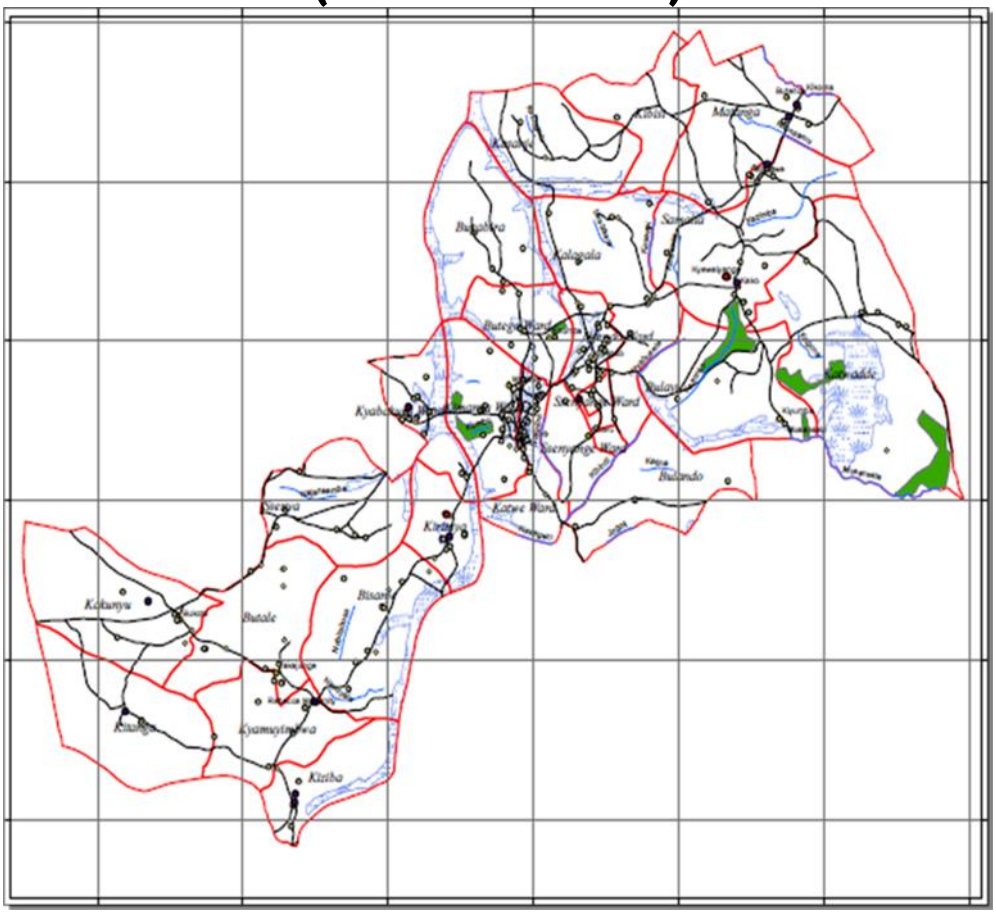
MASAKA CITY
CLIMATE ACTION PLAN
(2023 - 2028)



Compiled by the Natural Resource Department

October/2023

Foreword

The City Climate Action Plan (CCAP) has been prepared with the main aim of providing hands on actions to the ever growing challenges of the natural and human environment in the entire City. It is a result of collaboration between key stakeholders in this sphere of moving towards achieving a sustainable social-economic development through the provision of quality services to the people, which are in conformity with national and local authorities.

The exercise was initiated on 25th/9/2023 with the principal objective of providing a contextual, quick and cost effective action points to respond to the effects of climate change facing the city today.

This exercise derives its motivation from a number of considerations, chief among them being

i. The Government decision to decentralize the planning process and to select the local authorities as the planning unit for effective policy implementation at the grass root level.

ii. Planning requires adequate information in order to be effective thus the need to bring key stakeholders on board so that decisions are made at all levels.

iii. The information in here is current and matches the requirements of the day. This will help to avoid the costly corrections of the unrealistic and poor climate mitigation actions that would otherwise ensue.

I thank everyone who has contributed to the wealth of information and hope it will lead this City to a desired destination of a highly livable, agro-economically based City with prosperous people by 2040 as our vision states.

FOR GOD AND MY COUNTRY.

Namayanja Florence
Mayor Masaka City

MAYOR
30 OCT 2023
MASAKA CITY COUNCIL

Acknowledgement

Sound environment management practices cannot be achieved without a properly constructed plan to guide implementation.

It is against this background that this action plan was conceived and discussed.

I would like to express my gratitude to the various stakeholders for their role in the development of this Action Plan. The City Environment Officer is commended for compiling the initial draft which was subsequently discussed by the Technical Planning Committee, the City Executive Committee, opinion leaders, the National water and sewerage cooperation management, youth groups, members of the City Development Forum, the Environment Protection Police Unit, the Child Restoration Organization, Local Leadership and members of the general public.

Your invaluable contribution enriched this action plan and we count on your further support for its successful implementation.

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Vincent Okurut
Town Clerk / Masaka City

MASAKA CITY
27 OCT 2023
P. O. BOX 201, MASAKA
CITY TOWN CLERK.

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List of Acronyms.

1. **CCAP** City Climate Action Plan.
2. **CEO** City Environment Officer
3. **CDF** City Development Forum
4. **NEMA** National Environment Management Authority
5. **EPPU** Environment Police Protection Unit
6. **LVRLAC** Lake Victoria Regional Local Authorities Cooperation
7. **NW&SC** National Water and Sewerage Cooperation.
8. **MADDO** Masaka Diocesan Development Organization.
9. **NAADS** National Agricultural Advisory Services.
10. **NFA** National Forestry Authority

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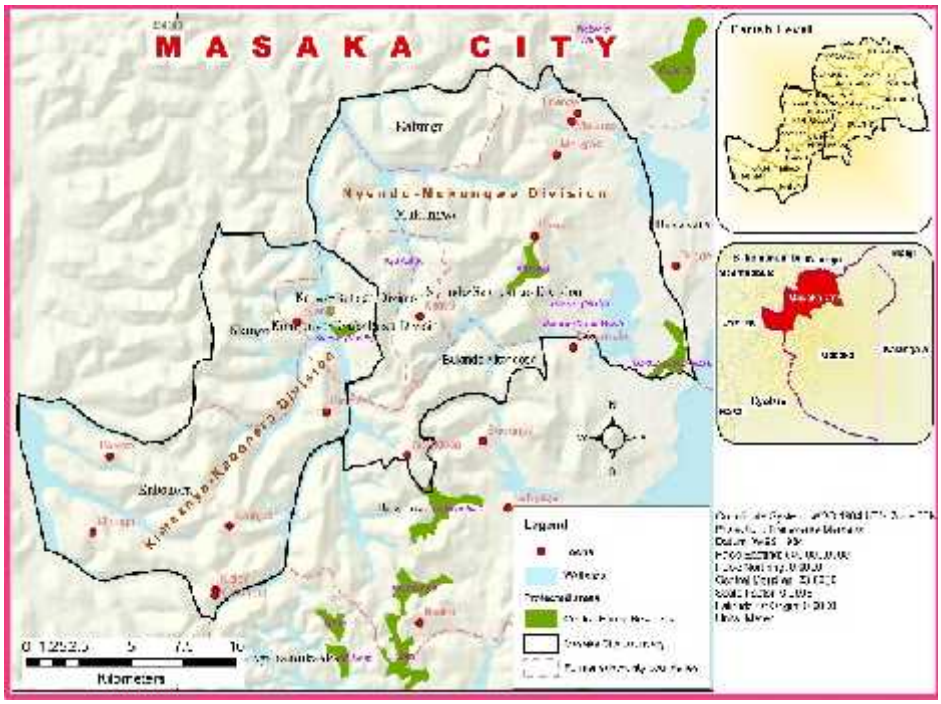
1.0 INTRODUCTION

In 1953, Masaka Central Business District was declared a township authority, promoted to a T/C in 1958, declared a City Council in 1968 and elevated to a City in 2020.

The Municipality had a total area of 46sqkms but with the annexation of new areas, the city covers a total area of 362.41sqkms. From the total area, approximately 109.03sqkms are protected areas while 253.37sqkms are possible development areas. The city has a total population of approximately 249900.

Plate1: Location and Size of the Local Government



The National Environment Act No. 5 of 2019 gives local Governments the mandate to manage Environment within their jurisdiction and the CCAP is one of the undertakings through which the City Environment is managed. Masaka City today like the rest of the world, is experiencing climate changes mostly with increased temperatures and more intense rainy seasons which are less predictable and more erratic leading to low agricultural production and hence food insecurity. Environment management is a multi-stakeholder approach thus the need for a participatory planning.

Table 1: Showing forest reserves in Masaka City

Name of forest	Area (hectares) in proximate	Type
Kyakumpi Forest	10	Eucalyptus Plantation
Kumbu Forest	120	Eucalyptus Plantation
Wakasonko	40	Natural forest

Sources: Forest Department Masaka District Administration

1.2 Background

Concerns to address and plan important aspects of sound climate mitigation measures are as old as the history of urbanization and the associated socio-economic and political aspects. The increasing rural-urban migration which became rampant during industrial revolution in search for jobs, the urban center became overwhelmed with human activities. As a result this led to outbreak of encroachment on fragile ecosystems, deforestation, aesthetic conditions, overcrowding due to slum development, waste management challenges e.t.c

Today human activities have become a catalyst for climate change effects thus urban centers including Masaka City are faced with serious climate change consequences thus planning and management of the environment becoming a policy issue. The City has for long been part of this campaign and a lot has been done in the past though not sufficient enough to effectively erase the problem.

This action plan therefore comes in to further build on what was done before so that agreed actions can mitigate the effects of climate change.

1.3 JUSTIFICATION

There is urgent need for the City to re-think the climate mitigation path in order to address the poor performance in waste Handling and management, reducing green belts in the urban center, slum development, wetland degradation and deforestation.

The old plans must be improved upon to match the present levels of knowledge exposure, technology and resource envelope to emulating the success stories based within the country and world over.

The ultimate goal CCAP is to achieve Sustainable Development and the main objectives are;

1.4 OBJECTIVES

1.4.1 To identify and prioritize Effects of climate change and actions required to mitigate them.

1.4.2 To re-emphasize the role of different stakeholders in mitigating impacts of climate change.

1.4.3 To integrate environment concerns into development planning and formulate appropriate management strategies.

Plate 2: View of Masaka City at the far end of Nakayiba wetland

1.5 ADMINISTRATIVE STRUCTURE

Masaka city is the top policy-making organ composed of 16 elected Councilors headed by Her Worship the Mayor. Implementation of council policies is done by City council employees headed by the Town Clerk.

Today, after the turning of Masaka Municipality into a city with the annexed areas, the 2 city Divisions stand as follows in terms of area and estimate population:

Table 2: Showing area and population of the City

Division/ City	**Area (Sq. km)**	**Population 2014**	**Popn Est. 2021**
Kimaanya-Kabonera	154.25	79,612	85,800
Nyendo-Mukungwe	208.16	131,979	143,200
Total	**362.41**	**211,591**	**229,000**

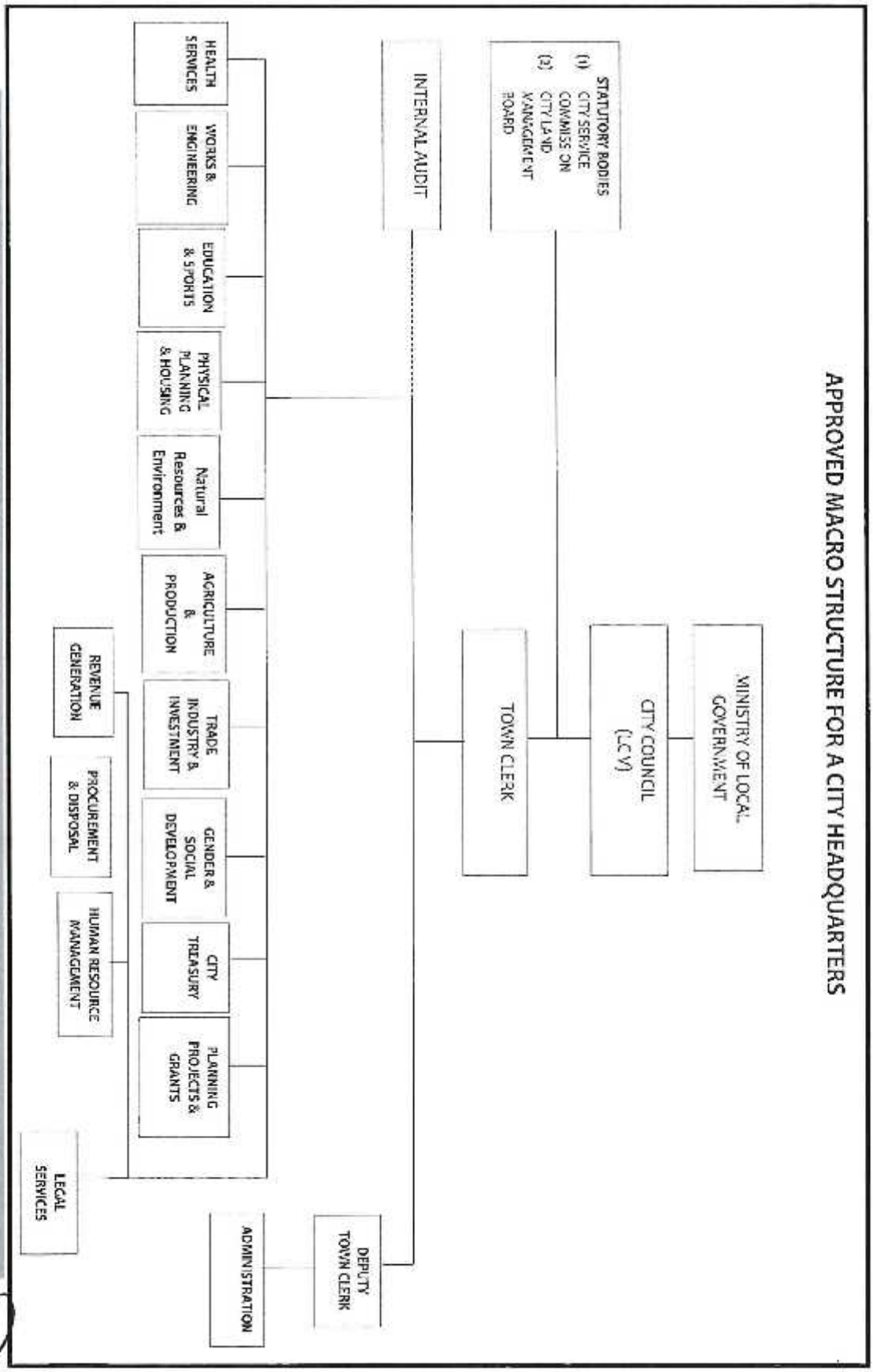
Source: City profile

1.6 STRACTUAL SETUP OF MASAKA CITY

The implementation of CCAP will be spearheaded by the Natural Resource Department. However, the Department will work closely with other key stakeholders to ensure that the objectives of formulating the CCAP are achieved by 2028.

Source: Ministry of local Government

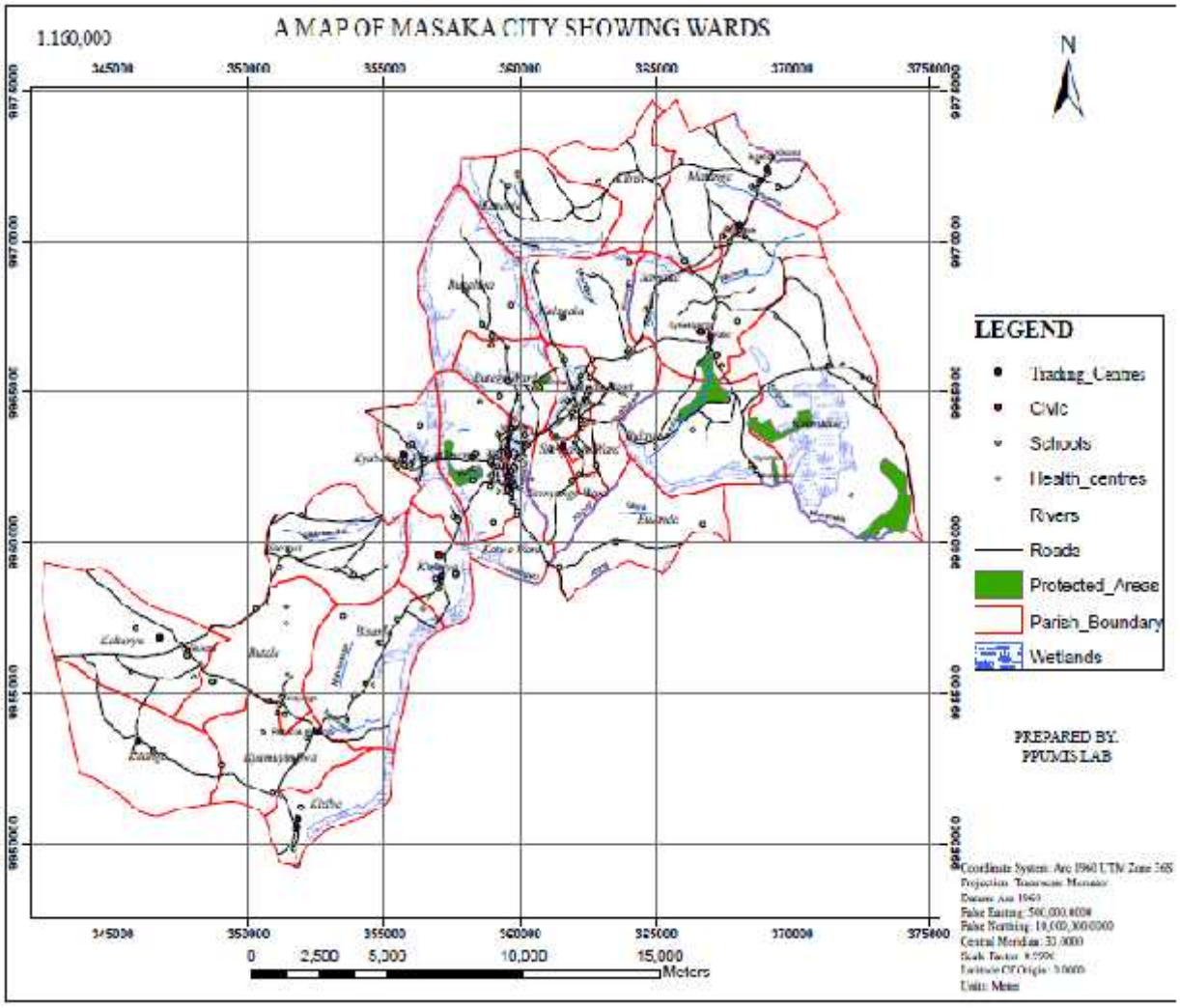
Plate 3: Structual setup of the city



1.7 MANDATE OF THE NATURAL RESOURCE DEPARTMENT IN THE CITY

- Enforcing implementation of the National and City Environment Action Plans
- Sensitize the public on environmental conservation policies, laws and regulations.
- To support community initiatives for the renewal and sustainable exploitation of the natural resources.
- Monitoring and supervising activities relating to the environment within the City.
- Identifying opportunities and constraints to optimal use of wetland resources.
- Compiling reports on environment degradation activities and practices.

Plate 4: Detailed map of the City showing Wards



1.8 LEGAL BASIS:

The 1995 Constitution

- The constitution of Uganda guarantees all Ugandans a right to a clean and health environment (article 39) and requires sustainable utilization the Environment and Natural resource.

The constitution of Uganda under the National objectives – The environment XXII (page 28) states that;

- The state shall promote sustainable development and public awareness of the need to manage land, air and water resources in a balanced and sustainable manner for the present and future generations.

- That the utilization of Natural Resources of Uganda shall be managed in such a way as to meet the development and environment needs of the present and future generations of Ugandans' and in particular, the state shall take all possible measures to prevent or minimize damage and destruction of Land, and water resources resulting from pollution or other causes.

- The state shall promote and implement energy policies that will ensure that peoples basic needs and those of environmental preservation are met.

The National Environment Act No. 5 of 2019

- Implements the constitutional requirements by providing the framework concerning the management of the environment.
- Section 44 of the NEA requires the Minister in the consultation with the Authority to prepare the National Environment Action Plan every after 5 years.
- Section 45 (3) of the NEA mandates an urban or District Council to prepare an urban or District Environment Action plan.
- NEA section 28 1(c) provides as one of the functions of District Environment Natural Resource Council/Urban Environment Natural Resource Council to ensure that the environment concerns are integrated in the development plans and projects approved by the council.

Local Government Act

- Local Governments are charged with development planning including environment management in accordance with the local government Act Cap 243. Integrating environment into the City and Division development plans should in principle follow the process of preparing the Development plans that begins at the community level through a participatory approach.

2.0 METHODOLOGY:

This presents the techniques/approaches used to come up with the Action plan. This City Climate Action plan has been produced in line with the provisions of the National Environment Act and other provisions there under.

Plate 5: Community members of katwe ward and stakeholder engagement at City level during climate action planning.


The CCAP formulation process recognizes the need for popular participation in the environment planning process as envisaged in the NEMA guidelines and hence this process recognized discussion /Brainstorming meetings which ensured active participation of community members at ward level, Division level and City level basically to capture climate change concerns at different levels.

Lectures: These were presentations that were made mainly to stimulate peoples' understanding of climate change. Group discussions and presentations were also used to capture full participation.

Plate 6: one of the discussion groups during engagement meetings

3.0 Table 4: Roles and responsibilities of Key Stakeholders in the city

No.	Key stakeholders	Major Activities	Roles/responsibilities in mitigating Climate change
1	National Environment Management Authority (NEMA)	Lead Agency; monitor and supervises environment concerns.	To ensure the integration of environment concerns in the overall National planning ministries, departments and agencies.
2.	Councilors/politicians	political leaders; present peoples' views	To receive and disseminate environment information.
3.	City Development Forum (CDF)	Make dialogue between City and the community.	Monitor project activities to ensure community concerns are addressed during implementation.
4.	National Forestry Authority (NFA)	Promote tree planting campaigns	To protect and conserve central forest reserves
5.	Uganda Electricity Distribution Company Limited (UEDCL)	To supply power in the whole country.	As resource users; to promote tree planting campaigns.
6.	Masaka Diocesan Development Organization(MADDO)	Promote Agricultural extension services	To ensure environment sustainability through tree planting and environment awareness campaigns e.t.c
7.	National Agricultural Advisory Services (NAADS)	Provide Agricultural Advisory services	Promote sustainable use of resources
8.	Opinion Leaders	Mobilize community members	They command respect in the community therefore can easily pass on information
9.	Youth	Take up opportunities the City would open for them.	They participate in project implementation
10.	Lake Victoria Regional Local Authorities Cooperation (LVRLAC)	Mobilize regions around Lake Victoria to oversee optimal use of the lake.	To coordinate regions around lake Victoria for sustainability use of the Lake.
11.	The public	Receive services	Own and support the implementation of the plan.

4.0 CLIMATE CHANGE SITUATION ANALYSIS

What is the problem?

Climate change is an intergenerational problem, and the well-being of future generations depends upon the actions we take today. It is no longer a trade-off between present and future consumption, but rather between present consumption and the mere existence of future generations.
It is therefore imperative to consider all climate actions from the lens of intergenerational justice to ensure the sustainable functioning of the planet and its ecosystems.
The consequences of climate change mean the city is more exposed to certain risks and disasters such as; Prolonged dry seasons, lowered water table at the NWSC intake point, High temperatures, Food shortages and Invasion of new crop pests and diseases in agricultural fields and forests.

4.1 Prolonged dry seasons

Though the natural climate is normal the city has been experiencing increased frequency and severity of extreme weather events. Prolonged dry seasons are leading to loss of crops and livestock.
The effects of seasons of a changing climate are already being seen across the city. Warmer temperatures enhance evaporation which reduces surface water and dries out soils and vegetation. This makes periods with low precipitation drier than they would be in cooler conditions.

Plate 7: Effects of dry spell evident in kyenvubu swamp

Why prolonged drought

- Deforestation; plants and trees capture and release water into the atmosphere which creates clouds and the rain. Agriculture; intensive farming contributes to deforestation but also affects the absorbance of the soil thus drying out vey quickly.

- **Wetland degradation;** In spite of the obvious advantages accruing from the presence of wetlands in the City, Nakayiba wetland is increasingly put under threat to provide land for agriculture, washing bays, tree nursery beds, soil dumping e.t.c. This has already or is in the process of creating severe changes in climatic conditions.

Plate 8: Wetland degradation driven by the demand for brick making.

4.2 Lowered water table at the National Water Sewerage Cooperation intake point.

Nabajuzi wetland

Nabajuzi wetland is a Ramsar site. Covering 1,753 ha (RIS by Achilles byaruhanga, 2005). It is the main source of piped water for residents of Masaka City.

The wetland is a source of clay, papyrus, fish and game meat (sitatunga) Nabajuzi lies south west of central Uganda in Masaka District (Lwabenge, Kyamulibwa, Kalungu, Mukungwe, Nyendo, Kimanya, kingo, Kibinge, Butenga and Bigasa) Sembabule District- Mijwala Sub-county and Mpigi District- Kabulasoke Sub-county. Nabajuzi supports globally threatened bird species (shoebill) and the endangered sitatunga.

The main pressure on the wetland is related to the high population growth, causing increased demand for land use change due to agricultural activities and increased need for drinking water. Though there are other threats to the wetland it is obvious that climate variability may have profound effect on water availability in the wetland and on the ecosystem due to high temperatures leading to lowering of the water table.

It is predicted that human induced climate change is likely to increase average temperatures in Uganda by up to 1.5 °C in the next 20 years and by up to 4.3

°C by the 2080s. average temperature have been observed to be increasing at a rate of 0,28 ^{0}C per decade and daily temperatures observations show significant increasing amounts of hot days and nights every year.

In masaka city, the maximum temperatures recorded is not exceeding 33.3°C and the minimum not below 11°c having almost equal lengths of day and night throughout the year. Changes in temperature are likely to have significant implications for water resources, food security, natural resource management, human health, settlements and infrastructure.

4.3 Food shortages and Invasion of new crop pests and diseases in agricultural fields and forests.

Climate change has been found to have an impact on food safety, particularly on incidence and prevalence of food-borne diseases. Climate change augments and intensifies risks to food security for the most vulnerable countries and population. Changes in temperature and rainfall patterns are affecting crop yields and food security. The city is particularly vulnerable to the effects of climate change due to its dependence on the agriculture and lack of resources to adopt. The city's agricultural sector is experiencing climate change effects manifested through frequent and severe dry spells, high temperatures and increased incidence of pests and diseases. Vulnerability to climate change is exacerbated by land resulting in reduced productivity, loss and damages and low sector performance

The increased effort within the sector, maintaining focus on mitigating climate change –smart approaches as well as growth, while increasingly involving and tasking the City authority will potentially contribute to an important breakthrough in transformation.

5.0 ACTION PLAN

Children and youth are at a greater risk of climate-linked diseases and are more vulnerable to natural disasters with destructive lifetime effects.
Young people are rarely engaged or addressed in climate action policies, and their potential as agents of change is often overlooked.
It is therefore imperative to consider all climate actions from the lens of intergenerational justice to ensure the sustainable functioning of the planet and its ecosystems.

Masaka City has already begun many actions to mitigate climate change several are on-going and require external support whilst others involve key stakeholders in doing daily actions.
The tables below offers guided priority actions with proposed time frame

Table 5: Action Plan Matrix 2023-2028

Effect/ problem	Causes	Mitigation measures	Resources/services needed	Responsible persons/Institution/ organizations	budget	Time Frame
Prolonged dry seasons	• Deforestation	-Community sensitization -Promote tree planting in schools -involve youth in tree planting campaigns -promote use of alternative energy sources and use of energy saving s stoves, - strengthen enforcement actions	-IEC materials -Procurement of tree seedlings -Relevant staff -Environment and Natural resources policies -Transport and logistical support to monitor implementation -Radio talk shows/media	-City Natural resource Department, procurement and disposal unit, Education Department, Community Department -Environment Police Protection Unit - Uganda Electricity Distribution Company Limited (UEDCL) -National Forests Aurhorty	150,000,000	2024-2026

Effects/problems	Causes	Mitigation measures	Resources/services needed	Responsible persons/Institution/ organizations	Budget	Time frame
	• Wetland Degradation	Sensitize the public on sustainable wetland use practices such as bee-keeping and crafts making -Strengthen wetland management committees. -Restore degraded wetlands. - engaging in Collaborative meetings -Demarcating wetland boundaries	-IEC materials -Relevant staff -Environment and Natural resources policies -Transport and logistical support to monitor implementation and hold meetings -Radio talk shows/media -surveying, Mapping, Identifying hot spots. -law enforcement	-Ministry of water and Environment -National Environment Management Authority - Environment Police Protection Unit -City; (the Natural resource Department, the Physical planning Department, , procurement and disposal unit, -support of the Local Leadership - City Development Forum (CDF)	250,000,000	2024-2027
Lowered water table at the National Water Sewerage Cooperation intake point.	• High temperatures.	-Increasing on the vegetation cover -proper management of solid waste to reduce on the emission of green house gases and hence green house effect. -uncontrolled urban grazing	-promote tree planting campaigns -procure land for a compost plant or landfill -promoting segregation of waste to minimize disposal -encourage youth to participate in resource recovery(picking plastic waste and making	- City; (the Natural resource Department, the Physical planning Department, , procurement and disposal unit, community Department -support of the political wing -religious Leaders -youth to participate in campaigns. Law enforcement	850,000,000	2024-2026

			charcoal briquettes) Privatization of solid waste collection -impounding loitering animals.			
Food shortages and Invasion of new crop pests and diseases in agricultural fields and forests.	• Poor farming methods • Unpredictable rain seasons • excessive use of chemicals	-mulching to keep water in the soil -Adapt agro forestry -Adapt irrigation Schemes -promote food Storage mechanisms -Use of organic Manure -community Sensitization on the dange chemical application	-training farmers on improved farming methods -supply trees that are compatible with crop production. -advocate for subsidizing of irrigation equipments -promote traditional food storage mechanisms. -Train farmers in composting -IEC materials on the dangers of chemical application.	- National Agricultural Advisory Services - Masaka Diocesan Development Organization -- City; (the Natural resource Department, the Production department, planning Department, , procurement and disposal unit, community Department	460,000,000	2024-2025

5.1 Monitoring and Evaluation (M&E)

Is one of the eight characteristics of a good CCAP. The purpose of monitoring and evaluation is to collect and manage data to be used for the regular and periodic assessment of the CCAP in order to ensure effective and efficient implementation of various priority actions in addressing effects of Climate change. Monitoring and evaluation of the City Climate Action Plan will be carried out using participatory approaches. The responsibility of M&E is assigned to everyone in the City with the City Environment Officer (CEO) having primary responsibility of ensuring its implementation.

Table 6: Monitoring and Evaluation Matrix

FUTURE CHANGES TO MITIGATE CLIMATE CHANGE	INDICATOR AND MEASUREMENT UNITS	MEANS OF VERIFICATION	REPORTING PERIOD	RESPONSIBILITY	KEY ASSUMPTIONS
Communities sensitized	No. of community members sensitized.	Reports and attendance lists of participants	Quarterly & Annually	City Environment Officer	Community participation
Trees planted	No. of trees planted	Reports indicating areas planted	Bi- annually (seasonally	City Environment Officer	Favorable weather conditions
Youth involved in different activities	No. of youth participating in project activities	Reports with segregated data.	Quarterly & Annually	-City Community Development Officer, -City Environment Officer -Councilor for Gender and Social Development	Youth participation
Alternative energy sources	No. of people using	Reports/records	Quarterly	City Environment	People adopt to different

FUTURE CHANGES TO MITIGATE CLIMATE CHANGE	INDICATOR AND MEASUREMENT UNITS	MEANS OF VERIFICATION	REPORTING PERIOD	RESPONSIBILITY	KEY ASSUMPTIONS
promoted	alternative energy sources		Annually	Officer	energy technologies.
Communities trained in bee keeping and crafts making. Wetland management committees re-activated	No. of community members trained. Wetland committees in place	Reports, training manual and record of attendance Observations Minutes of meetings held and attendance lists of members	Annually Quarterly	-City Environment Officer -City Community Development Officer City Environment Officer	Community participation. Community members' participation
Degraded wetlands restored	Area (Ha) of wetland restored.	Reports , (monitoring and supervision)	Quarterly	-City Environment Officer Environment police NEMA	Enforcement of ENR laws and regulations
Collaborative meetings conducted	No. of meetings held	Minutes of meetings held and record of attendance	Monthly Quarterly Annually	-City Environment Officer -Local leaders	Community participation
Wetlands demarcated	Area (Ha) of wetland Demarcated	Reports (survey, Mapping, monitoring and supervision)	Quarterly Annually	NEMA EPPU City officers: Environment Officer, Physical planner, Community officer Political leaders	Community cooperates
Solid waste properly managed	-No littering in the City -waste segregation -toll free line to report incidence	Record of waste received at the disposal site.	monthly	Principal Health Inspector	Community participation
Urban grazing controlled	No animals impounded in the City	reports	monthly	Senior Law enforcement	Enforcement of laws and regulations

FUTURE CHANGES TO MITIGATE CLIMATE CHANGE	INDICATOR AND MEASUREMENT UNITS	MEANS OF VERIFICATION	REPORTING PERIOD	RESPONSIBILITY	KEY ASSUMPTIONS
				Officer	
Soil productivity improved.	No. of yields per acreage	Reports	Bi- annually (seasonally	City production and agricultural Officers	Farmers implement what has been trained.
Irrigation scheme adopted	No. of farmers using irrigation systems	reports	quarterly	City production and agricultural Officers	Farmers afford to buy irrigation equipments.
Food storage mechanisms improved	No. of farmers having food stores(local or modernized)	Reports /records	Bi- annually (seasonally	City production and agricultural Officers	Soils are fertilized and produce surplus for storage.

Annex 1: Technical Working Group

Name	Organization	Designation	Telephone
Nabadda Pauline	Masaka City	Environment Officer	0753-310966
Kigozi Martin	Masaka City	Physical Planner	0700886879
Mayiito Ponsiano	Masaka City	Senior Economic planner	0772697429
Kizza Wilson	Masaka City	Senior Community Development Officer	0703984442
Okello Shirah	Masaka City	Agricultural Officer	0759894091