

Nature's voice



Issue 1 July, 2009



**Malawi Commemorates
World Environment Day**

**Government Efforts on
Environmental Sustainability**



The Problem of Load Shedding

About CEPA

Centre for Environmental Policy and Advocacy (CEPA) is a not for profit public interest non-governmental organization registered as a company limited by guarantee in 2002.

As a think tank, CEPA provides advice and conducts research in environment and natural resource management policies and legislation with a view to designing appropriate interventions for promoting sustainable environment and natural resources management.

Our work concentrates on sound environmental governance; in this respect, issues of accountability, institutional strengthening and representation are at the core of our activities.

Our Vision

An equitable and just society that values sustainable environment and natural resources management.

Our Mission Statement

To be a think tank for ideas and action oriented research institution of first choice to promote sustainable environment and natural resources management in Malawi and Southern Africa.

Our Goal

To facilitate policy formulation and implementation for sustainable environment and natural resources management.

Programmes and Projects

CEPA is currently implementing a number of projects and these include: -

Enhancing Capacity for Sustainable Environment and Natural Resources Management Policy Making and Implementation

The overall goal of the project is to achieve sustainable development through sound management of the environment and natural resources. The project is intended to enhance the institutional capacity of CEPA in facilitating formulation, analysis, monitoring and implementation of environment and natural resources management policies.

Policy and Practice Around Disaster Risk Reduction and Climate Change Adaptation in Malawi

The project is being implemented within the framework agreement between CEPA and Action Aid International Malawi. Its objective is to influence policy and practice around disaster risk reduction and climate change adaptation in Malawi.

The Access Initiative (TAI)

TAI seeks to enhance implementation of Principle 10 of the Rio Declaration, 1992, to which the state parties re-committed themselves in Johannesburg 2002 at the World Summit on Sustainable Development. Under this initiative, CEPA is currently

working in enhancing access to environmental information and justice in matters relating to the environment by facilitating enactment of the revised Environment Management Bill and the Access to Information Bill.

Enhancing Capacity for Engagement in Constituency Environmental Management and Natural Resources Advocacy

The project is being implemented by CEPA and its partners namely WESM, CCJP, Mother Care, FOCUS, Legislators and communities in pilot constituencies. This initiative aims at enhancing the capacity of the partners in ensuring that Government of Malawi and donor policies and programmes in ENRM become increasingly responsive to the needs of rural communities with the long term objective of socio-economic development.

Southern Africa Biodiversity Policy Initiative (SABPI)

The main mandate of the initiative is to implement complimentary activities pertaining to national policy on biodiversity, biotechnology, food security, international trade and intellectual property rights including the linkages between and among these.

The Land and Agrarian Reform Initiative

The project seeks to influence land and agrarian reform in Malawi to address several existing imbalances in land ownership, advocate for pro-poor land policies, appropriate institutional frameworks to support people centred land and agrarian reform and share best practices on land and agrarian reform with other countries in Southern Africa.

Publications

CEPA produces Nature's Voice, a newsletter which contains policy related issues in climate change, biodiversity, environment and natural resources management. CEPA also publishes a wide range of reports, policy briefs and other publications on the work it implements and electronic copies of these are available on its website.

Resources

CEPA maintains a resource centre of journals, books, newsletters and related materials which is constantly updated. These materials can be accessed by the public at CEPA premises at any time.

Contact Us

Centre for Environmental Policy and Advocacy
Plot No. 163, WICO Premises
Johnstone Road,
Off Masauko Chipembere Highway
P O Box 1057, Blantyre
Malawi.
Tel: (+265) 1 914 554
E-mail: cepa@cepa.org.mw
Website: www.cepa.org.mw



Editorial

Highest Political Support

Mzati Nkolokosa
mzatinews@yahoo.com
Television Malawi



There is something good happening. It is good for all of us and mother earth. President Dr Bingu Wa Mutharika spent a substantial part of his speech talking about management of climate change.

The President was speaking at the 15th Non Aligned Movement Summit on July 15, 2009, at Sharma El Sheikh Congress Centre in Egypt. This was a powerful meeting of this 118 member body which is the biggest outside the United Nations General Assembly.

In discussing the theme of the summit, *International Solidarity for Peace and Development*, Dr Mutharika made real commitment to issues of climate change. "Global warming is raising the temperatures of the world, causing heat waves, torrential rains, devastating typhoons and hurricanes, rising sea levels and vanishing islands, increased salination of water sources for island nations, environmental degradation, severe droughts and desertification and many other calamities", said the President.

His conclusion on the matter was even greater news. "These call for serious consideration by our organization and a new platform for solidarity to deal with an impending global crisis. Malawi stands ready to join hands with other nations to find common effective solutions to the crisis of climate change. If we fail to find lasting solutions to these challenges, we shall perish together."

Good words from our President. It is up to us in the environment field to chance on this goodwill and political commitment from Dr Mutharika for the good of our cause: mitigating and adapting to climate change.

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Editorial team:

Taona Buleya
William Chadza
Chisimpika Mphande
George Phiri

Design and Layout

Chisimpika Mphande
Andrew Mtupanyama

Contributors:

James Kalikwembe
David B Kamchacha
Aloysius Kamperewera
Mateso Kazembe
Misford Mikuwa
Charles Mpaka
Chisimpika Mphande
Mzati Nkolokosa
George Phiri
Francis Singine

Published by the Centre for Environmental Policy and Advocacy
P O Box 1057, Blantyre, Malawi.
Tel: (+265) 1 914 554
Fax: (+265) 1 830 587
E-mail: cepa@cepa.org.mw
Website: www.cepa.org.mw

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Agricultural Greenbelts

A Way Forward to Attaining Improved Food Security and Increased Incomes both at Household and National Levels

Francis Adamson Singine
singinefrancis@yahoo.co.uk
Blantyre ADD



Malawi's economy remains agro-based, with agriculture accounting for more than 80 percent of export earnings, 38 percent to the Gross Domestic Product (GDP), and supports 85 percent of the population. Smallholder farmers, most of whom are resource constrained, contribute about three quarters of total agricultural output and are practicing different agricultural enterprises ranging from livestock, crops and fisheries. Proper coordination of all stakeholders, especially farmers, for effective action is a great challenge in the face of a liberalised market economy. However, such a challenge poses an opportunity since if well organized; these farmers are a great economic force for growth and development as envisaged by the Malawi Growth and Development Strategy (MGDS) which is the government's medium term strategy (2006/7 to 2010/11). One of the interventions to enhance farmer coordination and integration in activity implementation is the agricultural greenbelt initiative.

The Grand Green Revolution of Malawi is one of the agricultural concepts initiated by the Ministry of Agriculture and Food Security (MoAFS) in order to support various agricultural technologies in crop, livestock and fish production, land resource conservation and management. It is an innovative strategy aimed at making a significant difference for impact and improved extension services delivery in the country.

An agricultural greenbelt is a stretch of well managed integrated enterprises aimed at sustainably maximizing food, nutrition and income security. It provides a ground for integrated packaging of interventions for greater efficiency by getting farmers organised for effective action for the market,

besides food and nutrition security needs. For sustained production throughout the year, greenbelts are both rainfed and irrigated.

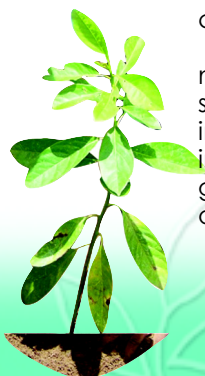
The promotion of greenbelts started in 2005/06 season for smallholder farmers with focus on maize, cassava, tobacco, cotton, groundnuts and beans among others.

Scope of Greenbelts

The Greenbelt Initiative is in line with the priority pillars of the Agricultural Development Programme (ADP), which include food security and risk management, commercial agriculture, agro-processing and market development and sustainable management of land and water. The ADP is aimed at increasing agricultural productivity, improving food security, diversifying production to improve nutrition at household level, contribute 6 percent to annual growth in the sector, and increase incomes of rural poor. The ADP is therefore a priority investment programme in the agricultural sector. The programme is based on the priority agricultural elements of the MGDS which are crucial to the attainment of the nation's Vision 2020. The ADP is also consistent with the Comprehensive African Agricultural Development Programme (CAADP) under the umbrella of New Partnership for African Development (NEPAD).

Underlying Principle for the Agricultural Greenbelts Initiative

Problems encountered by smallholder farmers are multidisciplinary in nature hence demand coordinated efforts of all stakeholders. These problems include erratic rainfall, inadequate access to improved agricultural technologies, financial constraints, information asymmetry, low value addition, and inadequate input and output markets. The Greenbelt Initiative is therefore the right approach in dealing with such multifaceted problems since the initiative prioritises coordination of value chain players to speed up agricultural development. The greenbelt experiences have shown that smallholder farmers who participated in the rainfed and irrigated greenbelts increased production which





A maize belt grown with the help of irrigation, with the aim of maximizing food, nutrition and income security

resulted in increased food and income.

Greenbelts bring together the value chain players, influencers and supporters to a common ground where they can effectively operate. The greenbelt concept provides for multidisciplinary pluralism in provision of agricultural information and technical advice where all players in the value chain have a stake at a strategic point. The spirit behind the greenbelt movement is the creation of a critical production mass at farmer level through greater organization that should grow to business oriented organisations with economies of scale.

The initiative uses the village as an entry point. This is because the village is the most stable institution in which members use their social and physical capitals to improve livelihoods. The existing community structures like Village Development Committees (VDCs), stakeholder panels, and lead farmers are strategically organized to support implementation of agricultural greenbelts. Successful villages could be considered for developments like rural

finance and grain banks, market centres, police agencies, clinics, postal agencies, electricity, water supply, telephones and good roads. In view of the above nature of issues, the greenbelt initiative targets a wide spectrum of stakeholders at all levels of the value chain.

Objectives of Agricultural Greenbelts

The greenbelt aims to increase food and nutrition security and enhance wealth creation for all Malawians through the following;

- Increasing area under sustainable irrigation by rehabilitation and development of irrigation schemes;
- Increasing production and productivity for crops, livestock and fisheries enterprises;
- Improving knowledge and operations of farmer organisations and extension support structures;
- Improving value chain linkages and operations; and
- Increasing infrastructure for value chain operation efficiency.



The Greenbelt

and Water Resources Management

Misford Wedson Mikuwa
misfordmikuwa@yahoo.com
Department of Water



"What is this greenbelt being talked about" This is the question many people are asking. The answer is simple. It is going to be a stretch of land along the lakeshore and major rivers grown with a variety of crops.

The next question people ask is "For what purpose" Good scenery of course, but not really that, the main purpose is to utilise the available water resources and agricultural potential in food production for the benefit of all Malawians. The greenbelt initiative is much dependent on our water sources. This article will concentrate on the water resources' potential and will link water resources management with food security and sustainable environmental and natural resources management (ENRM).

The Importance of Agriculture to Malawi
Malawi is an agro-based country, as such

agriculture is by far the most important sector in our economy accounting for 85% of all employment and generating more than 80% of all export earnings. Low irrigation development and lack of coordinated integrated water resources management are the key issues underlying the low productivity and profitability of Malawi's agriculture.

Despite the relative abundance of water resources and the high priority accorded to agriculture in the economy, irrigation development has been relatively limited, and only 27% of the irrigation potential has been exploited.

The Status of Water Resources

Malawi is endowed with a variety of natural resources which include vast water resources. Although there are adequate water resources in forms of rivers, lakes and groundwater, the resources have not been developed fully to meet socio-economic objectives. Some of the water resources are seasonal and not able to provide water during the dry season and this brings about the question of sustainability and reliability of the water supplies.

There is also a growing trend of water pollution due to agricultural and industrial contaminants, especially from surface runoff,



Management of water resources is crucial to the success of the greenbelt





A degraded catchment contributes to a water resources' degradation

and high levels of water extraction without a monitoring system for the resources. This implies that if nothing is done in the direction of proper management of the resources, the country could reach a water stress situation which would likely have an irreversible socio-economic downturn and impinge on the success of the greenbelt initiative.

It is also worth noting that flows in the Shire, the country's largest river, are largely determined by the water level in Lake Malawi. Between 1915 and 1935, the river ceased flowing due to low lake water levels and high sedimentation at the mouth of the river. During the mid 1990s, water levels were at the lowest in 60 years, resulting in the

low flow in the Shire and consequent power shortages.

Challenges to Implementation of the Greenbelt

Water resources are a component of the hydrological cycle and therefore management of the resources requires interventions at different points within the water cycle. Some of these points are directly under the responsibility of the Ministry of Irrigation and Water Development, the institution responsible for water resources, while others are under the responsibility of the forestry, agricultural, environmental and the infrastructure management sectors just to mention a few. Poor catchment management contributes to water resources degradation, including diminished flows, and at times induced high flows. As such, management of the water resources requires a holistic approach by a number of players including the general public even at local assembly level and land users within the key catchment areas.

It is for this reason that the success of the greenbelt initiative is very much dependent on all players who live in the catchment of the water bodies to be used.

On the other hand, siltation can negatively affect the greenbelt rendering it useless. Silt and nutrients from the greenbelt can also affect the water sources downstream of the greenbelt. Where the nutrients find their way into the water bodies, they would induce the proliferation of invasive alien water weeds.

It is therefore important to properly manage our water resources in order to sustainably ensure continual and efficient flow of water for the success of the greenbelt project.



Photo: Roy Kachale

Heavy pollution of Mudi River from industrial contaminants may affect its potential use for agriculture



The Current Status of Farmers' Rights in Malawi

George Phiri

george@cepa.org.mw
CEPA



Introduction

In the article titled "Promoting Adaptation through Farmers' Rights" carried in the December 2008 issue of "Nature's Voice", Gracian Banda highlighted that the realization of farmers' rights in Malawi is a key step to empowering resource-poor and low productivity farmers. The implementation of farmers' rights would ensure sustainability of agricultural productivity and contribution towards food security, livelihoods improvement and economic growth. Curious readers may ask: "what are farmers' rights?", "In what ways can the realization of farmers' rights empower smallholder farmers to increase the resilience of the agricultural sector in Malawi" and "what is the current status of the realization of farmers' rights in the country?" This article addresses these questions and provides a snapshot of the insight on farmers' rights from smallholder farmers in Kasungu, Mulanje, Thyolo and Phalombe districts given during seminars we held with them early 2009.

Understanding Farmers' Rights

With the continued growth of democracy in Malawi, due recognition continues to be paid to human rights which is about the basic rights and freedoms to which all humans have. A clear distinction thus has to be made between these basic rights that humans, including farmers, may claim from duty bearers such as political leaders, traditional leaders and religious leaders, and farmer's rights. Farmers' rights consist of the customary rights of farmers to save, use, exchange and sell farm-saved seed and propagating material, their right to be recognized, rewarded and supported for their contribution to the global pool of genetic resources as well as to the development of commercial varieties of plants, and to participate in decision making on issues related to crop genetic resources. These rights arise from the past, present and future contribution of the farmers in enriching and enhancing plant genetic resources.

In 1989, the Food and Agriculture

Organization (FAO) of the United Nations recognized "the enormous contribution that farmers of all regions have made to the conservation and development of plant genetic resources, which constitute the basis for plant production throughout the world, and which form the basis for the concept of farmers' rights". The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), also known as "The Plant Treaty", was approved at the FAO Conference in 2001 and entered into force in 2004 to harmonize the International Undertaking on Plant Genetic Resources signed in 1983 with the Convention on Biological Diversity (CBD) and is centred on farmers' rights. It is a legally binding multilateral instrument that deals with the conservation, management and sustainable use of plant genetic resources for food and agriculture and provides for farmers' rights (Box 1).

According to the ITPGRFA Policy Brief No. 16 of 2008, Contracting Parties are expected to review their existing policies, laws and regulations and, if required, adopt new policies, laws and regulations to ensure that the obligations under the Treaty are effectively implemented. In this regard, it is crucial for each Contracting Party to work out a strategic plan to implement the Treaty within the context of its national vision of social, economic and cultural development, and international cooperation.

Why Farmers' Rights?

Farmers' rights will ensure the continued richness of agricultural biodiversity, or in short agro-biodiversity, in Malawi's agro-ecosystem. Agro-biodiversity is particularly important to the country's smallholder farmers as it provides a pool for plants which can resist or tolerate challenges such as pests and diseases, marginal conditions of soil fertility and rainfall, and climate change. It is thus a key tool for adapting food production to changes in environmental conditions, has a critical function of spreading risks of crop failure, and underpins food security, poverty reduction and agricultural driven economic development aspirations spelt out in the Malawi Growth and Development Strategy (MGDS) and Vision 2020.

Despite the importance of plant genetic diversity to smallholder farmers, factors such as the introduction of commercial crops and their requirements for changes in agronomic practices such as monocropping rather than





A display of a diversity of tubers

Box 1. Key Provisions on Farmers' Rights in Article 9 of the ITPGRFA

● **Article 9.1 states that:**

The Contracting Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.

● **Article 9.2 states that:**

The Contracting Parties agree that the responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture rests with national governments. In accordance with their needs and priorities each Party should, as appropriate and subject to its national legislation, take measures to protect and promote Farmers' Rights, including: (a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture; (b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and (c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

the traditional intercropping, changes in land-use practices, urbanization and the impacts of climate change are all contributing to the rapid erosion of genetic diversity. Moreover, plant genetic resources of smallholder farming communities in Malawi and their associated traditional knowledge have in the past been a target of appropriation by predatory individuals, institutions and seed companies who seek exclusive monopoly control of plant varieties through patents or other forms of intellectual property protection over these

resources and knowledge. These others have used the farmers' plant genetic resources to develop "improved and modern varieties" whose seed they have sold back to the farming communities at high prices. The seed for these modern varieties can neither be saved on the farm nor recycled. In so doing, farmers' rights, their right to food, and their food sovereignty have been seriously trampled upon. Farmers have been left to the ransom of multinational seed companies for their access to seed. As if this is not enough, some of the famous multinational seed and agro-input companies have gone steps further to cash-in on the ravages from the impacts of climate change that have far-reaching consequences on poor farming communities. They are reported to be stock-piling hundreds of monopoly patents on genes in plants which they will market as "climate-ready" crop varieties that have been engineered to withstand environmental stresses such as pests and diseases, drought, floods, heat and many more. Clearly, the implementation and realization of farmers' rights in Malawi will significantly protect rural livelihoods; secure smallholder farmers' access to genetic resources; protect their rights to seed; and lift rural communities out of poverty.

Implementation of Farmers' Rights in Malawi

The implementation and realization of farmers' rights in Malawi continues to meet major challenges. Principal among these challenges is the lack of a supporting policy and regulatory framework. The country neither has a *sui generis* legislation nor a policy on agro-biodiversity. Attempts to incorporate farmers' rights into a variety protection legislation has met with stiff resistance from the plant breeding fraternity which has vested interests in plant breeders' rights provided for in the Draft Malawi Plant Breeders' Rights Bill. This fraternity has justified its view by restricting

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The Problem of Load Shedding

Charles Mpaka
mpakacg@yahoo.com
Daily Times



Load shedding has been seen by some people as the trash that collects in the electricity generation machines at ESCOM's power stations on the Shire River. The truth is that the trash is one of the reasons why there is load shedding. And as it will be seen later, it is also that load shedding is one of the reasons why there is trash.

But the term load shedding stands for a temporary reduction in the supply of electricity as a way of easing the pressure or demand on the generators.

Even if it is confused in its associations, load shedding is familiar to Malawians. Power cuts happen almost every day. Malawians expect them. In fact, from our experience with load shedding, the strange thing that would happen would be to have electricity all day every day.

Why Load Shedding?

Malawi has been growing in population and in demand for energy supply. The growth has outpaced that of electricity supply development. This has led to increased pressure on the little watts of electricity available. The higher the demand for the available electricity, the higher the pressure is on the generation. Increased and sustained pressure on generation would eventually lead to the collapse of the entire generation system, according to ESCOM.

If that was to happen, the consequences would be enormous. The whole Malawi would be in the dark and industries would



A charcoal vendor at Ndirande Market; business improves when there is no power.

be at a standstill for longer than it happens in times of these regular power cuts.

To avoid such a calamity, ESCOM alternately switches off some parts of the country especially at the time when demand is far too high to match supply such as in the morning, at noon and in the evening. These are times when electricity is used most.

That is to say, load shedding is a precautionary measure against what could turn out to be a disaster that would affect the whole country, probably for several days or weeks.

Impacts of Load Shedding

As indicated, these deliberate blackouts, if



Part of Nkula Hydro Power Station where some of the country's electricity is generated



they are to be so named, affect the Malawian society in different ways. Electricity is the main source of industrial energy in Malawi. It is used in textile companies, food and beverage processing industries, in large-scale farm operations and in hospital work among many others. These are central to the development of Malawi. Load shedding affects the operations of these activities. In the end, the impact trickles down to the ordinary person.

Unreliable electricity supply has been cited as one of the impediments to foreign industrial investment and growth in Malawi. The Africa Competitiveness 2009 Report released early this month by the World Bank observes that African countries such as Malawi are failing to get and keep a foothold in the global market because of low production capacity due, in part, to poor infrastructure and low, unreliable energy capacity.

Incidentally, the economic gains that Malawi is failing to realise in this respect should have been the ones to be invested in developing power generation.

Households that are electricity-powered have had to bear with the inconvenience and insecurity that comes about because of power cuts. Although blackouts are a familiar feature to Malawians, increasing public complaints about them measures the extent to which Malawians are being affected by load shedding.

Load Shedding and the Charcoal Trade

The unreliable state of Malawi's electricity is working against efforts by different players to curb on charcoal making and use and save the environment. If electricity was there all day everyday at affordable rates, many households that are connected in Malawi would not have been buying charcoal. Then, charcoal trading would perhaps have reduced in profitability, which would have forced those in the trade to look for alternative means of making money, thereby saving Malawi's forests.

However, because of the frequency of power cuts, households that have electricity also have to budget for charcoal to fall back on in times of blackout (of course, other factors have been given as contributing to this reliance on charcoal, namely, expensive electricity rates and inadequate customer coverage by ESCOM.)

In any case, the problem is cyclical here because reliance on charcoal is the reason why Malawi is one of the heavily deforested countries in the region. Lands cleared of forests and vegetation are prone to erosion which has been the cause for heavy siltation and collection of trash in Malawi's rivers, another problem said to be causing load shedding.



A woman using a charcoal burner as a cooking alternative due to frequent power failure

It has been said that heavy deforestation in Shire River catchment areas is responsible for the collection of trash at ESCOM's power stations in the river. The trash affects the operations of the machines, which filters down to reduced energy generation. That is on top of the fact that the generators have to cope with increasing demand for electricity. It has become fashionable for ESCOM to switch off the country once or twice every year to clear the trash and restore the generators capacity.

That is to say, the more Malawians rely on charcoal, the worse will electricity supply become. And the more the power cuts happen, the more will be people's reliance on charcoal.

Breaking the Cycle

It is clear that load shedding is playing a part in worsening deforestation in Malawi and that deforestation is helping to cause load shedding. There has to be a solution for this cycle, nevertheless.

Basically, it is a matter of choosing between the two: electricity or charcoal. The fact though is that Malawi would lose more than just electricity if people continued to turn back on forests for energy. Thus, greater and appropriate investment in electricity could break that cycle.

ESCOM has been talking about rehabilitating some of its power stations such

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Government of Malawi's Efforts on Environmental Sustainability and Livelihood Enhancement

Mateso Kazembe

kamateso@yahoo.com
Ministry of Economic
Planning and Development



It is very appropriate, to define the term "environmental sustainability". Put simply, environmental sustainability is the ability to maintain the qualities that are valued in the physical and biological environment. For instance, human life and its quality, the beauty of the environment, clean air and water are some of the aspects that are cherished in the environment and hence the need to be sustained.

This explains why United Nations (UN) member countries adopted environmental sustainability as one of the Millennium Development Goals (MDGs) because they realized that it was one way of improving the socio-economic status of developing countries like Malawi which, since independence, has been experiencing rampant environmental degradation. This has been hugely a consequence of poverty, rapid population growth and inadequate affordable alternatives to energy technologies.

Over the years, reliance on the environment by the country's poor as the major source of income and energy has exacerbated its degradation and created problems of their own, like exposing it to soil erosion which in turn has resulted in reduced crop yields thereby having a negative impact on food security over the years.

Likewise, the huge population increase has resulted in people opening up forest land for their farming activities thereby depleting forest resources which are already under untold strain because 85 percent of the Malawian population relies entirely on its



Women walk long distances for firewood as forest resources are depleted

resources for wood, timber products and traditional medicine. Currently, Lake Malawi, which is the country's largest supplier of fish is struggling to satiate the increasing fish demand of the 13 million Malawians, has seen depletion of its fish resources.

The outcome of these developments have been unpleasant with the rural population being the major victims in that they have to travel long distances in search of firewood and traditional medicine.

Such developments have led to the Government of Malawi (GoM) putting in place various policies to assist it in achieving the set targets of the MDGs. The Malawi Poverty Reduction Strategy Paper (MPRSP), Malawi Economic Growth Strategy (MEGS) and the much recent Malawi Growth and Development Strategy (MGDS) are some of the major policies GoM has formulated since 2001 in order to achieve MDGs targets and its



fight against poverty.

Nonetheless, particular emphasis needs to be placed on the MGDS, which is government's overarching policy agenda for the period 2006-2011. The policy has set aside priority areas and themes to aid it in the fight against poverty, to achieve economic growth and achieve the MDGs targets. Pillar (theme) II in the MGDS is on Social Protection and Disaster Risk Management Interventions. Currently, a social protection policy has been developed and comprises four themes which are; provision of welfare support; protection of assets; promotion of livelihoods through productivity enhancement; and policy linkages and mainstreaming. The last theme has the sole objective of ensuring synergies amongst all the social-economic programmes in the country.

The policy contains guidelines on programmes that target a particular category of the poor people. This has been more of a deliberate mechanism to assist the poor to move out of poverty and as the following paragraphs will illustrate, how many of such programs are intended to shift the people's reliance on the environment as a source of income.

The Public Works Programme (PWP), currently being implemented by the Malawi Social Action Fund (MASAF) and European Union (EU) targets the poor with able bodied labour. The poor exchange their labour with cash or food and some of the activities under PWP include road construction, afforestation and fisheries. MASAF alone disbursed about US\$ 7.4 million to all the district assemblies in the country for PWP in 2008/09. 80% of these resources constituted cash transfers for the poor and by the end of the programme 317, 610 people benefited. It is also worth mentioning here that over 30% of the subprojects were on environmental sustainability.

In the same vein, GoM extended the tree planting exercise first from a day to a week, and is now a season, to ensure that many trees are planted. Similarly, GoM's development partners, the United States Agency for International Development (USAID) for instance, has been assisting government in civic education of rural communities on the importance of the environment.

It is also appropriate to mention the strides that the Malawi Social Cash Transfer (MSCT) programme, that is presently being rolled out in 7 districts of Chitipa, Likoma, Mchinji, Salima, Mangochi, Machinga and Phalombe has made. The MSCT currently is reaching over 18, 000 households in the 7 districts thereby reaching a total of over 70, 000 people. The programme offers monthly incomes to vulnerable households with no labour. The objectives of the programme are to mitigate poverty and encourage children



The fish stocks in the country's lakes and rivers are dwindling

to go to school. This programme has an indirect impact on the environment as it leads to asset creation.

In addition, the agriculture input subsidy programme (AISP) that has been implemented since 2004 has helped households to be food-secure and have surplus to sell thereby making the nation food-secure. For just the 2008/09 farming season, the subsidy programme reached over 1.9 million people and about MK30 billion was spent on it. Furthermore the Farm Income Diversification Programme (FIDP) supported by EU that is aimed at improving rural livelihood through agricultural diversification is currently under way in 11 districts of Chitipa, Karonga, Rumphi, Mzimba, Nkhotakota, Salima, Dowa, Lilongwe, Balaka, Thyolo and Chiradzulu. Both AISP and FIDP are aimed at promotion of livelihoods through asset creation.

Finally, poverty figures which stood at 52% according to the Integrated Household Survey (IHS) 2 in 2005 were at 40% in 2008 and despite that the official figures of 2009 are not yet out; there is a belief that they will be lower.



A Synopsis of Environmental Programmes and Challenges in Malawi

Aloysius Kamperewera

aloyusius@sdpn.org.mw
Environmental Affairs Department



Soils Erosion and Land Degradation

Soil erosion and land degradation rank top on the list of environmental problems in Malawi. Yet, the very soil we lose as a result of these problems is the critical medium for livelihoods. One wonders why we continue to degrade this very basis of our survival and socio-economic development. In answering this fundamental question, the environmental scientist will probably blame the lack of adequate knowledge on causative factors and impacts while an environmental lawyer will blame it on critical gaps in implementing appropriate environmental laws and regulations. The poor smallholder farmer will often blame it on poverty and the lack of alternative livelihoods while a typical politician will shift the blame on the lack of alternative sources for income generation to end poverty among the electorate.

As if this is not enough, government response to reverse this sad perception and scenario exists only in segmented forms in sector compartments. For instance, sustainable land management programmes exist but in unfamiliar forms of language such as TerrAfrica, National Adaptation Programme of Action (NAPA), and recently Climate Change Development Adapting by Reducing Vulnerability (CC DARE). Specific best practices designed to improve soil and water conservation include: agro-forestry; improved land tenure systems, Payment for Ecosystem Services Programme [PES] and; land use planning and mapping [zoning]. All these initiatives, however, lack common direction,



Signs of severe land degradation are a common sight along our roads

coherence, common goal and purpose as well as holistic approaches.

Deforestation

Conservationists otherwise call this as the wanton cutting down of trees and characterizes the livelihoods self-destruction by humans. This practice re-affirms the assertion that amongst all living organisms, humans are the only species that has the highest potential for self-destruction. We harm nature and ourselves without remorse for our destructive tendencies such as deforestation.

While some people see forests and mountains as the last remaining refuge of



Loss of vegetation directly translates into soil erosion and siltation of water bodies

biodiversity and a wide range of ecosystem services, others view them as sources of cheap wealth and invaluable treasure. The Holy Bible clearly states that a solid and long-lasting house is the one built on the rock – but oops! Some notorious species called *Homo sapiens* or humans in our country perceive that they can cultivate abundant crops anywhere, including on steep slopes, mountains and wetlands. Most recently, they are also cultivating on the shoulders of key roads and undermining the foundation they are built on and severely reducing their lifespan. The situation requires immediate redress by dedicated environmental planners, the grassroots communities that often suffer the brunt of environmental degradation, and a strong political will.

Anthropogenic or human-induced factors that exacerbate environmental and land degradation include deforestation. In most cases, people wantonly cut trees for the charcoal trade and for the brick burning industry. Several interventions below have been adopted to address this problem with largely insignificant positive impacts:

National Tree Planting for Carbon Sequestration:

While this programme was designed to improve forest cover and carbon sequestration to mitigate effects of climate change, the scale of implementation has remained too low



to make a significant impact on Malawi's landscape. The programme was designed to support rural livelihoods through income enhancement from tree growing as a commercial venture for carbon trading under Clean Development Mechanism (CDM) projects. Due to low implementation capacity, benefits from the CDM remain distant and elusive.

The Charcoal Trade

Debate has been raging on the origins, impacts and benefits of charcoal on the local and national economy. Traders in this commodity see endless superficial opportunities as trees are mistakenly considered to be freely-given by God. While these traders perceive themselves to be wealthy, their families, however, have nothing to show amongst all the recognized indicators of wealth at the household level. Their own children are often left with nothing to inherit except a barren landscape with diminishing economic returns.

Causes of the charcoal trade menace include the lack of alternative sources of energy, lack of capacity and the lack of robust systems for energy forecasts and planning at national level. However, these factors do not justify the huge scale at which deforestation is occurring. At the current rate of charcoal burning and trading, one wonders how much deforestation will have occurred by the years 2030 or 2050.

Alternative Sources of Energy

A government-led programme promoting alternative sources of energy exists and is designed to address the critical energy problems faced by over 80% of the people that burn charcoal and firewood for cooking and heating purposes. These alternative sources are meant to replace charcoal and firewood countrywide and probably offer space for the development of sustainable biomass utilization programmes. However, the prices for most of the recommended alternatives are presently pegged higher than the purchasing power of most charcoal and wood biomass users. A possibility worth considering is for the Ministry of Finance responsible for taxation to provide price reduction measures.

Air Pollution and Climate Change

Experts and policy planners on this complex subject advise that at the centre of this problem are numerous factors including: vehicle emissions of lead, sulphur and smog. It also originates from fugitive emissions from wild bush fires, deforestation and uncontrolled landfills (including where solid waste is disposed). Pollution into the atmosphere has caused climate change and the plethora of impacts already being experienced.

While the focus for developed country parties to the United Nations Framework Convention on Climate Change (UNFCCC) is climate change mitigation, options for developing countries including Malawi focus on adaptation initiatives with emphasis on



Huge loads of charcoal are often wheeled into all urban areas of Malawi at the expense of forests

addressing the most urgent impacts and needs. The NAPA launched by State President in February 2008 seeks to promote various initiatives and actions including:

- Improving community resilience to climate change through development of rural livelihoods;
- Restoring forests in upper and lower Shire Valley catchments to reduce siltation and associated water flow problems;
- Improving agricultural production under erratic rains and changing climatic conditions;
- Improving Malawi's preparedness to cope with droughts and floods; and
- Improving climate monitoring to enhance Malawi's early warning capability and decision-making.

Other proposed climate change interventions include introduction of cleaner fuels, up scaling of afforestation, effective control of wild bush fires and proper disposal of solid and liquid wastes.

Uncontrolled Bush Fires

This is perhaps one of the most common destructive practices and yet still remains the least recognized source of menace in the environment. While conservationists and nature lovers are horrified by the act, the mice and rabbit hunters superficially see huge opportunities for sourcing animal protein, but at what price? The Ministry of Agriculture and Food Security can diversify its efforts to build capacity for domesticating small birds and mammals to curtail the practice of causing bush fires for the sake of hunting small game like mice and rabbits.



Uncontrolled bush fires release harmful fumes and gases that pollute the atmosphere, destroy biodiversity and degrade the environment



Malawi and Climate Change

Need for Community Based Adaptation and Mitigation Efforts

James Kalikwembe,
jamgatha@hotmail.com
Evangelical Association
of Malawi



Poor subsistence farming families in the rural areas of Malawi are in the danger of losing out in life because of effects of climate change; only community based and sustainable coping strategies can help reverse the trend...

In the recent past, Malawi has experienced effects of global climate change with increased frequency and intensity of adverse weather-related hazards like abnormal rainfall, dry spells, cold spells, landslides, hailstorms, mudslides and seasonal droughts among others. This has had negative impact on agricultural production and the country's economy.

The frequency and intensity of dry spells is hitting not only 'traditionally dry-prone districts' but even other districts not classified as lying in the rain-shadow areas. In the 2008/2009 growing season tea production fell by 7% as a result of an extended dry spell in November and December yet tea is grown in high rainfall districts of Malawi. This has had negative impact on the national economy as tea is the second highest foreign exchange earner.

The situation is further aggravated by vulnerability factors like over-dependence on rain-fed agriculture, degraded environment, limited livelihoods, abject poverty and other

dynamic pressures like HIV and AIDS. Effects of climate change are being felt nearly every day in human health, agriculture production, forestry and water management, just to mention a few. The majority of the country's poor and vulnerable people who live in drought and flood prone areas and whose livelihood depends heavily on natural resources are those who suffer most because of lack of alternative and sustainable coping strategies.

Although the issue of climate change continues to be debated around the globe, it is accepted without question that the climate is warming globally. The planet Earth is surrounded by a blanket of gases which keeps the surface of the earth warm and able to sustain life. This blanket is getting thicker, trapping in heat as we release greenhouse gases by burning fossil fuel for energy while we cut down trees and replace them with agricultural and habitation land. As a result, our climate is changing. It is now with no doubt that the average weather Malawi has had over a long period of time has changed.

The severity of global warming over the next century will be much worse than previously believed. It is also said that the world is yet to experience the impact of the greenhouse gas emissions from the last 30-40 years.

Unless something is done to drastically mitigate the effects, least developed countries (LDCs) and indeed poor and vulnerable people like those of Malawi will continue to bear the brunt of the effects even though they are not the major culprits of climate change. The poor have limited sustainable alternatives for their livelihoods and continue to lose out in life. Unfortunately



Cutting down of trees for charcoal burning is increasing communities' vulnerability to climate change



some of their coping mechanisms like charcoal business is increasing their vulnerability as well as accelerating climate change because trees, which are natural greenhouse gases 'sink basins' are taken out of the way.

If the vulnerable people are to come out of the nature trap, then the need to develop effective community based and people centred climate change mitigation and adaptation strategies cannot be overemphasized. There is need to incorporate the voice of vulnerable communities into decision making processes because intergration of traditional knowledge on local coping mechanisms is essential. This is particularly important given the fact that secondary effects of climate change have already started undermining the capability of local people and ecosystems to cope with, and recover from extreme climate events and other natural hazards.

In the agriculture sector community based adaptation practices may include growing of drought resistant crop varieties, rainwater harvesting, improved natural resources management, promoting small scale irrigation and livelihoods diversification to mention just a few.

On the other hand climate mitigation involves interventions to reduce the sources of greenhouse gases or enhance the sinks to reduce carbon dioxide from the atmosphere. Measures at community level might include reducing energy demand by adopting locally made energy efficient stoves, improving livestock and manure management to reduce methane gas emissions, and improved application and management of inorganic fertilizers such as nitrogen to reduce nitrogen oxide emissions.

Tree planting to create carbon sinks is also a part of mitigation. Pressures such as rapid population growth impacting on the already dwindling natural resource base need also to be addressed in the mitigation initiatives. Adaptation and mitigation measures should hinge on ensuring sustainable development to replenish the natural resource base so that the benefits should be enjoyed now and by future generations.

Implementation of community based mitigation and adaptation measures need government intervention and commitment. Unfortunately not many governments, both developed and developing, are moving at the desired pace to deal with the issue. The Malawi Government signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and ratified it in 1994. Following this, the government, years later developed its National Adaptation Programme of Action (NAPA) in 2006 with



Adapting to the climate change; Watering a tree seedling directly to the roots during dry season

the primary objective of "identifying and promoting activities that address urgent and immediate needs for adapting to the adverse impacts of climate change among rural communities in vulnerable areas of the country". The NAPA identified eight sectors needing attention namely: agriculture, human health, energy, fisheries, wildlife, water, forestry and gender.

There is need to implement NAPA at community level, otherwise it will remain a good planning document while vulnerable communities continue to suffer adverse effects of climate change. While government machinery and nongovernmental organisations (NGOs) are implementing different adaptation strategies, there is still a lot to be done to ensure institutionalization of climate change at all levels and harmonization of intervention efforts. This calls for a systematic capacity building of responsible local personnel to effectively analyze the threats and potential impacts of climate change.

It is in this context that mainstreaming of Disaster Risk Reduction (DRR) should be promoted at all levels. Disasters, exasperated by effects of climate change, can have a huge impact on livelihood opportunities and on people's resilience. "DRR describes the development and application of policies, strategies and practices that minimize vulnerabilities, hazards and unfolding disaster impacts throughout a society in the broad context of sustainable development". It promotes a proactive approach to disaster risk management by reducing vulnerability and building capacity of communities to become resilient to disaster shocks and stresses.



Disaster Risk Reduction

David Boston Kamchacha,
kamchcchadavid@yahoo.com
Evangelical Association
of Malawi



Disaster is the combination of an exposed, vulnerable and ill-prepared population or community with a hazardous event that result in a disaster. A natural phenomenon in itself such as earthquake, or wind, or flood is not a disaster per say. A disaster happens when and only when hazards impacts on vulnerability. It is important to understand this definition otherwise we always call floods or drought or wind (cyclones) disasters when they are not.

For most people a disaster is something that always happens somewhere else, never in their area. They see little point in preparing for disaster that may never affect them. This does not help though. A population may be vulnerable to a disaster for many years yet without a trigger event, there is no disaster. For example the people in the village pictured above are vulnerable to disaster, but this may only happen if a trigger event pushes the rock down and crushes the people.

In Malawi, some two to three decades ago, we only had two districts which were classified as disaster prone districts; Nsanje and Chikwawa but, now we have fifteen districts. It did not mean that these other districts were not disaster prone at that time but the degree to which the people were affected by hazards in those districts did not warrant calling the events disaster.

Vulnerability is the degree to which a population may be affected by hazard. This does not just happen; most often it develops as a progression from underlying causes, dynamic pressures and then unsafe conditions. Understanding this progression is important if reducing risk of disaster is to be achieved. By understanding the complexity of the build-up of vulnerability, disaster management players can then also seek to address the situation at each of its different levels. The figure below shows how vulnerability builds up.

The Disaster Crunch Model helps to understand vulnerability processes

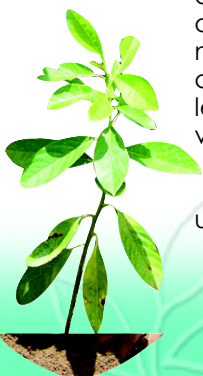


The first stage is to examine the event of the disaster itself. Natural phenomena cannot be prevented. However, the risk of their getting out of control and causing damage and loss of life can be reduced. The conditions, once again are not in abstract. If unsafe conditions are to be turned into safe conditions then it is also necessary to adopt activities which will lessen/reduce the dynamic pressures. It is necessary to address the underlying causes. Finally a range of measures need to be planned to reduce certain hazards.

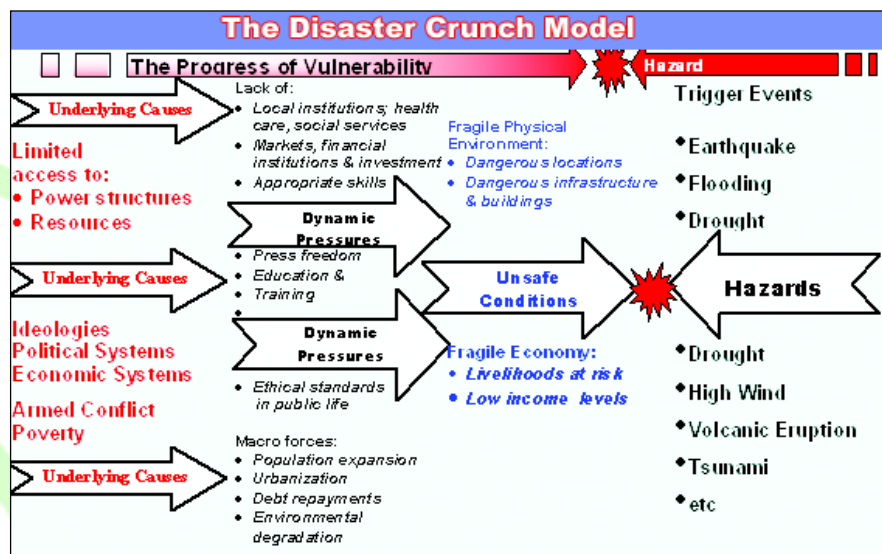
Weather Factors that Contribute to Disasters

Climate change has affected disaster risks in two ways; firstly through the increase in weather and climate hazards and secondly through increase in the vulnerability of communities to natural hazards, particularly through ecosystem degradation, reductions in water and food availability. Environmental degradation and rapid unplanned urban growth further reduce communities' abilities to cope with even the existing levels of weather hazards. Over the period 1991 to 2005, 3 470 million people were affected by disaster, 960 thousand people died, and economic losses were estimated at US\$1 193 billion. Poor countries are disproportionately affected, owing to intrinsic vulnerabilities to hazards and comparatively low capacities for risk reduction measures.

In Malawi, crop and livestock production depend on rainfall as the sole source of water supply and less than 5% of arable land is under irrigation. In the last three decades, the country has experienced variability and unpredictability of seasonal rainfall. There has been three significant droughts (in 1978/79, 1981/82, and the worst one in 1991/92 followed by 2001/02 which saw 5million people with no food), frequent and increasingly long dry spells, and erratic onset



and cessation of rainfall. Tremendous variability means recurrent drought with increasing frequency as one move to lower rainfall zones. Even with fair or excellent rainfall in those zones, no one would know when to expect which kind of season. In the past people used to predict when rains would start and finish and therefore it was easy to plan agricultural activities. This is increasing risk of failure of the more desired food crops and pasture owing to the inability to predict.



and nations will vary. Nations that fare poorly in this analysis are most vulnerable to climate change because they have less capacity to adapt

The Regional Impact of Climate Change

Climate change has various effects on water resources and water management in Africa and Malawi in particular. This has a direct impact on food security and livelihoods. The large variability in projected climate scenarios over Africa's vulnerable river basin systems makes any policy reformulation in anticipation of climate change difficult. However improved efficiency in irrigation systems and water use are strongly recommended modes of action because they will benefit the region regardless of the degree and direction of climate change. The main challenge in developing countries and Malawi in particular is the availability of financial resources. Detailed studies of the river basins are essential to provide adequate information for planning and negotiation purposes in this area that will continue to generate tension across many borders. The following points are critical for advocacy.

- The extent of political stability, ownership of development efforts, and commitment to sustainable water resource management in each country.
- The extent to which enabling environment exists consisting of transparent and accountable governance in the water sector, clear legislation, and policy etc.
- The extent to which information and knowledge exists to gauge water availability and quality, consumer demand and sectoral needs.

Knowledge also is needed about multiple cross sectoral linkages relating to a nation's water development. Depending on how a country fares with regards to three critical points above, the type of efforts and interventions required by funding agencies

African Drought Episode and Impact

Extensive droughts have afflicted most African countries, with serious episodes in Malawi since independence in: 1965-1966, 1972-1974, 1981-1984, 1986-1987, 1991-1992, 1994-1995, (WMO,1995, Usher 1997) and the recent one in 2001-2002. The causes of African drought are numerous and vary among regions, seasons, and years. In Malawi, local drought occurs every year, continental crises appear to occur once in a while and it is prudent to expect drought in Africa to continue to be a major climatic hazard which calls for urgent action for adaptation. The potential effect of climate change on drought in Africa is uncertain because in some cases it brings in hazards that are not known.

Disaster Management

The Disaster Release Model is the way to understand risk reduction processes. By understanding the complexity of the build-up of vulnerability, disaster management players can then also seek to address the situation at each of its different levels.

Addressing the disaster event with relief projects is important, but if that is all that is done ignoring the fundamental causes, then the situation will soon repeat itself. Likewise, it is impossible to address only the deep causes without addressing the human need and suffering, life welfare and environment (REA Tool).

Current Efforts

In order to address the issue of disaster occurrence a number of stakeholders are

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Current Status of Farmers' Rights in Malawi

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the crop varieties they develop as meeting criteria of distinctness, uniformity and stability whereas farmers' varieties do not. In so doing, spanners have been thrown into how to define farmers' varieties and the associated traditional knowledge, further complicating the process to have in place legal regulatory mechanisms on the use by others of materials developed and conserved by the farmers over many generations.

Several suggestions have been put forward to address this, including using geographical indications (GI) as an alternative way to promote local varieties and related traditional knowledge (Boisvert, 2006)¹. The World Trade Organization/Trade related Intellectual Property Rights (WTO/TRIPS) Agreement defines GI as 'indications which identify a good as originating from a specific locality or region where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin'. It is believed that GI offers a mechanism for legal ownership and equity of farmers' varieties and traditional knowledge and benefits arising from intellectual property rights (IPR) type of protection. Other challenges surrounding farmers' varieties pertain to operational difficulties in registering farmers' varieties, identification of the authority representing farming communities having such varieties and the operationalization of the requirements of prior informed consent (PIC) of the farmers for the use of their plant materials and related traditional knowledge by others. Notwithstanding these complexities, farmers' varieties may be defined with the inclusion of elements such as distinctions associated with local communities which conserve and use the varieties between generations and distinctive functional traits such as taste, aroma, cooking quality, colour and value associated with the culture of the communities as proposed by the World Intellectual Property Organization (WIPO, 2006).²

Farmers' rights in Malawi have been incorporated in the draft Revised Environmental Management Bill (revised 2006). This however sounds inappropriate as this legislation once enacted will be implemented by a government agency responsible for coordinating environmental management rather than agriculture and food security, which is the responsibility of a different ministry all together. Appropriate legislation to anchor farmers' rights should be within the Ministry of Agriculture and Food Security to



Okra(thereere) seed saved using traditional methods

facilitate effective implementation and enforcement.

Views on Farmers' Rights from Smallholder Farmers in Kasungu, Mulanje, Phalombe and Thyolo Districts of Malawi

Farmers' seminars were held in Kasungu and Mulanje districts of Malawi between February and March 2009, in collaboration with the National Smallholder Farmers' Association of Malawi (NASFAM). The farmers at the Mulanje seminar included others from the neighbouring districts of Phalombe and Thyolo districts. Following an introductory presentation which was aimed at ensuring a common understanding of the concept of farmers' rights, the farmers unanimously acknowledged that while agro-biodiversity was rapidly eroding in their areas due to the introduction of modern crop varieties and required farming practices, the lost crops and varieties were the very basis for food security in the past. Farmers in Kasungu translated farmers' rights into Chichewa as "Ufulu wamalimidwe" and "Ufulu woteteza malimidwe", or literally, the right to conserve traditional farming practices, crop types and varieties. When asked to clarify this point, they expounded on it to mean agro-biodiversity conservation. The farmers in Mulanje translated farmers' rights as "Ufulu wosamalira mbewu za makolo" which directly translates as the right to manage crop types and varieties and associated customary practices. Most of the farmers indicated that their own traditional crops such as cowpea, *Vigna unguiculata* locally known as "khobwe" and bambara nuts, *Vigna subterranea* locally known as "nzama" had become rare due to seed shortage. The shortage of seed was attributed to agronomic practices for modern

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1. Boisvert, V. 2006. From the Conservation of Genetic Diversity to the Promotion of Quality Foodstuff: Can the French Model of 'Appellation d'Origine Controlee' be Exported? CAPRI Working Paper No. 49, 1-17.
2. WIPO. 2006. Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions/Folklore. Information Resources. Geneva: World Intellectual Property Organization.



Farmers' Rights in Malawi

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crop varieties which did not accommodate intercropping and the lack of extension messages promoting these crop types and varieties. Farmers unanimously agreed that the realization and implementation of farmers' rights would greatly contribute to their empowerment, food security and livelihoods.

Concluding Remarks

Smallholder farmers have over many generations contributed to agro-biodiversity, and to the global pool of genetic resources as well as to the development of commercial varieties of plants through their

customary practices of saving, use, exchange and selling farm-saved seed and propagating of material. This must be recognized, the effort accordingly rewarded and supported through the implementation and realization of farmers' rights. Farmers' rights in Malawi can only be implemented and realized through the review of existing policies, laws and regulations and their incorporation into revised policies, laws and regulations, or even the adoption of completely new instruments implemented by the Ministry of Agriculture and Food Security. Such instruments should also ensure the full participation of smallholder farming communities in decision making on issues related to crop genetic resources.

A Synopsis of Environmental Programmes

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Indiscriminate Waste Disposal

Improper disposal of waste contributes to excess emissions of methane gas that is released into the atmosphere, in addition to being a nuisance to public health.



Improper disposal of waste contributes to air pollution and increases health hazards

Summative Perception

- Government, development partners, non-governmental organizations, private sector, media, academia and local communities have vital roles to play in addressing matters of environment amid numerous challenges.
- Environmental intervention programmes should be seen as an integral part of the larger socio-economic development programmes such as NAPA for sustainable cities of the country.

Is there Light at the End of the Long Tunnel?

Government is deeply concerned with the litany of environmental problems and impacts highlighted in this article. In a bid to reverse the increasing trend of environmental degradation, several initiatives are being implemented and new ones have been planned for urgent implementation.

First among them is the State President's vision to put climate change and environment

management amongst the key national development priorities in the next five years (2011-2016) and probably beyond. Such a political commitment has never been shown before and environment issues have never been raised to such a high profile in the history of this country.

As a country, we should quickly respond to the State President's vision by taking proactive and practical actions to urgently address environmental problems highlighted here at policy, industry or community levels. In this regard, the Environmental Affairs Department has planned a suite of responsive measures intended to raise the profile of environmental stewardship in the country.

First is advocacy for enactment of the Revised Environmental Management Act (EMA) Bill 2008 that was submitted to Cabinet for approval prior to enactment by parliament. The revised EMA Bill 2008 paves way for establishment of robust systems of programme development, implementation, enforcement and compliance monitoring for the well-intentioned sustainable social economic development.

Second is commencement of rapid and targeted programmes that will involve implementation of the Polluter Pays Principle, targeted phase out of burnt bricks, banning of thin dangerous plastics and promotion of initiatives to encourage the private industries to be compliant with the International Standards Organisation (ISO) requirements. These initiatives will be backed by a robust institutional system to check and stump out environmental pollution in collaboration with the city, town and district assemblies as well as the Ministry of Health and others.

All duty bearers are therefore called upon to join Environmental Affairs Department to support the State President's vision in building a prosperous Malawi nation while living in harmony with nature and the environment.



Load Shedding and its Effects

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as Tedzani I and II. It has been talking about speeding up the completion of Kapichira phase II. The corporation has also been talking about striking deals with Mozambique for electricity that would give ESCOM "an additional buffer in case of shortages." These investments, ESCOM hopes, would lead to the stopping of load shedding and therefore reduce reliance on charcoal.

ESCOM also said a few months ago that it was planning to increase its customer coverage by connecting at least 20, 000 households every year. This would ensure that more Malawians start using electricity.

It goes without saying that such efforts are

likely to bring good results if complemented by aggressive efforts in rehabilitating the environment. Hydro-based power is entirely environment-based. Securing that environment would ensure a continued energy supply.

It therefore makes a lot of sense that ESCOM, government, non governmental organisations and communities work hard to protect and maintain the environment. This would not only help secure Malawi's electricity supply but also ensure sustainability of people's livelihood.

Experts have also said that Malawi can improve its energy generation and distribution through improving its institutional and legal framework. Malawi will also need to involve the private sector in reforming the energy sector, apart from making use of renewable energy sources.

Disaster Risk Reduction

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undertaking different activities and one such organization is Evangelical Association of Malawi working in a consortium and implementing a project called Community Based Disaster Risk Reduction Project. The project goal and purpose are; Safer and more resilient communities and households in poor, disaster-prone areas of Malawi and to have sustainable natural disaster risk reduction through policy change, capacity building, public education and community-based mitigation and preparedness.

Activities being undertaken include livelihoods promotion like crop diversification, small scale irrigation and livestock production, mitigation activities, river de-silting and dyke building.

Challenges to Disaster Risk Reduction Implementation

The issue of climate change adaptation and disaster risk reduction (DRR) is still a new phenomenon and therefore calls for more understanding by all stakeholders. The work in DRR does not yield immediate results and as such there is little investment in DRR than there is in relief. Most donors tend to support those interventions that can produce quick results.

Climate change also brings with it new challenges different from those people are familiar with and therefore it makes planning difficult. The intervention in climate change and adaptation require huge investment.

Mitigation Infrastructure Building Community Initiative

CASE STUDY

Through the Church and Community Mobilization Process (CCMP), the Participatory Assessment of Disaster Risk (PADR) and River of Life Evangelical Church (ROLEC), Evangelical Association of Malawi(EAM) mobilized the communities using attitude change tools.

Through this process, communities in group village headman Kachere mobilized themselves to construct a dyke as per their community action plan. The chiefs came out to mobilize their subordinates and a dyke construction commenced on Chimbwimbwi River with communities doing voluntary work with full participation of both men and women.

Through the PADR, the action plan was presented to the District Assembly and the Director of Planning provided a tractor from Public Works Department to ferry stones for the dyke construction. ROLEC provided fuel for the tractor and food for the people working on the site. (A clear demonstration of partnership with the government)

This has been a model and an example of what PADR can do in mobilizing the communities and bringing in the element of ownership of these activities. Through the community action plan, the District Assembly has been able to get involved. People of Kachere are now eagerly working on the dyke as part of the flood mitigation measures. Once completed, the dyke will prevent flooding and washing away of gardens for 7 villages with 186 households.



World Environment Day

Chisimpika Mphande

chisimpika@cepa.org.mw
CEPA



On 6th June 2009, Malawi commemorated World Environment Day. The global theme for this year was: 'Your planet needs YOU! Unite to Combat Climate Change'. The local theme for Malawi was 'Let's unite to combat climate change: Save Malawi from floods and droughts to ensure food security', translated in Chichewa as 'Tigwirizane, tigonjetse kusintha kwanyengo; Tipulumutse Malawi kuchilala ndi kusefukira kwa madzi kuti tikhale ndi chakudya chokwanira'

The events took place in the lakeshore district of Mangochi. The venue provided a practical experience as the district is prone to some of the effects of climate change such as floods and droughts. On this particular day focus was on raising awareness on the management of catchment areas to minimize the impact of floods

The Event

The day commenced with a march where school children, community members and personnel from various institutions carried placards with messages on the day's theme. At the venue there was a variety of performances to educate those who came. The activities included drama, a quiz, traditional dances and a live band.

Local communities, government departments and non government organizations mounted displays. These included irrigation methods, indigenous tree seedlings, environmental publications and energy conservation methods. Communities with the best displays on their effort to rehabilitate their environment were awarded presents.

Journalists who have played a greater role in reporting on environmental issues over the past year were recognized and accordingly awarded. These awards extended both to print and electronic media.

The pictures tell more of the story.



A march in the streets calling upon people and government to combat climate change



A traditional dance with songs about importance of environment conservation



Students awarded after outstanding performances



A display of indigenous trees that can be planted to rehabilitate catchment areas



