Integrated Drought Managment

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Droughts are slow-onset events that cause more loss of lives, livelihoods and permanent displacement of people than cyclones, floods and earthquakes combined. From 1991 to 2000, drought took over 280,000 lives and cost billions of US dollars in damage. Sub-Saharan Africa suffered its worst dry-spell of the twentieth century in 1991–1992 when drought covered some 6.7 million km^2 and affected about 110 million people. The 2010–2011 drought in the Horn of Africa put 10 million people at risk.

Droughts are expected to increase in frequency, area and intensity due to climate change, and yet effective drought management policies are missing in most parts of the world.

The World Meteorological Organization (WMO) and other United Nations (UN) agencies are working to establish science-based foundations for practical and proactive drought policies at national level to make drought-prone countries more resilient. A High-level Meeting on National Drought Policy in March 2013 launched a coordinated drive towards science-based drought disaster risk reduction and away from piecemeal and costly crisis-response.

The pillars of national drought policies include:
- Proactive mitigation and planning measures, risk management, public outreach and resource stewardship.
- Greater collaboration to enhance the national, regional and global observation networks and information delivery systems to improve public understanding of, and preparedness for, drought.
- Incorporation of comprehensive governmental and private insurance and financial strategies into drought prepared-ness plans.
- Recognition of a safety net of emergency relief based on sound stewardship of natural resources and self-help at the various levels of government.
- Coordination of drought programmes and response in an effective, efficient and customer-oriented manner.

A new Integrated Drought Management Programme established by WMO and the Global Water Partnership will help improve monitoring and prevention of drought. The new programme capitalizes on the success of the Associated Programme on Flood Management and will focus on the sharing of scientific information, knowledge and best practices to advise policies and management approaches in the development of short and long-term drought management plans and actions. The Programme will be demand-driven and tailored to specific regional and national needs.

Better drought management is one of the priorities of the Global Framework for Climate Services (GFCS) now being implemented by governments with support from the UN. Climate services aim to increase drought resilience by improv-ing climate information and services, especially for the most vulnerable.

INTEGRATED FLOOD MANAGEMENT

The number of people living in the path of potentially devastating floods is set to double to 2 billion within a couple generations as a result of population growth, changes in land use, economic development and climate change. Recent flooding in Pakistan (2010, 2011, 2012), Thailand (2011), Nigeria and the Sahel (2012) and Australia (2012) highlighted the devastating social and economic cost and showed that no part of the world is immune.

However, floods also generate significant economic and ecological benefits. In many countries, flood waters are an essential water resource, floodplains contribute significantly to agricultural production and freshwater inflows to estuaries are important to fisheries. An approach called Integrated Flood Management (IFM), has become established over the last decade to maximize the net-benefits from floods and minimize losses of life, livelihoods and infrastructure.

From reaction to action

Traditionally, flood management has focussed on prevention, with emphasis placed on structural protection and rapid drainage systems. A proactive, integrated approach to managing floods is rapidly gaining recognition worldwide. This approach aims to integrating social, economic, environmental, legal and institutional aspects with an emphasis on flood risk awareness as well as preparedness, response and recovery measures. That is, to promote a full understanding of floods not only among planners but among all stakeholders, including local communities.

The Associated Programme on Flood Management of the World Meteorological Organization (WMO) and the Global Water Partnership operates the IFM HelpDesk (www.floodmanagement.info), a web-based facility that provides pragmatic, demand-driven guidance strategy, policy and technical know-how to increase resilience to floods while using best practices to enhance beneficial aspects of floods.

Pilot projects set an example

In addition to guidance materials, extensive capacity-building activities and the collection of best practices in Integrated Flood Management (IFM), pilot projects aim to show-case the validity of IFM approaches and measures. For example, in Kenya, flood management for the Lake Victoria Basin must simultaneously address the problems of the poor flood-plain dwellers and the future development of agriculturally fertile land that is prone to frequent flooding. The Government of Kenya has been working towards a National Flood Management Strategy through a WMO pilot project. A similar project has been undertaken in Zambia. Flood management strategies have also since been developed for several countries including Malaysia, Pakistan, Lao PDR and Thailand.

In Asia, a pilot project led to the establishment of several Community Flood Management Committees in Bangladesh, India and Nepal. A pilot project in Central and Eastern Europe focused on impacts of, and responses to, various flood events, in particular flash floods. Three new pilot projects for field demonstration are under development, which will be contribute to the enhancement of existing manuals, tools and publications. Topics to be covered are Integrated Coastal Flood Management, Community-based approaches to Flood Management and Transboundary Flood Management.

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