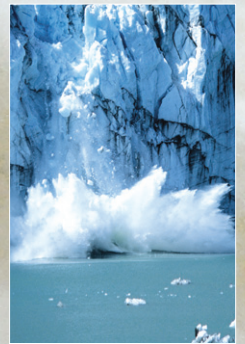


# Water and Disaster

High-Level Expert Panel on Water and Disaster/ UNSGAB

March 2009



# Prevention and Action to Minimize Death and Destruction

Building Resilience toward Sustainable Development

## Introduction

The High-Level Expert Panel on Water and Disaster/ UNSGAB (HLEP) was convened at the request of the UN Secretary General's Advisory Board on Water and Sanitation (UNSGAB) in 2007, under the Presidency of H.E. Dr. Han Seung-soo, Prime Minister of the Republic of Korea and Former President of the Korea Water Forum. The HLEP includes 21 experts in disaster preparedness and response and international issues (see page 12), and is co-moderated by the World Water Council, the UN Secretariat for the International Strategy for Disaster Reduction, the Japan Water Forum and the Korea Water Forum.

As the fruit of serious and devoted efforts from its participants, and united in its sincere wish to build a safer world, HLEP created this report of action plans through a series of five international meetings (Tokyo, Seoul, Marseilles, New Orleans, and Istanbul).

## Contents

Message by the UNSGAB Chair **04** / Message by the Founding Chair **05** / Action Plan **06** /  
Members of the Panel **12** / Annex 1: List of Actions **16** / Annex 2: Glossary **20**



# Message by the **UNSGAB** Chair



**H.R.H the Prince of Orange**  
**Chairperson**

United Nations Secretary-  
General's Advisory Board on  
Water and Sanitation

I am pleased to deliver this message for the inauguration of the Action Plan of the High-Level Expert Panel on Water and Disaster/ UNSGAB (HLEP).

The HLEP consists of high-level experts from the UN and other national and international organizations, as well as civil society organizations who are all working to tackle water issues. I am proud to mention that the work of the HLEP stems from the recommendations of the Hashimoto Action Plan of the UN Secretary-General's Advisory Board on Water and Sanitation (UNSGAB).

The Founding Chair of the Panel is H.E. Dr. Han Seung-soo, Prime minister of the Republic of Korea and a member of UNSGAB. His dedication to water issues has been and still is an inspiration to the panel.

Water is a source of life, but it also causes disasters and claims many lives and assets in countries across the world. Population growth in flood-prone areas along with climate change are heightening the risks caused by water-related disasters. There is a legitimate concern that this increased vulnerability is already constraining sustainable human development.

We must take necessary actions now, together with all relevant players, to secure a safe, sustainable world, and to reduce loss of lives and assets. I, as Chair of the UNSGAB, can assure the commitment of our Board to work closely with HLEP to promote and realize the recommendations articulated in this Action Plan.

## Message by the **Founding** Chair

Water is life. Indeed, water is a crucial element of human civilization, and humanity cannot survive without securing access to safe drinking water and basic sanitation.

Water is also a threat to life. The growing occurrence of extreme weather conditions has increased the risks of water-related disasters both in terms of their frequency and severity. Numerous lives have been taken away and societies and economies are suffering from the damaging effects of the disasters.

Aware of the gravity and urgency of water-related problems, the United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) has worked to raise awareness and build common understanding of global water issues, promote cooperation, and encourage responsible and sustainable water management practices. To further develop concrete actions for disaster risk reduction following the Hashimoto Action Plan, the High-Level Expert Panel on Water and Disaster/ UNSGAB was established in September 2007. As the Founding Chair of the High-Level Expert Panel, I had the honour and privilege of initiating its inaugural meeting in Tokyo.

Although I rendered my resignation as chairman, albeit regretfully, after returning to public office as Prime Minister of the Republic of Korea in February 2008, I continue to have personal affection for the valuable work carried out by the distinguished members of the High-Level Expert Panel. Not surprisingly, the vigorous efforts of the High-Level Expert Panel have made meaningful progress culminating in the ensuing Action Plan which proposes specific actions for the achievement of preventing, preparing for, and managing water-related disasters.

There is no doubt that many obstacles continue to exist along our way. However, we should bear in mind that global issues like water cannot be addressed by a single nation's or a single government's effort. The growing stress on water resources facing us today can be solved only when every habitant on our planet is fully aware of the gravity of this issue and tries to join the global efforts to combat it.

Now is indeed the time for action. I invite you to partake in this noble enterprise of saving our planet, our home, by taking real, tangible steps as set out in the Action Plan. As inhabitants of this planet we share a common destiny in finding solutions to this difficult problem for the benefit of mankind.



**H.E. Mr. Han Seung-soo**

**Founding Chair**

High-Level Expert Panel on  
Water and Disaster/ UNSGAB  
Prime Minister  
Republic of Korea



# Action Plan





## Action Plan \* \* \*

Natural hazards are inevitable: high death and destruction tolls are not. Ill-advised human activity can both create and accelerate the impact of water-related disasters. These water threats have been increasing with climate change and human activities, in the North and South of our planet, from East to West. But, with preparedness and planning, fatalities and destruction can be decreased. The global community has committed itself to the principles of coherent disaster prevention and response. The need is now for concrete and significant changes to make this happen.

Our High-Level Expert Panel on Water and Disaster calls for Six Urgent Imperatives to give life and immediacy to the agreement at the World Conference on Disaster Reduction in 2005 to the Hyogo Framework for Action (2005-2015). As a Panel, we pledge ourselves to follow up with these governments and institutions to enforce the message that these steps must be taken now to alleviate human suffering and to increase the resilience of our global community in responding to disaster. We will monitor their responses and report to the international community.



# Action Plan | Six Urgent Imperatives







## Six Urgent Imperatives<sup>1</sup> \* \* \*

### 1) Galvanize and mobilize before disaster strikes

- a) National Governments have the prime responsibility to reduce risks before disaster strikes, but cannot do this alone (1, 32). Targeted specific messages and events must reach out to all levels of society (37).
- b) Accordingly, we call for a special session of ECOSOC (16), for the International Chamber of Commerce to inform its membership (31), for Local Government associations to create materials and training courses, and for schools to drill their students in disaster risks and preparedness (5). We will ask that the 2012 World Water Forum, the International Water Weeks and the International World Water Day take up this theme. Regional Institutions must dedicate resources to analyze and carry through support programmes and conduct regular cross country review meetings (9, 10, 13). We call on Ministers and Parliaments to debate their level of preparedness (12, 14, 38), and business organizations to review their roles (22). When each plays their part, however small, the level of preparedness becomes universal.

### 2) Prioritize systems to forecast, inform, alert and evacuate

Early warning systems must reach people. To achieve this national governments and River Basin Organizations must create comprehensive flood risk assessments. Warning systems - established with the best-available technology - should be linked to operational on - ground response groups and cell phone networks (2, 11, 35). Systems must be buttressed by international organizations, Local Government associations, technology providers, Regional Banks and international organizations (33). Data sets and manuals of best practices for early warning systems are needed (19).

<sup>1</sup> The referenced numbers in the bracket refer to the detailed proposals for action listed in Annex 1.





### 3) Incorporate disaster risk reduction and climate change adaptation as integral to development planning

We challenge all Governments to review their local economic growth plans and, where relevant, Poverty Reduction Strategy Papers (26). Engineering associations should develop guidelines and practices for enhancing the water resistance of buildings (40). Donors must increase their spending on increasing disaster resistance (20) encouraged by OECD/DAC reporting systems (28). Leading national, regional and international hydrological and climate institutes should form networks to promote the dissemination of the best scientific and technical knowledge in disaster risk reduction (30). The next Conference of Parties of the UNFCCC and other climate change conferences should add disaster risk reduction as a key element in climate adaptation (17, 18) and the G8 and OECD promote a North-South dialogue on implementing this (27). The WMO should give serious consideration to the establishment of Regional Climate Centers with preparedness capability (7). Donors should agree that funds unused in emergency appeals should be used to build resilience and early recovery (21).

### 4) Improve disaster response

Regional organizations can assist with the essential task of designing and conducting drills at national levels and assessing their effectiveness (6). Insurance and reinsurance companies, the private sector and civil society are essential partners in improving disaster responses (22, 39). The efficiency of disaster responses must be assessed. Indices of preparedness are also needed (30), alongside their comparative cost effectiveness (3, 25). We need a Code of Conduct for participants in disaster responses (24). Nationally-based international organizations and governments should hold regular meetings to focus on the state of national preparedness (8).

### 5) Provide safe water and toilets quickly when disaster/conflict strikes

National coordination committees in charge of water, sanitation and human hygiene needs must be set up and strengthened (4, 15). Civil society, the military, the water and health sectors must come together to respond to a single agreed plan. Existing handbooks should be appraised (23).

### 6) Special crosscutting Initiatives

- a) We call on national governments to declare hydro-climatic data as public goods to be shared at all levels (regional, national and local) in order to assist in disaster risk reduction, and seek UNGA endorsement (34).
- b) We call on the delta states to establish a Large Delta States Network to jointly tackle the negative impacts of sea level rise associated with ongoing climate change (36).
- c) National and international hydrological institutes must take the initiative to identify underlying analytical and data requirements to meet climate changes that are likely to be highly uncertain and so as to support structural and non-structural measures for disaster risk reduction (29).

# Members of the Panel



## Founding Chair



**Han Seung-soo**

Prime Minister,  
Republic of Korea

## Moderators



**Sálvano Briceno**

Director,  
United Nations  
International Strategy for  
Disaster Reduction



**Loïc Fauchon**

President,  
World Water Council



**Hideaki Oda**

Japan Water Forum

## Members



**Babagana Ahmadu**

Former Director,  
Department of Rural Economy  
and Agriculture, African Union  
Commission/ Food and  
Agriculture Organisation country  
representative to The Gambia



**Pascal Berteaud**

Former Director-General,  
Water Department, Ministry  
of Ecology and Sustainable  
Development, France



**Max Campos Ortiz**

Executive Secretary,  
Regional Committee on  
Hydraulic Resources,  
Central America Integration  
System



**Margaret Catley-Carlson**

Patron,  
Global Water Partnership

## Members



**Rae-kwon Chung**

Climate Change Ambassador,  
Ministry of Foreign Affairs and  
Trade, Republic of Korea/  
Former Director,  
Environment and Sustainable  
Development Division, UNESCAP



**Mochamad Basoeki  
Hadimoeljono**

Inspectorate General,  
Ministry of Public Works,  
Indonesia



**Ramaswamy. R. Iyer**

Honorary Research Professor,  
Centre for Policy Research,  
India



**Michel Jarraud**

Secretary-General,  
World Meteorological  
Organization

Members of  
the Panel



## Members



**Heng Liu**  
Vice-president,  
Nanjing Hydraulic Research  
Institute, China



**Koichiro Matsuura**  
Director-General,  
United Nations Educational,  
Scientific and Cultural  
Organization



**Abel Mejia**  
Sector Manager,  
Water Infrastructure  
Department,  
World Bank



**Paul Sherlock**  
Senior Advisor,  
Inter-Agency Standing  
Committee Global WASH  
Cluster coordinator and  
Senior Adviser, Emergencies  
in Water and Sanitation,  
UNICEF

## Members



**Quamrul Islam Siddique**  
(deceased 2008)  
President,  
Bangladesh Water  
Partnership



**Kuniyoshi Takeuchi**  
Director,  
International Centre for  
Water Hazard and Risk  
Management



**Robert L Van Antwerp**  
Commanding General,  
US Army Corps of Engineers



**Koos Wieriks**  
Secretary, Dutch National  
Advisory Water Management  
Board/Personal Advisor  
HRH the Prince of Orange

## Members



**Alan Werritty**  
Professor of Physical  
Geography and Research  
Director,  
UNESCO Centre for Water  
Law, Policy and Science  
University of Dundee, UK



**In-Hee Won**  
Former Assistant Minister,  
Ministry of Land, Transport  
and Maritime Affairs,  
Republic of Korea

## Permanent Observers



**Eric Rasmussen**  
President & CEO,  
Innovative Support  
To Emergencies, Diseases  
and Disasters (InSTEDD), USA



**Robert Mardini**  
Head,  
Water and Habitat,  
International Committee of  
the Red Cross (ICRC)



**Hiroaki Taniguchi**  
Vice-Minister for Engineering  
Affairs, Ministry of Land,  
Infrastructure, Transport and  
Tourism, Japan



## Annex 1 : List of Actions





Local and National Level Actions		Our Actions	UI <sup>2</sup>
01	National governments to mainstream and integrate disaster potential assessment and risk reduction within their development plans to promote economic growth.	Ask UN Secretary-General to invite member states to undertake the proposed action.	01
02	National governments to promptly develop people centered warning systems, comprehensive flood risk maps and assessments linked to communication systems such as cell phone networks. These systems to include observation and warnings for flash floods.	Request WMO and UNESCO (via the International Flood Initiative) to assist governments in undertaking the proposed actions and invite international financial institutions to support the fulfillment of the proposed actions.	02
03	National governments and key research institutes to verify and communicate the social and economic cost effectiveness of disaster risk reduction measures.	Identify and request interested national governments and key research institutes to conduct the proposed study.	04
04	National governments to establish or strengthen national coordination committees in charge of water, sanitation and hygiene emergency responses during and after disasters. UN-WASH cluster, WWC and IWA to identify and promote the best tools including database of experts and taskforce for quick assessment of the WASH needs after disasters/conflicts.	Invite UN-WASH cluster to investigate the effectiveness of national coordination committees and to make recommendations. Where such committees do not exist, member states to be invited to create them. Invite the Heads of the UN-WASH cluster, WWC and IWA to request the proposed action.	05
05	Local governments and associations to design programmes for capacity development, greater awareness of water-related hazard risks, most vulnerable communities/groups, educational programmes for young people.	Approach local government groups such as UCLG, ICLEI and CITYNET to urge its members to realize the proposed actions.	01

Regional Level Actions		Our Actions	UI
06	Regional UN organizations to approach member states to arrange among neighboring countries mechanisms to help each other sharing information and experiences, conduct disaster preparedness drills, and dispatch human resources and urgent supplies when needed.	Approach UN Secretary-General to ask UN regional bodies to facilitate the proposed actions by member states.	04
07	Regional Climate Centers are needed and should provide outputs to national hydro climatic agencies which link users with early warnings, climate predictions, risk assessments and climate change scenarios.	Invite WMO to take the lead in strengthening and, where necessary, establishing Regional Climate Centers.	03
08	The World Bank country offices, UN resident coordinators, and national governments to hold regular meetings on disaster preparedness and risk reduction.	Ask the World Bank president and UN Secretary-General to request their country offices and resident coordinators to hold the proposed meetings.	04
09	UN regional organizations and regional development banks to co-organize a workshop designed to increase public outreach and awareness of water-related risks.	Ask UN regional organizations and regional development banks to organize the proposed workshop.	01
10	Regional development banks to convene regional seminars on how effective disaster planning can contribute to economic growth. Banks to propose incorporation of disaster preparedness in development plans.	Request regional development banks to invite water-related disasters and planning ministries and convene proposed seminars.	01

<sup>2</sup> Urgent Imperatives

11	International River Basin Organizations to develop early warning systems in transboundary river basins and secure assistance from international financial institutions for their implementation.	Invite international financial institutions and River Basin Organization networks to help river basin organizations to develop proposed plans.	02
12	Regional organizations to call for the establishment of networks of ministers for water disasters.	Approach regional organizations such as ESCAP, ECLAC to call for the establishment of the proposed networks.	01
13	Heads of regional organizations to identify gaps in existing provision of disaster insurance. This to be achieved via regional conferences in which insurance companies report on the benefits, potential and experience of different types of insurance cover.	Approach heads of regional organizations such as SADC, ASEAN and UN regional economic commissions to realize the proposed action.	01
14	Regional networks to organize regional Water Summits with a special focus on disaster prevention.	Approach regional networks to realize the proposed action.	01
15	Emergency relief bodies to organize regional workshops to promote better understanding of the current gap between emergency response, recovery and development plans.	Invite WASH cluster, ICRC, Early Recovery Cluster, ECHO and the World Bank to organize the regional workshops.	05

	Global level Actions	Our Actions	UI
16	ECOSOC to dedicate a substantial proportion of a future session to disaster management.	Approach the head of ECOSOC to realize the proposed action.	01
17	UNFCCC to embed disaster potential assessment and risk reduction in adaptation to the impacts of climate change, and to urge Member States to promote disaster risk reduction within their national adaptation plans.	Recommend through the UNFCCC process that member states realize proposed actions within appropriate conferences and negotiations.	03
18	IPCC and World Climate Conference to produce specific recommendations on the topic of water and disasters in their 2009 events and the follow-up processes.	Request IPCC and WMO respectively to include water and disasters as a key topic in the preparatory processes for the IPCC Special Report on the Management of Extreme Events and the programme and recommendations of the World Climate Conference.	03
19	WMO/GWP/UNESCO to create a database on best practice in responding to early warnings, and to approach NGOs and local authorities active in community-based flood risk management to register their experience.	Ask WMO/GWP/UNESCO to create the proposed database.	02
20	UN regional organizations and regional development banks to organize workshops on how international financing institutions and donors can help enhance adaptation to climate change.	Approach UN regional organizations and regional development banks to organize proposed workshops.	03
21	OCHA to create a mechanism whereby funds unused in emergency appeals can be used for resilience and early recovery.	Ask UN Secretary-General to suggest OCHA to create the proposed mechanism.	03
22	World Economic Forum, UN Global Compact, UN and international business associations to organize a workshop to encourage the business sector to include awareness-raising activities on disaster reduction and preparedness in their CSR activities.	Lobby the World Economic Forum, UN Global Compact, and UN and international business associations to organize proposed workshop.	01
23	Existing handbooks on water and sanitation responses by relief agencies to be appraised and existing data exchanges and platforms to be reviewed. Gaps to be filled in new handbooks to be identified.	Invite the UN-WASH Cluster and the WWC to undertake this task.	05
24	All organizations involved in post-disaster provision of WASH to adopt and respect a Code of Conduct.	Request WWC, UN-WASH cluster and ICRC to examine the existing Code(s) of Conduct and to prepare a new one.	04

25	World Bank to conduct a study to assess the relative merits of structural and non-structural measures for water-related disaster risk reduction.	Ask the World Bank to conduct the proposed study.	04
26	World Bank to request that countries add disaster potential assessment and risk reduction and management in Poverty Reduction Strategy Papers.	Approach the World Bank to request countries to realize the proposed action.	03
27	The G8 states and the OECD to initiate a North-South dialogue on the role of disaster risk reduction as part of adaptation to climate change.	Approach G8 states and OECD to call for proposed dialogue process.	03
28	OECD/DAC to no longer consider disaster risk reduction solely a humanitarian task. This would enable donors to increase their investment in preventative measures for disaster risk reduction.	Request OECD/DAC to realize the proposed action.	03
29	National and international hydrological institutes must take the initiative to identify underlying analytical and data requirements to meet climate changes that are likely to be highly uncertain and so as to support structural and non-structural measures for disaster risk deduction.	Call key international hydrological and hydraulic institutes to realize proposed actions.	06
30	The International Flood Initiative and international hydrological and hydraulic institutes to examine the efficiency and effectiveness of disaster prevention measures and develop disaster preparedness indices for implementation by local authorities.	Request International Flood Initiative and international hydrological and hydraulic research institutes to conduct the proposed studies.	04
31	International Chamber of Commerce to urge private sector companies to incorporate disaster potential assessment and risk reduction into their management policies.	Invite the International Chamber of Commerce to undertake the proposed action.	01
32	Local government associations to urge members to integrate disaster potential assessment and risk reduction into their economic development planning and policy.	Contact local government associations such as UCLG, ICLEI and CITYNET inviting them to urge their members to undertake the proposed action.	01
33	Local government groups such as UCLG, ICLEI and CITYNET to help establish an international network of local governments for promoting disaster preparedness and response including flood fighting and drills.	Contact local government groups such as UCLG, ICLEI and CITYNET to help establish the proposed network.	02
34	National governments to declare hydro-climatic data as public goods to be shared at all levels (regional, national and local) in order to assist in disaster risk reduction.	Appeal to heads of state by UNGA to make a declaration endorsing this claim.	06
35	National governments to report to UN/ISDR on the current status of early warning systems in their country/region including a map of areas covered by these systems.	Approach UN/ISDR to realize the proposed action.	02
36	Delta states to call for the establishment of a Large Delta States Network to jointly tackle the negative impacts of sea level rise associated with ongoing climate change.	Identify and approach core member countries to call for the establishment of the proposed network.	06
37	UN to declare an "International Year" on water and disaster reduction in conjunction with related international organizations.	Appeal to heads of state for establishing an "International Year" on water and disaster reduction.	01
38	Inter parliamentary organizations and associations such as IPU and Globe to request Parliaments around the world to create a Day to discuss economic growth and water-related disasters.	Approach inter parliamentary organizations and associations such as IPU and Globe to realize the proposed action.	01
39	Reinsurance companies, governments, and international financing institutions to create new funding mechanisms for preventing water-related disasters.	Invite reinsurance companies, governments, international financing institutions to create the proposed mechanisms.	04
40	International professional engineering societies to develop guidelines for water-resistant buildings.	Identify and approach appropriate international professional engineering societies to develop the proposed guideline.	03

# Annex 2 : Glossary

## Terminology<sup>3</sup> \* \* \*

**Adaptation**\_ The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

**Capacity Development**\_ The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.

**Climate change**\_ (a) The Inter-governmental Panel on Climate Change (IPCC) defines climate change as: “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use”.

(b) The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.

**Disaster**\_ A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

**Disaster risk**\_ The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

**Disaster risk reduction**\_ The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

**Early warning system**\_ The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

**Hazard**\_ A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

**Natural hazard**\_ Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

**Preparedness**\_ The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

**Prevention**\_ The outright avoidance of adverse impacts of hazards and related disasters..

**Recovery**\_ The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

**Resilience**\_ The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

<sup>3</sup> Apart from the definition of “water-related disasters” all the other definitions are based on the UN/ISDR Terminology on Disaster Risk Reduction (2009).

**Response**\_ The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

**Risk**\_ The combination of the probability of an event and its negative consequences.

**Risk assessment**\_ A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

**Risk management**\_ The systematic approach and practice of managing uncertainty to minimize potential harm and loss.

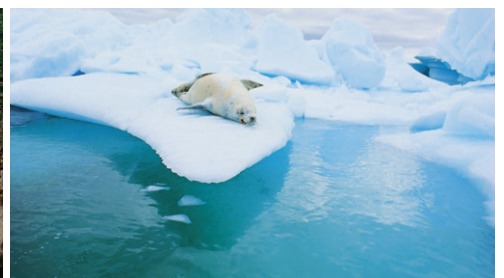
**Structural and non-structural measures**\_ **(Structural measures)** Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard-resistance and resilience in structures or systems; **(Non-structural measures)** Any measure not involving physical construction that uses knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness raising, training and education.

**Sustainable development**\_ Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Water-related disasters**\_ These include floods, droughts, over-extraction of groundwater, pollution of rivers, lakes and wetlands, loss of water-based ecosystem services, landslides, debris flows, storm surges, and tsunamis.

## Acronym \* \* \*

<b>ASEAN</b>	Association of South-East Asian Nations	<b>OCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>CITYNET</b>	The Regional Network of Local Authorities for the Management of Human Settlements	<b>OECD</b>	Organization for Economic Co-operation and Development
<b>CSR</b>	Corporate Social Responsibility	<b>SADC</b>	Southern African Development Community
<b>DAC</b>	Development Cooperation Directorate	<b>UCLG</b>	United Cities and Local Governments
<b>ECHO</b>	Emergency and Community Health Outreach	<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>ECLAC</b>	Economic Commission for Latin America and the Caribbean	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>ECOSOC</b>	United Nations Economic and Social Council	<b>UNGA</b>	United Nations General Assembly
<b>ESCAP</b>	United Nations Economic and Social Commission for Asia and the Pacific	<b>UNICEF</b>	United Nations Children’s Fund
<b>GWP</b>	Global Water Partnership	<b>UN/ISDR</b>	United Nations secretariat for the International Strategy for Disaster Reduction
<b>ICLE</b>	Local Governments for Sustainability	<b>UNSGAB</b>	United Nations Secretary-General’s Advisory Board on Water and Sanitation
<b>ICRC</b>	International Committee of the Red Cross	<b>WASH</b>	Water, Sanitation and Hygiene
<b>IPCC</b>	Intergovernmental Panel on Climate Change	<b>WMO</b>	World Meteorological Organization
<b>IPU</b>	Inter-Parliamentary Union	<b>WWC</b>	World Water Council
<b>IWA</b>	International Water Association		







# Water and Disaster

High-Level Expert Panel on Water and Disaster/ UNSGAB



High-Level Expert Panel on Water and Disaster  
**UNSGAB**



한국물포럼  
KOREA WATER FORUM



International Strategy for  
Disaster Reduction



Japan Water Forum  
日本水フォーラム



World Water Council  
World Water Forum