



Topical Issues On

DISASTER RISK MANAGEMENT

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Disaster Risk Management Begins With Information

ABOUT EARLY WARNING!

Effective disaster preparedness largely depends on functional and efficient mechanisms for early warning. Early warning, education and awareness as well as preparation of response plans make up the three components of preparedness.

Early warning is a methodical chain of events based on sound understanding of the hazard and the vulnerable. It involves monitoring and forecasting impending emergencies and disasters in a bid to timely disseminate accurate and meaningful forewarnings to populations at risk. A rapid and dependable distribution system of forewarnings contributes to its efficacy. The primary purpose of early warning is to elicit an appropriate response in sufficient time by those threatened by the impending hazard in order to reduce the risk to harm or losses.

The adage to be forewarned is to be forearmed resonates keenly with early warning for impending disaster situations. Information that is disseminated to citizens before disaster strikes is an important weapon for saving lives, property and the environment. Early warning information must therefore be packaged in a language or expressions that are easily understood by those at risk. Communication media such as radio and other technologies must be available and accessible even in remote areas.

Sound understanding on the nature of a hazard provides the primary scope for

early warning capacity. Slow onset hazards and those where there is capability to predict or forecast provides better opportunities for early warning. The growing sophistication of technology has greatly contributed to improved capacity for early warning. Traditional knowledge systems also contribute some measure in enhancing early warning for the varied impending hazard events.

Weather Related Hazards

Considerable knowledge and advancements have been achieved in understanding weather related hazards. The World Meteorological Organisation together with sub regional and national weather services have immensely contributed to progress on scientific and technical programs. This has enhanced capacity for the observation, analysis, detection and forecasting of weather related hazards. In Southern Africa, for example, an elaborate system is in place for seasonal forecasts.

The forecast provides early warning information on the likely performance of the rainfall season sub regionally and national weather stations further provide early warning information in the respective countries. The initial seasonal forecast is further updated by shorter forecast periods such as the ten day and daily forecasts.

These forecasts provide early warning information for preparedness planning for drought, floods and other hazards related

to the rainfall season. Early warning for flooding is further provided for through hydrological monitoring networks which measure river flows.

Interestingly there are a variety of traditional knowledge systems to forecast the performance of the rainfall season. In Binga, for instance, the low or high positioning of nests on trees along the Zambezi River and other rivers in the area by certain bird species is used to forecast the season. Other communities make use of colour changes of leaves of certain trees or plants and even behaviour of certain insects to predict the seasonal forecast.

Geological Hazards

These are phenomena that give rise to natural hazards which include earthquakes volcanoes and tsunamis. Precise scientific prediction of geological hazard activity is not yet possible or well developed. However, early warning on potential geological activity can be gleaned from knowledge on seismic zones or areas most at risk through surveillance and analysis of historical data. Global systems are in place to monitor geological hazards.

Notable traditional knowledge systems to predict earthquakes have been recorded in ancient history. Anaxagoras, a Greek philosopher apparently developed a skill to successfully predict earthquakes. In recent history traditional knowledge points to observations of excitable animal behaviour, strange smells and changes in water turbidity in wells for early warning of earthquakes.

Environmental Degradation

This may arise from either technological or natural hazards or a combination of both. Examples include environmental pollution inclusive of air, land, water and generally the worrisome climate change. Other forms of environmental degradation are deforestation and desertification. While there are global and localised surveillance

and monitoring mechanisms in place, early warning for environmental degradation is arguably the most complex of all the hazards. There is a tendency for unsustainable utilisation of natural resources and rampant disposal of environmental contaminants.

Biological Hazards

These are natural phenomena evident through disease outbreaks in humans, animals and plants. Worldwide efforts on disease control have contributed to relatively robust early warning for biological hazards in general. However appropriate response to early warning remains a challenge as evidenced by the recent Ebola outbreak with its unprecedented spread and death toll.

Technological Hazards

Technological hazards originate from industry, mining, transportation and other forms of human activity. Monitoring of related human activity, analysis of historical data and surveillance may prove a useful indicator on the likelihood of an emergency or disaster as a result of technological hazards. However precise early warning is a challenge.

Concerted efforts at global and local levels need to be up scaled to improve on early warning. Early warning information must be matched by the appropriate response at the individual, community and society at large, if it is to serve its purpose to reduce the risk to harm and losses.

According to the Meteorological Services the month of September is windy and hot. Maximum temperature averages 27.7°C and the night time temperature is usually about 12.5°C. Both the sub regional and national seasonal forecasts are released in September.

Remember be a good citizen, reduce the risk to disaster, take heed of early warning information!

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