



Government of Malawi

National Climate Change Response Framework

**Ministry of Natural Resources
Energy and Mining**

Environmental Affairs Department

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FOREWORD

The second edition of the National Adaptation Programmes of Action (NAPA) seeks to increase the adaptive capacity of vulnerable communities to adverse effects of climate change. This will be achieved through implementation of six urgent adaptation activities. The six activities are: i) improving existing early warning systems to enhance disaster preparedness and response; ii) development of climate smart agriculture programmes to increase resilience; iii) improving integrated water resource management to sustain agricultural production; iv) restoring forests in all degraded areas across the country to increase forest cover and to reduce energy related problems; v) improving rural electrification to increase energy access in rural areas; and vi) integrating climate change into fisheries management to ensure sustainability of the fisheries sector.

The second edition of the NAPA culminates from a stock-taking of status of implementation and review of the first edition of the NAPA. The NAPA is a key instrument under the United Nations Framework Convention on Climate Change for addressing urgent and immediate adaptation actions. The NAPA provides a quick process for Least Developed Countries like Malawi to identify priority activities that respond to their urgent and immediate needs in order to adapt to climate change and climate variability.

The second edition of the NAPA is up to date, action-oriented, country driven and based on current sectoral priorities. My Ministry is committed to addressing adverse effects of climate change and integrating it into the socio-economic development agenda. Therefore, mainstreaming climate change adaptation into sectoral plans, programmes and strategies is of utmost importance.

For medium to longer term planning, my Ministry is facilitating the development of National Adaptation Plan to provide strategic guidance of the country's longer term adaptation priorities.



Honourable Bright Msaka, SC
MINISTER OF NATURAL RESOURCES, ENERGY AND MINING

ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CAP	Community Action Plans
NCCIP	National Climate Change Investment Plan
NCCMP	National Climate Change Management Policy
NCCRF	National Climate Change Response Framework
COP	Conference of Parties
CSOs	Civil Society Organisations
DCCMS	Department of Climate Change and Meteorological Services and Development
EAD	Environmental Affairs Department
GHGs	Green House Gases
GoM	Government of Malawi
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
INDCs	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
MEPD	Ministry of Economic Planning and Development
M&E	Monitoring and Evaluation
NAMA	Nationally Appropriate Mitigation Action
NAP	National Action Plan
NAPA	National Adaptation Plan of Action
NCCP	National Climate Change Programme
NGO	Non- Governmental Organisation
NSO	National Statistical Office
REDD+	Reducing Emissions, Deforestation and Forest Degradation
SWAp	Sector Wide Approach
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
VCRA	Vulnerability and Climate Risk Assessments
UNDP	United Nation Development Programme

1.0 Introduction

The world's climate and weather is continually changing, resulting in both long and short-term variability which has a significant impact on people's lives. Over the past century, there has been a trend towards an increase in the global average temperature. The global average temperatures are expected to continue to rise, which will cause continued changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events. Evidence collated by the Intergovernmental Panel on Climate Change (IPCC) indicates that the observed increases are very likely (over 90% likely) due to the rising concentration of greenhouse gases (GHGs) in the atmosphere caused by anthropogenic activities.

The Government of Malawi (GoM), through the Ministry of Natural Resources, Energy and Mining, Environmental Affairs Department (EAD), noting the critical importance that the climate and environment has on development, and that climate change is largely anthropogenic and is a reality that has to be dealt with, hereby sets out the Climate Change Response Framework (NCCRF). The purpose of the Climate Change Response Framework is to guide the nation in responding to climate change. In addition, the NCCRF will provide guidance to EAD, in its capacity as the National Focal Point to the United Nations Framework Convention on Climate Change (UNFCCC) and coordinating institution for climate change in Malawi, in its efforts to coordinate all climate change response actions in the country.

1.1 Background

In 1992, at the United Nations Conference on Environment and Development (UNCED) - also called the Earth Summit- held in Rio de Janeiro, Brazil, the United Nations members agreed to reduce Greenhouse Gases (GHGs) emissions and fight global warming. The United Nations Framework Convention on Climate Change (UNFCCC) is the treaty aimed at achieving stabilisation of GHGs concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Malawi signed the UNFCCC on 10th June 1992 and ratified it on 21st April 1994. Following the adoption of the UNFCCC, the Kyoto Protocol – a legal instrument for enforcing the UNFCCC was adopted in 1997 in Kyoto, Japan and Malawi ratified the Kyoto Protocol on 26th October 2001. The Kyoto Protocol entered into force on 16th February 2005. Following ratification of the Kyoto Protocol, Malawi

developed the National Adaptation Plan of Action (NAPA) as a strategy to provide short-term adaptation interventions and urged development partners to assist Malawi in addressing the effects of climate change.

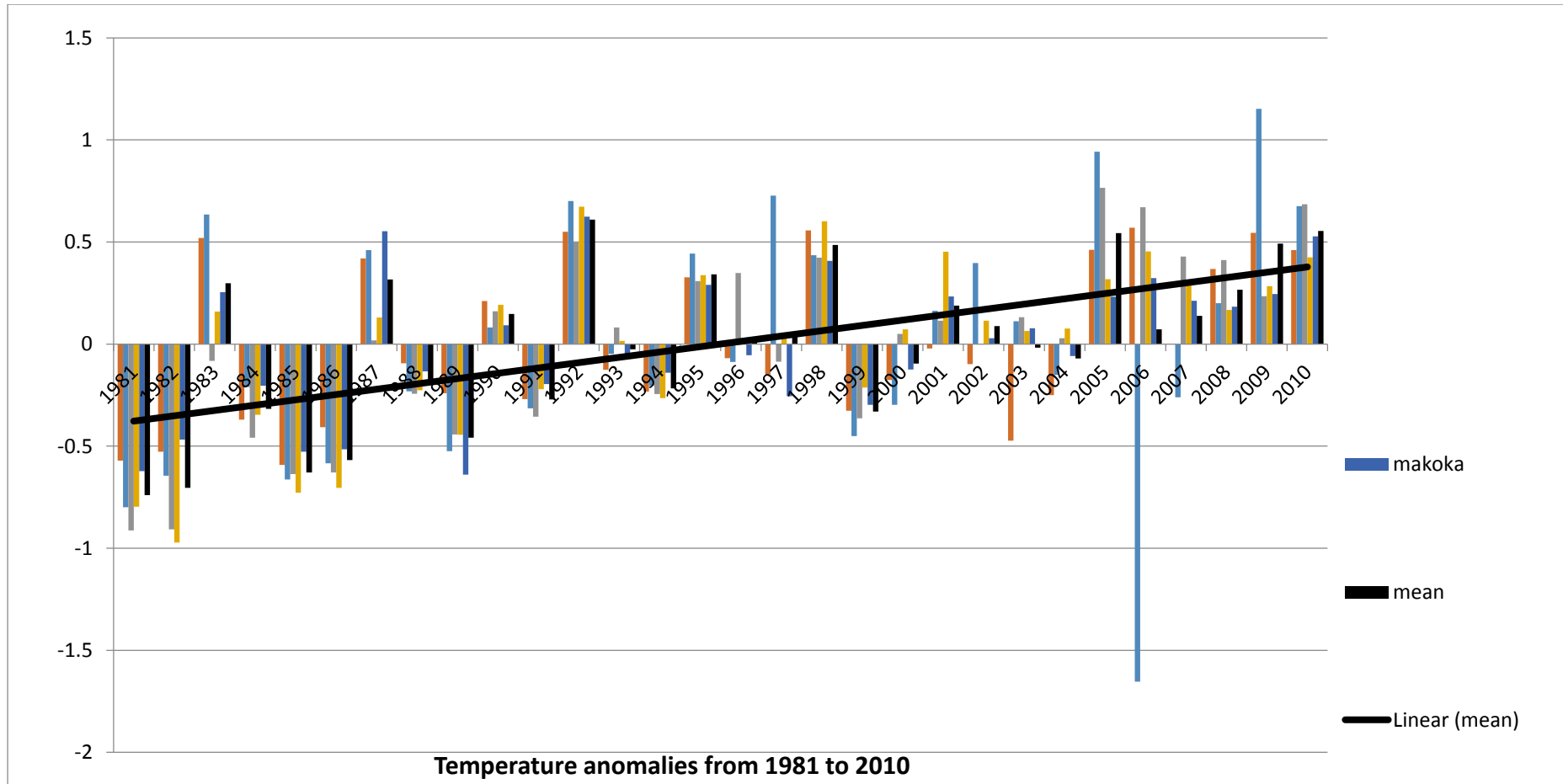
With support from its cooperating partners, the Government of Malawi, through the Ministry of Economic Planning and Development (MEPD), started diagnostic work on different climate change elements as well as mainstreaming climate change issues into the national development agenda through a comprehensive National Climate Change Programme (NCCP). The NCCP is aimed at:

- Filling the information gaps through conducting diagnostic studies on climate change risk and adaptation assessments;
- Developing a Strategic Response Framework, a National Action Program (NAP) phase I implementation plan, including coordination arrangements, funding modalities and strengthening of national capacities;
- Developing long and immediate term adaptation and mitigation interventions.

The main output of the NCCP is to build a National Climate Change Response Framework and Strategy which supports national and local institutions in delivering long term climate resilient sustainable development.

1.2 Climate Change Facts about Malawi

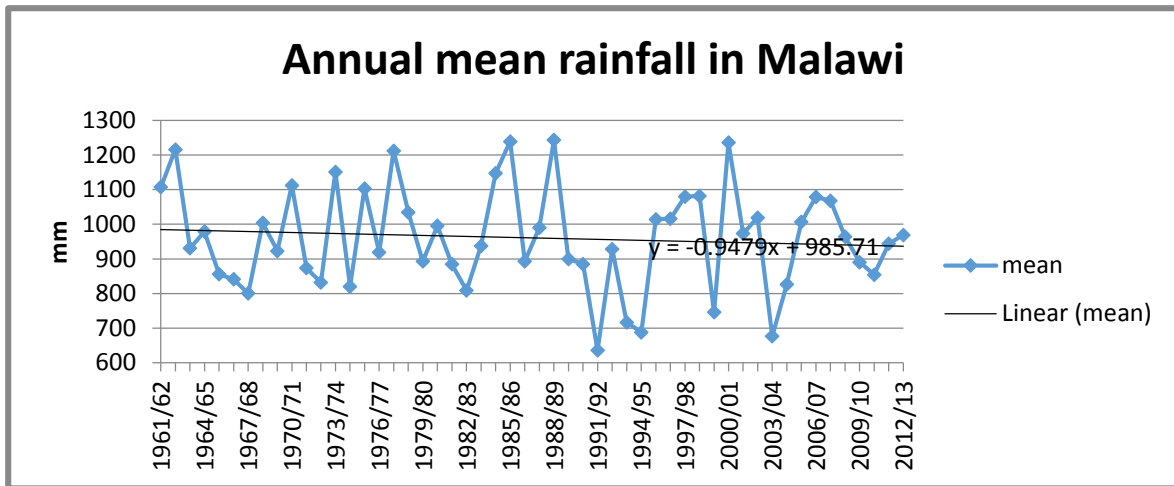
Studies have shown that there is a broad reduction of rainfall. This is accompanied by increased incidences of droughts with prolonged dry spells. There is also strong evidence that average annual temperature is increasing. For example, in Fig 1, all the five sampled areas show positive trend of temperature in the recent years. Mean annual temperature increase is at the rate of 0.2 Degrees Celsius per decade. Similar trends are also observed globally.



Source: DCCMS, 2013

Fig 1: Temperature trend anomalies for Bvumbwe, Chileka, Chichiri, Mimosa and Makoka from 1981 to 2010

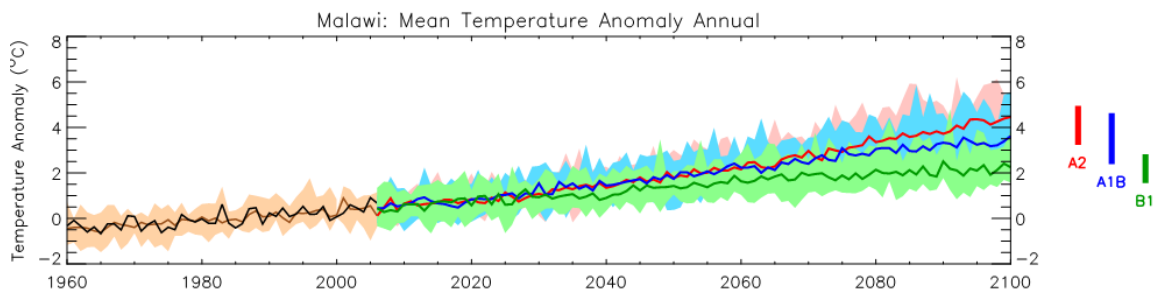
Rainfall data from Fig 2 shows a decreasing trend for the mean annual rainfall (GoM, 2013). GoM (2010) also reported the general decreasing trend of mean monthly rainfall, which is projected to continue. In addition, it has been observed that the onset of rainfall season has shifted. The overall trend shows that the onset dates are 10 days late on average (GoM, 2013).



Source: DCCMS, 2013

Fig 2: Annual mean rainfall (mm) for Malawi from 1961 to 2013.

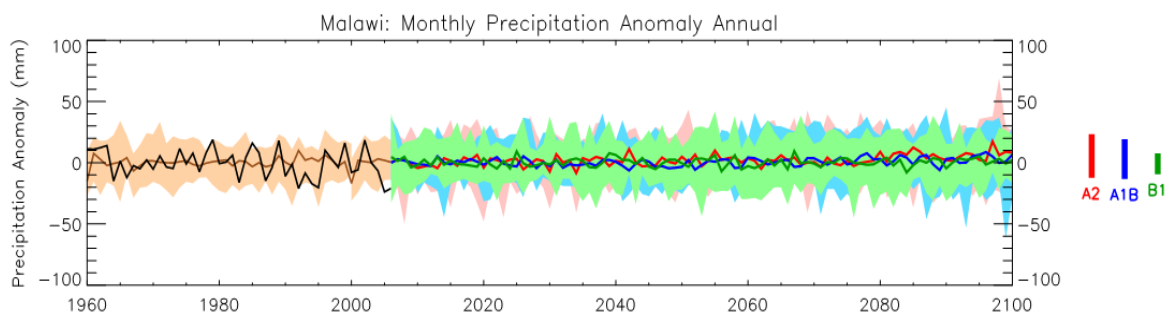
Climate models and studies of the past climate indicate that global warming and associated changes will continue if greenhouse gas levels keep rising, as is the case now. The mean annual temperature (Fig 3) is projected to increase by 1.1°C to 3.0°C by the 2060s, and 1.5°C to 5.0°C by the 2090s. Under a single emissions scenario, the projected changes from different models span a range of up to 2.1°C. See Figure 3



Source: McSweeney *et al.* (2010)

Fig.3: Past and future temperatures for Malawi

For rainfall, seasonally, the projections tend to decrease in dry season rainfall (June, July, August and September, October, November), and increases in wet season rainfall (December, January, February and March, April, May) (Fig 4). The projections further indicate substantial increases in the frequency of days and nights that are considered 'hot' in the current climate. Similarly, the projections indicate decreases in the frequency of days and nights that are considered 'cold' in the current climate. By around 2030, Malawi temperatures are likely to be 1^o C higher and the frequency of hot days and nights will have increased. It is likely that the future rainfall pattern across the country will be different from 2013. It is likely that higher temperatures and changing patterns of wind and rainfall will change the frequency of extreme weather events such as flooding and drought.



Source: McSweeney *et al.* (2010)

Fig.4: Past and future rainfall for Malawi

From the foregoing, it is clear that over the last few decades, Malawi has experienced extreme weather events, ranging from droughts and prolonged dry spells 1978/79, 1981/82, 1991/92 and 1993/94 to floods 1996/97, 2000/01 and 2011/2012 seasons. These extreme weather events clearly show that there are large temporal and spatial variability in the occurrence of climate-related disasters and calamities. In the affected areas, these events have had irreversible and damaging effects on crop and livestock production, especially the droughts and dry spells that occurred during the 1978/79, 1981/82, 1991/92 and 1993/94 crop-growing seasons.

In Malawi, these climate-related hazards adversely impact on all sectors of economic growth such as agriculture, water resources, fisheries, forestry, wildlife, energy, industry and infrastructure and human health. The impact is more felt in the agriculture sector, which is the engine of growth. In addition these climatic events are complicating the many social, economic and

environmental degradation problems, that Malawi is facing, which threaten sustainable livelihoods of the majority of family households.

The growing evidence of global climate change has necessitated countries in the developing world where the impacts will be felt greatly to develop adaptation and mitigation plans of action following countries ratification of the Kyoto Protocol.

2.0 Objectives of the NCCRF

The objective of the National Climate Change Response Framework is to guide the nation in responding to climate change. This is premised on the fact that there are numerous climate change players tackling different activities of adaptation, mitigation, carbon finance, Reducing Emissions from Deforestation and Forest Degradation (REDD+), technology transfer and capacity building.

In addition, the NCCRF seeks to highlight the areas where climate change interventions should be focussing, by providing a framework for responding to climate change at a strategic level. This will be done bearing in mind that a lot of work is already being done but there is still need to create synergies where possible. In addition, it will be essential to provide visionary leadership in responding to climate change as well as to clearly define what should be done in the country to achieve responsive climate change management. At international level, the country should clearly communicate what has already been committed to and what remains to be committed to. In addition, what opportunities still exist and what contributions are going to be made with reference to the agreed to Intended Nationally Determined Contributions (INDCs).

At national level, there should be coordination of agencies, policies and programmes in such a manner that extreme weather events emanating from climate change should have clearly determined pathways for their management. At the local level, households and communities should be resilient and have the capability to adapt to climate change.

3.0 Guiding Principles

The National Climate Change Response Framework is meant to fulfil the key strategies for managing climate change, mobilizing financial resources, promoting investments, guiding information flow as well as providing a basis for monitoring and evaluating climate change management in the country. As such it will be guided by the following principles:

- **Visionary:** forward looking yet based on past actions and interventions
- **Dynamic and Evidence Based:** rigorously monitoring and evaluating interventions to guide implementation
- **Consistency:** with sustainable national development objectives
- **Synergy building:** multiple actors, multiple interventions therefore requires coordination to harness the various efforts.
- **Inclusive:** multi-tiered and multi-sectoral approach
- **Global and local perspectives:** compliant with international obligations while at the same time domesticated actions

4.0 Thematic Response Areas

4.1 Vulnerability and Climate Risk Assessment

Noting that Malawi is highly vulnerable to floods, heavy storms, droughts, dry spells, epidemics, fire incidents, landslides, and HIV and AIDS, all of which have been exacerbated by climate change.

In addition, vulnerability assessments are conducted although micro in nature, historical without adequate long term future assessment of risk, limited coordination, and are mostly not done at grassroots level;

Most of these vulnerability assessments narrowly focus on agriculture and food security, though some assessments were done on water resources, fisheries, education, health, energy, biodiversity

The Government, in partnership with other key stakeholders, therefore shall:

- Conduct well-coordinated Vulnerability and Climate Risk Assessments that cover all sectors of the economy;

- Develop a framework for conducting Vulnerability and Climate Risk Assessments by designating an entity to conduct and developing guidelines;
- Develop capacity for conducting VCRA that are credible; and
- Widen focus for VCRA to include all critical areas.

4.2 Adaptation

There is now more confidence that global climate change is a threat to sustainable development, especially in developing countries, and could undermine global poverty alleviation efforts and have severe implications for food security, clean water, energy supply, environmental health and human settlements (IPCC Third Assessment Report).

Realizing the overall vulnerability of Malawi to climate change impacts, it will thus be necessary to carry out adaptation measures in this country. The NAPA identified the Agriculture, Health, Water, Gender, Wildlife and Forestry sectors, as areas of highest vulnerability to climate change and these are the areas that need to be targeted for adaptation measures.

Noting that thus far, adaptation interventions are not coordinated, are duplicated and there is limited capacity to adapt to climate change at community and household level; the Government of Malawi, in partnership with other key stakeholders, shall:

- Develop, implement and periodically review the National Adaptation Plan of Action (NAPA);
- Develop and implement climate smart agricultural technologies covering crop and livestock production;
- Encourage diversification from agriculture (which is largely prone to climate change) through promotion of alternative sustainable livelihoods strategies;
- Implement an effective Early Warning System; and
- Develop and implement the NAP, including the Community Adaptation Plans (CAPs).

4.3 Mitigation

Although Malawi is classified as one of the Least Developed Countries (LDC); the initial communication to UNFCCC classified Malawi as a net emitter due to anthropogenic activities such as deforestation and degradation. In order to mitigate against climate change, the Government of Malawi, in partnership with other key stakeholders, shall:

- Adopt clean development pathways and emerging market mechanisms including REDD+; Develop and implement well-coordinated and effective Nationally Appropriate Mitigation Actions (NAMAs);
- Deliberately incorporate climate proofing in all development programmes that will be implemented; and
- Encourage communities and households to adopt emission reduction practices in all their activities, particularly but not limited to agricultural practices and waste management.

4.4 Capacity Building

Climate change is a relatively new field of study that requires expertise. In Malawi very few have been trained in the area. Until recently, there was no institution providing/building capacity (knowledge and skills) in climate change. Individual interest to understand the area from ones field has been the norm, resulting in huge differences in understanding of the subject matter. Consequently, there is limited number of trained individuals to undertake vulnerability assessments and analysis.

Noting that the climate change learning strategy was already developed, the Government of Malawi, in partnership with other key stakeholders, shall:

- Implement and periodically review the climate change learning strategy;
- Develop human capacity to effectively conduct climate change assessments and analyses;
- Facilitate development of comprehensive tools and models as well as methodologies for climate change assessments and analysis;

- Facilitate integration of climate change related subject matter in curricula and syllabi in training and education institutions;
- Provide funding for training in climate change related areas;
- Provide climate change training and education opportunities at all levels; and
- Develop climate change negotiation skills among the experts involved in negotiations.

4.5 Research, Technology Development and Transfer

Although climate change research is being conducted in Malawi, it is largely disjointed and not well coordinated. There is limited leadership provided in climate change research, with most of the research activities being conducted as single disjointed projects. Funding for climate change research is also limited.

Noting the foregoing, the Government of Malawi, in partnership with other key stakeholders, shall:

- Properly coordinate climate change research to optimize benefits to meet the needs of policy makers;
- Develop, implement and periodically review a national research agenda that is institutionalized for the benefit of all researchers in Malawi;
- Focus attention of climate change research projects critical thematic areas identified;
- Facilitate steady and stable flow of climate change research funding;
- Facilitate the development of a Centre of Excellence in climate change research, which will showcase research projects with state of the art developed technologies ;
- Enhance implementation of clean development mechanism projects and Nationally Appropriate Mitigation Actions (NAMAs) when developed to ensure appropriate technology development and transfer; and
- Support various already existing institutions researching and teaching climate change related subjects.

4.6 Information, Education and Communication

Timely information flow between decision makers, planners and communities is very critical in responding to the effects of climate change. Lack of information, education and communication on climate change has implications for adoption of climate change adaptation and mitigation measures.

In the country, radio is one of the dominant modes of information sharing and statistics show that by 2011, 46 percent of the households in Malawi owned a radio (NSO, 2011). Recently, there has been an observed surge in mobile phone ownership from 3 percent in 2005 to 36 percent in 2011 (NSO, 2011).

Noting that the country has developed the Climate Action Intelligence database for communicating interventions of different players in climate change management; , and the National Environment and Climate Change Communication Strategy , the Government of Malawi, in partnership with other key stakeholders, shall:

- Involve all key stakeholders in the implementation and periodically reviewing of the National Environment and Climate Change Communication Strategy;
- Periodically update the climate change action intelligence database;
- Encourage the use of all existing media channels for effective and efficient communication of climate change messages;
- Establish and improve Climate Information Centres in all the districts; and
- Communicate to international stakeholders through UNFCCC coordinated national communication initiatives.

4.7 Financing and Investment

Availability of resources and proper and effective investment plans are critical for successful implementation of climate change programs. The country will be able to respond to the impacts of climate change if funds are available and climate change investment plans are availed to development partners for the country. Realizing the increasing adverse impacts of climate change on various sectors, financing mechanisms have been put in place by international organizations to finance programs targeted to minimise the impacts.

Noting that the National Climate Change Investment Plan (NCCIP) has already been developed in collaboration with the private sector, the Government of Malawi, in partnership with other key stakeholders, shall therefore:

- Implement and periodically review the NCCIP;
- Establish a Climate Change Fund;
- Utilise all existing opportunities at the international level to access funding that is made available to countries such as the international carbon market, green climate fund and NAMA facility;
- Increase budgetary allocation for addressing climate change; and
- Make the country ready to access REDD+ funding (REDD readiness) – borrowing or accessing funding through climate change funds.

4.8 Intended Nationally Determined Contributions

At the COP 19 of 2013 in Warsaw, parties to the UNFCCC agreed to act ambitiously to achieve the global objective of reducing the global temperatures by 2°C according to their differentiated responsibilities and capabilities. All parties were therefore encouraged to develop and communicate Intended Nationally Determined Contributions (INDCs) towards that goal. Malawi understands that INDCs are to be based on national circumstances. In addition, they should be supported by developed country Parties and other international organisations. Their scope should cover mitigation, adaptation, technology transfer, and capacity building.

To this end, the Government of Malawi, in partnership with other key stakeholders, shall:

- Determine what its contributions towards achieving the global objective will be, based on the various sectors that will be involved;
- Implement the measures stipulated in the INDCs;
- Develop a database with the critical INDCs indicators to monitor implementation of the INDCs; and
- Communicate regularly and on time the INDCs in order to meet its obligations as a Party.

4.9 Governance Structure and Implementation

For proper management of climate change, the Malawi Government needs a governance structure in place that will allow communication and sharing of information among all relevant stakeholders including local rural communities. The need for a coordination structure at the national level cannot be overemphasised.

The draft National Climate Change Management Policy has provided an institutional structure to govern the management of climate change in the country. If the Policy is approved, it is expected that coordination should lie within Environmental Affairs Department, which is also the national focal point for climate change. It is expected that this robust governance structure will take into consideration all projects and programmes on climate change, involve all the actors, including the private sector, and ensure that there is concerted efforts towards achieving the coordinated management of climate change responses.

Noting this, the Government of Malawi, in partnership with other key stakeholders, therefore shall:

- Establish a Sector Wide Approach (SWAp) to climate change governance at national and district levels in order to be inclusive and effective in coordination of climate change responses;
- Encourage inclusive and participatory engagement of all stakeholders by involving the private sector and development partners; and
- Develop and maintain a database of all stakeholders in climate change.

4.10 Regulatory Mechanism

The climate change sector is without a specific policy, although there are quite a number of policies and legal frameworks that address issues of climate change as it relates to their sectors. To this end, climate change has generally been recognised in a number of national policies, programmes, plans, strategies and legislation. Sectoral policy instruments have considered how they are affected by climate change and how related sectors can be used for adaptation and mitigation. Similarly, strategy documents have outlined how climate change issues should be tackled. This however does not

adequately address the challenge of specific regulatory mechanism for climate change.

Noting that the National Climate Change Management Policy is already developed and in order to have a well regulated climate change sector, the Government of Malawi shall:

- Implement and periodically review the National Climate Change Management Policy; and
- Develop, implement and review the climate change legal framework.

4.11 Monitoring and Evaluation

A comprehensive national climate change monitoring system is a key component for an effective climate adaptation and mitigation response initiative. Monitoring and evaluation are critical aspects of climate change response framework in order to assess what progress is being made towards achievement of set goals.

Noting that the Climate Change M&E framework has already been developed, The Malawi Government therefore shall:

- Implement and periodically review the climate change M&E framework;
- Adopt a decentralized Monitoring and Evaluation approach at the district level to feed into the national level monitoring and evaluation frameworks/systems;
- Conduct regular data collection on the identified and agreed to monitoring and evaluation indicators; and
- Provide funding for conducting monitoring and evaluation.

5.0 Conclusion

The Climate Change Response Framework has outlined the various measures that shall be taken by the Government of Malawi in order to respond to climate change effectively and efficiently.

The NCCRF has tackled eleven thematic areas comprising of vulnerability and climate risk assessments, adaptation, mitigation, capacity building, research and technology development and transfer, information education and communication, financing and investment, intended nationally determined contributions, governance structures and implementation, regulatory

framework and monitoring and evaluation. It is believed that this is a comprehensive consideration of the aspects that can enable effective and efficient response to climate change.

All stakeholders are hereby invited to play their part in ensuring that the nation responds to climate change in such a way that sustainable development can be achieved.