



**EAST AFRICAN COMMUNITY**

# **EAC CLIMATE CHANGE POLICY (EACCCP)**

**EAC Secretariat  
Arusha, Tanzania  
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## FOREWORD

The adverse impacts of climate change are a major challenge to socio-economic development globally. The African continent including the East African region is particularly vulnerable to impacts of climate change affecting key economic drivers such as water resources, agriculture, energy, transport, health, forestry, wildlife, land and infrastructure, disaster risk management among others. The impacts include; water stress and scarcity, food insecurity, diminished hydropower generation potential, loss of biodiversity and ecosystem degradation, increased incidence of disease burden, destruction of infrastructure, high costs of disaster management as result of increased frequency and intensity of droughts, floods and landslides associated with the El Niño phenomenon.

The process to develop the East African Community Climate Change Policy (EACCCP) was initiated in response to a directive by the East African Community (EAC) Heads of State made during the 11<sup>th</sup> Summit of the Heads of State held in Arusha, Tanzania on 20<sup>th</sup> November 2009 to develop a Regional Climate Change Policy and strategies to urgently respond to the adverse impact of climate change, including addressing the challenge of food insecurity as a result of the extreme climatic conditions associated with climate change.

The aim of the Policy is to address the adverse impacts of climate change in the region, in response to the growing concern about the increasing threats of the negative impacts of climate change to national and regional development targets and goals. In addition, the development of the Policy is in fulfillment of the objectives of the EAC; to develop policies and programmes aimed at widening and deepening cooperation among Partner States in accordance with the Treaty for the Establishment of the EAC.

The Policy is consistent with the fundamental principles of the Treaty establishing EAC and principles of international environmental law according to the EAC Protocol on Environment and Natural Resources, the Protocol on Sustainable Development of Lake Victoria Basin and the United Nations Framework Convention on Climate Change (UNFCCC). The preparation of the Policy was also guided by the emerging issues and challenges faced by the region and potential benefits and opportunities in light of the increasing climate change.

The Policy was prepared in a consultative and participatory approach by experts drawn from the five EAC Partner States of the Republic of Burundi, Kenya, Rwanda, Uganda and United Republic of Tanzania facilitated by EAC Secretariat and the Lake Victoria Basin Commission Secretariat (LVBC).

The effective implementation of the prioritized climate change adaptation and mitigation measures identified by the Policy will depend on collaborative efforts by all relevant actors towards minimizing the overall impacts of climate change and consequently lead to regional social and sustainable economic development.

I therefore urge the EAC Partner States and other stakeholders to support the successful implementation of the Policy.

***Signed by the Chairman of the EAC Council***

## EXECUTIVE SUMMARY

The adverse impacts of climate change being aggravated by increasing average global temperatures are a threat to the livelihoods of people in almost all sectors of the economy in the EAC region. Severe droughts, floods and indeed extreme weather events associated with climatic variability phenomenon of El Niño Southern Oscillation (ENSO) are occurring with greater frequency and intensity in the region. This is worsening the state of food security and threatening all the other drivers of economic development. Hence there is a need for an integrated, harmonized and multi-sectoral framework for responding to climate change in the EAC region through the East African Community Climate Change Policy (EACCCP).

In view of this, the Heads of State of the East African Community (EAC) directed the EAC Secretariat to develop a Climate Change Policy and strategies to address the adverse impacts of climate change in the region and harness any potential opportunities posed by climate change within the principle of sustainable development.

The overall objective of the EAC Climate Change Policy is to guide Partner States and other stakeholders on the preparation and implementation of collective measures to address Climate Change in the region while assuring sustainable social and economic development.

The Policy prescribes statements and actions to guide climate change adaptation and mitigation to reduce the vulnerability of the region and enhance adaptive capacity and build socio-economic resilience of vulnerable populations and ecosystems. In view of the high vulnerability of the region to the impacts of climate change, with the emerging associated challenges especially food security, adaptation to climate change is of priority to the EAC region.

The Policy is founded on three key pillars, namely, adaptation, mitigation and climate change research (monitoring, detection, attribution and prediction). The pillars will be supported by the following critical capacity building areas; technology development and transfer, finance, education, training and public awareness, information and knowledge management systems. Given the differentiated impacts of climate change on women, men and youth, and the roles of women specifically in addressing climate change, gender considerations have been given adequately attention in an effort to integrate gender in the Policy.

On adaptation, the Policy aims at implementing urgent and immediate adaptation priorities identified in the National Adaptation Programmes of Action (NAPAs), National Adaptation Plans (NAPs) and climate change strategies. Adaptation priorities will include: strengthening meteorological services and improving early warning systems; disaster risk management through; risk reduction, preparedness, mitigation and reconstruction, scaling up of efficient use of water and energy resources, irrigation, crop and livestock production, strengthening pre and post agricultural losses, protection of wildlife and key fragile ecosystems such as wetlands, coastal, marine and forestry ecosystems, improving land use, soil protection, tourism, climate proofing social infrastructure, and reducing climate sensitive vector and water borne diseases.

On mitigation, in as much as the EAC region has negligible contribution to global greenhouse gases (GHGs) emissions, it is important for the region to contribute to the reduction of GHG reduction in the atmosphere which is a global good through the preparation of Nationally Appropriate Mitigation Actions (NAMAs) for sectors with potentially high emission factors. These include sectors such as energy, transport, agriculture, waste management and industry. In doing so, such actions should not compromise the region's social and economic development but position the region towards the low carbon development pathways. Mitigation measures prioritized in this Policy include; afforestation, reforestation, promotion of energy efficiency, efficient crop and livestock production systems and efficient transport systems, waste management while capturing opportunities in emission reductions in the region provided for under the Clean Development Mechanism (CDM) of the Kyoto Protocol.

In order to fully implement this Policy, each Partner State shall create an enabling environment through policy, legislative and institutional frameworks to operationalize the Policy provisions. These shall include developing national policies, strategies and institutional arrangements. The EAC Partner States shall also establish similar arrangements to complement and coordinate Partner States efforts including establishing a regional Climate Change Coordination structure at the EAC Secretariat. The Partner States will also establish an EAC Climate Change Fund with the aim of mobilizing financial resources for the implementation of the Policy and instruments of implementing the Policy including the EAC Climate Change Strategy and Master Plan.

EAC Secretariat and other organs and institutions of the Community will develop effective approaches to initiate follow up actions and establish partnership to ensure the successful implementation of the Policy. These include: capacity building in terms of technical skills, knowledge and monitoring tools and address challenges related to technology development and transfer and access to finance.

## **ACRONYMS AND ABBREVIATIONS**

<b>AR4</b>	Fourth Assessment Report
<b>ASAL</b>	Arid and Semi Arid Lands
<b>CBD</b>	Convention of Biological Diversity
<b>CERs</b>	Certified Emission Reductions
<b>CDM</b>	Clean Development Mechanism
<b>CITIES</b>	Convention on International Trade in Endangered Species of Wild Flora and Fauna
<b>CSO</b>	Civil Society Organizations
<b>DRM</b>	Disaster Risk Management
<b>DRR</b>	Disaster Risk Reduction
<b>ENSO</b>	El Nino Southern Oscillation
<b>EAC</b>	East African Community
<b>EACCCP</b>	EAC Climate Change Policy
<b>EIA</b>	Environmental Impact Assessment
<b>EWS</b>	Early Warning Systems
<b>GDP</b>	Gross Domestic Product
<b>GHG</b>	Greenhouse Gases
<b>HFA</b>	Hyogo Framework for Action
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPR</b>	Intellectual Property Rights
<b>KP</b>	Kyoto Protocol
<b>LDCs</b>	Least Developed Countries
<b>MEA</b>	Multilateral Environmental Agreements
<b>MDG</b>	Millennium Development Goals
<b>MRV</b>	Measurable, Reportable and Verifiable
<b>NAMA</b>	Nationally Appropriate Mitigation Actions
<b>NAPA</b>	National Adaptation Programmes of Action
<b>NAP</b>	National Adaptation Plans
<b>NC</b>	National Communications
<b>POPs</b>	Persistent Organic Pollutants
<b>REDD</b>	Reducing Emission from Deforestation and Forest Degradation
<b>UNCCD</b>	United Nations Convention on Combating Desertification
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>WWF</b>	World Wide Fund for Nature

## TERMINOLOGIES AND CONCEPTS<sup>1</sup>

**Adaptive capacity:** ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

**A1B scenario:** one of three emission scenarios of the IPCC under the family of scenario describing a future with rapid economic growth and population peaks in mid century with a balance of fossil fuel intensive and non-fossil energy sources.

**Climate:** situation of a climate system, including the statistical description, taking into account averages and variations in temperature, rainfall, winds and other relevant meteorological factors in a given period.

**Climate change:** change of climate attributed directly or indirectly to human activity that alters the composition of global atmosphere which is in addition to natural climate variability observed over comparable period.

**Climate variability:** seasonal shifts in mean climatic conditions such as temperature and precipitation.

**Climate change adaptation:** adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Such adjustment may be preventive or reactive, private or public, autonomous or planned.

**Climate change mitigation:** human interventions to reduce the sources or enhance sinks of greenhouse gases.

**Carbon sink:** any process, activity or mechanism that removes greenhouse gases, aerosols or precursors of greenhouse gases from the atmosphere.

**Coping capacity:** means by which people or organizations use available resources and abilities to deal with adverse consequences of disaster. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards.

**Disaster risk management:** the systematic process of using administrative decisions, organizations, operational skills and capacities to implement policies, strategies and coping capacities of communities to lessen the impacts of natural hazards.

**Disaster risk reduction:** is the conceptual framework of actions considered and taken with the possibilities of minimizing social and economic vulnerabilities to hazards and disaster risks in a society, to avoid (prevention), or to limit the adverse impacts of hazards (mitigation), within the broad context of sustainable development.

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<sup>1</sup> Adopted from Intergovernmental Panel on Climate Change (IPCC), United Nations Framework Convention on Climate Change (UNFCCC) and United Nations International Strategy for Disaster Reduction (UNISDR)

**Disaster mitigation:** Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.

**Early warning system:** is a functional system for generation and provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response

**Climate Impact Assessment:** the practice of identifying and evaluating the detrimental and beneficial consequences of climate change on natural and human systems

**El Niño Southern Oscillation (ENSO):** a complex interaction of the tropical Pacific Ocean and the global atmosphere that results in irregular episodes of changes in sea surface temperatures accompanied by either above or below average rainfall in the tropics and Pacific Rim countries resulting to La Nina and El Niño conditions associated with droughts and flooding respectively.

**Greenhouse gases:** gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.

**Global warming:** intensifying greenhouse effect resulting from anthropogenic actions, where the consequence is an increase in the concentration of greenhouse gases, aerosols or their predecessors in the atmosphere, which absorb part of the infrared radiation emitted by the Earth's surface, thus increasing the average temperature on the planet and causing adverse climatic phenomena.

**Risk assessment:** a methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment on which they depend on.

**Resilience:** the ability of a system to adapt to climate change, whether by taking advantage of the opportunities or by dealing with their consequences; the analysis of adaptation identifies and evaluates the different options, benefits and costs of the measures.

**Sustainable Development:** Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Vulnerability:** The degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity and its adaptive capacity.

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# CHAPTER ONE

## 1.0 INTRODUCTION

### 1.1 BACKGROUND

In the recent years climate change has become a social, economical, environmental and political challenge facing humankind both at local, regional and global level. The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) revealed that climate change is real and is already happening at an unprecedented rate. According to the scientific report, while it is difficult to precisely predict the future consequences of climate change, there is sufficient knowledge and understanding on the current impacts and risks posed by the changing climate (IPCC, 2007).

The impacts of climate change are not evenly distributed geographically across the world. Africa has been highlighted as the most vulnerable continent to climate change. This is because the economies of most developing countries in African including the EAC Partner States are generally dependent on climate-sensitive natural resources, high poverty incidences, coupled with low adaptive capacity. Given the dependence of economies of Partner States to environmental and natural resources, economic growth and the livelihoods of both urban and rural populations are highly vulnerable to climate variability and change.

The dependence on rain-fed agriculture in the East African Community (EAC) region implies that agricultural production is highly vulnerable to climatic variability and climate change. This is mainly in form of shifts and changes in rainfall patterns but also increasing temperatures leading to adverse impacts to social, physical, ecological and economic systems. The impacts of climate change in the region include: declining crops yields and increasing food insecurity; melting of snow caps and glaciers, increased frequency and intensity of droughts and floods, reduced water supply, increase in pests and diseases for livestock, wildlife and crops, increase of vector-borne diseases including malaria and rift valley fever, water-borne diseases including dysentery, bilharzia, cholera and typhoid affecting human health, increase in invasive species, declining levels of fresh water resources, rising sea levels leading to displacement of people and disruption of both terrestrial and marine ecosystems and other important natural habitats, and natural resource based conflict amongst communities due to declined water and pastures.

The increasing frequency and intensity of natural disasters mainly droughts, floods and landslides which are the leading climatic related disasters in the region are also associated with the climatic variability phenomenon of El Niño Southern Oscillation (ENSO) which poses a major challenge to disaster risk management (DRM). These impacts have not only been predicted but are vividly being observed in many parts of the region.

Depending on social categories such as gender, age, geographic location, economic status and form of livelihood, climate change has, and will have, differential effects on various social groupings leading to increased inequality

across the world. Climate change is also a major setback in the efforts towards achieving the Millennium Development Goals (MDGs) since it impacts threaten to halt and reverse development gains if not addressed as a matter of urgency and priority.

Documented impacts of climate change in East African Community (EAC) region include: sea level rise, which has already led to infrastructure destruction along the East African coast, submergence of some small islands in the Indian Ocean, such as *Maziwe* and *Fungu la Nyani* (GoT, 2006)<sup>1</sup>, salt water intrusion and contamination of fresh water wells along the coast, in Tanzania, beach erosion in Mombasa, Kenya, and rampant floods and droughts across the region. Various studies on long-term temperature trends of Lakes Edward, Albert, Kivu, Victoria, Tanganyika and Nyasa, indicate deepwater temperatures have risen by 0.2 to 0.7°C since the early 1900s (GTZ, 2009)<sup>2</sup>. Since 1912, the area of Mt. Kilimanjaro's ice fields has decreased by between 50 and 80%. It has been estimated that, if current climatologically conditions persist, the remaining ice fields are likely to disappear between 2015 and 2020. Moreover, Mt. Ruwenzori ice cap field has decreased from the initial 563 hectares to now less than 50 hectares.

Projections of climate change suggest that East Africa will experience unpredictable but increasingly visible effects of climate change which will make life in the future even more uncertain. Climatic parameters with significant changes include changes in temperature and rainfall. Temperature changes indicate an increase of between +0.2 to +0.5°C (WWF, 2006). Based on the multi-model-dataset (MMD) of 21 global models and on the A1B-scenario, the seasonal average temperature projections for East Africa indicate that the median near-surface temperature in the 2080 to 2099 period will increase by 3°C to 4°C compared to the 1980 to 1999 period. It has to be underlined that this increase is about 1.5 times the projected global mean response (IPCC, 2007).

Changes in precipitation patterns are less uncertain. However, under intermediate warming scenarios, parts of equatorial East Africa is likely to experience a 5-20% increase in rainfall during the December-February (DJF) season and 5-10% decrease in rainfall during the June-August (JJA) season by 2050 (WWF, 2006)<sup>3</sup>. Averages of precipitation projections for East Africa based on the A1B scenario indicate a quite clearly an increase in rainfall for East Africa for the 2080 to 2090 period. However, other results based on an analysis of three precipitation time series indicate substantial dryness across most of eastern Africa during the March-May (MAM) rainy season. Burundi, Rwanda, Kenya and Tanzania have all experienced rainfall deficits ranging from 50 to 150mm per season (Funk et al., 2005)<sup>4</sup>.

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<sup>1</sup> National Adaptation Programme of Action for Tanzania

<sup>2</sup> Economic Impacts of Climate Change in East African Community (GTZ, 2009)

<sup>3</sup> Climate Change Impacts on East Africa. A Review of the Scientific Literature (WWF, 2006)

<sup>4</sup> Economic Impacts of Climate Change in East African Community (GTZ, 2009)

The changes in rainfall extremes indicate that precipitation is likely not to be uniform throughout the year, but will probably occur in sporadic and unpredictable events leading to disasters. Increased precipitation may come in a few very large rainstorms mostly during the wet season, adding to erosion and water management issues. It is also expected that there will be less precipitation in East Africa during the already dry seasons, which may cause more frequent and severe droughts and increased desertification in the region (WWF, 2006). The share of extreme wet seasons in East Africa in the 2080 to 2099 period is estimated to increase from about 5% to about 20%. In other words, 1 out of 5 wet seasons are likely to be extremely wet by the end of 21st century, as compared to 1 out of 20 in the control period in the late 20th century (IPCC, 2007).

Climatic change of this magnitude has had far-reaching negative impacts on the availability of water resources, food security and agricultural productivity, human health, tourism, livestock production, wildlife, household and production of energy for both industrial and domestic use, urban and coastal development, biodiversity and ecosystem management and disaster risk management culminating into increasing cost of investments and diminishing livelihoods.

Changing climatic conditions such as an increase in rainfall in some parts of the world may lead to increased availability of water resources, increased agricultural productivity and generation of hydropower energy; however, these benefits are outweighed by the adverse impacts of climate change. Developing countries including EAC Partner States stand a chance to benefit from project activities resulting in certified emission reductions (CERs) and achieving sustainable development through the Clean Development Mechanism (CDM) established under Article 12 of the Kyoto Protocol.

It is under this backdrop that the EAC Climate Change Policy (EACCCP) has been developed to assist the EAC region to engage a more strategic and cooperative approach to responding to the impacts of climate change, maximizing any potential benefits of changing climate, and benefit from existing instruments such as the CDM. It is therefore important to develop a robust Policy to guide this approach. The Policy, thus, represents the commitment of the Partner States in cooperating in the efforts to address the challenges of climate change, for the benefit of both present and future generations. The Policy is guided by the precepts of international environmental law including the principle of sustainable development as reflected in the objective of the UNFCCC and its Kyoto Protocol.

## **1.2 LINKAGES WITH NATIONAL POLICIES AND STRATEGIES IN PARTNER STATES**

The Policy takes cognizance of the existing national development policies, strategies and plans. These include sectoral policies and strategies in environment, water, land, forestry, energy, transport, agriculture, livestock, fisheries, health, disaster risk management, gender among others.

On climate change, the EAC Partner States have already embarked on preparation and implementation of projects and programmes to address climate

change. The projects/programmes focus on both adaptation and mitigation activities. Four Partner States, namely Burundi, Rwanda, Uganda and Tanzania have developed National Adaptation Programmes of Action (NAPAs), which are in various stages of implementation. The NAPAs identified immediate, urgent and priority project activities that are necessary to enhance adaptation capacities to climate change adverse impacts. Kenya, on the other hand, has already prepared a National Climate Change Response Strategy which spells out the priority areas for both adaptation and mitigation activities in the country.

Furthermore, the Partner States have prepared National Communications (NC) to communicate the status of implementing the UNFCCC related to vulnerability and adaptation, national greenhouse gas (GHG) inventories by source and removal by carbon sinks, potential mitigation actions to be included in the Nationally Appropriate Mitigation Actions (NAMAs) and can be used to foster economic development in the region while contributing to global efforts to reduce greenhouse gas emissions within the precepts of sustainable development.

Climate change mitigation potential in the region can be achieved through the energy sector through harnessing geothermal power along the East African Rift Valley, wind energy, hydropower, solar energy and natural gas; waste management sector through methane recovery, cogeneration from industrial and agricultural sectors in various parts of the region etc. Initiatives are underway to ensure that clean energy becomes readily available to region at affordable prices to the majority of the people in region through CDM projects. So far, few Partner States namely; Rwanda, United Republic of Tanzania, Kenya and Uganda have registered CDM projects in energy and other sectors.

### **1.3 LINKAGES WITH REGIONAL AND INTERNATIONAL CONVENTIONS, TREATIES AND PROTOCOLS**

The Policy is also in tandem with various regional and sub regional development policies, strategies, plans and programmes. These include the Treaty for the Establishment of EAC, the Protocol on Environment and Natural Resources Management; the Protocol for Sustainable Development of the Lake Victoria Basin and the Regional Environmental Impact Assessment (EIA) Guidelines on Shared Ecosystems and the EAC Development Strategy (2011-2015) etc.

Cognizant of the severity of climate change adverse impacts in the region, several initiatives have been taken by the EAC to address the challenge in the region. Chapter 19, Article 112 (f) and (m) of the Treaty establishing the East African Community calls for co-operation in the management of the environment, disaster preparedness and management, protection and mitigation measures especially for the control of natural and man-made disasters. Under this provision, the Partner States are required to develop and adopt an integrated approach to address the effects of climate change in the region. In addition, Articles 23 and 24 of the Protocol on Environment and Natural Resources Management has a provision for joint actions to address climate change and environmental disasters in the region.

The Policy is also complementary to various international conventions of environment and natural resources, treaties and protocols. In particular, the

Policy is in line with the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP). The ultimate objective of the UNFCCC is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure food security and sustainable economic development (UNFCCC, 2005).

Other related Multilateral Environment Agreements (MEAs) linked to the Policy that the EAC Partner States are Party to include: the United Nations Convention to Combat Desertification (UNCCD); the Convention on Biological Diversity (CBD); the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES); the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat; the Stockholm Convention on Persistent Organic Pollutants (POPs); the Vienna Convention for the Protection of the Ozone Layer; the Montreal Protocol on Substances that Deplete the Ozone Layer; the Basel Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposal among others.

## **1.4 RATIONALE AND JUSTIFICATION**

The adverse impacts of climate change are already having their toll on the livelihoods of people in almost all sectors of the economy in the region. Severe droughts and perennial floods are occurring with greater frequency in the region. Food insecurity, declined hydropower generation potential, increased incidence of water and vector borne disease, and water stress and scarcity are some of the consequences associated with the scenario of a changing climate in the region. The continued global warming will further aggravate the situation leading to increased vulnerability of economies, fragile ecosystems, communities and social groups such as women, children, youth, the elderly, physically challenged and People Living with HIV/AIDs (PLWHA) who are particularly vulnerable to the impacts of climate change. Almost all sectors of the economy including: agriculture, water, energy, health, infrastructure and forestry will be affected thus inhibit the attainment of national and regional development goals including the global MDGs. In this context, devising strategic measure to enhance climate change adaptation and mitigation capacity while exploring available opportunities for economic development is critical for the EAC region.

Furthermore, the impacts of climate change are not evenly distributed geographically across the world. Africa has been highlighted as the most vulnerable continent to climate change. This is because the economies of most developing countries in Africa including the EAC Partner States are generally dependent on climate-sensitive natural resources, widespread poverty coupled with low adaptive capacity.

EAC recognizes that every major social, economic and environmental sector is sensitive to climate variability and change, both of which are significant factors in each sector's sustainable development. The EAC is also cognizant of the changing climate and the need to put in place measures geared towards adapting to as well as mitigating against the adverse effects and causes of climate change. To this effect, it encourages development and implementation of national as well as regional adaptation and mitigation plans of action with focus

of adaptation which is a priority for most developing countries. The EAC is also recognized that adaptation is an additional burden for developing countries, particularly in the five EAC Partner States, whose adaptive capacity is already constrained by low economic levels and poverty.

There is also need for climate change vulnerability, impact and risk assessment to inform adaptation, development planning and decision making, disaster management. In addition, capacity building in terms of education, training and public awareness, institutional strengthening, technology development and transfer and up-scaling financial support for adaptation priorities and mitigation actions highlighted in this Policy. Experience suggests that the best way to address climate change impacts on the poor is by integrating adaptation responses into development planning. This is fundamental to achieving the MDGs.

Since most of the economic activities in the EAC region are dependent on climate sensitive sectors, cooperation in addressing climate change is of paramount importance to the region's sustainable development. Therefore, the development and implementation of a regional policy is expected to guide cooperative action consistent with Article 5(1) and 5(3) of the Treaty.

Given the above context, the Eleventh Ordinary Summit of Heads of State of the East African Community held in Arusha, Tanzania in November 2009 pointed out the adverse impacts of climate change as a major development challenge the region's livelihoods and economy. The Heads of State expressed specific concern about the state of food security and the threat to all other drivers of economic development in the region. Among other directives, the Heads of State directed the EAC Secretariat to prepare a Regional Policy and strategies for addressing the adverse impacts of climate change.

## **CHAPTER TWO**

### **2.0 GOALS AND OBJECTIVES**

#### **2.1 GOAL**

The overall aim of the Policy is to contribute to sustainable development in the EAC region through harmonized and coordinated regional strategies, programmes and actions to respond to climate change.

#### **2.2 OBJECTIVES**

The purpose of the Policy is to guide EAC Partner States and other stakeholders on the implementation of collective measures to address climate change impacts and causes in the region through adaptation and mitigation measures while assuring sustainable social and economic development.

The specific objectives of this Policy include to:

- (i) Establish a regional framework to guide the harmonization, coordination and implementation of climate change initiatives amongst Partner States;
- (ii) Identify priority adaptation and mitigation action areas and roles of Partner States and other stakeholders to address climate change in the region;
- (iii) Promote public awareness and socio-economic importance of climate change including; vulnerability, impacts, risks, and response measures in the region;
- (iv) Promote capacity building efforts through inter alia education, training, research, technology development and transfer, information and knowledge management;
- (v) Promote climate change research and observations through monitoring, detection, attribution and model prediction to enhance climate change preparedness;
- (vi) Support the integration of climate change into regional development processes, and planning including; disaster risk management and gender development;
- (vii) Facilitate resource mobilization to implement regional climate change response framework including the EAC Climate Change Strategy and Master Plan.

#### **2.3 SCOPE OF THE POLICY**

This Policy provides an integrated, harmonized, multi-sectoral framework for responding to climate change through adaptation and mitigation in the EAC Partner States.

## **2.4 GUIDING PRINCIPLES**

This Policy is in accordance with the fundamental and operational principles of the EAC set out in Articles 6 and 7 of the Treaty for Establishing the East African Community; principles of environmental law in accordance with Article 4 of the EAC Protocol on Environment and Natural Resources Management; Article 4 of the Protocol for the Sustainable Development of Lake Victoria Basin; and Article 3.3 and 3.4 of the UNFCCC among others.

The Policy is also guided by the following principles and concepts:

- (i) Importance of mainstreaming climate change issues into socio-economic sectors and environmental management;
- (ii) Role partnership, collaboration and synergies among various stakeholders from government, intergovernmental, non-governmental, development partners, private sector, civil society, vulnerable communities and populations including women and youth in the implementation of the Policy; and
- (iii) Implementation of prioritized climate change adaptation and mitigation actions in accordance with environmental impact assessment to avert any social and economic impacts of the actions.



## **CHAPTER THREE**

### **3.0 POLICY PRIORITIES**

The Policy is based on the following priorities: climate change adaptation; mitigation; and research and observations including monitoring, detection, attribution and prediction. The priority areas will be supported by the following critical capacity building areas and pillars; technology development and transfer, finance, education, training and public awareness, information and knowledge management systems. Given the differentiated impacts of climate change on women, men and youth, and the roles of women specifically in addressing climate change, gender considerations have been given adequately attention in an effort to integrate gender in the Policy.

This Policy identifies climate change adaptation as a primary priority of the region while mitigation is secondary. It further emphasises on the importance of mainstreaming climate change adaptation and mitigation into national and regional development plans taking a sectoral approach with an emphasis on key socio-economic sectors and sub-sectors adversely impacted by climate change and with potential opportunities to contribute to mitigation efforts and sustainable development of the Partner States and the region. These include, but not limited to: water resources, agriculture and food security (crop, livestock, fisheries production), energy, biodiversity and ecosystem services (forests, wildlife, wetlands, coastal and marine ecosystems), land use and soil protection, human health, tourism, industry, transport and infrastructure, disaster risk management, gender and community development, education, training and research and development. In this context, the Policy recognizes the critical need for the development of climate change adaptation and mitigation strategies to secure economic growth, social development and environmental sustainability of the region.

### **3.1. CLIMATE CHANGE ADAPTATION (CCA)**

The adverse impacts of climate change are likely to continue for decades even if greenhouse gases emissions is abated today. In view of this, adaptation to the adverse impacts of climate change is of paramount importance and a priority for the East African Community Partner States and the region at large.

#### **3.1.1 Challenges to Adaptation**

EAC Partner States recognize the importance of addressing adaptation needs in various sectors which affect the sustainable livelihood of the communities in the region. However, there are several challenges to the advancement of climate change adaptation policy and practice. These need to be addressed to enable the region to effectively implement concrete adaptation programmes and projects to reduce the vulnerability of livelihoods and build resilient economies and

ecosystems in the region. The following challenges to adaptation efforts among others still remain:

- (i) Inadequate institutional, legal and regulatory frameworks for adaptation;
- (ii) Limited financial resources to support climate change adaptation activities;
- (iii) Lack of appropriate technological, human skills, data and tools for impact and vulnerability assessment;
- (iv) High levels of vulnerability amongst the populations, ecosystems and infrastructure;
- (v) High poverty levels linked to poor and inadequate coping strategies and low adaptive capacity; and
- (vi) Low levels of awareness of human vulnerability especially at community level.

### **3.1.2 Adaptation Objective**

The main objective is to institute and implement measures which will improve the adaptive capacity and resilience of the East African region to the negative impacts of climate change.

### **3.1.3 Adaptation Policy Statements and Actions**

The EAC shall aim at reducing the vulnerability, and building social and economic resilience, development of climate change adaptation plans, policies and strategies and mainstreaming climate change adaptation in national development planning in Partner States and the region to the adverse impacts of climate change through inter alia:

#### **3.1.3.1 Vulnerability reduction and building economic and social resilience**

Partner States shall:

- (i) Undertake detailed vulnerability and impact assessment in the various socio-economic sectors of the economies to inform adaptation decision making;
- (ii) Promote diversification of economies to reduce overdependence on climate-sensitive sectors;
- (iii) Promote alternative livelihoods systems amongst most vulnerable communities;
- (iv) Enhance adaptive capacities of communities, fragile ecosystems and national economies; and
- (v) Promote social protection as a tool for disaster risk reduction and climate change adaptation.

### **3.1.3.2 Development and implementation of climate change adaptation plans, strategies and policies**

Partner States shall:

- (i) Support Partner States to implement the National Adaptation Programmes of Action (NAPAs) that highlighted prioritized immediate and urgent adaptation actions as a short term measure to address climate change;
- (ii) Support Partner States to develop and implement Climate Change Strategies and Action Plans to respond to long term climate change impacts and risk;
- (iii) Support the development and implementation a Regional Climate Change Strategy and Master Plan within which medium to long term adaptation strategies will be formulated; and
- (iv) Develop a resource mobilization strategy to implement climate change adaptation strategies and action plans.

### **3.1.3.3 Sectoral Approach to Mainstreaming Climate Change Adaptation in National Development Planning**

#### **(i) Water Resources**

With changing climate, overbearing pressure on various water resources is more likely to intensify the conflict over the water use not only between the local communities in the partner states, but also between member states. Climate change has already caused variations in rainfall patterns and soil moisture due to change in temperature and affects river run off. In some countries, climate impacts affect the ecosystem services that communities are largely dependent upon, threatening development and economic stability. Future impacts are projected to worsen as the temperature continues to rise and as precipitation becomes more unpredictable.

#### **Sectoral Challenges**

- (i) Increased water abstraction for various uses among the partner states;
- (ii) Inadequate water distribution and utilization technologies;
- (iii) Inadequate water storage infrastructures;
- (iv) Lack of data on seasonal water flows that can allow proper planning and water management;
- (v) Increased conflicts over water resources;
- (vi) Poor water resource management at the farm level;
- (vii) Limited awareness of the value of water resources in the development context; and
- (viii) High cost of investment costs involved in provision of water.

#### **Sector Specific Objective**

The objective is to improve water conservation, efficiency and sustainable use and exploitation of regional water resources in view of the changing climate.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Support development and transfer of water and hydro-climatic information and technology to support water conservation through natural resource planning support, data acquisition and management, technology innovation and transfer, partnerships and joint ventures;
- (ii) Promote transfer and dissemination of efficient water technologies including recycling of waste water;
- (iii) Improve water security by promoting investment in water storage facilities and technologies;
- (iv) Promote rain water harvesting, protection of water wells and springs, and other water sources;
- (v) Promote regional and international cooperation for improved water management and water resource based conflict prevention through trust and confidence building;
- (vi) Support regional initiatives geared towards trans-boundary water resource management of lake and river basins;
- (vii) Promote participation of the private sector, civil society and women in management of water resources through Public Private sector Partnership including regulated abstraction and distribution of water for domestic, industrial, agricultural and energy production;
- (viii) Improve water supply infrastructure to ensure adequate and reliable supply of water; and
- (ix) Promote actions that reduce water pollution, including improving water quality and protection of aquatic habitats.

### **(ii) Agriculture and Food Security (Crop, Livestock and Fisheries)**

East Africa largely depends on rain fed agriculture making rural livelihoods and food security to be highly vulnerable to consequences of climate variability and change. It is also noted that agriculture provides a living for 80% of East Africans. Agriculture and livestock production in East Africa is hampered by its reliance on unreliable rainfall and absence of water storage facilities compounded by, poor land use practices and antiquated technology and farming methods. It is likely to be hit harder as droughts and floods worsen, temperatures and growing seasons change, and farmers and herders are forced off their land. Future impacts are projected to worsen as temperatures continue to rise and rainfall becomes much more unpredictable. Lack of adequate financial resources to support climate change adaptation measures in the agricultural sector is also a major challenge.

## **Sectoral Challenges**

- (i) Control of crop, livestock and fish pests and diseases affecting yield potentials;
- (ii) Restore and sustain aquatic ecosystems to prevent depletion of fishing stocks in all the sources;
- (iii) extreme weather conditions to improve crop, fish and livestock productivity;

- (iv) Availability of suitable infrastructure to enable accessibility of livestock feeds, fisheries and crop products; and crop and livestock storage facilities;
- (v) Inadequate of data base and information sharing platform baseline for monitoring impacts of climate change;
- (vi) Ineffective agricultural and agricultural related policies, skilled technicians to address climate change in agriculture sectors;
- (vii) Lack of improved high yielding/climate friendly varieties;
- (viii) Inadequate farm inputs (fertilizers, pesticides) to increase productivity; and
- (ix) Inadequate financial resources.

### **Specific Sectoral Objectives**

Develop adaptation framework for agriculture to improve agricultural productivity and enhance food security.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote sustainable land management practices including conservation agriculture and improved production systems as part of a climate change adaptation strategy;
- (ii) Promote development and implementation of irrigated agriculture through irrigation policies;
- (iii) Promote water availability and sustainable use practices and technologies in agriculture, livestock and aquaculture for efficient utilization of water especially in arid and semi arid lands (ASALs);
- (iv) Promote agro processing and enhance food storage facilities; and
- (v) Promote efficient livestock and aquaculture production systems including fodder and pasture storage and availability;
- (vi) Increase use of integrated crop and livestock pests and disease management in the region;
- (vii) Improve management of natural resources (land, water, fisheries and forest) in order to ensure sustainable production; and
- (viii) Improve food management and distribution systems to ensure access and affordability;
- (ix) Strengthen agro-meteorological information generation for improved early warning systems for food security; and
- (x) Promote harmonization of policies, strategies and standards of Partner States agricultural, livestock and fisheries research institutions and organizations.

### **(iii) Wildlife**

The great reservoir of East Africa's wildlife and biological diversity is increasingly under threat as a result of ecosystem fragmentation, over utilization of resources and conflicts between wildlife and other human activities such as agriculture and human settlement. Persistent droughts due to increase in temperature and unreliable rainfall pattern in the region is expected to affect the lifestyles of most

of the migratory wild species, in particular the wildebeest and some bird species. The wildlife forms an important source of food and income for some local communities in the region. Changes in ecological systems will lead to disappearance of some wild animal species.

### **Sectoral Challenges**

- (i) Changes in biodiversity and ecosystems services (ecological range shifts of specific wildlife species) due to changing climatic conditions;
- (ii) Destruction of wildlife habitats due to increased natural bush fires;
- (iii) Reduced regeneration of pastures and water resources for the wild animals; and
- (iv) Decreasing carrying capacity of Protected Areas (PAs) and rangelands due to increasing extreme weather conditions.

### **Sector Specific Objective**

To develop, harmonize and adopt common policies, laws and strategies for the conservation and sustainable utilization of wildlife resources in and outside protected areas in the region as part of ecosystem based adaptation.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote measures that preserve the ecosystem integrity of critical wildlife habitats and endangered species;
- (ii) Establish, promote, and/or protect wildlife migration corridors;
- (iii) Diversify livelihood for local communities in order to reduce their dependency on wildlife;

### **(iv) Coastal and Marine Ecosystems**

Continued rise in temperature as a result of global warming is causing sea level rise which will lead to destruction, salt water intrusion, farmland salinity and degradation of coastal resources and infrastructure such as mangroves and houses. This will in turn further impoverish the local communities which depend on these resources.

Wetland habitats are important integral parts of the coastal fisheries industry and provide critical spawning and nursery grounds for many marine and freshwater organisms. Estuarine and lagoon fisheries are therefore the basis for livelihood in many communities. The mangroves, in addition to providing physical protection for the coast against erosion, are used as firewood, building poles, boat building, fish smoking, and in making several domestic appliances (beds, drums, carts, etc.).

Due to the importance of the sea and coastline, the welfare of the population living by the coast and the socio-economic value to the country, the coastline has to be protected against any effect of climate change.

## **Sectoral Challenges**

- (i) High cost of construction of preventive infrastructures along the coastline;
- (ii) Exploitation of mangrove trees as a source of sources of energy by coastal communities;
- (iii) Increased coastal erosion due to rise of sea levels and
- (iv) Increased salt water intrusion and contamination of fresh water sources; and
- (v) Increased bleaching of coral reefs as a result of enhanced sea surface temperature and flooding.

## **Sector Specific Objective**

To enhance the adaptive capacity and resilience of the coastal and marine ecosystems, coastal communities and infrastructure to the impacts of climate change as part of ecosystem based adaptation.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote Integrated Coastal Zone Management (ICZM);
- (ii) Support measures to control coastal erosion as result of rising sea water;
- (iii) Mobilize funds to construct walls at vulnerable points to minimize adverse impacts of sea level rise;
- (iv) Conserve coastal and marine habitats to promote development of protected area management systems; and
- (v) Establish coastal ecosystem monitoring and surveillance systems.

## **(v) Land Use and Soil Protection**

Climate change exacerbates soil erosion, land degradation, loss of biodiversity and soil infertility. Incidents of floods, droughts and deforestation are already becoming frequent in East Africa. As a result, sustainable land management has been under threat. The increase in frequencies and severity of rainfall variability, floods, droughts and other related incidents will continue to threaten sustainable land management practices because productive soils will continue to diminish. This will worsen the already emerging land and limited resource conflicts between and among various land users in the region, for example pastoralists and farmers.

## **Sectoral Challenges**

- (i) Decreasing land and soils productivity in the region;
- (ii) Poor land and soil management practices;
- (iii) Increased population pressure on land leading to increased land and degradation;
- (iv) Weak land use and land use change policies and plans;

- (v) Lack of harmonized Policies on land use at regional level.

### **Sector Specific Objective**

To improve sustainable land use, land use change and soil management practices as an adaptation strategy.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote sustainable land use and land use change management practices;
- (ii) Improve land productivity and soil fertility inter alia through; integrated nutrient management, improving soil quality, enhancing soil and water conservation measures to enhance physical, chemical, biological or economic properties;
- (iii) Promote actions that reduce land degradation and soil erosion especially in the fragile ecosystems such as mountainous areas, lake shores and riverbanks; and
- (iv) Facilitate formulation of integrated sustainable land management investment frameworks and land use policies and plans.

### **(v) Forestry and Wetlands**

The East African region is well endowed with forest resources which contribute significantly to carbon sequestration. However, all forest areas and types are under major threat of deforestation. The major causes of deforestation and forest degradation include clearing for agriculture and settlement, overgrazing, wildfires, charcoal burning and over-exploitation of wood resources for commercial purposes. These activities contribute to the increase of carbon dioxide in the atmosphere as the carbon sink is progressively reduced. This overdependence on forest and wetland resources is mostly due to lack of alternative and efficient technologies for energy and agricultural production. Climate change has been responsible for increase in rainfall in some parts leading to floods and lack of rainfall in other parts of the region leading to droughts. Both of these have had impacts on ecosystem and biodiversity loss. Climate change will further exacerbate the situation and species that will be more vulnerable are those with: limited geographical range and drought/heat intolerant; low germination rates; low survival rate of seedlings; and limited seed dispersal/migration capabilities. In addition, this has resulted into wetland encroachment for use due to lack of availability of other water sources.

### **Sectoral Challenges**

- (i) High rates of deforestation due to increased pressure on land and human encroachment;
- (ii) Loss of forest biodiversity and regeneration potential due to ecosystem change;
- (iii) Lack of appropriate alternative primary sources of energy and livelihoods leading to overexploitation of forest products;



- (iv) Increasing bush and forest fires;
- (v) High encroachment and degradation of wetlands;
- (vi) Limited political goodwill and commitment to conserve and manage forests and wetlands; and
- (vii) Poor stakeholder participation, such as civil society, the private sector, community-based organizations, women and youth organizations, to fully participate in forest and wetland management practices.

### **Sector Specific Objective**

To promote sustainable management of forestry and wetlands as part of ecosystem based adaptation.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote sustainable management of forests and wetlands in the region;
- (ii) Promote alternative energy sources in order to reduce dependency on biomass for energy needs in both urban and rural areas;
- (iii) Promote reforestation, afforestation and agro-forestry practices and programmes;
- (iv) Strengthen enforcement of laws and good governance of forests and wetlands;
- (v) Promote collaborative forest management practices;
- (vi) Promote improvement of agricultural productivity so as to avoid deforestation and encroachment on gazetted wetlands for agricultural expansion;
- (vii) Strengthen capacity to monitor and manage forests and forest related activities;
- (viii) Promote and strengthen community based management practices;
- (ix) Promote use of non-timber forest products; and
- (x) Promote stakeholder participation in integrated forest and watershed management practices.

### **(vii) Human Health**

Malaria is the largest cause of loss of lives in most parts of the East African region. Various efforts by Governments to fight malaria have been successful in some countries. Malaria transmission is said to be at its peak during high temperatures and humidity, after the rain season. As a result of change in temperature and rainfall regimes, malaria epidemic has been observed to extend to some areas which it used not to be common, particularly the highlands. With increase in average temperature, the frequency of occurrences and impacts of malaria and other diseases such as dysentery, cholera, bilhazia, trypanosomiasis and meningitis will further rise. Malnutrition is also on the rise as a result of climate change related food insecurity. The resurgence of Rift Valley Fever following flooding in the semi-arid areas of the region is another concern related to climate extremes.

## **Sectoral Challenges**

- (i) Increasing frequency and intensity of floods and droughts compromising water and sanitation standards;
- (ii) Increasing rate of climate sensitive water and vector borne diseases and epidemics;
- (iii) Inadequate water and sanitation and health facilities in climatic related disease hotspots;
- (iv) Coping with the effects of rising temperatures which is responsible for health challenges related to climate change;
- (v) Development of early warning systems for climate change related disease outbreaks;
- (vi) Increasing malnutrition rates resulting from shortage of food related to frequent and prolonged droughts and floods;
- (vii) Inadequate emergency preparedness of the health systems;
- (viii) Increasing diseases burden as a result of resurging illnesses related to climate change; and
- (ix) The HIV/AIDS epidemic.

## **Sector Specific Objectives**

To reduce the vulnerability of populations to climatic sensitive diseases and enhance adaptive capacities within the health sector.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Develop effective early warning systems and emergency health measures for climate change related diseases;
- (ii) Facilitate availability of health facilities, equipment and medicine to assist in early diagnosis and treatment in climate change related diseases;
- (iii) Enhance capacity of medical personnel on climate change , including traditional/indigenous knowledge;
- (iv) Promote awareness among populations on climate change related diseases and their prevention;
- (v) Provide access to healthcare services to vulnerable groups such as pregnant women, children, older persons and others; and
- (vi) Promote measures for preventing the spread and mitigating impacts of HIV/AIDS on the climate vulnerable populations.

## **(viii) Tourism**

With a vast land area covered by forests as well as various species of flora and fauna, East Africa is considered to be one of the premier tourism destinations in Africa. The region has beautiful natural resources including extensive tracts of wilderness and a rich diversity of scenery. Among the tourist attraction are the National Parks, Game Reserves, Game Controlled Areas and historical sites. However, due to increase in temperature some of these attractions such as the

ice caps of Mount Kilimanjaro, Kenya and Ruwenzori are under threat of disappearing.

### **Sectoral Challenges**

- (i) Loss of biodiversity and other tourist attraction sites due to climate change impacts; and
- (ii) Limited capacity to rehabilitate infrastructures such as roads and bridges, camping sites and electricity grids in important tourist sites destroyed by floods.

### **Sector Specific Objective**

To ensure resilience of tourism infrastructure through factoring climate change into their planning, as well as enhancing climate proofing of wildlife habitats to minimize environmental migrations of endangered species.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Develop all weather infrastructure to support tourism in the region while ensuring minimal damage to wildlife habitats;
- (ii) Develop and diversify tourism products which are not very sensitive to climate change, as an adaptation and substitute for the many natural ones which are disappearing very fast;
- (iii) Devise mechanisms of improving local vulnerable population livelihoods from revenues generated from tourism industry; and
- (iv) Develop park management practices which will enable wildlife to adapt to the changing climate.

### **(ix) Infrastructure**

Infrastructure including roads, bridges, railways, ports, buildings, dams and other social development infrastructural amenities such as communication infrastructure, water, oil and energy transmission infrastructure need to be climate-proofed to secure the high cost of installation. This involves incorporating accepted risk-limits in building and construction standards based on the expected return periods of natural hazards including severe winds, heavy rainfall and storm surges. Below these thresholds, severe weather events are usually handled with relatively light damage to property and human health and life. Above the thresholds, however, damage to infrastructure can be extensive. Possible adaptation measures would include revision of structural and building codes and standards taking into account the expected changes in climate.

### **Sectoral Challenges**

- (i) Destruction of existing infrastructures as a result of flood events related to climate variability and climate change;

- (ii) Challenges in integration of climate change in infrastructure design and development in the region; and
- (iii) Limited meteorological infrastructures to provide weather and climate data and information for robust infrastructure planning and design.

### **Sector Specific Objective**

To climate proof infrastructure through ensuring that climate change concerns is factored in the development of social infrastructure to allow the infrastructure to withstand extreme weather conditions in the region.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote climate change integration in all planning and design of infrastructure;
- (ii) Build awareness and capacity of the architects and engineers to take into account Climate Change in their professional deliveries; and
- (iii) Revise and harmonise structural/building codes and standards taking into account the expected changes in climate.

### **(x) Human Settlements**

Climate change impacts have been witnessed on human settlements in East Africa as a result of sea level rise, floods, droughts, landslides, coastal erosion and land conflicts. Climate Change further threatens to affect human settlements if temperatures will continue to rise and rainfall continues to fluctuate and become unpredictable. Human life, animals and property will continue to be under threat. There is a need to strengthen efforts to relocate vulnerable communities, households and individuals such as those in low lands susceptible to floods and disaster preparedness and management in the region. Some of the challenges of human settlements are enumerated below:

### **Sectoral Challenges**

- (i) Poor planning of human settlements in both urban and rural areas leading to building of human settlements in fragile ecosystems such as flood plains;
- (ii) Use of poor quality building materials for settlements infrastructure; Affordability of robust building materials leading to inappropriate human settlement structures in urban and rural areas;
- (iii) Increasing number of population displaced from their dwellings during flooding seasons;
- (iv) Limited disaster risk management capacities to reduce the risks on vulnerable populations through preparedness and emergency evacuations during disasters.

## **Sector Specific Objective**

To develop climatic resilient human settlements to reduce the vulnerability of human settlements to climatic extremes and their impacts.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Ensure compliance with physical planning principles and building standards in the design of human settlements;
- (ii) Develop and promote climate change proofed human settlement standards; and
- (iii) Strengthen the integration of climatic risk in housing development policies and projects including providing subsidies for low income communities, households and individuals.

## **(xi) Disaster Risk Management (DRM)**

The recurrence of extreme weather and climatic events in the region is increasing in intensity and frequency as a result of climate variability and climate change hence posing a big challenge to disaster risk management. Weather and climatic extreme events of floods and droughts are the primary disasters in the EAC. Disasters are often associated with food, water and energy shortages leading to loss of life, property, infrastructure, loss of gross domestic product (GDP) among many other socio-economic setbacks. Projected impacts of climatic related disasters are likely to be devastating on the economies and livelihood assets. These will result, among others, into internal population displacements and climate refugees, with increasing rural urban migration giving rise to sprawling slums. Climate change therefore will exacerbate the occurrences of climate and human induced disasters.

## **Sectoral Challenges**

- (i) Limited data to generate timely, reliable and adequate early warning information systems for extreme weather and climatic disasters;
- (ii) Increased frequency and intensity of climatic related disasters of floods and droughts linked to El Nino and La Nina leading to migration, internal displacement of persons, cross-border conflict;
- (iii) Increased pressure on scarce natural resources mainly water and pasture for pastoral communities; and
- (iv) Inadequate institutional, legal and regulatory frameworks for disaster risk reduction and management responses.

## **Sector Specific Objective**

To reduce the vulnerability of socio-economic systems to climatic related disasters through employing disaster risk reduction as tool for climate change adaptation.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote community based approach to disaster risk reduction and community based adaptation;
- (ii) Support development and implementation of climate related disaster risk reduction and management as a tool for adaptation;
- (iii) Promote climatic risk assessment and monitoring through vulnerability assessment, risk and hazard mapping in all sectors including social and economic impacts of climate change;
- (iv) Enhance disaster risk preparedness through inter alia: production, acquisition and dissemination of weather and climate information services for improved early warning systems (EWS), and emergency response and post disaster recovery to avert or minimize the adverse impacts of climatic related disasters;
- (v) Promote management of cross-border natural resource based conflict as result of stress on water and pasture for pastoral communities;
- (vi) Promote the Disaster Risk Reduction (DRR) concept through the five priorities areas of the Hyogo Framework for Action (HFA),
- (vii) Promote the implementation of the Africa Regional DRR Strategy and Programme of Action; and
- (viii) Prioritize the special needs of vulnerable groups such as children, women, youth, elderly and other specific groups.

### **(xii) Energy**

Energy is a critical driver of socio-economic development activities including: production of goods and services; supporting transport, communication, education, health, industrial and agricultural, mining and manufacturing sectors; and domestic activities such as cooking etc. The East African region is not self reliant in its commercial and domestic energy needs despite being well endowed with abundant energy resources including: gas, coal, oil, hydropower, uranium, biomass and other renewable sources. This leaves the region with a large energy deficit given the socio-economic growth rate. Energy production and distribution potential is hampered by lack of adequate investment.

Over reliance on hydropower and biomass energy (woodfuel and charcoal) from both indigenous and manmade forest plantations to meet commercial, industrial and domestic energy demands particularly in the rural areas and informal settlements in urban areas are climatic dependent and thus affected by climate change.

This implies that the availability and reliability of water is crucial factor of hydro-power generation yet is affected by climatic patterns. Over the recent years, variability in rain patterns and amount in terms of seasonal shifts and intensity linked to climate variability and change has been affecting energy security in the region. Severe and prolonged droughts linked to and higher temperatures and declining rainfall has resulted in low water levels in rivers and hydropower

generating dams leading to drop in hydropower generation. Increasing temperatures and diminishing rainfall will also lead to gradual drying up of biomass. The demand for biomass energy will lead to increased depletion of forest and tree cover and destruction of watersheds that are a source of water used for hydropower generation.

The lack of scientifically sound policy and regulatory frameworks for renewable energy such as on bioenergy has resulted in haphazard development of biofuel for example, as an alternative source of energy. This may have far reaching effect on food security, hence increasing hunger and starvation in the region.

Low investment in the provision of affordable cleaner energy especially in the rural areas and among the urban poor has also led to use of unsustainable energy sources which need to be addressed as a priority.

### **Sectoral Challenges**

- (i) Overreliance on hydro-electric power generation which is highly sensitive to climate variability and change;
- (ii) Low financial investment in the development of renewable energy technologies;
- (iii) Inadequate development of energy infrastructural facilities;

### **Sector Specific Objective**

To promote development and use of renewable sources of energy that are sustainable and less vulnerable to the risks of climatic variability and climate change.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Promote diversification of sources of energy;
- (ii) Promote of renewable energy technologies (geothermal, solar, wind) through research;
- (iii) Introduce of economic and financial measures such as zero-rating of taxes and other financial measures on some renewable energy;
- (iv) Develop energy infrastructure such as hydroelectric dams and power plants;
- (v) Protect watersheds that supply major hydroelectricity generating water sources through afforestation and reforestation measures;
- (vi) Enhance energy efficiency and saving;

## **3.2 CLIMATE CHANGE MITIGATION (CCM)**

Climate change mitigation presents an opportunity for developing countries to benefit from project activities that result in certified emission reductions (CERs) under the clean development mechanism (CDM) provided in Article 12 of the Kyoto Protocol to the UNFCCC. The purpose of CDM is assisting developing countries to achieve sustainable development while at the same time contributing to the ultimate objective of the Convention which is to reduce greenhouse gas emissions. The CDM is designed to assist in securing funding of certified project activities within the sectors with significant mitigation such as energy, forestry, agriculture, waste management and transport. In addition, waste and wetland management provide partner states with opportunities to improve their economic growth if they can turn them into streams of economic revenues.

The Convention is guided by the principle of common but differentiated responsibilities and capabilities toward reducing greenhouse gas emissions. However, it is imperative to note that developing countries have no legally binding emission reduction targets under the Kyoto Protocol but as Parties to the Convention, they have an obligation to ensure that their development processes conform to the principles of sustainable development.

It is clear that EAC region has very low greenhouse gases emissions, and has negligible contribution to the historic emissions. The IPCC 4<sup>th</sup> assessment report points out that global greenhouse gas (GHG) emissions have grown since pre-industrial times, with an increase of 70% between 1970 and 2004. Considering the spirit of multilateralism and principle of common but differentiated responsibilities and capabilities, there are enormous potentials for the region to contribute to mitigating climate change through Nationally Appropriate Mitigation Actions (NAMAs) supported financially, technologically and capacity building efforts that are a measurable, reportable and verifiable (MRV).

Mitigation opportunities exist in the forestry, energy, industry, transport, waste management and agricultural sectors. The forestry sector has the greatest mitigation opportunities as net sinks of carbon dioxide through Reducing Emissions from Deforestation and forest Degradation (REDD). Although some of the technological options can be exploited through market based mechanisms such as Clean Development Mechanism (CDM), more strategic support is required in areas and options where market based mechanisms may not be attractive.

### **3.2.1 Challenges to Mitigation**

Despite the provision for developed countries to provide finance, technology and capacity development to support mitigation measures in the developing countries under the Kyoto Protocol, the following challenges still exist;

- (i) Lack of financial resources to implement mitigation actions identified in the Nationally Appropriate Mitigation Actions (NAMAs);
- (ii) Inadequate technical capacities to design and develop climate change mitigation project activities;



- (iii) Bureaucratic nature and high transaction costs of CDM project development processes;
- (iv) Availability of the minimum required datasets for baseline calculation and project monitoring and evaluation; and
- (v) Weak institutional capacities and lack of legal and regulatory frameworks for clean development mechanisms.

### **3.2.2 Mitigation Objective**

To support sustainable development while contributing to the global efforts of reducing emissions of greenhouse gases. To minimize the EAC region's greenhouse gas emissions, while ensuring sustainable development, through mitigation measures.

### **3.2.3 Mitigation Policy Statements and Actions**

Partner States shall:

- (i) Develop mitigation action plans including the Nationally Appropriate Mitigation Actions;
- (ii) Mobilize financial resources to implement the NAMAs through available international and regional initiatives e.g. REDD mechanism and Clean Development Mechanism;
- (iii) Develop air pollution emission standards, particularly for industrial and transport sectors and establish regulatory frameworks to support implementation of such standards; and
- (iv) Develop programmes for technology acquisition and capacity development to support climate change mitigation actions.

### **3.2.4 Sectoral Approach to Mainstreaming Climate Change Mitigation in National Development Planning**

In order to implement sustainable development policies and mitigation measures in East Africa, the following key areas of mitigation work have been identified:

#### **(i) Energy**

In as much as energy is the driver of social and economic development in the EAC region, most of the EAC Partner States depends on imported fossil based fuel (oil). The use of fossil oil is unsustainable due to its high emission factor that is a major contributor to global warming. The search for alternative source of energy exacerbated by climate change usually leads to use of fossil based fuel to generate electricity for industrial needs that are also economically costly to the region. However, this creates a window of opportunity to harness and develop renewable energy technologies that are considered clean and pathway to green economy. The increased demand for biomass energy will lead to unabated environmental degradation including depletion of forest and tree cover which play a crucial role as carbon sinks in climate change mitigation.

## **Sectoral Challenge**

- (i) Lack of financial resources to invest in the development of clean energy technologies; and
- (ii) Limited and underdeveloped alternative sources of energy including biofuels.

## **Sector Specific Objective**

Increase availability and accessibility of sustainable, reliable and affordable renewable energy resources.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Scale up investment in renewable energy technologies to provide access to affordable cleaner energy, improve efficiency in use of biomass energy especially for rural communities;
- (ii) Develop appropriate alternative energy sources, policies and measures to increase energy efficiency;
- (iii) Devise a precautionary approach to the development of bio-fuels for mitigation and energy in view of food security issues; and
- (iv) Improve energy efficiency and promote clean energy technologies including; hydropower, solar and wind.

## **(ii) Transport**

The use of motorized means of transport especially in the cities and major towns in the EAC is on the increase as the economies of the region grow. Correspondingly, there is increase in traffic congestion and pollution of GHG per capita. This has been aggravated by poor infrastructure and inefficient transport systems.

## **Sectoral Challenges**

- (i) Underdevelopment of environmentally friendly and efficient transport systems.

## **Sector Specific Objective**

To reduce greenhouse emissions from the transport sector through promotion of efficient public transport systems and mitigate to climate change.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Develop plans and strategies to improve efficiency in public transport and associated infrastructure especially in cities and major towns;
- (ii) Promote investment in common public transportation;
- (iii) Develop transport infrastructure suitable for all users; and
- (iv) Include gender criteria in accessing cleaner energy.

### **(iii) Forestry**

Forest cover plays a key role in providing carbon sink and sequestration while preventing soil degradation. Large scale deforestation can lead to increased emissions of greenhouse gases. The EAC through its forest resource base has been providing carbon sequestration service for the international community without any compensatory mechanisms from the international arrangements in place. This has contributed to increased deforestation.

## **Sectoral Challenges**

- (i) Poor development of forests as potential carbon sinks for the benefit of forest communities;
- (ii) High rates of deforestation and forest degradation;
- (iii) Lack of tools to monitor and minimize carbon leakage;
- (iv) Limited access to carbon finance for afforestation and reafforestation programmes;
- (v) Inadequate research on forestry and climate change; and
- (vi) Inappropriate cost benefits sharing mechanisms for forest management at community level.

## **Sector Specific Objective**

To ensure that the forest sector continues providing global services in mitigation of climate change while supporting sustainable development needs of the Partner States.

## **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Undertake public awareness on the opportunities of forests as potential carbon sinks to benefit from carbon markets;
- (ii) Promote alternative energy sources and efficient biomass energy technologies to reduce pressure on forest resources;
- (iii) Promote reforestation and afforestation using appropriate tree species;
- (iv) Strengthen research and promote data and information exchange;
- (v) Develop guidelines for accessing carbon financing facilities;

- (vi) Increase indigenous forest cover by promoting a variety of forestry species;
- (vii) Support appropriate mechanisms to reward or provide incentives for forest conservation and avoidance of deforestation;
- (viii) Promote activities that enhance the carbon storage capacity from forest ecosystems; and
- (ix) Address all drivers of deforestation and forest degradation taking into account specific national circumstances within the context REDD.

#### **(iv) Agriculture**

Agriculture plays a key role in improving food security and economic growth. Although the intensification of agriculture exerts pressure on soil and forestry resources it also contributes to natural carbon sinks. Increasing the agricultural sector contribution to climate change mitigation should entail efficient crop and livestock production systems.

#### **Sectoral Challenge**

- (i) Developing environmentally friendly and efficient agricultural practices including crop and livestock production systems.

#### **Sector Specific Objective**

To promote sustainable agricultural practices with agricultural based emission reduction through land management, planning and optimal utilization of agricultural resources.

#### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Upscale activities that enhance the carbon storage capacity such as conservation agriculture and agroforestry;
- (ii) Support development of joint research programs (including research on drought, pests and disease resistant crops and livestock), and foster cooperation with regional organizations to facilitate transfer of research developments from other regions;
- (iii) Support best agricultural practices that lead to reduced emissions such as soil conservation;
- (iv) Promote efficient crop and livestock production systems to reduce emissions associated with agricultural practices;
- (v) Develop methodologies for measuring and monitoring carbon sequestration in agricultural and agro-forestry systems to attract financial support for the international community; and
- (vi) Use and maximize opportunities from the international carbon market.

## **(v) Waste Management**

Waste management poses a big challenge to the environmental management in the EAC region and one of the sectors contributing to climate change globally through emission of greenhouse gases in the atmosphere. The waste management sector has opportunities for climate change mitigation reducing emissions from domestic and industrial waste are rising due to rapid population growth rate, high consumption patterns and increasing industrial activities. Decomposition of organic and inorganic waste from dumpsites and landfills release greenhouse gases such as nitrous oxide, carbon dioxide, and methane in to the atmosphere that are the main GHG causing climate change. Treatment and disposal of waste matters (chemicals, plastics, polythene and liquid hydrocarbons such as oil, grease and other petroleum products also results in emission of methane or carbon dioxide. Organic wastes generate most of the greenhouse gases emitted into the atmosphere. According to IPCC, the waste management sector contributes 1.3 billion tons of global carbon dioxide emissions annually. Waste management planning shall be a key issue in EAC Partner States.

### **Sectoral Challenges**

- (i) Lack of an integrated and comprehensive solid waste management system; and
- (ii) Poor enforcement of existing regulations and standards of waste management at household and industrial level.

### **Sector Specific Objective**

Promote waste management for improved air and water quality; and mitigation of greenhouse gases.

### **Sectoral Policy Statements and Actions**

Partner States shall:

- (i) Develop environmental friendly solid waste management facilities such as landfills for improved waste separation at sources, disposal and incineration where there is no alternative solutions;
- (ii) Promote waste management through the principle of reduce, reuse and recycle;
- (iii) Promote the generation of bioenergy, organic fertilizer, and other waste management byproducts;
- (iv) Promote waste water treatment technology and reuse;
- (v) Enforce existing standards and regulations to ensure compliance with waste management guidelines and air quality standards;
- (vi) Promote investment in technological solutions for capturing methane as part of CDM projects that would result in carbon credits;
- (vii) Develop tools and methods for air quality control and monitoring to avert environmental pollution and related health impacts; and
- (viii) Promote adoption of resource efficient and cleaner production.

### **3.3 CLIMATE CHANGE RESEARCH AND OBSERVATION (MONITORING, DETECTION, ATTRIBUTION AND PREDICTION)**

The role and operation of the National Meteorological Services (NMSs) in Partner States of the EAC is to provide early warning information on high impact weather and extreme climate events (for example floods and droughts) for the safety of life, protection of property and conservation of the natural environment. This role can only be effectively achieved through systematic observations to monitor the prevailing climate conditions, fast exchange of data and products, generation of useful information for decision making and timely dissemination of the information to end users.

The National Meteorological Services (NMSs) of the EAC Partner States have a crucial role to play in generating climate change scenarios for the region that would not only contribute to the global assessments but also be used as a tool for adaptation, vulnerability assessment and mitigation of climate change and climate variability at the regional and national levels/information.

#### **3.3.1 Challenges**

National Hydrological and Meteorological Services (NHMSs) of the Partner States of the EAC take cognizance of the knowledge that climate change scenarios play in understanding the vulnerability of communities and developing adaptation strategies that would minimize the associated impacts. Various challenges, however, exist that should be addressed to enable NHMSs play the crucial role as IPCC focal points in systematic monitoring, detection, attribution and prediction of climate change to facilitate adaptation strategies in the EAC Partner States. Key challenges include:

- (i) Insufficient meteorological infrastructure to support research and systematic observation systems and tools;
- (ii) Limited hydrological and meteorological data collection stations;
- (iii) Poor data processing and dissemination through real time communication
- (iv) Limited and unreliable hydro-meteorological early warning products; and
- (v) Inadequate human capacities with sufficient technical skills.

#### **3.3.2 Objective**

To enhance the capacity of NMSs to effectively monitor, detect and predict climate change scenarios in the region to contribute to global assessments and development of adaptation options at the regional and national levels.

### 3.3.3 Policy Statements and Actions

EAC Partner States shall strengthen climate change scientific research through monitoring, detection, attribution and prediction through inter alia;

- (i) Support modernization of meteorological infrastructure in the Partner States as there is inadequate weather observing stations, communication, processing systems, training as well as dissemination facilities for communicating weather and climate information for adaptation measures in all the climate sensitive socio economic sectors;
- (ii) Promote digitization and historical climate data rescue;
- (iii) Strengthen hydro-meteorological early warning systems for monitoring, detection, attribution and prediction of extreme weather and climate events;
- (iv) Support development of joint research programs on drought, floods, pests and disease resistant crops and livestock, and foster cooperation with regional organizations to facilitate transfer of research developments from other regions;
- (v) Strengthen research and promote data and information exchange for all sectors impacted on by climate change including forests and wetlands in the community;
- (vi) Promote periodic climate change related research and exchange of information in conservation and sustainable use of wildlife;
- (vii) Promote research on coastal and marine systems;
- (viii) Promote research in the area of climate change and human health;
- (ix) Promote implementation of research findings and its linkages with policy formulation and practice research that Promote modern agriculture technology;
- (x) Support the downscaling of global climate model outputs to regional and national levels to address climate variability and change at Partner State level; and
- (xi) Develop modalities of disseminating and sharing research findings with an emphasis on research into use to inform policy and practice.

### **3.4 CROSS CUTTING ISSUES**

The Partner States acknowledge the following critical areas as cross cutting issues to be integrated as appropriate as part of implementing climate change adaptation and mitigation priority actions. These include;

- (i) Education, training and public awareness;
- (ii) Information and knowledge management systems; and
- (iii) Gender dimensions.

These will be considered to ensure that the Policy goal and objectives are achieved with efficiency and consistency in an effort to respond to the needs of the region and service provision.

#### **3.4.1 Education, Training and Public Awareness**

Partner States shall:

- (i) Undertake public awareness on the importance of ecosystems such as forests, wetlands and marine ecosystems in climate change mitigation and the well-being of the region's environment;
- (ii) Create awareness on linkages between climate change and key socio-economic sectors including health;
- (iii) Support the development, integration and training of climate change adaptation and Disaster Risk Reduction (DRR) issues in educational institutions and curricular at (lower, tertiary education, higher levels);
- (iv) Support development of relevant training models within the Partner States training institutions that will address climate change challenges and opportunities from a more informed perspective and in a harmonized manner;
- (v) Support the establishment/enhancement of climate change training institutions/ programmes and centers of excellence for increased capacity of the region to address climate change including the capacity to access and use of financial and technological resources available, regionally and internationally; and
- (vi) Support training opportunities and institutions including those related to negotiation skills, adaptation and mitigation science and technology, international climate change politics and international environmental governance.

#### **3.4.3 Information and Knowledge Management Systems**

Partner States shall:

- (i) Develop a database for repository of research findings, and sectoral information sharing including knowledge management in the region.



#### **3.4.4 Gender dimensions**

In recognition of differentiated vulnerability, impacts and role of women, men and youth in responding to climate change, the Partner States shall:

- (i) Integrate gender dimensions in assessing vulnerability, impacts and risks of climate change at local, national and regional levels;
- (ii) Promote involvement of women in climate change monitoring, adaptation and decision-making processes; and
- (iii) Promote social protection programmes for vulnerable communities, households and individuals including women, children, youth and others.

## CHAPTER FOUR

### 4.0 IMPLEMENTATION AND RESOURCE MOBILIZATION PLAN

#### 4.1 IMPLEMENTATION PLAN

The implementation of the Policy will be the responsibility of the EAC Secretariat and the Partner States. In that context, various implementation instruments will be developed to operationalise the Policy. These include an elaborate Climate Change Strategy and Master Plan. In addition, the Partner States shall develop country specific policies, strategies, plans of action, legislation and establish institutional arrangements for addressing climate change in line with the EAC Climate Change Policy. The EAC Secretariat shall work closely with relevant EAC organs and institutions and Partner States institutions in the execution of regional programmes, projects and activities emanating from the Policy. This will be achieved through strengthening and mobilizing of capacities of existing relevant institutions and facilities in the region to meet the pressing climate change challenges.

##### 4.1.1 Institutional Arrangements

Climate change initiatives are currently undertaken in an uncoordinated manner by various departments, institutions and organizations at the regional level and in Partner States. There is need to have a defined coordination and management structure established to oversee the implementation of the Policy and enhance synergies and minimize duplication efforts. The establishment of the implementation structure will be agreed upon on the basis of the Protocol for Environment and Natural Resources Management. This will facilitate the creation of institutional arrangements at EAC level with clear linkages with institutions at the Partner States, EAC organs and institutions outlined above and. A similar working relation with regional and international entities will also be established.

The coordinating institution shall be vested *inter alia* with mandates to design climate change policies, strategies and plans; designing relevant projects; promoting the introducing climate change in education curriculum; and building the capacity of research institutions involved in climate change related issues. The established institutional framework will require a comprehensive capacity building strategy to enhance efficiency. The institutional framework for implementing the policy shall include the EAC Secretariat working jointly with relevant government agencies in Partner States, EAC organs and institutions including Lake Victoria Basin Commission (LVBC), Lake Victoria Fisheries Organization (LVFO), Inter-University Council of East Africa (IUCEA) and any other institutions that may be established by relevant Sectoral and Coordination Committees. The Sectoral Council of Ministers for Environment and Natural Resources shall remain the highest decision making body on all matters regarding to climate change as per the EAC Treaty.

#### **4.1.2 Partnerships and Collaborations**

Collaborative action over and above individual country efforts and initiatives will be fast tracked to ensure that the developed EAC Climate Change Policy is pertinent and urgently required to ensure that the developed the EAC Climate Change Policy is implemented. Partnership with other stakeholders including: intergovernmental bodies, development partners and donors, non-governmental organisations (NGOs), private sectors and civil society organisations (CSOs) shall be established. The role of the Civil Society Organizations (CSOs) in the implementation of the Policy shall be defined according to the provisions under Article 39(2)(a) of the Protocol for Environmental and Natural Resources Management.

#### **4.1.3 Policy Statements and Actions**

Partner States shall:

- (i) Develop a regional instruments to implement the Policy including the Climate Change Strategy and Master Plan;
- (ii) Establish an institutional framework for the coordination and implementation of the EAC Climate Change Policy, Strategy and Master Plan;
- (iii) The institutional structure shall be guided by the EAC Treaty and Protocol of Environment and Natural Resources Management and shall comprise of various organs and institutions of the EAC including the Secreteraiat and Partner States relevant institutions;
- (iv) Establish partnerships with national, regional and international institutions and centres of excellence on climate change.

### **4.2 RESOURCE MOBILIZATION**

#### **4.2.1 Finance**

Financial resources to implement the Policy is a key elements in the implementation of the Policy. Substantial funds will be required to support mitigation and adaptation initiatives/programmes. Sustainable funding shall be mobilized from the development partners including multilateral agencies, bilateral partners and intergovernmental agencies and the private sector. There will also be efforts by Partner States to provide supplementary resources. Appropriate financial mechanisms shall be established to ensure availability of new, adequate, predictable and sustainable financial resources through:

- (i) Rationalizing the evergrowing number of funds (including eliminating duplications and harmonizing the governance of these funds to minimize conditionalities to disbursement of the funds);
- (ii) Streamlining bureaucratic procedures for accessing funds; and
- (iii) Reducing transaction costs for project implementation.

Appropriate measures shall be put in place to ensure equity in the allocation of funds based on needs and according to vulnerability criteria. There will be need to develop effective systems to ensure transparency and accountability in the utilization of funds mobilized for climate change.

### **Policy Statements and Actions**

Partner States shall:

- (i) Jointly engage in financial resource mobilization to support climate change activities;
- (ii) Establish and operationalize the EAC Climate Change Fund.

### **4.2.2 Technology Development and Transfer**

Development and transfer of technology are critical in achieving both the adaptation and mitigation programme in the region. Key areas of focus in the field of technology include but not limited to:

- (i) Adaptation and mitigation technologies;
- (ii) Barriers to technology access;
- (iii) Research and development; and
- (iv) Best Environmental Technological (BET) and Best Alternative Technologies (BAT).

### **Policy Statements and Actions**

Partner State shall;

- (i) Enhance technology development and transfer, including hard technological solutions such as drip irrigation, water harvesting, drought tolerant crop varieties, renewable energy technologies and building technologies; and soft technology such as knowledge, systems, procedures and best practices;
- (ii) Address technology transfer barriers, including rules of trade tariffs, intellectual property right (IPR) and technical trade barriers such as standards, eco-labelling; and
- (iii) Enhance and support research and development capacity in East Africa to foster the development and local manufacture of cleaner production technologies to support climate change mitigation and adaptation.

### **4.2.3 Capacity Building**

The capacity building for climate change adaptation and mitigation shall focus on but not limited to the following areas and take into account the specific needs of relevant sectors:

- (i) Research and systematic observations;
- (ii) Education, training and public awareness;
- (iii) Technology transfer and development;
- (iv) Information sharing, communication and knowledge management;
- (v) Institutional strengthening and development;
- (vi) Climate change finance;
- (vii) Climate change negotiations;
- (viii) Partnership building and networking;

## **Policy Statements and Actions**

Partner States shall:

- (i) Enhance capacity of regional institutions in to carry out climate change related research including climate change monitoring, detection, forecasting and the requisite response of interventions;
- (ii) Promote introduction of climate change issues into education and learning curricula;
- (iii) Promote development of climate change tools, methods and technologies and support their application;
- (iv) Promote technology transfer and development initiatives geared towards accelerating development, deployment, adoption, diffusion and transfer of environmentally sound technologies targeting mitigation and adaptation;
- (v) Support the designing and development of integrated climate change knowledge sharing and management tools such as databanks, regional network for sharing lessons, experiences and best practices amongst Partner States and other countries;
- (vi) Promote harnessing and integration of indigenous technical knowledge in modern knowledge;
- (vii) Establish and support relevant climate change national and regional institutions and centres of excellence;
- (viii) Collaborate in institutional assessments with an aim of strengthening and mobilizing the capacities of existing relevant facilities and institution in the region and Africa;
- (ix) Support development of human and technical resource and skills in climate change adaptation and mitigation (mainly negotiation skills, CDM project design and development, carbon trading, REDD etc) through focused training, mentoring and learning by doing approaches, scholarships and fellowships among other measures;
- (x) Support the establishment of a regional climate change negotiation platform;
- (xi) Support capacity building on carbon financing mechanisms in order to take advantage of the existing global funding mechanisms; and
- (xii) Encourage and strengthen participatory and integrated approaches in planning and decision making including meaningful participation of all stakeholders including the civil society.

### **4.3 MONITORING, EVALUATION AND REVIEW**

A monitoring and evaluation framework shall be developed as an integral component to ensure the policy objectives are achieved and priority actions implemented in a cost effective, coordinated and harmonised approach in the region. The EAC Secretariat will develop tools and guidelines for monitoring the implementation of the Policy at regional level. These include; the climate change responsive monitoring and evaluation mechanisms, the EAC Climate Change Strategy and Master Plan.

The Policy will be reviewed every three years to take into account the emerging issues, challenges and trends on climate change at the national, sub-regional, regional and global levels including the dynamic international climate change policy debate.