



EAST AFRICAN COMMUNITY

EAC CLIMATE CHANGE POLICY

**EAC SECRETARIAT
ARUSHA
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FOREWORD

The East African Community Climate Change Policy was developed as a result of a directive by the Heads of State of the East African Community (EAC) Partner States, at their 11th Summit Meeting, which was held in Arusha, Tanzania on 20th November 2009 to address the adverse impacts of Climate Change in the region.

This is in response to the growing concern about the increasing threats of the negative Climate Change impacts to the development of set targets and goals in the region. In addition, it is a fulfilment of one of the objectives of the Community; to develop policies and programmes aimed at widening and deepening cooperation among Partner States.

This Policy was prepared by experts drawn from each Partner State, the EAC Secretariat and Lake Victoria Basin Commission Secretariat. The preparation was guided by the emerging issues and challenges faced by the region in light of the increasing climate change impacts.

The impacts are especially on the key economic drivers such as water resources, agriculture, energy, transport, health, forestry, wildlife, land and infrastructure among others. It is also consistent with the provisions of the East African Treaty, the EAC Protocol on Environment and Natural Resources, the Protocol on Sustainable Development of Lake Victoria Basin as well as the United Nations Framework Convention on Climate Change (UNFCCC).

Therefore, the effective implementation of Adaptation and Mitigation measures of this Policy by all actors will go a long way 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 implementation of this East African Community Climate Change Policy (EACCCP).

Signed by the Chairperson 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 phenomena 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 the need for an integrated, harmonized and multi-sectoral framework for responding to Climate Change in the EAC region.

In view of this, the Heads of State of the East African Community (EAC) directed the EAC Secretariat to develop a policy on Climate Change and strategies to address the adverse impacts of Climate Change in the region.

The overall objective of the East African Community Climate Change Policy (EACCCP) 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 guiding principles in implementing the Policy are in accordance with the EAC Treaty, the EAC Protocol on Environment and Natural Resources, the Protocol on Sustainable Development of Lake Victoria Basin as well as the United Nations Framework Convention on Climate Change (UNFCCC) among others.

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 prescribes statements to guide Adaptation and mitigation actions to address Climate Change. Under Adaptation, the policy aims at strengthening meteorological services and improving early warning systems, increasing preparedness for disaster risk management, scaling up of efficient use of water and energy resources, irrigation, crop and livestock production, protection of wildlife and key vulnerable ecosystems such as wetlands, coastal, marine and forestry ecosystems, improving land use, soil protection, tourism, infrastructure and human settlement; intensify diseases, vectors, and pests control.

Although the EAC region has negligible contribution to global emissions, it is important to contribute to global efforts to reduce greenhouse gases (GHGs) in the atmosphere by undertaking GHG mitigation actions. In doing so, such actions should not compromise the region's social and economic development. 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.

In order to fully implement this policy, each Partner State shall develop a national policy, strategies and institutional arrangements to operationalize the provisions made

in this policy such as enabling measures on financing (including the establishment of the EAC adaptation Fund), capacity building, technology development, monitoring and evaluation. EAC Secretariat and other EAC Institutions will develop effective structures and engage appropriate capacities that will initiate, coordinate and follow up implementation of this policy.

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DEFINITION OF TERMS

- I. *Adaptation:*** adjustment in human and natural systems to an environment that has been transformed or is being transformed by climate change events; such adjustment may be preventive or reactive, private or public, autonomous or planned.
- II. *Adverse effects of climate change:*** changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare
- III. *Clean Development Mechanism:*** is the instrument contemplated in the Kyoto Protocol (Art. 12), by which projects that mitigate greenhouse gas emissions undertaken in developing countries (non-Annex I of the Protocol), and considered by the host country to be environmentally sustainable, result in the creation of credits for Certified Emission Reduction units (CERs), which the developed countries can use to meet their targets within the scope of the international agreement mentioned
- IV. *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.
- V. *Climate change:*** a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
- VI. *Climate Variability:*** variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the *climate* on all *temporal and spatial scales* beyond that of individual weather events. Variability may be due to natural internal processes within the *climate system* (internal variability), or to variations in natural or *anthropogenic external forcing*(*external variability*)
- VII. *Greenhouse gases:*** "Greenhouse gases" means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.
- VIII. *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.
- IX. *Mitigation:*** the reduction of the causes of a given impact, allied to the precautions and attitudes for reducing the undesirable risk to the minimum possible.

- X. REDD:** Reduction of emissions from deforestation and forest degradation
- XI. 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.
- XII. Sink:** any process, activity or mechanism that removes greenhouse gases, aerosols or precursors of greenhouse gases from the atmosphere.
- XIII. Sustainable Development:** Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
- XIV. Vulnerability:** the degree of susceptibility or inability to protect oneself from the negative effects of climate change, a function of the type, magnitude and frequency of the climate events to which a system is exposed, in addition to its sensitivity to and capacity for adaptation.

(Adopted from the UNFCCC definitions)

CHAPTER 1: INTRODUCTION

1.1 Background

In the recent years Climate Change has become a social, economical and environmental challenge facing humankind both at local and global level. The fourth report of the Intergovernmental Panel on Climate Change (IPCC 2007) has revealed that climate change is real and already happening. According to the report, while it is difficult to precisely predict the consequences of Climate Change, enough understanding is available on the kind of risks posed.

The impacts include melting of glaciers, floods, frequent prolonged droughts, reduced water supply, decline in crop yields to food insecurity, the increase in pests and diseases for livestock, wildlife and crops, increase in invasive species, increase of vector-borne diseases including malaria and Rift Valley fever, water-borne diseases including dysentery, bilharzias, cholera and typhoid, declining levels of fresh water bodies, rising sea levels leading to displacement of people and disruption of both terrestrial and marine ecosystems and important natural habitats, which are now not only predicted but vividly observed in many parts of the world. The recurrence of extreme weather events occur with increasing intensity and frequency.

However, the impacts are not evenly distributed, with the poorest countries being most vulnerable. This is because the economies of these countries are generally dependent on climate-sensitive natural resources and thus less able to cope with the negative impacts of climate change.

In the East African Community (EAC) region, climate change adverse impacts have been observed through sea level rise, which has already led to infrastructure destruction along the coast, submergence of some small islands in the Indian ocean, such as *Maziwe* and *Fungu la Nyani* (NAPA-TZ, 2006) intrusion of sea water into fresh water wells along the coast, in Tanzania, beach erosion in Mombasa, Kenya, rampant floods and droughts across the region.

Various studies indicate that deepwater temperatures of lakes Edward, Albert, Kivu, Victoria, Tanganyika and Nyasa, which reflect long-term trends, have risen by 0.2 to 0.7°C since the early 1900s. 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 (2009).

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. More Changes will be in Temperature (+0.2 to +0.5 degrees °C) and precipitation patterns. Under intermediate warming scenarios, parts of equatorial East Africa will likely experience 5-20% increased rainfall from December-February and 5-10% decreased rainfall from June-August by 2050 (WWF, 2006)*.

* *Climate Change Impacts on East Africa. A Review of the Scientific Literature WWF-World Wide Fund for Nature. November 2006*

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 industrial energy, coastal development and biodiversity culminating into increasing cost of investments and diminishing livelihoods.

As East Africa depends heavily on rain-fed agriculture, both urban and rural livelihoods are highly vulnerable to climate variability such as shifts in growing season conditions.

Considering this background, it is important that the EAC region engages a more strategic and cooperative approach to address climate change. It is therefore important to develop a policy to guide this approach. This EAC Policy on Climate Change, thus, represents the commitment of the Partner States to address the challenges of climate Change, for both the present and future generations.

1.2 Linkages to Partner States Strategies and Other Relevant Policies

This policy takes cognizance of national, regional, sub-regional development policies, plans, strategies and programmes, while at the same time complementing other Multilateral Environment Agreements that the EAC Partner States are Party to.

The national sectoral policies that are relevant to this policy include: Environment, Water, Land, Forestry, Energy, Transport, Agriculture, Fisheries, Health and Other relevant future policies. The regional sectoral policies that are relevant to this policy include, 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.

The International treaties, conventions and protocols that are relevant to this policy include: the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP) The United Nations Convention to Combat Desertification (UNCCD); The Convention on Biological Diversity (CBD); The RAMSAR Convention on Wetlands; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Vienna Convention.

1.3 National and Regional Climate Change initiatives

East African Countries 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 Climate Change Response Strategy which spells out the priority areas for both adaptation and mitigation activities in the country.

Furthermore, the Partner States have identified potential mitigation options which can be used to foster economic development in the region while contributing to global efforts to reduce greenhouse gas emissions. The potentials in the region range from geothermal along the Rift Valley, wind, cogeneration, hydropower, solar use of natural gases and methane recovery from waste management in various areas of the region. So far, few Partner States namely; Rwanda, United Republic of Tanzania, Kenya and Uganda have registered Clean Development Mechanism (CDM) projects.

Initiatives are underway to ensure energy becomes readily available to region at affordable prices to the majority of the people in region.

1.4 Rationale for the Regional Climate Change Policy

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 are occurring with greater frequency in the region. Food insecurity, insufficient hydro-power, increase of diseases such as malaria, and water scarcity are some of the consequences associated with the scenario of a changing climate in the region. The continued increase of the average global temperature will further aggravate the situation leading to increased vulnerability of the communities to the impacts of Climate Change and also affecting almost all the sectors of the economy, including Agriculture, water, Energy, Health and forestry. In this context, devising strategic measure to enhance adaptation capacity and explore available opportunities for economic development is critical for the EAC region.

Furthermore these impacts are not evenly distributed; the most vulnerable poorest countries like EAC Partner States will suffer the most. Developing countries are particularly vulnerable because the national economies of these countries generally depend on climate sensitive natural resources and because they are less able to cope with the negative impacts of Climate Change.

The Eleventh Ordinary Summit of Heads of State of the East African Community held in Arusha, November, 2009 pointed out that Climate Change adverse impacts were taking their toll in the region. The Heads of State expressed 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 Policy and Strategies for addressing the adverse impacts of Climate Change.

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. EAC is also cognizant of the changing climate and the need to put in place measures geared towards adaptation as well as mitigation of its adverse effects. To this effect, it encourages development and implementation of National as well as regional adaptation plans of action. Despite

of this fact, adaptation is an additional burden for developing countries, particularly the East African Community member states, whose adaptive capacity is already constrained by low economic levels and poverty. There is also need for vulnerability assessment, adaptation planning, and capacity building, in terms of training, institutional strengthening and planning. 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 achieve the millennium development goals (MDGs).

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 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 also provide for joint actions to address climate change in the region.

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, a regional policy is more likely to guarantee and guide this cooperative action consistent with Article 5(1) and 5(3) of the Treaty

1.5 Goal and Objectives of the Policy

Goal

To contribute to sustainable development through harmonized and coordinated regional strategies, programmes and actions to address Climate Change.

Main objective

To guide Partner States and other stakeholders on the implementation of collective measures to address Climate Change in the region while assuring sustainable Social and Economic development.

Specific objectives

The specific objectives of this Policy in the EAC region are to:

- a. Establish a regional framework as a guide to harmonize and coordinate implementation of Climate Change actions amongst Partner States;
- b. Spell out priority action areas and roles of Partner States and other Stakeholders in addressing Climate Change;

- c. Promote public awareness and provide information on socio-economic importance of Climate Change;
- d. Facilitate resource mobilization to implement strategies and action plans to address Climate Change;
- e. Promote capacity building efforts through inter alia technology transfer, training and information sharing; and
- f. Promote development of predictive models to facilitate preparedness for strategic responses to future climate change impacts in the region.

1.6 Scope of the Regional Climate Change Policy

This Policy provides an integrated, harmonized and multi-sectoral framework for responding to Climate Change in the EAC region.

1.7 Guiding principles

The Partner States are under the obligation and have a right to, promote sustainable development. Policies and measures to address effects of Climate Change against human development should be appropriate for the specific conditions of each Partner State. In addition, this should be integrated within the national development programmes, taking into account that economic development is essential for adopting measures to address climate change.

In this regard, this Policy is in accordance with the principles set out in articles 6 and 7, of the Treaty establishing the East African Community; the principles set out in article 4 of the Protocol on Environment and Natural Resources Management for EAC region; the principles set out in Article 3.3, 3.4 of the United Nations Framework Convention on Climate Change (UNFCCC); the principles set out in article 4 of the protocol for the Sustainable Development of Lake Victoria Basin. In particular, the policy shall also take cognisance of the following principles:

- a) Climate change adaptation measures are primary while mitigation measures are secondary;
- b) Prioritization of regions, sectors and communities that are more vulnerable to climate change impacts in the policy implementation;
- c) Mainstreaming climate change issues into national development plans;
- d) Climate Change adaptation and mitigation actions be carried out without comprising social and economic development; and
- e) Partnership, collaboration and synergies among various stakeholders involved in Climate Change issues.

CHAPTER 2: POLICY PROVISIONS

2.1 Introduction

This Policy shall apply to all actions relating to climate change as well as all sectors and sub-sectors impacted by climate Change including, but not limited to the following: Water resources, crop and livestock production, wildlife, coastal and marine ecosystems, land use and soil protection, wetland, forestry, health, disaster risk management, energy, tourism, industry, fisheries, gender and community development, transport and infrastructure, education and human settlement.

In this context, devising strategies to ensure social, economic and environmental sustainability particularly enhancing Climate Change adaptation and mitigation measures is critical for the EAC region.

2.2. CLIMATE CHANGE ADAPTATION

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

2.2.1 *General Issues and Challenges*

Partner states of the EAC recognize the importance of addressing adaptation needs in various sectors which affect the sustainable livelihood of all citizens in the region. However, there are several issues and challenges that should be addressed to enable the region to effectively implement concrete adaptation activities. These include, but not limited to the following:-

- i) *Financing adaptation activities:* Increasing capacity to fund adaptation activities;
- ii) *Responding to extreme weather conditions and related disasters:* Availability of adequate information, early warning systems and technological capacity;
- iii) *High Poverty levels:* Ability to adapt to extreme weather events and climate variability;
- iv) *High vulnerability of the population:* Increase of income of most vulnerable groups, fragile ecosystems and poor infrastructure;
- v) *Pressure on Natural Resources:* promote sustainable utilization of natural resources, promotion of alternative livelihoods, minimization of migration, internal and cross-border conflicts, and displacement of the populations; and

vi) Man-made and natural disasters: Development of adequate disaster management responses.

2.2.2 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.

2.2.3 Policy statements and actions

The EAC shall address adaptation to climate change in the following ways:

2.2.3.1 Disaster Reduction and Risk Management including Early Warning, Preparedness, Emergency Response and Post-Disaster Recovery:

- i) Support development and implementation of Climate related Disaster Risk Reduction and management as an adaptation tool;
- ii) Support vulnerability Risk Mapping on all sectors including social and economic impacts of climate change;
- iii) Improve early warning systems and preparedness in the region to avert or minimize the adverse impacts of climate change.

2.2.3.2 Building economic and social resilience

- i) diversification of economies to reduce dependence on climate-sensitive sectors
- ii) Support implementation of National Adaptation Programmes of Action (NAPAs) as a short term measure to address Climate Change (immediate and urgent actions);
- iii) Develop and implement a regional Climate Change response master plan within which Medium to long term strategies of adaptation to climate change will be formulated; and
- iv) Establish and operationalize an EAC Climate Change Adaptation Fund.

2.2.3.3 Sectoral planning and Implementation of Climate Change adaptation measures in key sectors

i) Water

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

The challenges in the water sector include:-

- 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) The management of water resources at the farm level,
- vii) Awareness of the value of water resources in the development context.

Sector Specific Objective

The objective is to implement measures to conserve, efficiently utilize and sustainably exploit the water resources in the region.

Sectoral Policy Statements

EAC shall:

- a) Utilize integrated water resource management principles in managing its water resources;
- b) Support development and transfer of water and climate information and technology that support water conservation through natural resource planning support, data acquisition and management, technology innovation and transfer, partnerships and joint ventures;
- c) Promote regional and international cooperation for better water management and conflict prevention through trust and confidence building;
- d) Promote transfer and dissemination of efficient water technologies including recycling of waste water;
- e) Improve water security by promoting investment in water storage facilities;
- f) Strengthen initiatives for conservation and management of lake and river basins;

- g) Promote rain water harvesting, protection of water wells and springs, and other water sources;
- h) Promote participation of the private sector, civil societies and women in management of water resources.
- i) Promote bulky water supply to ensure adequate and reliable water for production;
- j) Promote Public Private Sector partnership in regulated abstraction and distribution of water for domestic, industrial, agricultural production and energy ; and
- k) Promote actions that reduce Water pollution, including Protection of water quality and aquatic habitats.

ii) Agriculture (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.

Sectoral Challenges

The Sectoral Challenges to agriculture, fisheries and livestock in the region include:

- i) Control of crop, livestock and fish pests and diseases affecting yield potentials;
- ii) Control of land degradation to improve soil productivity;
- iii) Restore and sustain aquatic ecosystems to prevent depletion of fishing stocks in all the sources;
- iv) Minimize the impacts of extreme weather conditions to improve crop, fish and livestock productivity;
- v) Availability of suitable infrastructure to enable accessibility of livestock, fisheries and crop products; and
- vi) Availability of data for monitoring impacts of Climate Change.

Specific Sectoral Objectives;

- i) To increase use of integrated pests and disease management in the region;
- ii) To improve management of natural resources (land, water, fisheries and forest) in order to ensure sustainable production;
- iii) To improve on the food management and distribution to ensure access and affordability all the time.

Sectoral Policy statements

EAC and Partner States shall:

- i) promote sustainable land management practices including Conservation Agriculture and improved production systems as a way to adapt to Climate Change;
- ii) promote development and implementation of irrigation policies in Partner States
- iii) Promote practices and technologies for efficient utilization of water for irrigation, livestock and aquaculture ;
- iv) Promote agro processing and use of agriculture food storage facilities
Promote efficient livestock production systems;

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 drought 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 regional. Change in ecological systems will lead to disappearance of some wild animal species.

Sectoral challenges

The Sectoral challenges facing wildlife in light of climate change include:

- i) Ecosystems change (in terms of biodiversity and climatic conditions) leading to ecological range shifts of specific species;
- ii) Destruction of wildlife habitats due to increased natural bush fires;
- iii) Decreasing carrying capacity of Protected Areas (PAs) and rangelands due to increasing extreme weather conditions, leading to reduced regeneration of pastures and water resources for the wild animals.

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.

Sectoral Policy Statements

EAC Partner States shall: livelihood for local communities in order to reduce their dependency on wildlife;

- i) Promote measures that preserve the ecosystem integrity of critical wildlife habitats and endangered species.
- ii) Establish, promote, and/or protect wildlife migration corridors

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.

Challenges in light of Climate Change:-

- i) Reduce the cost of constructing preventive infrastructures along the coast areas;
- ii) Creation of alternative sources of fire wood/energy to local communities along the coastal areas other than mangroves;
- iii) Reduction of erosion along the coast due to rise of sea levels and salinization of fresh water sources;
- iv) Reduce bleaching of coral reefs as a result of enhanced sea surface temperature and flooding.

Objective

To enhance the adaptive capacity of the Coastal and Marine Ecosystems in order to enhance the resilience of coastal communities and infrastructure to the impact of Climate Change.

Sectoral Policy Statements

EAC Partner States shall:

- i) Undertake protective measures for Coastal and Marine ecosystems which are particularly vulnerable to climate change;
- ii) Support measures to control sea-side 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;
- 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.

Challenges;

- i) Increase of land and soils productivity in the region;
- ii) Creation of sustainable land and soil management practices;
- iii) Reduce the population pressure to minimize land fragmentation and soil degradation.

Specific Objectives

To ensure that sustainable land management practices are adopted by all stakeholders

Policy Statements

EAC Partner States shall:

- i) Promote sustainable land-management practices, including sustainable farming and agro-forestry practices within the EAC region;
- ii) Ensure sustainable land-management and productivity of the soils, through measures that enhance soil quality, inter alia, to prevent its erosion, deterioration of its physical, chemical, biological or economic properties;

- iii) Upscale integrated nutrient management and soil and water conservation measures to enhance soil fertility;
- iv) Promote actions that reduce land degradation and soil erosion especially in the fragile ecosystems such as mountainous areas, lake shores and riverbanks;
- v) Facilitate formulation of integrated sustainable land management investment frameworks and land use policies and plans.

vi) 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.

Challenges:

- i) Maintenance or increase of biodiversity and generation potential due to ecosystem change;
- ii) Creation of alternative primary sources of energy and livelihood of the poor *vis a vis* forest products;
- iii) Reduction of bush and forest fires;
- iv) Restoration of the degraded Wetlands ;
- v) Political will and commitment to conserve forests and wetlands
- vi) Regeneration of forest cover due to human encroachment;
- vii) Enabling all stakeholders to fully participate in forest and wetland management practices.

Objective:

To ensure forestry and wetlands continue providing global services including mitigation of Climate Change while supporting sustainable development needs of the Partner States.

Policy Statements

- 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 Agroforestry;
- 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 non-timber forest products;
- x) Promote biomass energy-efficiency technologies; and
- xi) Promote participatory, integrated watershed management practices.

vii) 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.

Challenges:

- i) Control recurrent floods and mitigate effects of prolonged droughts in order to reduce outbreak of waterborne diseases;

- ii) Development of adequate sanitation facilities;
- iii) Coping with the effects of rising temperatures which is responsible for health challenges related to climate change ;
- iv) Development of early warning systems for Climate Change related disease outbreaks;
- v) Reduction of malnutrition resulting from shortage of food related to frequent and prolonged droughts and floods;
- vi) Development of adequate emergency preparedness of the health systems;
- vii) Reduction of diseases burden as a result of resurging illnesses related to climate change.

Objectives

To build adaptive mechanisms and enhance early warning systems for climate change related diseases.

Policy Statements

- i) Development of effective early warning systems and emergency health measures for Climate Change related diseases in all EAC Partner states;
- 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; and
- iv) Promote awareness among populations on climate change related diseases and their prevention.

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.

Challenges

- i) Maintenance or increase of biodiversity and other tourist attraction features due to climate change impacts;

- ii) Rehabilitations of infrastructures such as roads and bridges, camping sites and electricity grids in important tourist sites.

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.

Policy Statements

- 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;
- iv) Develop park management practices which will enable wildlife to adapt to the changing climate;

ix) Infrastructure

Infrastructure including roads, bridges, railways, ports, buildings and dams are built to accepted risk-limits 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/building codes and standards taking into account the expected changes in climate.

Challenges

- i) Reduction of stress of the existing infrastructures in relation to extreme weather events as a result of climate change;
- ii) Integration of Climate Change in the design of most infrastructures in the region; and
- iii) Development of meteorological infrastructures to provide weather and climate data and information for robust infrastructure planning and design.

Objective

To develop infrastructure that can withstand extreme weather conditions in the region.

Policy Statements;

- 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, 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:

Challenges

- i) Knowledge based planning of human settlements for both urban and rural areas;
- ii) Use of quality building materials for settlements infrastructure; Affordability of robust building materials.
- iii) Provision of appropriate human settlement both in urban and rural areas

Objective

To enable development of human settlements that are robust enough to withstand climate extremes.

Policy Statements

- i) Comply with physical planning principles in the design of human settlements;
- ii) Develop and promote climate change proofed human settlement standards;
- iii) Strengthen housing development policies including subsidies to low income communities.

2.3 CLIMATE CHANGE MITIGATION

Mitigation of Climate Change presents an opportunity to support sustainable development while contributing to the global efforts of reducing emissions of greenhouse gases. Mitigation potentials in the EAC region lies in the energy, forestry, agriculture, waste management and transport sectors. 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.

2.3.1 General Issues and Challenges

It is clear that EAC region has very low Greenhouse Gases emissions, and has negligible contribution to the historic emissions. The IPCC 4th 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 in a monitorable, reportable and verifiable manner. The avenue ranges from forests as net sinks of carbon dioxide to technological mitigation options in various sectors such as energy, industry, transport, waste management and agriculture. 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.

Challenges:

- a) Financing mitigation actions;
- b) Capacity to undertake mitigation activities
- c) Technology to undertake mitigation ; and
- d) Availability of the minimum required datasets for baseline calculation and project monitoring and evaluation.

2.3.2 Objective

To minimize the EAC region's Greenhouse Gas emissions, while ensuring sustainable development, through mitigation measures.

2.3.3 Policy Statements

The EAC shall address Climate Change mitigation in the following ways:

- i) Develop and implement a Mitigation Plan to guide implementation of NAMAs;

- ii) Mobilize financial resources for climate change mitigation actions in particular taking advantage of available international and regional initiatives e.g. NAMAs and REDD;
- iii) Developing air pollution emission standards, particularly for industries and transport providing a regulatory framework to support implementation of such standards; and
- iv) Develop programmes for technology acquisition and capacity development to support climate change mitigation action.

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

2.3.3.1 Energy Sector

Energy is a drive to social and economic development in the EAC region. This however has been hampered by lack of adequate investment, thus limiting the distribution and use of energy by large cross section of the population in the region. Lack policy on bio fuel for example, has resulted in hap hazard development of bio fuel 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 let to use of unsustainable energy sources which need to be addressed as a priority.

Sectoral Challenge

- i) Provision of affordable clean energy for all
- ii) Development of alternative sources of energy including biofuels

Sectoral Objective

To increase availability and access to sufficient, reliable, affordable and environmentally sound energy sources.

Sectoral Policy Statements

EAC Partner States shall:

- i) Scale up investment 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.

2.3.3.2 Transport Sector

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.

Challenges

Development of environmentally friendly, efficient transport systems.

Objective

To promote efficient public transport systems and mitigate GHG emissions.

Policy statements:

EAC 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; and
- iii) Develop transport infrastructure suitable for all users.

2.3.3.3 Forest Sector

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 being in place. This has contributed to increased deforestation.

Challenges

- i) Development of forestry as potential carbon sinks for the benefit of rural communities;
- ii) Development of adequate plantation forests;
- iii) Minimize leakage;
- iv) Access to carbon credit facilities;
- v) Development of appropriate forestry research;
- vi) Development of appropriate cost benefits sharing mechanisms for forest management at community level

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.

Policy Statements

EAC 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 credit facilities;
- vi) Promote forestry species diversity;
- 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;
- ix) Address all drivers of deforestation and forest degradation taking into account specific national circumstances within the context REDD;

2.3.3.4 Agriculture Sector

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.

Challenge:

Having environmentally friendly and efficient livestock and crop production systems.

Objective

To promote sustainable land management, planning and optimal utilization of natural resources for income generation and emissions reduction.

Policy Statements

EAC and 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.
- vi) Use and maximize opportunities from the international carbon market.

2.3.3.5 Waste Management sector

Emissions from waste are rising, and pose a particular challenge in developing countries. According to IPCC, waste contributes 1.3 billion tons of global carbon dioxide emissions annually. Waste management planning shall be a key issue in EAC Partner States. (Total emissions vs. waste related)

Challenges

- i) Establishment of an integrated and comprehensive waste management system;
- ii) Enforcement of existing laws and regulations of waste management at household level;

Objective:

To promote waste management to ensure air quality, water quality and mitigation of greenhouse gases.

Policy Statement

- i) Promote sanitary landfill waste disposal, preventive recycling and incineration where there is no other solution,
- ii) Promote the generation of energy, organic fertilizer, and other by-products from waste. Promote waste separation at source.
- iii) Promote waste water treatment technology and reuse.

2.4 CLIMATE CHANGE 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.

2.4.1 General Issues and Challenges

National Meteorological services (NMSs) 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 NMSs 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. These issues and challenges include:

- i) *Insufficient Infrastructure* :Availability of adequate meteorological infrastructure for systematic observations (monitoring), fast communication (data and products exchange), processing and dissemination;
- ii) *Inadequate Human Capacities*: Availability of sufficient well qualified human capacity;

2.4.2 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.

2.4.3 Policy statements and actions

The EAC shall address climate change monitoring, detection, attribution and prediction in the following ways:

- 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) Support scientific research in climate change detection, attribution and prediction within the region

2.5. CROSS CUTTING ACTIONS

This policy has identified sectoral policy statements which are considered to be cross cutting. These include energy among others Research and Development,

awareness and information management and sharing, where they apply, it is proposed that they should be implemented jointly in order to ensure efficiency and consistency in delivery of the services in the EAC region

2.5.1: Awareness on Climate Change

- i) Undertake public awareness on the importance of the forestry, wetland and marine ecosystems in the well-being of the region's environment;
- ii) Create awareness of linkages between climate change and key sectors including health;

2.5.2. Research and Development

- i) 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
- ii) Strengthen research and promote data and information exchange of all forests and wetlands in the community;
- iii) Promote periodic climate change related research and exchange of information in conservation and sustainable use of wildlife.
- iv) Promote research on coastal and marine systems
- v) Promote research in the area of Climate Change and human health

2.5.3. Information management and sharing

- i) Develop a database and information sharing system for purposes of monitoring of wildlife resources in the region;

CHAPTER 3: IMPLEMENTATION

3.1 Introduction

The implementation of the Climate Change Policy will be the responsibility of the EAC Partner States and the Secretariat. In that context, a broader Strategy and master Plan at the regional level will be prepared to operationalise the policy.

Each EAC Partner State shall develop country specific policies, strategies, plans of action, legislation and institutional arrangements for addressing Climate Change in line with the EAC Climate Change policy. Regional projects, programmes and activities emanating from this Climate Change Policy will be jointly planned and executed by the Partner States and the relevant EAC Organs and Institutions. 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.

3.2 The Implementation Structure

Climate Change Initiatives are currently undertaken in piece meal by various departments, institutions and organizations. There is need to have a defined coordination and management unit in order to enhance synergy and minimize duplication. The established institutional framework should be backed by a comprehensive capacity building strategy. The institutional framework for implementing the policy shall include the Secretariat working jointly with relevant government agencies, organs of the Community, EAC Institutions including Lake Victoria Basin Commission, Lake Victoria Fisheries Organization, Inter-University Council of East Africa and others that will be established, backed by relevant Sectoral Committees, a Coordination Committee and finally the Sectoral Council of Ministers for Environment and Natural Resources.

The Civil Society Organizations (CSOs) have a role to play in the implementation of this policy. The linkage between this policy and Civil Society Organizations shall be referred to the provisions under Article 39(2)(a) of the Protocol for Environmental and Natural Resources. The coordinating institution shall be vested *inter alia* with mandates to design policies and strategies on Climate Change; designing relevant projects; introducing climate change materials in school curriculum; and building the capacity of research institutions involved in Climate Change related issues.

The basis for this implementation structure will be the established institutional framework established and agreed upon on the basis of the protocol for environment and natural resources Management. This will facilitate the creation of policy structures at EAC level with clear linkages with national institutions and regional arrangements with EAC organs and institutions outlined above. A similar working relations with international entities will also be established. The Sectoral Council on Environment and Natural Resources is the highest decision making body on all matters regarding to climate change as per the EAC Treaty.

3.3 Supporting and Enabling Measures

3.3.1 Financing

Generally financing and technology remain the key elements in the implementation of the Policy. Substantial funds will be required to support mitigation and adaptation initiatives/programmes. Sustainable funding shall be from the Partner States and, the Development Partners(multilateral and bilateral and intergovernmental) in partnership with the Private Sector.

Mechanisms shall be established to improve access to financing through:

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

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.

3.3.2 Capacity Building

The capacity building component 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 and training;
- iii) Information and communication;
- iv) Institutional capacity building (enhancing capacity of institutions in monitoring climate change impacts in the regions and the requisite response of interventions);
- v) Enhancing capacity of regional institutions to carry out research on Climate Change issues;
- vi) Designing and managing an integrated databank on climate change issues);
- vii) Establishment of strong institutional management system;
- viii) Skills development at all levels; and
- ix) Technology transfer initiatives geared towards accelerating development, deployment, adoption, diffusion and transfer of environmental sound technologies targeting mitigation and adaptation.

Specifically, capacity building initiatives in the long run will:

- i) Enable human resource development through focused training, mentoring and learning by doing approaches, among other measures;
- ii) Empower relevant institutions at various levels;

- iii) Enhance observation, research and knowledge management;
- iv) Strengthen and use the regional network of information and knowledge sharing;
- v) Develop tools, methods and technologies and support their application;
- vi) Encourage and strengthen participatory and integrated approaches in planning and decision making including meaningful participation of the Civil Society;
- vii) Share experiences, information and best practices of African countries;and
- viii) Assess the strength and mobilize the capacities of existing relevant facilities and institution in the region and Africa.

Other capacity building initiatives will include: introduction of Climate Change issues into school curricula; awareness raising and skills training in negotiation skills, technology development and transfer, carbon trading and harnessing of indigenous technical knowledge.

3.3.3 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) Enhancing technology development and transfer, including Hard Technology such as drip irrigation, water harvesting, drought tolerant crop varieties, renewable energy technologies and building technologies; Soft technology such as knowledge, systems, procedures and best practices;
- ii) Addressing technology transfer barriers, including rules of trade tariffs, intellectual property right barriers and technical trade barriers such as standards, eco-labelling;
- iii) Enhancing and supporting research and development capacity in East Africa to foster the development and local manufacture of cleaner mitigation and adaptation technologies;
- iv) Enhancing technology development and transfer within the EAC region through South-South and North-South cooperation.

3.4 Monitoring and Evaluation

Monitoring, evaluation and reporting will be integral components of this Policy to ensure harmony and effectiveness in its implementation. The EAC Secretariat will develop guidelines for monitoring and evaluation of Policy implementation at regional level including establishment of Climate Change responsive monitoring and evaluation mechanisms. The EAC Climate Change Master Plan to be developed will be an important tool in monitoring and evaluating the progress of implementation of this policy.

3.5 Review of the Policy

This EAC Regional Climate Change Policy will be reviewed every three years to take into account emerging issues, challenges and trends.