



Contacts:

Carolina Vázquez
Phone number: +52-55-51744062
carolina.vazquez@cna.gob.mx

Ulrike Kelm
Phone number: +51 74 4000 ext. 1124
Ulrike.kel@worldwaterforum4.org.mx

Risk management: a comprehensive response to mitigate future disasters

- **In 2005, *Katrina* became the costliest disaster in history: twice as costly as the 9/11 attacks**
- **Nine out of every ten disasters on the planet are climate-related**
- **71% of all deaths caused by natural disasters are due to extreme hydrometeorological events**
- **The 4th World Water Forum will seek to identify actions at the local level to prevent water-related hazards turning into disasters**

Ninety percent of natural disasters are weather related. In 2004, a *Tsunami* hit several countries in South East Asia; in 2005, *Katrina* devastated New Orleans; and at the end of the same year, *Stan* and *Wilma* hit the South and South East of Mexico. In particular, catastrophes linked to water affect Asian nations first and foremost with 69% of the population falling prey to flooding. In the case of droughts, for instance, 82% of the population in Africa is affected; 48% of the population of Oceania, and 35% of the population of the American Continent. A recent example occurred in Zimbabwe in 2003 where huge losses were caused by a drought. Between 1998 and 2002 Europe experienced over 100 water related extreme events, and the number is increasing.

Consequently, water experts have promoted 30 sessions focusing on Risk Management; during these, topics such as Flood Management, Social Vulnerability, Dams and Watersheds will be dealt with, along with others. All of the foregoing will be presented within the framework of the 4th World Water Forum to be held this coming March in Mexico City.¹

At the same time, the highest number of the most devastating hurricanes and storms in recorded history were generated last year in the Caribbean, involving both developed and developing nations. In the same year Mumbai, India received the record 944 mm of rain within 24 hours. These facts constitute a challenging, shared concern. The 4th Forum will draw attention to the way various countries had confronted these calamities and the priorities conveyed to this topic.

Specifically, the 4th Forum will underscore the fact that experts agree that preventive financing is eight times more cost-effective than the budget allocated for rescue and recovery. Attention is also drawn to the fact that there are "clear and disturbing indicators that governments around the world, both in developing as well as in

¹ *Risk Management*, Baseline Document for Framework Theme 5, 4th Forum

developed countries, are moving away from investment" in the monitoring network on water-related hazards.²

For developed nations, natural disasters represent a higher financial cost in purely numerical terms. When cost of natural disasters is calculated as a percentage of GDP, it is actually 20% higher for poorer countries than it is for rich ones.³ Water-related disasters in Africa and Middle America as well as in small islands cause economic set backs up to several tens of percents of GDP per event and affecting national economies for up to decades of time to recover.

Calculations show that the developmental clock of a country drops back from 5 to 10 years each time the country undergoes a natural disaster. In 2004, the *Tsunami* caused over 250,000 deaths, the highest related to events of similar origin since the tidal wave of 1970 in Bangladesh that took the lives of 300 thousand people. According to preliminary estimates, 2005 set the record for total loss due to natural and anthropogenic disasters, with the figure rising to 225 billion dollars. Last year was a record year for the number of hurricanes recorded. One of these, *Katrina*, is now considered by financial specialists to be the costliest disaster in all history, although it is too early to assess an amount. The cost exceeds the 9/11 attacks in New York and Washington D.C.⁴

It is important to underscore the fact that there are 50 times more deaths due to natural disasters in countries that are less developed than in highly developed nations.⁵ *Katrina* would have caused up to 1,200 deaths. A similar *Katrina* would have caused tens of thousands of deaths if it has struck Jakarta or Bangkok or Shanghai. Switzerland, Germany and Austria experienced flooding, mudslides and avalanches that affected insured assets in the amount of 1.9 billion dollars, with scarce or no deaths. Denmark, Sweden and Great Britain faced losses in the amount of 1.5 billion dollars due to storms. The earthquake that struck Pakistan and neighboring Indian communities caused 87 thousand deaths, a case where historic proportion rises. Insurance companies participate only marginally in poor nations.

The year 2006 promises to be an even more unsettling year. Climate changes is a relevant factor in the possible explanation of events measured since 1990 and expectations for 2006 still stands.⁶ According to specialists, the number of extreme hydrometeorological events might double worldwide. This estimate does not include the Atlantic region which reached its record in 2005. They have also pointed out that the increase in cyclones unfortunately coincides with the rising percentage of human population settling in coastal areas.⁷

² Ibid

³ Ibid

⁴ Preliminary Swiss Re sigma estimates of catastrophe losses in 2005: High casualty count and record insured losses of USD 80 billion, <http://www.swissre.com> 20 December 2005.

⁵ Weather, Climate, Water and Sustainable Development, World Meteorological Organization, WMO, Number 974

⁶ Preliminary Annual Report, Climate of 2005 in Historical Perspective, Satellite and Information Service, National Climatic Data Center, NOAA, <http://www.ncd.noaa.gov/oa/climate/research/2005/ann/ann05.html>.

⁷ Interview with Conrad Lautenbacher, director of the National Oceanic and Atmospheric Administration of the United States. *The tragedies of 2005: the beginning of woes yet to come*, at internacional.yucatan.com.mx taken from France Press, December 23, 2005.

During the 4th World Water Forum, the international water community will comprehensively discuss the multiple aspects of the management of water-related natural risks. The 4th World Water Forum will have an array of sessions addressing the local dimension and the value of dealing with risk from a multidisciplinary standpoint, as well as managing them from the regional unit of each watershed. There is concern that there is grave discrepancy between technological resources needed and the budgets available at the national level, as well as implementation at the local level.

Deaths due to hydrometeorological disasters represent 71% of all fatalities caused by natural disasters.⁸

At the 4th World Water Forum, risk is envisaged as being “an integral part of social and economic processes” that are on the rise “due to the interference of mankind in natural hydrometeorological processes”.⁹ The sessions on risk management will address aspects related to water management at “appropriate risk levels”,¹⁰ including:

1) The increasing variability in precipitation and the increasing occurrence of extreme events linked to climate variability and change; 2) Economic and demographic growth increasing water demands and decreasing water quality; 3) The need for comprehensive risks, related management of water resources, and the watershed at a national and regional level; 4) The importance of addressing risks in “hot spots” such as low lying coastal areas, megalopolises and small islands 5) The importance of the development of appropriate capacities and support mechanisms, which will require technological innovations, more effective communications and financial facilities.

The 4th World Water Forum will bring together experts, authorities, and non-governmental organizations who need to act in coordinated fashion.

At the 4th World Water Forum the notion of local actions for global solutions will be fostered, including an agenda for risk reduction policies, the formulation of strategies to face social conflicts and armed threats, as well as strategies for adapting to climate change and variability, the establishment of a local water culture and *hydrosolidarity* that can only be accomplished through joint actions. All of this represents a revaluation of our sociopolitical culture as related to society that most valuable of all resources, water.

In the case of institutional development, the importance of cooperation between the stakeholders including the government levels, private sector, and knowledge institutes will be promoted to mitigate risk. Similarly regarding the development of capacity and social learning the 4th Forum will promote the importance of coordination of civil society, the private sector, non governmental organizations and the government.

The 4th Forum is expected to come up with enhanced appreciation for the importance of a comprehensive approach for preventive approaches to risk management as represented in the “risk management cycle”. It will also propose a set of decisions to

⁸ *Risk Management*, Baseline Document for Framework Theme 5, 4th Forum

⁹ Ibid

¹⁰ Ibid

Risk management: an alternative to mitigate future disasters

implement policies, strategies and to strengthen capacity in order to reduce the impact of natural threats and the ensuing environmental and technological disasters.¹¹

Given the foregoing, the 4th Forum will devote 30 thematic sessions to the topic of risk, and will take their conclusions to the ministers participating in the High-Level segment of the Forum.

About the 4th World Water Forum

The World Water Forum is an initiative of the World Water Council aiming to raise awareness on global water issues. The First Forum was held in Morocco (1997), the Second in the Netherlands (2000) and the Third in Japan (2003). The 4th World Water Forum will be held in Mexico City in March 2006, under the overarching theme of "Local Actions for a Global Challenge" and will focus on analysis of experiences and knowledge sharing.

The Forum has already been established as an open, multi-stakeholder participatory process, which builds on the knowledge, experience and input of the global water community and seeks to enable multi-stakeholder participation and dialogue to influence water policy-making at a local, regional, national and global level, thus ensuring better living and respect for the principles of sustainable development to achieve the Millennium Development Goals. The World Water Fora are built on the knowledge and experience of different types of organizations active in the global water policy. It is a venture founded on the principles of collaboration, partnerships and innovation.

Secretariat of the 4th World Water Forum

***Av. Insurgentes Sur 2416
piso 4 Ala Sur
Copilco 04340 México D.F
- MEXICO -
Tel: +52-55-51 74 44 80
Fax: +52-55-51 74 44 75***

¹¹ Ibid. Reference is taken from the International Strategy for Disaster Reduction (ISDR) Terminology: Main terms related to the reduction of disaster risk, updated in January 2004.