Ministry of Environment and Climate Change Management

Policy Brief

Malawi State of Environment and Outlook Report

December, 2013

The Time Bomb: Climate Change

Executive Summary

Malawi as a country experiences a variety of climatic hazards including; erratic rainfall, floods, dry spells, droughts, strong winds, thunderstorms, landslides and many others. These impact on the country's socio- economic development in the sectors of; agriculture, education, energy, fisheries, forestry, gender, human health, infrastructural systems, sanitation, water and wildlife. Government has initiated a number of strategies aimed at reducing the effects of climate change, but there is still a lot of work that needs to be done. There is need to incorporate climate change mitigation and adaptation in long-term planning and development programmes, develop a unified climate change policy to reduce Malawi's emissions, urgently seek alternative energy sources that can reduce the population's dependence on firewood and charcoal, promote innovative and sustainable production and use of charcoal, create subsidies or incentives for poor consumers to shift to green energy sources and strengthen capacity of training institutions on phase out of ozone depleting substances among other activities.

Introduction

The composition of the earth's atmosphere has been altered by human activities. These activities have resulted in emissions of green-house gases that cause climate change and emissions of ozone depleting substances that have damaged the ozone layer that protects the earth from harmful ultraviolet rays.

Challenges faced in Climate Change and Ozone Interventions

Though the NAPA was launched three years ago, very few strategies have been implemented due to limited financial and human capacity. Malawi is also constrained by several other factors, including: limited technology options, poor infrastructure, large cases of HIV/AIDS, lack of legal instruments and weak institutional arrangement.

Recommendations

- Incorporate climate change mitigation and adaptations in long-term planning and development programmes.
- Develop a unified climate change policy to reduce Malawi's emissions.
- Urgently seek alternative energy sources that can reduce the population's dependence on firewood and charcoal.
- Promote innovate and sustainable production and use of charcoal.
- Create subsidies or incentives for poor consumers to shift to green energy sources.
- Strengthen capacity of training institutions on phase out of ozone depleting substances.

Reference

Gondwe, K. J., Mhango, L.B. (2008). (unpublished)
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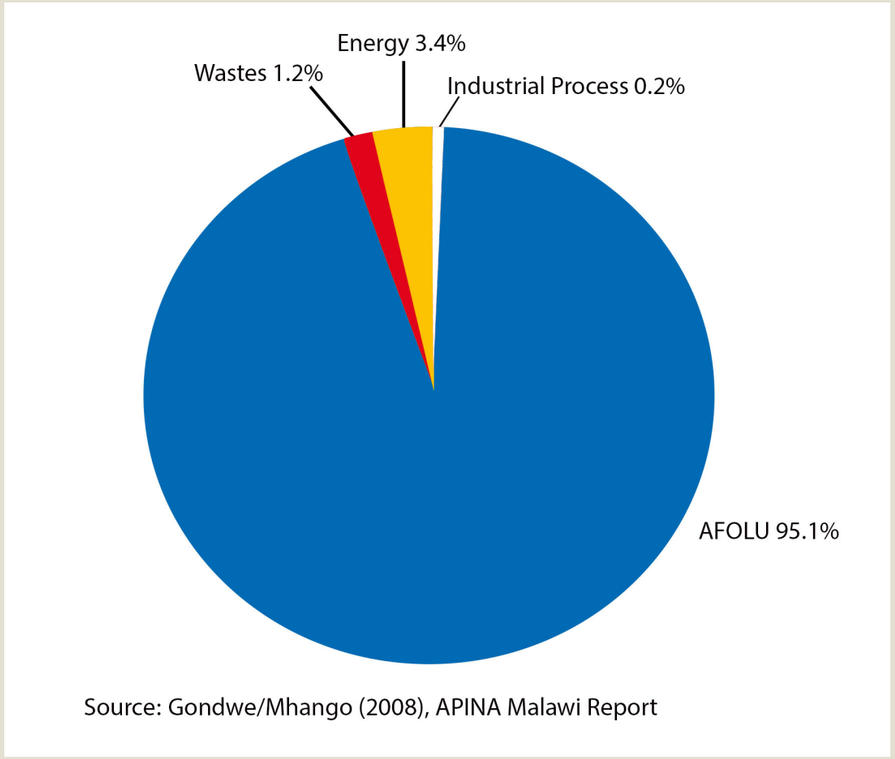
What is Climate Change

Climate change is one of the most serious problems facing global sustainable development and presents challenges that will exacerbate current living conditions for mankind. It is caused by an increase in the concentration of greenhouse gases in the atmosphere mainly from human induced activities. This results in an increase in temperature, referred to as global warming that alters the behaviour of weather and climate systems in the world. The alterations result in increased frequency of extreme weather events. Climate models predict that the global temperatures will rise by about 1 to 3.5^{0}_{C} by the year 2100.

Major Sources of Greenhouse Gases in Malawi

The major sources of greenhouse gases in Malawi are; Energy, Agriculture, Forestry and Land Use (AFOLU), Industrial Processes and other product use (IPPU) and waste management. The gases that are emitted from these sectors are Carbon dioxide (CO_2), Carbon monoxide (CO), Methane (CH_4), Nitrous oxide (N_2O) and Oxides of nitrogen (NOX). See figure 1.



Source: Gondwe/Mhango (2008), APINA Malawi Report

Figure1: Sectoral GHG Emissions for Malawi

Legal Frameworks in Climate Change

Climate change is being addressed by different organizations at local, national, regional and global levels. A number of policy and legal frameworks have been developed as instruments for responding to climate change and its impacts. The overall international instrument on climate change is enshrined in the United Nations Framework Convention on Climate Change (UNFCCC) which Malawi ratified in 1994 and its Kyoto Protocol in 2001. Parties to this convention have an obligation to reduce emissions of their greenhouse gases and implement programmes that increase the country's resilience to the effects of climate change. Currently, Malawi is in the process of developing legal instruments on climate change. However, the country prioritised climate change as one of its key priority areas in its development agenda.

Ozone Layer

The ozone layer is a naturally occurring layer of ozone molecules in the atmosphere that protects life on earth from the harmful ultraviolet radiation from the sun. When the ozone layer is depleted, life is directly exposed to this harmful radiation thereby resulting in various problems on earth. This layer can be damaged by anthropogenic chemicals known as ozone depleting substances.

Major Ozone Depleting Substances in Malawi

The major ozone depleting substances that have been used in Malawi include; Methyl chloroform, Halons, Carbon tetrachloride, Methyl bromide, Chlorofluorocarbons (CFCs), Hydrochloroflourocarobons (HCFCs), HBFCs, Bromochloromethane.

Effects of Depletion of Ozone Layer

Depletion of the ozone layer results in exposure to harmful ultraviolet radiation from the sun which may lead to; skin cancers, eye cataract, suppression of immune system, adverse effects on plastics and other building materials and less productivity of plants.

Malawi's Commitment to Combat Climate Change and Ozone Depletion

Malawi prepared and launched the National Adaptation Programme of Action (NAPA) in 2008 that outlines priority actions to be implemented in order to enable vulnerable communities cope with the adverse effects of climate change. A number of activities are being implemented by various stakeholders to improve livelihoods of the communities.

Malawi is also implementing programmes that are aimed at phasing out use of ozone depleting substances. Malawi completely phased out the use of Methyl chloroform, Halons, Carbon tetrachloride, Methyl bromide, Chlorofluorocarbons and Bromochloromethane. Currently, a strategy has been developed to phase out use of Hydrochloroflourocarobons by the year 2030.