Statement by WMO

Disasters continue to cause considerable impacts on lives, livelihoods and property. In the last few days, the world has witnessed, once more, the negative impacts of hazards. In the current cyclone season in the Indian Ocean, Cylone Laila caused the death of 45 people in India, 20 in Sri Lanka and considerable damage, while Cyclone Phet caused the death of 24 people in Oman, 15 in Pakistan, 5 in India and damages as well. In Poland, flooding caused the death of at least 15 people and damages estimated at $USD 2.5 billion.

According to the Centre for Research on the Epidemiology of Disasters between 1980 and 2007, nearly 8400 disasters caused by natural hazards have taken the lives of over 2 million people and produced economic losses of over 1.5 trillion US dollars. Of this total, around 90 per cent of the events, over 70 per cent of casualties and 78 per cent of economic losses were caused by weather-, water,- and climate-related extremes such as droughts, floods, windstorms, tropical cyclones and storm surges, extreme temperatures, or by wild fires, health epidemics and insect infestations, which are linked to meteorological and hydrological conditions.

After the devastating 2004 Tsunami in the Indian Ocean, 168 countries met in Kobe, Japan during the World Conference on Disaster Reduction (January 2005) and adopted The Hyogo Framework for Action (HFA)provides the framework for a new paradigm in disaster risk management with a strong focus on prevention and preparedness strategies based on identification and quantification of potential risks. A comprehensive disaster risk management framework, as derived from HFA, encompasses risk identification, risk reduction including early warnings for emergency preparedness and response and risk transfer. Effectiveness of the various stages of the disaster risk management framework requires good governance that ensures that the roles and responsibilities of all the stakeholders are clearly defined by appropriate legal frameworks and policies and organizational coordination and cooperation structures or mechanisms. It also requires effective information and knowledge sharing among all the relevant players, supported by education and training programmes.

Considerable reduction of loss of life can be achieved through the development of effective early warning systems whereby:

- hazard are detected, monitored, forecasted, and hazard warnings are developed;
- risk are analyzed and this information is incorporated in the warning messages;
- warnings are issued (by designated authoritative agency) and disseminated in a timely fashion to authorities and public at-risk; and
- community-based emergency plans are activated in response to warnings to reduce potential impacts on lives and livelihoods.

In the last five decades, on the global scale, while the economic losses associated with weather-, water,- and climate-related hazards have increased by a factor of 50, loss of life has decreased by a factor of 10. This has been attributed to the development of effective early warning systems in countries with recurrent risk of to weather-, water-, and climate-related hazards.

In Cuba, the government has made protection of its citizens its highest priority, investing significantly in the development of the Cuban Tropical Cyclone Early Warning System. The benefits of the system were demonstrated in 2008, when the country was hit by five successive hurricanes, but only seven people were killed. In Bangladesh, lessons learned from major storm surges in 1970 and 1991 that caused the death of nearly 300,000 and 138,000 people respectively, led the government to make considerable progress with protection of lives through the implementation of the Bangladesh Cyclone Preparedness Programme. In November 2007, super cyclone Sidr, claimed the lives of less than 3,500. The effective operational cooperation between the national meteorological and hydrological services and national disaster risk management agencies combined with appropriate dissemination mechanism to inform both authorities and the public were critical elements of success in both cases.

The World Meteorological Organization (WMO) is a specialized agency of the United Nations that coordinates the activities of National Meteorological and Hydrological Services (NMHSs) of its 189 Members in weather, water and climate to improve protection of life and property. As part of its disaster risk reduction strategy in assisting governments in developing early warning systems, WMO is working with partners to (i) support the development of early warning systems as integral part of disaster risk management programmes at national level, and (ii) linking know-how derived from good practices in early warning systems to national and regional development projects focused on strengthening institutional capacities and cooperation of the national meteorological and hydrological services and disaster risk management agencies. A survey conducted by WMO in 2006, revealed that over 60% of the 139 national meteorological and hydrological services that participated in the survey require more investments to develop adequate infrastructure and capacities to warn populations against hazards and strengthening of operational relationships with disasters risk management agencies to ensure effective preparedness and response, particularly in most vulnerable countries.

This is being achieved through national and regional cooperation projects involving WMO, the World Bank, the United Nations International Strategy for Disaster Reduction (UN-ISDR), and UNDP to develop and strengthen: (i) disaster risk management infrastructure and institutional capacities; (ii) hydrometeorological services and linkages with disaster risk management; and (iii) financial risk transfer mechanisms.

In 2007, projects have been initiated in eight countries in South-Eastern Europe and projects are being launched in 2009 in in seven countries in Central Asia and Caucasus. Similar projects are underway in five countries in South East Asia, including Cambodia, Laos, Philippines, Indonesia and Vietnam.

While weather forecasts and early warning for extreme weather events are effective tools for reducing loss of life, when disasters happen, they significantly impact socio-economic development and livelihoods of the citizens. Beyond efforts for saving lives, WMO is working to extend these capacities for saving livelihoods. This will be realised through the implementation of the Global Framework for Climate Services that will facilitate:

- development of climate information targeted to the needs of the various sector for enhanced risk assessment and management;
- development and utilization of climate information operationally for disaster risk management decision making;
- increased investments in data and forecasting technologies

The Global Framework Climate Services will provide better tools to support medium to long-term planning in climate-sensitive sectors such as drought risk management linked to food security, water resources management, land zoning, development of new building codes, etc. This will allow development of appropriate disaster risk reductions strategies which are a critical component of climate change adaptation.

Effectiveness of emergency response can be considerably improved with the use of weather-, water,- and climate forecasts, warnings and information products and services that are available from the network of the NMHSs of the 189 Members and regional specialized meteorological centres of WMO. To achieve this, appropriate cooperation and coordination mechanisms need to be identified and implemented. WMO stands ready to cooperate with you with a view to ensure that the community of emergency preparedness and response benefits from available weather-, water,- and climate forecasts, warnings and information products and services to improve emergency response.