Centre for Environmental Policy and Advocacy

CLIMATE CHANGE AND RURAL COMMUNITIES IN MALAWI: - TOWARDS POLICY IMPLEMENTATION

Editors:
William Chadza
&
Maybin Ng'ambi

CLIMATE CHANGE AND RURAL COMMUNITIES IN MALAWI: - TOWARDS POLICY IMPLEMENTATION

Centre for Environmental Policy and Advocacy (CEPA)

Published by:
Centre for Environmental Policy and Advocacy
1 Brereton Drive Nyambadwe
P.O. Box 1057
Blantyre
Malawi

Tel: (265) 01 823 793
Fax: (265) 01 830 587
E-mail: cepa@cepa.org.mw
Website: www.cepa.org.mw

© 2007 Centre for Environmental Policy and Advocacy

First Published 2007

Citation: CEPA (2007) Climate Change and Rural Communities in Malawi : - Towards Policy Implementation

Cover Pictures: Courtesy of Centre for Environmental Policy and Advocacy (CEPA).

TABLE OF CONTENTS

Executive Summery

This publication contains papers which were presented to a workshop on Climate Change and Rural Livelihoods. The workshop presented preliminary findings of case studies carried out in Nsanje and Salima districts between May and November 2007.In addition, there were also papers on climate change and rural livelihoods and policy framework related to climate change. The papers therefore analyze the key community issues around climate change impacts, policy interventions including examples of project activities that are being by Government and other stakeholders.

The first paper by William Chadza provides a summary of key climate change impacts and the mechanisms employed by communities to cope with the impacts of climate change. It provides a few lessons on the need for holistic response considering the many sectors that climate change affect. The second paper by Maybin Ng'ambi provides a general synopsis of the impacts of climate change on rural livelihood systems and some of the responses employed at various levels to mitigate these impacts.

The third paper by Anganile Mwenifumbo outlines the broad policy framework related to climate change including the national strategies for economic management and adaptation to climate change. The paper points out the challenges implementation of these faces. The final paper by Dr A R Saka outlines elements in a national project addressing climate change which is intended to contribute to the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and the progress of implementation to date.

It is noteworthy that the presentations provide a synopsis of the state of knowledge and activities as well as policy responses to climate change impacts. The analyses should give the reader the critical gaps which need to be addressed to make responses to climate change more effective.

Introduction

Introduction

This booklet is a result of a national workshop on climate change. All the articles were written by speakers at the workshop which took place on 12th and 13th December 2007 in Liwonde. The objective of the workshop was for CEPA to disseminate results of its policy research work on climate change and case studies on the impact of climate change on rural livelihoods. In addition, the workshop also provided an opportunity for exploring policy options regarding climate change management in Malawi. About 40 people took part in the workshop. They came from government departments, non governmental organizations and local communities as affected by climate change. Participation during the workshop was very positive.

Background to the Climate Change Policy Project

In May 2007 CEPA initiated a three year project on Understanding and Implementing Climate Change Policy for Rural Livelihoods in Malawi. The goal of the project is to facilitate local level awareness and empowerment in climate change and disaster risk reduction policy issues and the requisite adaptation measures to enable local communities cope with impacts of climate change. The project was conceptualized as a policy research and capacity building initiative, as such it commenced with policy research on four selected thematic areas which informed community consultations and eventually capacity building at community level. The four thematic areas were climate change variability, climate change and rural livelihoods, climate change and food security and climate change and agro-biodiversity.

Outlook of the Project

Currently the project case study areas are located in Nsanje and Salima Districts, covering a total of three sites in each district. Karonga District has been earmarked for similar activities beginning 2008. In addition to policy awareness and capacity building with rural communities, CEPA will lobby stakeholders to participate in the civil society network on climate change, which is still at rudimentary stage. This will be done by conducting biannual meetings to discuss upcoming issues and agree on one agenda for advocacy and lobbying with the relevant government departments.

Case study findings

The major findings from the case studies in the two districts include the following;

- There has been changing trends in climatic conditions which include irregular rainfall pattern and flooding;
- Most of the climate change related events are being blamed on poor environmental and natural resources management;
- Climate conditions are still the predominant factors affecting agricultural productivity and changes in these conditions have different severe effects on small scale farmers;
- Due to persistent droughts, yields are low and consequently income is low, the result is that poverty is aggravated;
- There is diversity in the way local communities adopt to and mitigate climate change for example, communities in Nsanje and Salima have two fields, one in the dambo and another in the upland area in case of drought and floods;
- There is need to critically analyze the way communities adapt to floods and droughts and then develop policy options so as to strengthen adaptation to climate change.

Background

Malawi has experienced a number of adverse climatic hazards over the last several decades. The most serious have been dry spells, seasonal droughts, intense rainfall, riverine floods and flush floods. Droughts and floods have increased in frequency, intensity and magnitude over the last two decades.

Figure 1: Shows the **S**hire River at Nsanje Harbor, one of the vulnerable areas.

The Lower Shire and areas along the lakeshore are very vulnerable to floods and droughts. This includes districts such as Nsanje, Chikwawa, Phalombe, Mangochi, Salima, Nkhotakota and Karonga. In response Centre for Environmental Policy and Advocacy (CEPA) carried out consultations with communities and stakeholders in two of the most hit districts. Community consultations through case studies on the impact of climate change on farming communities were conducted in six sites in Nsanje and Salima districts. This report summarizes the outcomes of the consultations in those two districts.

Changing Trends in Climatic Conditions

The consultations established that irregular rainfall pattern has had a considerable impact on smallholder farmers in Malawi beginning in the 1980s. There has been either too little or too much rainfall in most seasons. Seasonal patterns have changed during recent years, with the duration of rains becoming shorter with each subsequent year. Rains which in the past could begin around early November have been shifting to starting late November to mid December in certain years. There have been other extreme situations when people have had to plant crops in January due to delay in the onset of the rains. However, instead of stopping in late March or early April as they used to be, rains stop between late February and mid March. As such there have been changes both in the growing season and types of crops grown.

On the other hand the frequent occurrence of drought has been causing crops to either wither or wilt. This has tended to affect productivity. Drought has also been responsible for reducing moisture levels in *dimba* gardens. These types of gardens are a major source of crop production for community members in both Nsanje and Salima districts. The other observation was also that frequent flooding in these areas result in:

- Washing away crops, which force the communities to plant more than once. Unfortunately by the time they are doing the next planting the period in which rains will be available will have been reduced;
- Eroding soils in the upland gardens, especially where farming is taking place on marginal lands like in some parts of Nsanje district. As such the soils in upland gardens are becoming less fertile overtime. This has tended to increase pressure downstream;
- Flooding waters which come with soils bury already planted crops in the gardens;
- Flooding waters carry livestock such as chickens, goats and sometimes even cattle downstream;
- Shortens the *dimba* gardening period due to high water table. It delays the time when people can start working in the *dimba* gardens, normally they start in April, but recently they have been delays and in extreme cases up to around August;
- Brings fertile soil deposits in gardens downstream including *dimba* gardens. This issue of fertile soils is linked to resistance amongst communities to relocate to higher grounds, as it would mean sacrificing these rich soils. There is a specific case in Group Village Headman Kasache in Salima, where they have very fertile dimba gardens, and when people relocate others from other areas come in to settle there looking for the fertile soils.

In addition, the depth of rivers is also affected as the rivers are filled with sand and less water is available to support local people's livelihoods. The rivers dry up very early. Some of the notable rivers affected include Nyamadzere and Thangazi in Nsanje district. As such there is no water available for community members who intend to go into irrigation farming or fishing.

Then too, rivers have lost their course due to too much sand in them. This leads to water flowing everywhere either permanently like the case of Lifidzi River in Salima district or it becomes a seasonal occurrence when it rains.

The other observation was that floods damage property and infrastructure such as schools and roads. Some of the school blocks in Nsanje district, like at Chikunkha, have been rendered inhabitable as the school block structure has been damaged and posses a risk for children to occupy. Fences for schools such as Kapalakonje in Traditional Authority Malemia's area have been damaged by flooding waters.

Causes of climate change related events

Discussions with stakeholders have revealed that the impacts of climate change are exacerbated by environmental degradation. Firstly, increased demand for charcoal and firewood in expanding adjacent urban areas has led to wanton cutting down of trees thereby weakening ecosystems. In these urban areas people prefer cheaper and easily accessible energy sources such as charcoal and firewood. In addition, it was interesting to establish that districts such as Salima are affected by environmental degradation taking place in districts located in the upper areas such as Dedza and Lilongwe where the

rivers such as Linthipe and Lifidzi originate. Similar events take place in Nsanje district where events in the middle Shire region and areas where rivers such as Nyamadzere originate affect people downstream. There are instances where it will not have rained in a particular community downstream but they just see heavy flooding waters coming through. This tends to take people unawares and results in heavy damages.

Figure 2: Shows a damaged walls fence of Kapalakonje Primary school in Nsanje District.

Expansion of agriculture into unsuitable lands such as fragile lands in protected areas and cultivation on river banks are another major cause of flooding. In most areas were protected areas such as forest reserves have been gazetted for purposes of protecting fragile areas which are unsuitable for farming. However in areas where these have been turned into gardens through encroachment, the result is soil erosion. As people expand their gardens into river banks due to population pressure and looking for moisture they clear all the trees and any vegetative growth. Environmental degradation is also linked to politicians as they use forest reserves or protected area land as campaign tools. They promise people that if they vote for them they will allocate some of the land in the protected area to farming communities. Once these politicians win it becomes difficult to remove encroachers into these protected areas.

Inadequate implementation of government policies and strategies specifically those related to environment and natural resources management are another major factor contributing to vulnerability to climate change. Enforcement of legislation pertaining to environment and natural resources management is almost non existent. There is also general lack of knowledge of existing policies and legislation related to climate change and environmental management. Findings in both districts established that most communities are not aware of the existing policy and legal instruments dealing with climate change and environmental management.

The institutional framework at district, area and community level dealing with important issues related to climate change such as disaster risk reduction is not effective. Findings suggested that although civil protection committees were set up in the two districts, most of them are not functional. These have tended to be active only during distribution of relief

items. Then too, certain areas are not accessible to government and other service provider personnel, especially some parts of Salima like Kasache are in Traditional Authority Msosa hence contact with other stakeholders tends to be limited. Again it was also established that institutions implementing climate change related interventions such as forestry tend to overlook these civil protection committees and end up establishing their structures, rendering these civil protection committees irrelevant.

Impacts of climate change

The main observation in the consultations was that people's ability to meet contingencies has been decreasing overtime as their asset base has become eroded. In the process their vulnerability has increased as well. Food insecurity has worsened as agricultural productivity has generally been affected. There has been a general decline in availability of land for *dimba* gardening as rivers have no water during a greater part of the year. One disturbing issue was that over reliance and too much investment in hybrid maize production has eventually undermined attempts to diversify. This is the case because in all the areas visited there is a general shift into use of hybrid varieties. This has led to the communities' forgetting any local varieties which are resistant to droughts and mature early.

It was observed that there has also been a decrease in reliability of on-farm income as there is an increase in people's attempt to find off-farm sources of income. There is also limited access to social services such as access roads and bridges have either been washed away or destroyed. In areas such as Kasache services such as maize mill, health centre are across the river. In Nsanje district some areas such as Chididi have difficulties to get their produce to the market. HIV/AIDS infection rates have also been increasing as women have been found with no option but to explore alternative ways of sustaining household livelihoods.

There is also pressure on government resources as district assemblies have to cope up with assisting victims of both floods and droughts. The education system is also affected since both pupils and teachers cannot get to school particularly in the months of January and February. Classrooms are sometimes filled with flood waters, and pupils and teachers cannot cross rivers. In extreme situations flood victims tend to seek shelter in classrooms disrupting lessons for that particular period.

National policy and legal framework

As mentioned earlier the consultations established that there is general lack of knowledge of climate change related policies and laws. Secondly, there are limitations on funding to government departments for policy implementation and enforcement of legislation. This implies that although appropriate policies and legislation exist there are hardly resources for putting policies into action. A series of droughts and floods in recent years has attracted a number of institutions working in relief and development in the affected areas. However, there tend to be conflicting approaches and competing efforts by government departments and service providers in implementation of climate change related activities. In other areas there are over half a dozen non governmental organizations operating but they seem not to be talking to each other and compete for the communities. Surprisingly as these service providers are located in one area, in other areas there is none to assist the communities. It must also be noted that absence of specific policy tools to guide national programmes on climate change adaptation and mitigation tend to constrain climate change management. The country does not have a specific policy dealing with

climate change management.

Adaptation and mitigation to climate change

In order to adapt and mitigate changes in climate, most communities have been changing the varieties for crops such as maize, rice, sweet potatoes. They have been steadily adopting fast maturing varieties, which they either buy from agro dealers or are supported by non governmental organisations. There has also been an increase in adoption of soil and water conservation techniques. In some parts of Nsanje where they had never been using ridges before they have started ridging in order to conserve moisture and reduce soil erosion. It was observed that in some areas tree planting had been initiated, but is on a small scale, warranting expansion. With shorter rainfall seasons, there have also been adjustments in timing for farming activities. Evidence of increased dependence on *dimba* gardening using fertile deposits in low lands was also there as majority of the people now own a piece of land for *dimba* gardening. It was also interesting to note that communities especially in Nsanje district use indigenous knowledge to predict extreme climatic events, especially floods. Signs such as too many ants, flies and excitement of hippos on the river banks tend to predict that there will be floods in that particular year. This tend to guide where their farming efforts should be emphasized, either upland or *dimba* gardens.

Figure 3**:** Shows a d*imba* garden in Salima District.

Other dynamics in place

There are other initiatives to address effects of climate change which communities are either practicing or need support on. These include:

- Intensifying irrigation farming in slightly upper lands, where farming can commence at an earlier time than in the *dimba* gardens. However the challenge is how to get water there;
- Assessing the feasibility and adopting rain water harvesting as there tends to be a lot of water at specific times of the year which is wasted;
- De-silting rivers by manually removing the sand so that rivers can regain their original course. This has already been initiated by communities in both districts on their own but require outside support to achieve meaningful results; and
- Setting up and supporting Civil Protection Committees to work in disaster risk reduction.

Conclusion

Climatic conditions are still the predominant factor affecting agricultural productivity in Malawi, and changes in these conditions may have different severe effects on small scale farmers. The frequency of drought and floods has increased over the years. Due to persistent droughts, yields are low and consequently income is low the result is that poverty is aggravated. There is diversity in the way local communities adapt to and mitigate climate change. There is need to critically analyze the way communities adapt to floods and drought and then develop policy options. It has been established that capabilities of local level institutions responsible for climate change related issues are extremely varied. Heavy dependence on natural resources to sustain livelihoods has exacerbated climate change impacts.

Climate Change and Rural livelihoods in M

By Maybin Ng'ambi, Programmes Officer - CEPA

Introduction

Malawi is one of the countries that are heavily hit by the impacts of climate change. The country experience extreme climate events such as drought, floods, strong winds, and land slides. These events adversely affect food security, human health, infrastructures, and migration of the indigenous population. The low-lying areas such as Lower Shire Valley and some lake shore areas such as Salima and Karonga are more vulnerable to floods and among others. The evidence of climate variability in Malawi is manifested in significant variations in Lake Malawi and river levels. Sudden drop of water levels in Lake Malawi and Lake Chilwa as well as the Shire River is evidence of climate variability.

The severe droughts of 1991/92, 1993/94; 1994/1995 and 1999/2000 have had significant adverse impact on the livelihoods of rural communities and this resulted in serious socio-economic disruptions, food insecurity, and diseases, such as diarrhea, cholera and malaria. Over the past ten years the country has undertaken several initiatives including development of policies and strategies that address issues of climate change and natural resources in relation to sustainable development and rural livelihood.

Rainfall and temperature

According to rainfall and temperature data from the Department of Meteorological Services, show high rainfall variability in recent years, and also shows variability in rainfall departure times during the last four decades (1959-1993). For instance, Malawi experienced extreme climate events, ranging from droughts (1991/92) to floods (1996/97). However, even during the 1996/97 crop season when there were floods in the southern region, some parts of the Karonga lakeshore experienced drought conditions. These extreme events clearly indicate that there is large temporal and spatial variability in the amount and distribution of rainfall. These variabilities (temporal and spatial) are well captured from rainfall data recorded at several meteorological stations in Malawi.

Changing rainfall patterns and higher temperatures have forced farmers to reduce the growing season by switching to more expensive hybrid crops. Frequent droughts and floods are eroding assets and knowledge, leaving people more vulnerable to disaster. An upsurge in malaria and cholera requires women to spend more time tending to the sick and less time working in their fields.

Changes in rainfall have resulted in changes in the growing seasons as well as in crops grown. For example, maize used to be planted in November, but it is now being planted in December. According to Malawi's Initial National Communication Report of 2002 Malawi is a net emitter of carbon dioxide. This means that Malawi emits more into the atmosphere than it is able to absorb. This together with emissions form other countries

contribute significantly to the rising temperatures affecting us today.

Frequency of floods and droughts in Malawi

Occurrences of extreme weather events have become more frequent in the last four decades. For example the graph below shows the increasing frequency of floods and droughts in Malawi.

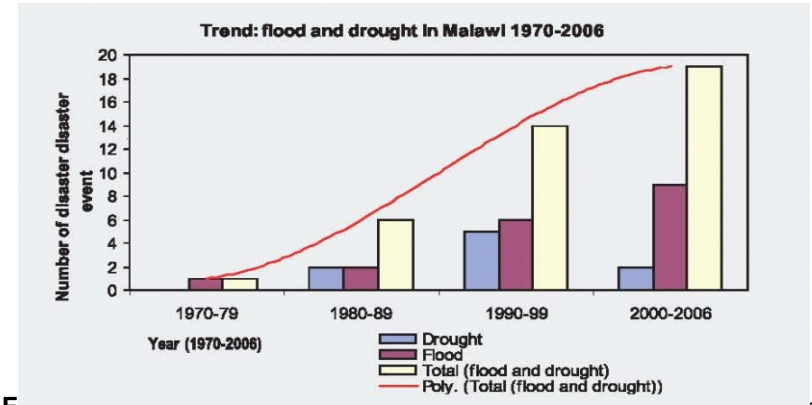

Figure 1: Evidence on the increasing frequency of floods and drought in Malawi (*adopted from a report by ActionAid on Climate Change & smallholder farmers October 2006*).

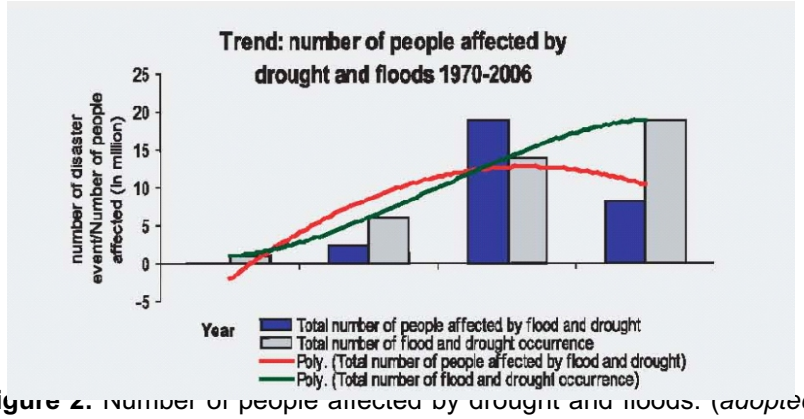

Figure 2: Number of people affected by drought and floods. (*adopted from a report by ActionAid on Climate Change & smallholder farmers October 2006*).

Environmental degradation

Environmental degradation through poor land use and deforestation cuased by wanton cutting down of trees for charcoal and fuelwood has exacerbated flooding and droughts in Nsanje, Karonga, Kasungu and Salima. There is also laxity in enforcement of exiting laws. These practices have greatly contributed toincreased vulnerability of ecosytems and local communities that depend on small scale agriculture for their livelihoods.

Figure 3: Gullies due to deforestation and poor land uses. (Picture captured from Ntcheu around Bwanji area).

Climate change and rural communities

The majority of Malawians live directly off the country's natural resource base, which is vulnerable to droughts and floods. The poor, often living at the margin of survival, cannot manage risk as they are ill-equipped to deal with crises of such magnitude. These rural communities rely on agriculture which is extremely vulnerable to drought and flooding. It is necessary therefore to promote drought-tolerant crop varieties and hardy livestock in drought-prone areas, develop irrigation schemes in flood prone areas and promote farming using residual moisture, especially along dambos. Further, more intense droughts, floods and greater climate variability will affect crop and livestock productivity. The farmers are disproportionately vulnerable to the effects of climate change because of their great dependence on agriculture and their inability to adapt. Due to limited resource resources, farmers are unlikely to adapt to climate change without outside help.

Socio-economic effects

The socioeconomic impact of drought and floods during the 2001/2002 season included importation of 300,000 tonnes of maize and serious damage to infrastructure especially roads, bridges and houses. The projected shortfall in maize production resulted in a dramatic increase in the official price of maize (USD 6.00 to USD 13.00 for a 50 kg bag). Estimated production of other food crops, namely cassava and potatoes was also reduced but not the same extent as maize. However, these other food crops could not easily replace maize due to lack of infrastructure for storage and distribution of such crops. Following another poor rainfall of the 2003/04 season, there was a humanitarian food aid requirement of 56,000 to 83,000 tonnes that Government and aid agencies had to import.

There is also the impact resulting from damage to infrastructure due to extreme weather condition. During the 2001 floods in southern Malawi, disruption of transportation of goods and services due to damaged roads and bridges were reported. Some 30,000 ha were affected by the floods that washed away crops such as maize, millet, rice and other food crops, the main source of livelihood of Malawians. 3,000 houses were damaged and

some 3,440 hectares, planted with crops, destroyed. Some of the sectors greatly affected include;

- Water resources: the 1948/49 and 1991/92 droughts affected 80% of the country; while 2001 floods affected 18 districts in the country;
- Fisheries: fish catches have gone down in Lake Malawi;
- Forestry and Land Use Change: increased bush fires;
- Agriculture: crop failure; outbreaks of pests and diseases, loss of animals;
- Energy: Hydro-generation of electricity at Nkula affected; and
- Human Health: High incidences of malaria cases during seasons of intense rainfal land prolonged dry spell.

Climate change and agro-biodiversity

The loss of biodiversity has been a subject of concern for a long time. Environmentalists and other commentators on the subject have described it as both a battle and a crisis. It is perhaps one of the most pressing challenges facing humanity now especially in the face of overwhelming evidence that this loss is being accelerated as result of changes in climate. Climate change presents a number of challenges on agro-biodiversity in Malawi which is the storehouse that provides Malawians with their nutritional needs. Some of the adverse weather conditions that it presents include floods, droughts, pests and diseases that threaten to accelerate the erosion of agro-biodiversity besides ordinary human activities. The following are some of the challenges climate change posse on agro-biodiversity.

- Due to changes in rainfall & temperatures we have lost some of our plant and animal species;
- Loss of indigenous crops
- Climate change increases the demand for food and in the end the our agro-biodiversity is destroyed;
- High temperature, and evaporation leads to low vegetation productivity leading to habitant degradation and high populations of large mammals unable to survive;
- A rise in temperature of 2°C can cause 15-20 % of species to extinct.

Adaptation to climate change

To address the effects of climate change, there is need to adopt measures that mitigate the impacts of climate change. At national level, there is need to implement policies that address climate change so as to avert its undesirable effects on the agriculture sector, which is the backbone of the Malawi economy. Further, there is need to integrate climate change initiatives into on-going development programmes.

At farm level, two broad adaptation options can be distinguished for both the crops and livestock sectors: (i) changes in land use, and (ii) changes in crop and livestock management strategies. The available strategies include changes in cultivated land area; changes in crop types involving the growing of crop species or varieties with higher thermal requirements or those that are tolerant to drought and floods; changes in crop location including application of technologies on agro-climatic requirements of specific crops; use of irrigation and fertilizers to counter effects of water stress and low soil fertility; control of pests and diseases associated with floods and droughts; improvement in soil management practices to reduce surface runoff and erosion, and; creation of farm infrastructure at the household level and food reserves at the community level to ensure

the safekeeping of harvested produce.

Coping strategies

In trying to cope with the threats posed by extremes weather conditions, rural communities have tended to employ a number of measures that help overcome the threats in the short term. Most of these measures are aimed at ensuring that food is available during hard months, or at least attempting to ensure that available reserves last longer than normal. These measures involve changes in food habits including reducing number of meals per day, reducing amounts of food actually consumed and consuming non-traditional foods such as rice, cassava, indigenous fruits and vegetables. The socio-economic patterns of affected households also undergo various changes. For example, household members automatically reduce purchases of non-food items, they exchange or sell off assets and livestock for food or cash, they enter into temporary employment to raise cash for purchase of food. In extreme situations, households will develop an increased dependence on food handouts and supplementary feeding programmes.

Clearly, the farmer's own coping mechanisms have become very important for the survival of many families. However, the drought situation of the Shire Valley has often attracted the attention of Government agencies as well as non governmental organisations. Hence, a large number of disaster or risk management programmes are often introduced to assist communities cope with the situation. For instance, during the 2002/03 drought in the Shire Valley, the European Union introduced a 'cash for work' programme where communities, or individuals, were encouraged to undertake certain public work projects in exchange for food or cash under a National Safety Nets Programme. At least 250,000 people benefited from this type of assistance (FEWSNET, 2004a). During the 2001 drought season, the Ministry of Health and Population implemented a Supplementary and Therapeutic Feeding Programme for families with malnourished mothers and children. The mothers received food amounting to 1x50 kg bag of maize each, while the children got 9 kg of a high concentrate supplement known as 'Likuni Phala' every month. This programme, sponsored by the World Food Programme (WFP), served some 3,000 families (FEWSNET, 2004b). However, such programmes run the risk of creating a dependency syndrome among rural communities to such an extent that traditional and common-sense coping strategies are not implanted.

Conclusion

Key issues for advocacy

In addressing adaptation challenges, it is imperative that a multisectoral approach is taken, beginning at the community level with the smallholder farmers who are directly affected by climate change. These farmers need skills, knowledge and access to credit for addressing short and long-term needs of diversifying from maize into other crops. The Hyogo Framework for Action, adopted at the World Conference on Disaster Reduction in Japan 2005, offers comprehensive disaster reduction policies that should be implemented at local and national levels as an urgent adaptation measure. Since the framework is not a legally, there is need to integrate it into national development policies for its implementation. In addition there is need to:

- Establish and strengthen the civil society institutions working on climate change as is the case with networks like; Landnet, FOSANET, CISANET among others, so that they can advocate climate change policies;
- Incorporate climate change adaptation in long-term planning and development programmes;

- disseminate climate change information and research on traditional approaches to weather forecasting;
- Take a multisectoral approach in addressing climate change beginning with the rural communities who are directly affected; and
- Advocate for a climate change policy framework that will incorporate key short-falls in the existing policies.

REFLECTION ON THE INTERNATIONAL AND NATIONAL LE FRAMEWORK ON CLIMATE CHANGE

By Anganile Mwenifumbo, Programmes Officer - CEPA

Introduction

Issues surrounding climate change have been the subject of commentary on a grand scale. It is the most pressing challenge facing humanity today. It presents challenges that will exacerbate current living conditions for mankind. Various players are strategizing on how to adapt and mitigate its adverse effects.

Climate change defined

The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as: 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'.

It encompasses

a) Temperature increases (global warming),
b) sea-level rises,
c) Changes in precipitation patterns, and
d) Increased frequencies of extreme weather events e.g floods, droughts, pests and diseases.

Climate change in Malawi

Malawi has not been spared from the adverse impacts of weather and climate as evidenced by recent floods and drought. These extreme climatic events cause loss of life, damage property and infrastructure, affect food security and hinder efforts in poverty eradication. The loss of human, natural, financial, social and physical capital, caused by the adverse impacts of climate change, especially floods, drought, landslides, among many other natural disasters and calamities, is of great concern to Malawi. A number of policy and legal instruments at both international and national level have been developed in response to changes in climatic conditions. These instruments are a response to the adverse effects of climate change which affect various spheres of human life and the environment.

International policy and legal framework

The overall international instrument on climate change is the United Nations Framework Convention on Climate Change (UNFCCC). Malawi signed and ratified the United National Framework Convention on Climate Change (UNFCCC) in June 1992 and April 1994 respectively. The ultimate goal of the UNFCCC Convention is to achieve, in accordance with the relevant provisions of the Convention, stable greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with climate system. The Convention obliges countries to, among other things: formulate, implement, publish and regularly update national and, where appropriate, regional programs containing measures to mitigate climate change, cooperate in preparing for adaptation to the impacts of climate change, develop and elaborate appropriate and integrated plans for coastal zone management, water

resources and agriculture, and for the protection and rehabilitation of areas affected by droughts and desertification, as well as floods. In addition, the Kyoto Protocol to the United Nations Framework Convention On Climate Change, was adopted by consensus at the third session of the Conference of the Parties (COP3) in December 1997. It contains legally binding emissions targets for Annex I (developed) countries for the post-2000 period. Each Party included in Annex I, in achieving its quantified emission limitation and reduction commitments under Article 3, in order to promote sustainable development, shall; implement and/or further elaborate policies and measures in accordance with its national circumstances, such as:

(i) Enhancement of energy efficiency in relevant sectors of the national economy;

(ii) Protection and enhancement of sinks and reservoirs of greenhouse gases not controlled by the Montreal Protocol, taking into account its commitments under relevant international environmental agreements;

(Iii) promotion of sustainable forest management practices, afforestation and reforestation; and

(iv) (iii) Promotion of sustainable forms of agriculture in light of climate change considerations.

A related instrument is the *Hyogo Framework for Action 2005-2015* adopted by the World Conference on Disaster Reduction which was held from 18 to 22 January 2005 in Kobe, Hyogo, Japan. It was a response to loss occasioned by disaster which is on the rise and is having grave consequences for the survival, dignity and livelihood of individuals, particularly the poor, and hard-won development gains. It is also based on the international acknowledgement that efforts to reduce disaster risks must be systematically integrated into policies, plans and programmes for sustainable development and poverty reduction. The Hyogo Framework complements UNFCC and *t*he Kyoto Protocol as it provides guidance on disaster management. The World Conference on Disaster Reduction which led to the development of the Hyogo Framework for Action adopted 5 priorities for action, viz:

- Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation;
- Identify, assess and monitor disaster risks and enhance early warning;
- Use knowledge, innovation and education to build a culture of safety and resilience at all levels;
- Reduce the underlying risk factors; and
- Strengthen disaster preparedness for effective response at all levels.

Other international instruments relevant to climate change and disaster management include:

- The CBD.
- The ITPGFRA.
- The Desertification Convention.
- The Rio Declaration.
- The Johannesburg Plan of Implementation of the World
- Summit on Sustainable Development (WSSD).

National legal and policy framework

Economic Instruments

In 1998, Malawi launched the Vision 2020, a policy instrument that articulates the country's aspirations for sustainable economic growth and development, and for the sustainable utilization of natural resources and the environment. This was followed by the Malawi Poverty Reduction Strategy Paper (MPRSP) in 2002 (MG, 2002b), aimed at reducing poverty through socio-economic and political empowerment of the poor. It is built around four pillars, which are the strategic components grouping various activities, policies and strategies, into a coherent framework for poverty reduction. These pillars are:

- Rapid sustainable pro-poor economic growth and structural transformation;
- Human capital development;
- Improving the quality of life of the most vulnerable; and
- Good governance.

The strategy also mainstreams cross-cutting issues, such as HIV/AIDS, gender, science and technology and the environment, including climate change. In order to stimulate pro-poor economic growth of at least 6% per annum necessary to reduce poverty by half by the year 2015, the Government of Malawi developed a Malawi Economic Growth Strategy (MEG) in 2003. The strategy provides an approach for implementing income poverty reduction interventions stipulated under pillar one of MPRS. The government in 2005 developed the Malawi Growth and Development Strategy (MGDS) to supersede the MPRSP. The MGDS recognizes the need to put in place measures to protect and improve quality of life of the most vulnerable people who may not benefit from economic and social development initiatives. These include the chronically vulnerable poor segments of the society as well as those affected by natural disasters and economic shocks. Natural disasters and economic shocks also aggravate the vulnerability of the poor and those on the edge of the development path. The MGDS considers social protection and disaster management as important means to protect, restore and enhance poor people's livelihoods eroded by poverty and shocks.

Environmental Instruments

After the Earth Summit in Rio de Janeiro, Brazil in 1992, Malawi launched its National Environmental Action Plan (NEAP) in 1994. NEAP, which is Malawi's operational tool for the implementation of Agenda 21, identifies and highlights several environmental problems. These include high soil erosion, low soil fertility, deforestation, overgrazing, over-fishing, loss of biodiversity, water resources degradation and depletion, human habitat degradation, air pollution, and climate change. A National Environmental Policy (NEP) was adopted in 1996 followed by the Environment Management Act. The NEP as revised in 2004 addresses climate change in section 4.11 dealing with Air Quality and Climate Change. The policy objective is to minimize the adverse impact of climate change and variability. Among the key strategies is the need to strengthen the existing national climate/metrological database and monitoring networks. Others include the need to:

- assess and monitor the potential impact of climate change on the functioning of ecosystems, vegetation patterns and net carbon sinks;
- use climate data to help guide land use and economic development; and

- promote regional and international cooperation for the effective exchange of climate information and control of trans-boundary atmospheric air pollution;
- As a framework instrument, the NEP is expected to guide lead agencies in agriculture, fisheries, forestry, energy, industry and water resources management in so far as their activities affect the environment and natural resources management.

The Malawi National Strategy for Sustainable Development (MNSSD), 2004 provides more concrete actions for implementing the principles in the NEP and other instruments. The MNSSD addresses climate change under theme 3 of the Johannesburg Plan of Implementation of the World Summit on Sustainable Development (WSSD). The theme deals with the protection and management of the natural resources base of economic and social development. It calls upon states to improve management of effects of climate change and variation. The NSSD stipulates the WSSD goals which specifically deal with weather and climate and requires governments that by 2015 they should:

- Reduce by 50% the world's poverty through provision of appropriate weather and climate information; and
- Mitigate effects of drought and floods through improved use of climate and weather information and forecasts, early warning systems, land and natural resources management, agricultural practices and ecosystem conservation.

The Malawi Goals under the MNSSD include the need to:

- Reduce damage to property and loss of life caused by weather and climate natural disasters (floods, disasters etc);
- Contribute to the sustainable production of food and fibre; and
- Contribute to sustainable industrial production and meet the UNFCCC obligations.

The National Water Policy provides, *inter alia*, for sustainable water resources management. It calls for the formulation of mitigation measures to reduce the impact of climate change and variability as a means of disaster preparedness and management. Disaster management is specifically addressed and recognizes the severe economic and cultural disruption and dislocation facing the most vulnerable population of the affected communities. The policy seeks to establish preparedness and contingency plans for water related disasters and emergencies, as an integral part of water resources management. Amongst the objectives and strategies are:

- timely provision of portable water and sanitation,
- information dissemination,
- flood warnings; and
- providing information to the Ministry responsible for disaster preparedness and relief.

Malawi adopted a National Biodiversity and Action Plan (NBSAP) in 2005 which outlines key biodiversity issues and specific interventions by various stakeholders. It provides for conservation of aquatic and mountain biodiversity that provide local communities with significant livelihood options for food security, medicinal and other uses. Of particular concern to climate change are strategies for species monitoring and recovery,

conservation of traditional agro-biodiversity resources. The Environment Management Act 1996 does not specifically deal with climate change and disaster management. But the revised bill (Environment Management Bill 2006) specifically addresses climate change and disaster management issues. Many of the sector pieces of legislation such as forestry, fisheries, water address issues which respond to climate change but not in specific terms.

Disaster and adaptation

The Disaster Preparedness and Relief Act (DPRA) (No. 24 of 1991) enacted in the wake of the Phalombe flush floods disaster provides some framework for disaster management. The key provisions deal with the institutional framework for dealing with disasters such as floods, disease, food crisis and others. The Act establishes the office of the Commissioners for Disaster Preparedness and Relief (Part II), a National Disaster Preparedness and relief Committee (Part III) planning subcommittee and civil protection plans (Part IV). In addition, the Act makes provision for organization of civil protection areas (Part VI), participation of volunteers in civil protection (Part VII), and powers of civil protection on officers. The Act gives power to the President to declare national disasters (Part IX), and creation of a National Disaster Preparedness and Relief Fund (Part X). The DDRA however focuses on relief but does not deal with adaptation issues for sustainable management of climate change in general and disasters in particular. The roles and participation of affected local communities are not clearly spelt and, in view of the National Decentralization Policy, the DPRA needs to be revised to reflect local management frameworks.

The Government of Malawi developed the National Adaptation Programmes of Action (NAPA) March 2006 , which is the overall plan of action on climate change mitigation. The driving force behind its development has been the threats posed by extreme climatic events posed to food, health, water and energy. The NAPA was preceded by the development of the National Environmental Action Plan in 1994, which was an operational tool for Agenda 21 an outcome of the United Nations Conference on Environment and Development (Earth Summit) of 1992 in response to the threats generally posed by environmental degradation. The NAPA was developed to enable Malawi address the exigencies of adaptation caused by climate change. The NAPA identifies, among other things, a list of priority activities and suggests the formulation of priority adaptation options and the building of capacity for adapting to longer-term climate change and variability viz:

High

- Sustaining life and livehoods for the most vulnerable communities.
- Increasing resilience of food production systems to erratic rains by promoting sustainable *dimba* production of maize and vegetables in *dambos*, wetlands and river valleys.

Medium

- Enhancing food security and developing community based storage systems for seed and security.
- Improving energy access and security in rural areas.
- Improving rural nutrition.
- Developing technologies to mitigate climate change.

- Improving crop production through the use of appropriate technologies.

Low

- Managing forest fires in collaboration with communities.
- Providing standby power generation.
- The government of Malawi also launched the Tree Planting and Management for Carbon Sequestration and other Ecosystems Programme (Tree Planting and Carbon Sequestration Programme) in January 2007.
- The overall objective of the programme is to increase the area under forest cover in Malawi in order to enhance carbon sequestration and other ecosystem services that may contribute to the reduction of GHGs in particular, carbon dioxide in the atmosphere.
- The government will identify potential local and international buyers of carbon and the funds generated from carbon sales will be utilized for reforestation and other programmes on environment.
- Reforestation and afforestation are some of the measures that would mitigate the impact of climate change. It is envisaged that these measures will lead to an increase in carbon uptake by forests.

Institutional framework for climate change and disaster management

A Draft National Disaster Plan was developed to help operationalize the provisions of the DPRA. The Plan has been in draft form since 1997 when it was first drafted. The Department of Poverty and Disaster Management Affairs is responsible for national planning, coordination; and Policy formulation on disasters and safety nets. Implementation is done at district level and in sectoral ministries. The Department is planning to develop a Disaster Management Policy which will guide development of district level disaster management plans. Other institutions involved in disaster management and climate change in the country include;

- The Environmental Affairs Department;
- The Department of Meteorological Services;
- The Department of Fisheries;
- The Department of Water;
- Non-Governmental Organizations and Faith Based Organizations.

Key challenges to policy implementation

Lack of Inter-sector coordination

The planning and management of climate change and disaster management is currently carried out on a sectoral basis and the involvement of local communities is limited. The resources affected by climate change are governed by sectoral laws and policies. This sectoral separation is one of the challenges affecting adaptation because it does not facilitate a holistic response to climate change. However, the National Decentralization Policy and the National Environmental Policy offer opportunities for cross sector coordination.

Capacity constraints

There exist capacity constraints of institutions at the district and local levels to coordinate climate coping strategies and sustainable land management in an integrated manner. A

number of enabling sectoral policies that promote climate change adaptation have not been effectively implemented partly due to lack of proper procedures for translating policy prescription into field guidelines. There is also limited capacity (skills and resources) at the local level to implement these policies including extension services are limited.

Insufficient livelihood alternatives

The heavy dependence on natural resources to sustain livelihoods directly such as use of firewood for fuel or charcoal for cash income has resulted in over-exploitation of natural resources hence limiting available options when disaster strikes. Further despite extensive feasibility studies on the potential expansion of irrigation in drought or flood prone areas such as the Shire River Basin to improve agricultural production and thus achieve food and nutrition security, extension services to promote sustainable irrigation are lacking. Further the investments in large-scale irrigation projects envisioned by government over the last decade have not be tangible.

Conclusion

Malawi is on course in the adoption of relevant legal and policy instruments in response to climate change. However, major challenges exist in respect to implementation. Some of the key challenges hinge on lack of institutional coordination, capacity and information dissemination thereby affecting the implementation of adaptation and mitigation strategies.

plementation Progress of the Second National Communication (SNC) of Malawi Project and Stakeholder Expectations:

By DR A R Saka, Project Manager for SNC, EAD

1. Background

The Second National Communication (SNC) of Malawi Project was prepared by the Government of Malawi (GOM) in 2005. It was submitted to the Global Environmental Facility (GEF), through the United Nations Development Programme (UNDP), for funding during the same year. GEF approved and funded the Project in March 2006. A Memorandum of Agreement (MOA) between the GOM and GEF/UNDP was signed in June 2006. However, even after signing the MOA, the Project activities could not start until the Environmental Affairs Department (EAD) engaged a full time Project Manager (PM) in September 2006.

Since March 2006, a lot of activities have been conducted, including the recruitment of the PM, Project Assistant (PA), Project Administrative Assistant (PAA), National Team Leaders (NTLs), National Experts (NEs), establishment of the Climate Change Project Office (CCPO) within EAD, procuring some office equipment and supplies and initiating some Project sectoral and thematic area activities.

It is hoped that the implementation of the SNC of Malawi Project will improve the visibility of climate change issues through the involvement of various stakeholders from public and private sector organizations, including Non-Governmental Organizations (NGOs).

2. Project Description

2.1 Purpose

The main purpose of this Project is to prepare Malawi's SNC for submission to the Conference of Partiers (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) by building on previous activities undertaken during the preparation of the Initial National Communication (INC). Further, the Project aims at: -

(i) strengthening the technical and institutional capacities of various public and private sector organizations to acquire skills and competencies in mainstreaming climate change issues in their respective sectoral programmes, policies and strategies;

(ii) contributing to global efforts in better understanding the various sources and sinks of greenhouse gases, potential impacts of climate change, and effective responses measures to achieve the ultimate goal of UNFCCC of stabilizing greenhouse gas concentrations in the atmosphere to a level that would prevent dangerous anthropogenic interference with the climate system;

(iii) proposing climate change projects aimed at finding solutions to climate change problems that communities can adapt and/or use to mitigate climate change; and

(iv) enhancing general awareness on climate change and climate change related issues, and strengthening dialogue, information exchange, networking and

cooperation among various stakeholders in the public and private sector organization arena, including non-governmental organizations (NGOs) and the university involved in climate change issues in accordance with Article 6 of the UNFCCC.

2.2 Thematic areas of focus

The six thematic areas of focus are as follows: -

- National circumstances
- National greenhouse gas (GHG) Inventory
- Vulnerability and adaptation (V&A) assessments
- Greenhouse gas mitigation and abatement analyses
- Other information considered relevant to the achievement of the objectives of the Convention
- Constraints and gaps, and related financial, technical and capacity needs.

2.3 Priority areas of economic growth

Greenhouse gas (GHG) emissions, V&A assessments and mitigation will be analyzed in about nine priority sectors of economic growth as follows: -

- Agriculture
- Water Resources
- Forestry
- Wildlife
- Fisheries
- Energy
- Human Health
- Industrial Processes
- Waste Management

2.4 Project results and outcomes

Project activities will be conducted in the above nine priority sectors of economic growth to achieve the following seven results and/or outcomes: -

- National circumstances,
- Greenhouse gas (GHG) inventory,
- Programmes containing measures to facilitate adequate adaptation to climate change [V&A assessments],
- Programmes containing measures to mitigate climate change (Mitigation analysis),
- Creation of an enabling environment to achieve the objectives of the Convention (Other information considered relevant to the achievement of the Convention),
- Constraints and gaps, and related financial, technical and capacity needs, and
- SNC of Malawi documents.

2.5 Project Outputs and Activities

The several activities will be conducted in the following areas of thematic focus to produce various outputs, which are also the Project's indicators: -

- Implementation arrangements and Project inception
- National circumstances
- National greenhouse gas (GHG) Inventory
- Vulnerability and adaptation (V&A) assessments
- Greenhouse gas mitigation analyses
- Other information considered relevant to the achievement of the objectives of the Convention
- Constraints and gaps, and related financial, technical and capacity needs
- Production and submission of the Second National Communication (SNC) of Malawi.

2.6 Project Implementation Plan

Several months after initiating the Project, the CCPO conducted the following: -

- Inception Workshop (IW)
- Scoping meeting
- Thematic area meetings
- Thematic area workshops
- Maintenance and upgrading of communication facilities
- Launching of the SNC of Malawi

2.7 Monitoring and Evaluation

- Day to day monitoring and implementation progress
- Periodic monitoring of implementation progress;
- Reporting of Project activities; and
- Submission of the Second National Communication (SNC) of Malawi to the COP of the UNFCCC.

3. Progress in the Implementation of Project Activities

3.1 Implementation Arrangements and Inception Activities

- Recruitment of the PM in September 2006, PA in March 2007, NTLs in April 2007 and NEs in June 2007;
- Procurement of capital items before and after the initiation of the Project;
- Establishment of a functional Climate Change Project Office (CCPO), starting from June 2006 to March 2007;
- Updating of the Climate Change Project Steering Committee (CCPSC);
- Inception Meeting (IM) and Reports (IR);
- Scooping Meeting (SM) and Scooping Report (SR);
- Convening the Climate Change Project Steering Committee Meeting;
- Preparation of Project Quarterly Newsletter (Climate Change News Update,

CCNU);

- Preparation of Project Quarterly Progress Reports;
- Preparation of Project Annual Reports;
- Preparation of the Operational Plan (OP); and
- Preparation of the Project Brochure (PB).

3.2 Implementation of Thematic Area Activities

Malawi's national circumstances relevant to climate change: Work has commenced on the updating of Malawi's national circumstances, reviewing the literature, and filling in the gaps identified in the INC and during the stock-taking exercise.

Greenhouse gas inventory: All the National Experts have completed their literature review and are now computing GHG emissions in their specific sectors of study using the 2006 IPCC Guidelines.

Vulnerability and Adaptation (V&A) Assessments: All the National Experts have completed their literature review and have selected appropriate approaches, methodologies and tools to use in conducting sectoral studies. Of noteworthy are efforts aimed at developing baseline climate change, socio-economic and environmental scenarios, and selecting appropriate computer simulation models for forecasting the impacts of climate change in different sectors of economic growth and agro-ecological zones of the country.

Mitigation Analysis: Work is in progress to develop measures for mitigating and abating climate change. All National Experts have completed their literature reviews, and have selected suitable and appropriate approaches, methodologies and tools for conducting mitigation and abatement analyses in selected sectors of economic growth that contribute significantly to GHG emissions.

Other Information Considered Relevant to the Achievement of the Convention: Work under this thematic area is progressing and involves an assessment of the steps to be taken to integrate climate change issues into relevant socio-economic and environmental policies and strategies.

Constraints and Gaps, and Related Technical, Financial and Capacity Needs: Work on this thematic area has not yet commenced. The activities will commence any time after December 2007 when all the sectoral reports will have been submitted to the CCPO.

Second National Communication (SNC) of Malawi: This activity commenced sometime in March 2007 after the NTLs was submitted including their thematic area study reports to the CCPO.

3.3 Dissemination of Information and Project Results

Inception Meeting (IM): The IM was held on August 14, 2007 at Kalikuti Hotel in Lilongwe. The meeting was attended by a cross-section of stakeholders drawn from public and private sector organizations (Appendix 7). The main output of the meeting was the validation of the SNC of Malawi Project by all stakeholders involved with climate change issues.

Scooping Meeting (SM): The SM was held from August 15 16, 2007 at Kalikuti Hotel in Lilongwe. This meeting was attended by nearly all (75%) of the NEs, who are drawn from various public and private sector organizations (Appendix 8). This meeting marked the official start of the SNC Project.

Climate Change Project Steering Committee Meeting: The first aCCPSC meeting was held on November 23, 2006. During the meeting, members approved the annual budget and approved the proposed institutional membership of the committee. As noted above, the CCPSC is chaired by the Department of Meteorological Services, whereas ESD serves as the Secretariat.

3.4 Publications

Climate Change News Update (CCNU): The proposal to establish CCCNU, a Quarterly Project newsletter, was discussed, approved and endorsed by the first CCPSC meeting on Novemner 23, 2006. So far, three issues of CCCNU have been produced, but owing to financial and other logistical problems, these have not yet been printed and distributed widely. However, quotations have been obtained from various publishing houses. Design Printers has been identified to print the newsletter.

Project Quarterly Progress Reports (PPQPR): At The end of each quarter, the CCPO prepares a QPPR for submission to EAD, UNDP and UNDP Regional Office in Pretoria, South Africa, Department of Meteorological Services, and members of the CCPSC. So far four issues have been prepared and submitted accordingly.

Project Annual Reports (APR): It is envisaged that two APRs will be prepared over the two-year period of the Project: - October 2007 and September 2008. This is the APR for the year ending October 2007, and gives an update on Project implementation progress from September 2006 September 2007.

Operational Plan (OP): The OP has been prepared, reviewed and edited for publication and dissemination to stakeholders. Quotations for printing have been obtained.

Inception Report (IR): The first draft of the IR has been prepared. The final review was done during the IM. It is now ready for printing.

Project Brochure (PB): The PB has been prepared, reviewed and edited. It is ready for publication and quotations have been obtained for printing.

4. Expectations

Thus, based on the programme design and implementation, this SNC is aimed at involving all stakeholders in Malawi who are involved in climate change issues. Specifically, it is expected that the Project will: -

Enhance the visibility and impact of climate change issues through increased involvement of all stakeholders;
Enhance the general awareness and knowledge of climate change related issues and enable their incorporation into national planning and policy framework; and

Build national capacities for participation in climate change activities, and in fulfilling Malawi's commitments to UNFCCC.

WORKSHOP CONCLUSIONS AND RECOMMENDATIONS

During the workshop, authors and participants had diverse views and opinions on the various issues which were presented. The recommendations regarding the key issues which emerged at the workshop can be categorized into three areas. These are policy, implementation and role of civil society.

Policy and legal framework:
Policy is dynamic. There is a need to formulate a harmonized and unified policy and legal framework on climate change. This will remove inconsistencies and overlaps among sectoral policies and laws. The other specific action which needs to be undertaken as part of the policy and legal framework is identifying and assessing institutions and their roles in climate change management.

Policy implementation
Implementation of policies has been an extremely challenging aspect within the various sectors. A number of actions were agreed by participants as being the way forward. These included: promoting integrated water resources management; enhancing the capacity of community in adapting to and coping with climate change and variability; conducting regular monitoring and evaluation including feedback to communities; develop participatory programmes and strategies for the removal of cultural barriers to climate change adaptation; establishing or enhancing existing mechanisms for sectoral coordination at various levels, including exploring possibilities for setting up a network on climate change; and integration of climate change issues in primary school education curricula.

Relocation of communities from disaster prone areas
Participants noted with concern that the factors leading to resistance to re-location of communities in disaster prone areas include absence of social services. As such it was recommended that there is need to provide basic social amenities such as schools, potable water and health facilities. Government should engage such other players like civil society and faith based organizations. There should also be a deliberate effort to identify other factors hindering relocation.

Civil society can play an important role in climate change management
Participants agreed that civil society need to play a significant role in advocacy and lobbying. It was noted that civil society should facilitate the policy research on the implementation status of the various climate change related instruments. Civil society should also facilitate the involvement of communities in policy and legislation formulation. Specifically civil society organizations need to develop and implement advocacy and lobbying campaigns on various issues related to climate change management; and disseminate policies and laws to local communities and other stakeholders. This should be supported by translating into requisite vernacular languages.

Recommendations regarding the Malawi Second National Communication
There are huge challenges in linking international instruments with national initiatives. Participants agreed that there is need to develop and implement a communication

strategy of the second national communication at national level to make sure that such global level commitments have national relevance. In addition, participants also recommended that there is need to enhance corporate responsibility with respect to climate change among public and private sector entities. In addition, participants also recognized the need to enhance capacity to implement the National Adaptation Programme of Action (NAPA) at sectoral and community levels.

The Next Steps

Participants to the workshop agreed that although the recommendations had been formulated, there was need for some immediate steps to be undertaken by CEPA to avoid loosing momentum. The next steps were agreed to be as follows:

- Disseminate the workshop report to the various respective stakeholders;
- Examine observations, recommendations and identify issues requiring policy interventions so as to develop policy positions;
- Convene a civil society organization forum to identify niches in the NAPA implementation; and
- Develop synergies between the workshop objectives, outputs, observations and recommendations in order to inform the next programming.

Bibliography

Banda G. Z and Ng'ambi M. (2006), Climate Change and Rural Livelihoods: Impact and Adaptation of Small-scale Farmers in Malawi in Aksel Naerstad (ed); Africa Can Feed Itself. Oslo, Norway.

Environmental Affairs Department, (1997), Malawi's Inventory of Greenhouse Gas Inventories and Sinks for 1990, Lilongwe, Malawi.

Environmental Affairs Department, (2003), Initial National Communication of the Republic of Malawi to the United Nations Framework Convention on Climate Change, Lilongwe, Malawi.

Environmental Affairs Department, (2003), Malawi's Climate Technology Transfer and Needs Assessment, Lilongwe, Malawi.

Environmental Affairs Department, (2003), Research and Systematic Observations in Malawi, Lilongwe, Malawi.

Environmental Affairs Department, (2006), Malawi's National Adaptation Programme of Action, Lilongwe, Malawi.

Environmental Affairs Department, (2006), Inception Report: Second National Communication of Malawi Project, Lilongwe, Malawi.

Intergovernmental Panel on Climate Change (1995), Climate Change 1995. Guidelines for the National Greenhouse Gas Inventories. Reference Manual, Bracknell, United Kingdom.

Intergovernmental Panel on Climate Change (2003), Climate Change Impacts, Adaptation and Vulnerability, Working Group II, Bonn, Germany.

Saka, A. R., R. P. Kabwaza, A. M. Kamperewera, T. Mbale (Ms), E. D. Njewa and R. Kanjedza (2006), Operational Plan for Preparing the Second National Communication of Malawi to the UNFCCC, Lilongwe, Malawi.

UNFCCC, (2003), User Manual for the Guidelines on National Communications from Non-Annex 1 Parties, Bonn, Germany.

UNFCCC, (2002), Poverty and Climate Change: Reducing the Vulnerability of the Poor. A Contribution to the 8th Conference of the Parties to the UNFCCC, Bonn, Germany.