What is the linkage?

Policy Brief

Ministry of Environment and Climate Change Management

Malawi State of Environment and Outlook Report

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Environmental Management and Health in Malawi

What is the linkage?

Recommendations

In order to foster good health of the citizenry and protection of natural resources, there is need for:

1. Improvement of sanitation and more widespread use of oral rehydration therapy (ORT) to reduce the impacts of diarrheal diseases;

2. Promotion of integrated vector control management (IVM) where good environmental management practices are encouraged alongside use of insecticide mosquito treated nets, and application of mild insecticides on possible vector breeding areas such as swamps;

3. Promotion of awareness and training in preventive measures for all diseases and proper management of the environment;

4. Improving enforcement of existing legislation on environmental management and good sanitation practices;

5. Strengthening and harmonizing environmental policy and institutional framework; and

6. Provision of clean drinking water and other sanitation infrastructure.

References


Executive Summary

This policy brief explores the linkages between environmental challenges and health in Malawi. It is evident that a number of environmental challenges have been related to infant malnutrition and chronic illnesses, whereas HIV and AIDS has deprived the capacity in environmental management. Furthermore other challenges such as inadequate human and financial resources to relevant ministries have also impacted negatively to the health sector. In response, the Government of Malawi has embarked in interventions such as: awareness campaigns and education in sanitation and health in general; and the establishment of institutions to coordinate issues related to Tuberculosis, HIV and AIDS, and Malaria. Even though this is the case, gaps are eminent, and a number of areas have to be improved, and one of the major areas is enforcement of existing legislation on environmental management and good sanitation practices.
Introduction
Malawi has experienced direct linkages between environmental challenges and health, especially infant malnutrition and chronic illnesses associated with Malaria, Cholera and diarrhoea. Due to climate change impacts such as dry spells, and droughts, infant malnutrition has often times surged while the spread of malaria, diarrhoea and cholera has also correlated positively with the spurs of floods and droughts. The HIV and AIDS prevalence rate has been significantly compounded by malnutrition resulting from shortage of food due to dry spells, droughts and floods is high in the most productive age groups in Malawi.

The health sector has taken many steps in improving its delivery for its 13.1 million people. Health care service comprises 260 medical doctors, 4,812 nurses and midwives and 10,507 health surveillance assistants (Kashoti, 2009 and Muula, 2009). However, this is inadequate to cater for the total population. The system is constrained by shortage in human resources, essential drugs and laboratory facilities. This is aggravated by poor environmental management and sanitation, also with pressures from population growth which results in disease outbreaks in most parts of the country.

Current Trends
Environmental and vector risk factors play a role in more than 80% of the diseases regularly reported by the World Health Organization. Globally, nearly 25% of all deaths and of the total disease burden can be attributed to the environmental risk factors. In children, however, these environmental risk factors account for slightly more than 30% of the disease burden (WHO, 2006). Notable human diseases which are linked to the environment in Malawi include Cholera, tuberculosis, HIV and AIDS, TB, Influenza, measles, dysentery, ordinary diarrhea, bilharzia, sleeping sickness, lymphatic filariasis, Onchocerciasis and chicken pox.

Cholera and other types of diarrhea are unique in that their prevalence is directly linked to poor sanitation (Chingaipe, 2008). While cholera outbreaks mostly occur during rainy season in many parts of the country, the situation is different in Lake Chilwa because the lake is contaminated and has no outlet to allow for natural purification (News Reports, 2002).

Although HIV and AIDS prevalence rate has relatively decreased in the recent past, the disease is still one of the major health issues in Malawi and has serious negative impact on the environment as human capacity for environmental management continue to be affected. Similarly, TB and malaria contribute heavily to morbidity and mortality and are directly linked to poor environmental management practices and sanitation.

High urbanization has increased population in urban centers; and with the poor sanitary conditions such as: polluted water, blocked open drains, roadside ditches, swamps, broken septic tanks and accumulation of sewerage effluents has resulted in creation of favorable breeding habitats for some of the vectors. Increase of the diseases concludes into poverty as the infected and affected people spend their time and resources at medical centers. In turn, poverty results into overdependence on natural resources which in the long run may lead into a broad range of problems.

Box 1: Lesson from Zomba Vector Disease Outbreak
The ongoing environmental degradation in most parts of the country is contributing to ecological disturbance. This has resulted into siltation of water courses and reduction of natural vector protection thereby encouraging breeding of disease vectors as was the case in Zomba around Malosa and Domasi areas in 2006. In the previous years, little was known about Simulium flies population but in May 2006, human black fly biting activity was reported to the Zomba District Health Office from the Zomba Plateau. Records show that few years before the incident, there was rampant careless cutting of trees on mountain slopes and this contributed to a population explosion of the black flies, which in turn gave rise to the large numbers of human biting females, to the detriment of the local residents. This is a lesson to the nation not to take environmental management issues lightly as the implications may be devastating at times even when the time between cause and effect may be long.

Challenges
• Transboundary movements of water and agricultural practices contribute to prevalence of waterborne diseases. For example, due to rice irrigation schemes in Karonga there is high prevalence of water canals, which increases the incidence of pesticide and fertilizer contaminated water and therefore posing a threat to residents (Banda and Nyirenda, 2000).

• Inadequate human and financial resources to relevant Ministries affects environmental management activities hence promoting prevalence of preventable diseases which in turn puts a burden on the government resources through hospital admissions.

• Although tradition and religious beliefs are vital to the economy and well being of citizens in many cases, some of the beliefs are dangerous as some people refuse or encourage others to refuse medical interventions thereby making health interventions difficult and unnecessarily delayed. In addition, some beliefs encourage people not to believe or understand the linkages between diseases and environmental management. This is dangerous to the nation as the disease outbreaks are common and devastating.

• Low awareness in disease control methods and preparedness and change in mind set. Most of the times, awareness campaigns are intensified during disease outbreaks. The citizenry need to be sensitized every time to change their mind set on various diseases associated with the environment.

Government’s Interventions
• Malawi has put in place several mechanisms to control sanitation related diseases. Government has intensified awareness campaigns and health education including use of health talks, role plays and drama; household level chlorination of water; isolation of cases, following up of cases and case management.

• Government has created the TB Control Commission, National Aids Commission and Malaria Control Commission to coordinate issues related to Tuberculosis, HIV and AIDS, and Malaria respectively. Outputs from these initiatives have already been registered. For example, there has been a substantial decline in malaria in patient deaths per 1,000 malaria from 55 in 2003 to 0.635 in 2008. The provision of free antiretroviral therapy to HIV/AIDS patients is an initiative that has yielded positive results. Since commencement of free antiretroviral therapy (ART), more than 140,000 people were on treatment by mid 2008. The number of patients on treatment...