

CLIMATE CHANGE IMPACTS DISASTER PREPAREDNESS AND MANAGEMENT



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INTRODUCTION

Over the last two decades, 76% of all disaster events were hydrological, metrological or climatological in nature. These accounted for 45% of the deaths and 79% of the economic losses. Climate change and disasters are integrally linked; climate affects physical hazards and the coping capacity of communities to deal with disaster.

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IMPACTS

According to the Experts by the Year 2100:

- a) **Water** – There would be increased water availability in moist tropics and high latitudes, with decreasing water availability and increasing drought in mid-latitudes and semi-arid low latitudes.
- b) **Ecosystems** – Increasing amphibian extinction and increased coral bleaching.
- c) **Food** – Crop productivity in low latitudes – decreases for some cereals, but increases for some cereals in mid to high latitudes.
- d) **Coast** – Increased damage from storms. The ice will melt hence more and more people at risk of coastal flooding each year. Loss of coastal wetlands.
- e) **Health** – Increasing burden from malnutrition, diarrhoeal, cardio-respiratory and infectious diseases. Increased morbidity and mortality from heatwaves, floods and droughts.

The will be a change in distribution of some disease vectors, hence a substantial burden on health services.

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Flood Preparedness Plan

Ghana faces a significant risk from various disaster types, including the most frequently occurring one-floods.

In 2007, the country was devastated by floods. Last year, and even this year, we again experienced some form of flooding. For this year, the June 20th disaster has the following statistics in 5 regions: 36 deaths, 33,602 internally displaced persons; massive damage to personal property and infrastructure.

This means that preparedness plans are a pre-requisite. A plan is a pre-determined set of action steps that you will take during a disastrous event. As we are never sure when a disaster will strike, identifying our actions beforehand increases our safety, lessens our anxieties during the event, and alleviates some of our fears towards disasters.

Flood Preparedness Plan cont'd

Elsewhere – Euro-America and beyond, people have family disaster plan. They develop and practice communications plan. The public know emergency phone numbers and when to call them. They develop and practice evacuation plans. There are flood warning centres that can be activated when the situation / need arises. Flood hazard maps are for sale to the public, and they are taught how to read them. Flood insurance is available to protect property. There are flood alerts – automated to supplement radio, television and internet.

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NADMO has developed a National Contingency Plan. The overall objective of the plan is to mount a timely, consistent, effective and coordinated response to floods in order to minimize the potential humanitarian, economic and environmental consequences.

Strategies

- Development of Regional and District Plans for emergency preparedness and response.
- Development of sectoral plans
- Pre-positioning of emergency supplies (strategic stock)
- Surveillance and monitoring of key emergency indicators
- Intensification of service delivery to minimize the impact
- Awareness creation for prevention of floods

LEVEL OF PREPAREDNESS REQUIRED – FLOODS

Triggers	Early warning monitoring indicators	Responsible for early warning	Preventive and mitigating measures
Heavy rains	<ol style="list-style-type: none"> 1) Weather forecasts 2) Information flow on the rainy season 3) Observation of the rise of river level 	<ol style="list-style-type: none"> 1) Gmet 2) Ministry of Information 3) NADMO 	<ol style="list-style-type: none"> 1) Use of media 2) Desilting of drainage systems 3) Clearing of waterways 4) Timely evacuation of population 5) Timely information flow on the rainy season
Opening of dams	<ol style="list-style-type: none"> 1) Alert warning from Burkina Faso on the opening of dams 2) Rise of the water level in Burkina Faso 	<ol style="list-style-type: none"> 1) Volta River Authority 2) Ministry of Information 3) Ministry of Foreign Affairs 4) Ministry of Interior 5) NADMO 6) District Municipal and Metropolitan Assemblies 	<ol style="list-style-type: none"> 1) Timely flow of information on the opening of dams 2) Use of media 3) Use of voluntary groups by NADMO and red Cross 4) Evacuation plans and identification plans and identification of safer places
Choked drainage systems	<ol style="list-style-type: none"> 1) Increment in human activities due to population increase resulting in unplanned settlements 2) No existing waste disposal sites 	<ol style="list-style-type: none"> 1) EPA 2) District and Metropolitan Assemblies 3) Ministry of Works and Housing 	<ol style="list-style-type: none"> 1) Establishment of an authority in charge of waste management 2) Clean up of drainage systems by District Assemblies

Ghana and Accra will flood in 2011





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Way forward

1. We must harvest water – roof top and run off
2. Drainage should be considered in the planning stage of development – be it farming or construction
3. Dredge lagoons, dams and storm drains. People to distinguish between gutters and streams/rivers
4. Sanitation – periodic cleaning and desilting of drains
5. Waste collection must improve, MMDAs to be proactive and budget for collection of garbage disposal

Way forward cont'd

6. Haphazard settlement – all unauthorized to be demolished and debris cleared
7. Building codes / regulations to be enforced to the letter
8. Relocation of communities in flood zones
9. Relief Distribution Plan – NADMO to develop one in conjunction with the NGO consortium
10. Disaster Fund – There is the urgent need for a National Disaster Fund so that relief response can be timely
11. Capacity building – Disaster Volunteer groups should be trained on Search and Rescue.

Conclusion

Unsustainable development in the past and the present, is the root cause of climate change. Climate Change is a development issue and only sustainable development can confront the challenge.



THANK YOU