Environment	Quarterly	M&E Unit	Quarterly

		nurseries)						
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly

Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
ANGURAI SOUTH WARD								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	4	Water	Quarterly	M&E Unit	Quarterly

	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	6	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Springs protected	No. of springs protected	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Aquaparks	No. of aquaparks	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	Established	established						
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	7	Disaster Management	Quarterly	M&E Unit	Quarterly
ANGURAI SOUTH WARD								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly

	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	4	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								

Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	6	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Springs protected	No. of springs protected	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		PH						
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Aqua parks Established	No. of aquaparks established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	7	Disaster Management	Quarterly	M&E Unit	Quarterly
MALABA CENTRAL WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								

Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	5	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								

Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries (tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	Modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged; volume of waste recycled & No. of technologies promoted (MARKETS)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								

Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	10	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		distributed.						
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	3	Disaster Management	Quarterly	M&E Unit	Quarterly
	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	4	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
MALABA NORTH WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								

	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	6	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								

Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	Beehives established	No. of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness		No. of Climate proof culverts constructed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
MALABA SOUTH WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline	KMs of pipeline	Km	2	Water	Quarterly	M&E Unit	Quarterly

	constructed	developed						
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	4	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly

	Distribution / drainage channels and Irrigation systems extended	Number of Km's of dykes constructed	Km	6	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in								

agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Aquaparks Established	No. of aquaparks established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation, and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	10	Disaster Management	Quarterly	M&E Unit	Quarterly

TESO SOUTH SUB-COUNTY								
AMUKURA EAST WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly

	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	4	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	7	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Catchment & watershed conserved	Catchment Area conserved in Ha.	Acreage	5	Environment	Quarterly	M&E Unit	Quarterly
	Springs protected	No. of springs protected	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	Incinerators constructed in health facilities	No. of incinerators & volume of waste recycled	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								

Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter	No. of moisture meters	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	acquired	distributed.						
Livestock diversification and development	Livestock Fodder established	Acreage of fodder established	Acreage	5	Agriculture	Quarterly	M&E Unit	Quarterly
	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
AMUKURA WEST								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								

Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	4	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Distribution/ drainage channels and Irrigation	Number of Km's of dykes constructed	Km	3	Irrigation	Quarterly	M&E Unit	Quarterly

	systems extended							
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	20	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops	Springs protected	No. of springs protected	No.	3	Environment	Quarterly	M&E Unit	Quarterly

and watershed areas)								
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	4	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	backyard fish ponds Established	No. of fish ponds	No.	30	Agriculture	Quarterly	M&E Unit	Quarterly

Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	River training	Km	10	Disaster Management	Quarterly	M&E Unit	Quarterly
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	5	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	5	Disaster Management	Quarterly	M&E Unit	Quarterly
ANG'OROM								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes	No.	2	Water	Quarterly	M&E Unit	Quarterly

		drilled						
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly

	Water storage facilities developed	No. of Dams/pans/weirs constructed/ rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	15	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Springs protected	No. of springs protected	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								

Programme Outcome: Improved environmental conservation and protection								
Waste Management	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
	Horticulture park established	No. of horticulture park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	backyard fish ponds Established	No. of fish ponds	No.	30	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								

Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	No. of Climate proof culverts constructed	No.	3	Disaster Management	Quarterly	M&E Unit	Quarterly
CHAKOL NORTH								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Rehabilitated water points	No. of rehabilitated water points	No.	2				
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly

	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								

Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		soils Tested for PH						
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	No. of Climate proof culverts constructed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
CHAKOL SOUTH								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of	Solarized water	No. of water	No.	1	Water	Quarterly	M&E Unit	Quarterly

Water infrastructure	point	point solarized						
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								

Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and	No.	22	Agriculture	Quarterly	M&E Unit	Quarterly

		soils Tested for PH						
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	22	Agriculture	Quarterly	M&E Unit	Quarterly
	Rice Solar driers installed	No. of solar driers	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
	fish Hatchery solarized	No. of hatchery solarized	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
AMUKURA CENTRAL								
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								

Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Catchment & watershed conserved	Catchment Area conserved in Ha.	Acreage	4	Environment	Quarterly	M&E Unit	Quarterly

	Springs protected	No. of springs protected	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Vegetable park established	No. of vegetable park	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		established						
	Horticulture park established	No. of horticulture park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fabricated fish cold room containers Solarized at Bukani Aqua park	No. of cold rooms solarized	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Storm water mgt and stage improvement	Number of water management	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
		Number of stage	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly

		improvement						
		No. of Climate proof culverts constructed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
BUTULA SUB-COUNTY								
ELUGULU								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	6	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly

	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								

Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Springs protected	No. of springs protected	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								

Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
		No. of Climate proof culverts constructed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
KINGANDOLE								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline	Km	2	Water	Quarterly	M&E Unit	Quarterly

		developed						
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		sampled and soils Tested for PH						
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Solar driers installed	No. of solar driers	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	fish Hatchery solarized	No. of hatchery solarized	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
MARACHI CENTRAL								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								

Development of Water infrastructure	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	4	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	2	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Streams protected	No. of streams protected	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Nature-based livelihoods	Nature-based enterprise promoted (Tree nurseries apiculture etc.)	Craft industry	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly

	facilities	Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								

Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
MARACHI EAST								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Rehabilitated/ Protected water points	No. of water points rehabilited	No.	2				
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly

	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree	No.	2	Environment	Quarterly	M&E Unit	Quarterly

		nurseries)						
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
	Bamboo planted	Area under bamboo	Acreage	1	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Catchment protection for dams	No. of dam protected	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Livestock Fodder established	Acreage of fodder established	Acreage	5	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	3	Disaster Management	Quarterly	M&E Unit	Quarterly
MARACHI NORTH								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								

Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	6	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point / Hybridization	No. of water point solarized	No.	4	Water	Quarterly	M&E Unit	Quarterly
	Rehabilitated water points	No. of water points rehabilitated	No.	3				
	Water pipeline constructed	KMs of pipeline developed	Km	12	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	4	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
	Distribution/ drainage channels and Irrigation systems	Number of Km's of dykes constructed	Km	1	Irrigation	Quarterly	M&E Unit	Quarterly

	extended							
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								

Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		PH						
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
MARACHI WEST								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly

	Solarized water point /Hybridization	No. of water point solarized	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	6	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								

Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers practicing	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
MATAYOS SUB-COUNTY								
MAYENJE								

Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								

Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point/Hybridization	No. of water point solarized/hybridized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								

Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
	Noise pollution meters acquired	No. of meters acquired	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								

Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers practicing	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
BURUMBA								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								

Development of Water infrastructure	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
	Green spaces Established	No. & Area under Green spaces	No.	1	Environment	Quarterly	M&E Unit	Quarterly

Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Incinerators constructed in health facilities	No. of incinerators & volume of waste recycled	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								

Renewable energy development	Operationalization of biodigesters-Biogas demonstration	No. of biodigesters-Biogas demonstration areas	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Installation of LPG cooking unit	No. of LPG units installed	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
		County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	kitchen garden demo Established	No. of kitchen garden demo established & No. of farmers trained.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Solar driers installed	No. of solar driers	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	backyard fish ponds Established	No. of fish ponds	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
BUSIBWABO								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Solarized water point/ Hybridization	No. of water point solarized/ hybridized	No.	2	Water	Quarterly	M&E Unit	Quarterly

	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly

Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers practicing	No.	6	Agriculture	Quarterly	M&E Unit	Quarterly
	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	backyard fish ponds Established	No. of Ponds renovated	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
MATAYOS SOUTH								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								

Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Hybridization of water points	No. of water of water points hybridized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	5	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								

Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
	Bamboo planted	Area under bamboo	Acreage	8	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Springs protected	No. of springs protected	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								

Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No. of beehives established & No. of farmers practicing	No.	3	Agriculture	Quarterly	M&E Unit	Quarterly

	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
BUKHAYO WEST								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Spring developed	No. of springs developed	No.	10	Water	Quarterly	M&E Unit	Quarterly

	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	5	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly

	Water storage facilities developed	No. of Dams/pans/weirs constructed/ rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	15	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and watershed areas)	Catchment & watershed conserved	Catchment Area conserved in Ha.	Acreage	10	Environment	Quarterly	M&E Unit	Quarterly
	Springs protected	No. of springs protected	No.	3	Environment	Quarterly	M&E Unit	Quarterly

Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Noise pollution meters acquired	No. of meters acquired	No.	7	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly

	institutions							
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	22	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	22	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers	No.	30	Agriculture	Quarterly	M&E Unit	Quarterly

		practicing						
	backyard fish ponds Established	No. of fish ponds	No.	30	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness		No. of Climate proof culverts constructed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
NAMBALE SUB-COUNTY								
BUKHAYO CENTRAL WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point/	No. of water point solarized/	No.	1	Water	Quarterly	M&E Unit	Quarterly

	Hybridization	hybridized						
	Water pipeline constructed	KMs of pipeline developed	Km	3	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health	No. of health facilities installed with solar power	No.	1	Energy	Quarterly	M&E Unit	Quarterly

	facilities	back up.						
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	6	Disaster Management	Quarterly	M&E Unit	Quarterly
BUKHAYO EAST WARD								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	4	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree	No.	2	Environment	Quarterly	M&E Unit	Quarterly

		nurseries)						
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								

Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	3	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	7	Disaster Management	Quarterly	M&E Unit	Quarterly
BUKHAYO NORTH WALATSI WARD								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed	M3	3	Water	Quarterly	M&E Unit	Quarterly

		(M3)						
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
	Bamboo planted	Area under bamboo	Acreage	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health	No. of health facilities installed with solar power	No.	1	Energy	Quarterly	M&E Unit	Quarterly

	facilities	back up.						
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Horticulture park established	No. of horticulture park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster	Number of lightning arrestors	No.	5	Disaster Management	Quarterly	M&E Unit	Quarterly

	incidences	installed						
NAMBALE TOWNSHIP WARD								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	12	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								

Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								

Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								

Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	backyard fish ponds Established	No. of fish ponds renovated	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	5	Disaster Management	Quarterly	M&E Unit	Quarterly
SAMIA SUBCOUNTY								
NANGINA WARD								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Spring developed	Number of water spring developed	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Borehole drilled	No. of boreholes drilled	No.	5	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	4	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	10	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	12	Water	Quarterly	M&E Unit	Quarterly

	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	1	Environment	Quarterly	M&E Unit	Quarterly

	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
	Eco toilet Constructed in markets	No. of Eco toilets	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								

Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	2	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	22	Agriculture	Quarterly	M&E Unit	Quarterly
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Modern Piggery unit constructed	Number of Piggery units constructed	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Beehives established	No.of beehives established & No. of farmers practicing	No.	12	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	10	Disaster Management	Quarterly	M&E Unit	Quarterly
BWIRI WARD								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Solarized water point/Hybridization	No. of water point solarized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	16	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	6	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								

Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	2	Irrigation	Quarterly	M&E Unit	Quarterly
	Distribution/ drainage channels and Irrigation systems extended	Number of Km's of dykes constructed	Km	3	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								

Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter	No. of moisture meters	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

	acquired	distributed.						
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
AGENGA NANGUBA								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point	No. of water point solarized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Rehabilitation/augmentation of water point	No of rehabilitated water point	No	2				

	Water pipeline constructed	KMs of pipeline developed	Km	22	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	7	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation schemes established	No. of schemes established	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	10	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								

Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	3	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								

Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		distributed.						
	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
NAMBUKU -NAMBOMBOTO								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								

Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point/ Hybridization	No. of water point solarized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	6	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	6	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	1	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								

Development of irrigation infrastructure	Irrigation schemes established	No. of schemes established	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Soil conservation and drainage management	conservation structures (terraces, gabbions, contour bunds) constructed	Length Km & Ha coverage	Km	5	Irrigation	Quarterly	M&E Unit	
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Catchment & watershed conservation (especially hilltops and	Streams protected	No. of streams protected	No.	2				

watershed areas)								
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Fabricated fish cold room containers Solarized at Bukani Aqua park	No. of cold rooms solarized	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
BUNYALA SUB-COUNTY								
BUNYALA WEST								

Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Solarized water point / Hybridization	No. of water point solarized/ Hybridized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	24	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	2	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								

Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								
Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly

	Water bottling and plastic recycling plant	No. of water bottling and plastic recycling plants	No.	1				
	Incinerators constructed in health facilities	No. of incinerators & volume of waste recycled	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
		Sub-County Facilities	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		sampled and soils Tested for PH						
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	HDPE fish cages Installed	No. of fish cages & No. of farmers practicing	No.	5	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster occurrence	Number of water hydrants established	No.	2	Disaster Management	Quarterly	M&E Unit	Quarterly
	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
BUNYALA NORTH								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency

Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes drilled	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Solarized water point /Hybridization	No. of water point solarized	No.	1	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	16	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	9	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	5	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								

Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation schemes established	No. of schemes established	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	6	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								

Waste Management	modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	1	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

		PH						
	Fruit park established	No. of fruit park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No.of beehives established & No. of farmers practicing	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
BUNYALA CENTRAL								
Sub Programme	Output	Performance indicator(s)	Definition (how is it calculated)	Target	Data Source	Frequency of monitoring	Responsible agency	Reporting frequency
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Borehole drilled	No. of boreholes	No.	2	Water	Quarterly	M&E Unit	Quarterly

		drilled						
	Solarized water point /Hybridization	No. of water point solarized	No.	3	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline developed	Km	10	Water	Quarterly	M&E Unit	Quarterly
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	7	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	M3	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated	No.	2	Environment	Quarterly	M&E Unit	Quarterly

		Nurseries(tree nurseries)						
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Nature-based livelihoods	Nature-based enterprise promoted (Tree nurseries apiculture etc.)	No. of Cottage industries	No.	5	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								
Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Horticulture park established	No. of horticulture park established	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly

Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Solar driers installed	No. of solar driers	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strenghtened adaptive capacity to disasters								
Disaster preparedness	Reduced number of disaster incidences	Number of lightning arrestors installed	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly
BUNYALA SOUTH								
Sub Programme	**Output**	**Performance indicator(s)**	**Definition (how is it calculated)**	**Target**	**Data Source**	**Frequency of monitoring**	**Responsible agency**	**Reporting frequency**
Programme: Building resilience through Water supply services								
Programme Objective: To enhance resilience of water supplies								
Programme Outcome: Resilient water supplies								
Development of Water infrastructure	Solarized water point	No. of water point solarized	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Water pipeline constructed	KMs of pipeline	Km	10	Water	Quarterly	M&E Unit	Quarterly

		developed						
	Roof rain water harvesting structures developed in public institutions(Health facilities and learning institutions)	No. of institutions	No.	2	Water	Quarterly	M&E Unit	Quarterly
	Storage facilities constructed	Total volume of storage developed (M3)	No. of 10m3 tank	3	Water	Quarterly	M&E Unit	Quarterly
Programme: Climate resilient Irrigation and Land reclamation								
Programme Objective: To build resilience through irrigation and land reclamation								
Programme Outcome: Climate Resilient irrigation and Land reclamation infrastructure								
Development of irrigation infrastructure	Irrigation/ drainage Schemes rehabilitated	No. of schemes rehabilitated	No.	1	Irrigation	Quarterly	M&E Unit	Quarterly
	Distribution/ drainage channels and Irrigation systems	KM of drainage canals constructed	Km	20	Irrigation	Quarterly	M&E Unit	Quarterly

	extended							
Programme: Forestry development and management								
Programme Objective: To improve forest and tree cover								
Programme Outcome: Improved forest and tree cover								
Afforestation & agroforestry	Tree nurseries established.	Number of seedlings generated Nurseries(tree nurseries)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
	Institutional greening implemented	Number of schools (eco school) and public institutions planted	No.	10	Environment	Quarterly	M&E Unit	Quarterly
Programme: Environmental conservation and protection								
Programme Objective: To improve environmental conservation and protection								
Programme Outcome: Improved environmental conservation and protection								

Waste Management	Modern waste recycling technologies promoted among the youth groups, women groups and other marginalized groups in	No. of groups engaged, volume of waste recycled & No. of technologies promoted (MARKETS)	No.	2	Environment	Quarterly	M&E Unit	Quarterly
Programme Name: Renewable Energy Development								
Objective: To enhance climate proofing of energy infrastructure								
Outcome: Enhanced climate proof energy infrastructure								
Renewable energy development	Waste to energy conversion biogas installed in Learning institutions	Volume of waste & No. of institutions	No.	1	Energy	Quarterly	M&E Unit	Quarterly
	Hybrid Solar power back up system installed at health facilities	No. of health facilities installed with solar power back up.	No.	1	Energy	Quarterly	M&E Unit	Quarterly
Programme Name: Agricultural diversification and development								
Objective: To increase food, nutrition and income security through enhanced productivity and resilience of value chains in agricultural sector								

Outcome: Increased Agricultural Productivity								
Crop diversification and development	Soil PH tested	Number of farms& Ha sampled and soils Tested for PH	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
Post-harvest management	Digital Grain moisture meter acquired	No. of moisture meters distributed.	No.	1	Agriculture	Quarterly	M&E Unit	Quarterly
	Solar driers installed	No. of solar driers	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Livestock diversification and development	Beehives established	No. of beehives established & No. of farmers practicing	No.	30	Agriculture	Quarterly	M&E Unit	Quarterly
	solarized poultry hatchery established	No. of solarized poultry hatchery	No.	2	Agriculture	Quarterly	M&E Unit	Quarterly
Program: Disaster risk management and reduction								
Objective: To strengthen disaster preparedness, mitigation and response								
Outcome: Strengthened adaptive capacity to disasters								
Disaster preparedness	Improved response time to disaster	Number of rescue boats purchased	No.	1	Disaster Management	Quarterly	M&E Unit	Quarterly

	occurrence							