



User Awareness and Collaboration Critical to Climate-related Risk Management

In many parts of the world, natural hazards such as floods and droughts contribute to increasing socio-economic and ecological disturbances. Managing such risks is a major challenge, particularly for developing and least developed countries, as the following two case studies from Nigeria and the Philippines show.

In Nigeria, droughts and floods became a serious concern because loss of life and disruptions to livelihoods and food production have increased significantly over the past decades. 'The Nigerian government had put modern early warning techniques in place at various levels but the local farmers still depend on their native system and intelligence in adapting to climate variability', reports Dr Obioha from the Nigerian Institute of Social and Economic Research (NISER).

In the Philippines the situation is different: suffering from dire economic crisis for many decades the Philippines 'cannot sustain a holistic approach in disaster mitigation by investing in modern early warning technologies' says Dr Felizardo from the PMO-Flood Control and Sabo Engineering Center in Manila. Accordingly, the government's priority currently is to re-establish the country's infrastructure. As part of its climate-risk strategy the relocation of people has been considered. In addition, a low-cost alternative of urgent need would be to 'fine tune native disaster mitigation systems and to continue hazard mapping before the relocation of people is actively pursued'.

The questions arising from these studies are: what is the climate information needed by each country and region and indeed, each sector? Does climate information get to the people at risk and to other potential end users, and is the information understood? To what extent do people at risk, and health and food officials adhere to the early warning information provided by the designated agencies? And:

how do people live with climate variability and change?

While there have been a number of excellent fora for climate researchers from around the world to meet and discuss progress, knowledge gaps and research needs, there have not been many opportunities for climate information providers to meet with policy makers and user sector representatives. Climate researchers have made great efforts to produce the most reliable information on the state and variability of the climate system to provide guidance to policy makers to develop policies that will address challenging issues impacting livelihoods and food security.

Under the World Climate Programme (WCP) of the WMO, the World Climate Applications and Services Programme (WCASP) and the CLimate Information and Prediction Services (CLIPS) project strive to enhance the capacity of National Meteorological and Hydrological Services (NMHSs) in interpreting climate data and predicting climate, particularly on seasonal to interannual scales. To better achieve this primary objective of CLIPS, Regional Climate Outlooks Forums (RCOFs) have been established in certain areas that require attention and special action. The RCOF for the Greater Horn of Africa, for example, is specializing on drought and flood prediction integrating regional mechanisms for the formulation and dissemination of climate forecasts, predictions and outlooks.

Effective interaction among climate application users, information providers and researchers,



however, has too often received inadequate consideration. Taking note of this, in the year 2003, the Fourteenth World Meteorological Congress requested the Secretary-General of WMO to organize an international multidisciplinary conference to address this issue.

A special forum was therefore initiated by the WMO in collaboration with the Finnish Meteorological Institute (FMI) and the International Research Institute for Climate and Society (IRI) by way of an International Conference entitled 'Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks', which was held in Espoo, Finland, 17-21 July 2006. For this conference, climate experts from around the world were invited to review opportunities and constraints in integrating climate risks and uncertainties into the mainstreams of decision-making.

About 250 representatives from over 60 nations spread across all the continents of the world discussed practical ways of achieving better management of climate risks in their short- and long-term operations. Decision processes and not the science of climate per se were in central focus. Conference participants were experts from various fields: natural disasters, public health, energy and the built environment, water resources, agriculture and food security, decision-related sciences, and policy and climate.

Opening the meeting, Michel Jarraud, WMO Secretary-General, drew attention to the particular needs of the developing nations, where the 'concept of climate risk might not even be considered'. 'In the developing and the least developed countries', he continued, 'there is often an insufficient mechanism for data collection and reporting and consequently, lack of reliable data on which to base a rational attempt at risk assessment.' Indeed, rapidly increasing levels of disaster losses are beginning to outweigh development gains in a number of countries.

Economies of all societies are vulnerable to climate change, but with limited resources, developing countries are particularly at risk of incurring higher losses, both in human life and economic investment, noted Professor Jeffrey Sachs, Director of The Earth Institute at Columbia University, USA, in his Conference

Address. Climate variability has led to dire consequences, both direct and indirect, including devastating famines, epidemics, social unrest and armed conflict in many underserved areas of the world.

'Climate-related risk management' often has a negative connotation. Human health, livelihoods and the local economy are threatened when rainfall events at certain times trigger malaria outbreaks and billions of desert locusts invade farmland in Africa leaving nothing but stalks behind; or when excessive rain swells the rivers in India and Bangladesh and washes away the annual agricultural production. But 'climate-related risk management' also bears a great potential to capture 'benefits' from the windows of opportunity offered by the climate. Appropriate climate information distributed through an efficient delivery system can alert health and food officials to optimise the allocation of medical resources to fight malaria outbreaks or assure food and water security long before the actual natural hazard sets in.

The conference participants agreed that better understanding, operational integration of climate information, collaboration, and increased and ongoing dialogue are currently among the best tools for dealing with climate variability and change. Lack of awareness of climate-related risk management has been a major obstacle to improved prevention and reduction of loss.

A collectively prepared and adopted final conference statement, called the 'Espoo Statement', captured the spirit of discussion and commitment to enabling their local communities – as well as the wider international community – to increase awareness of climate risk and help translate this awareness into real action. The final statement further underscores



the need for partnerships among stakeholders and across sectors. In particular, effective mechanisms for climate-related risk management ought to be developed to facilitate coordinated activities among multilateral organizations, civil society and private interests at national, regional and international levels.

A detailed summary of the proceedings is under preparation and will be submitted to the World Meteorological Congress scheduled to be in session in 2007. [ca]

Contact

Dr Rupa Kumar Kolli
Chief
World Climate Applications & CLIPS Division
World Climate Programme Department
World Meteorological Organization
7bis, av. de la Paix
Case postale 2300
CH 1211 Geneva 2
Switzerland

RKolli@wmo.int

References and links

Felizardo, J. (2006) Prioritizing Early Warning System for Disaster Countermeasures in the Philippines. In: Abstracts. Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks. Espoo, Dipoli 17-21 July 2006.

Obioha, E.E. (2006) Early Warning Institutions and the Farmers Cooperation in Southwest Nigeria: Exposing the Gaps and fixing the weak Linkages. In: Abstracts. Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks. Espoo, Dipoli 17- 21 July 2006.

WMO Conference on Living with Climate Variability and Change, Espoo.
<http://www.livingwithclimate.fi>

The Espoo Statement
http://www.livingwithclimate.fi/en/en_18.html.

WMO Climate Information and Prediction Services (CLIPS) Project
<http://www.wmo.int/web/wcp/clips2001/html/>.

World Meteorological Organization
<http://www.wmo.int>.