WATER FOR OUR FUTURE – POST 7TH WORLD WATER FORUM SEMINAR 6TH OCTOBER 2015

WATER RELATED DISASTER MANAGEMENT

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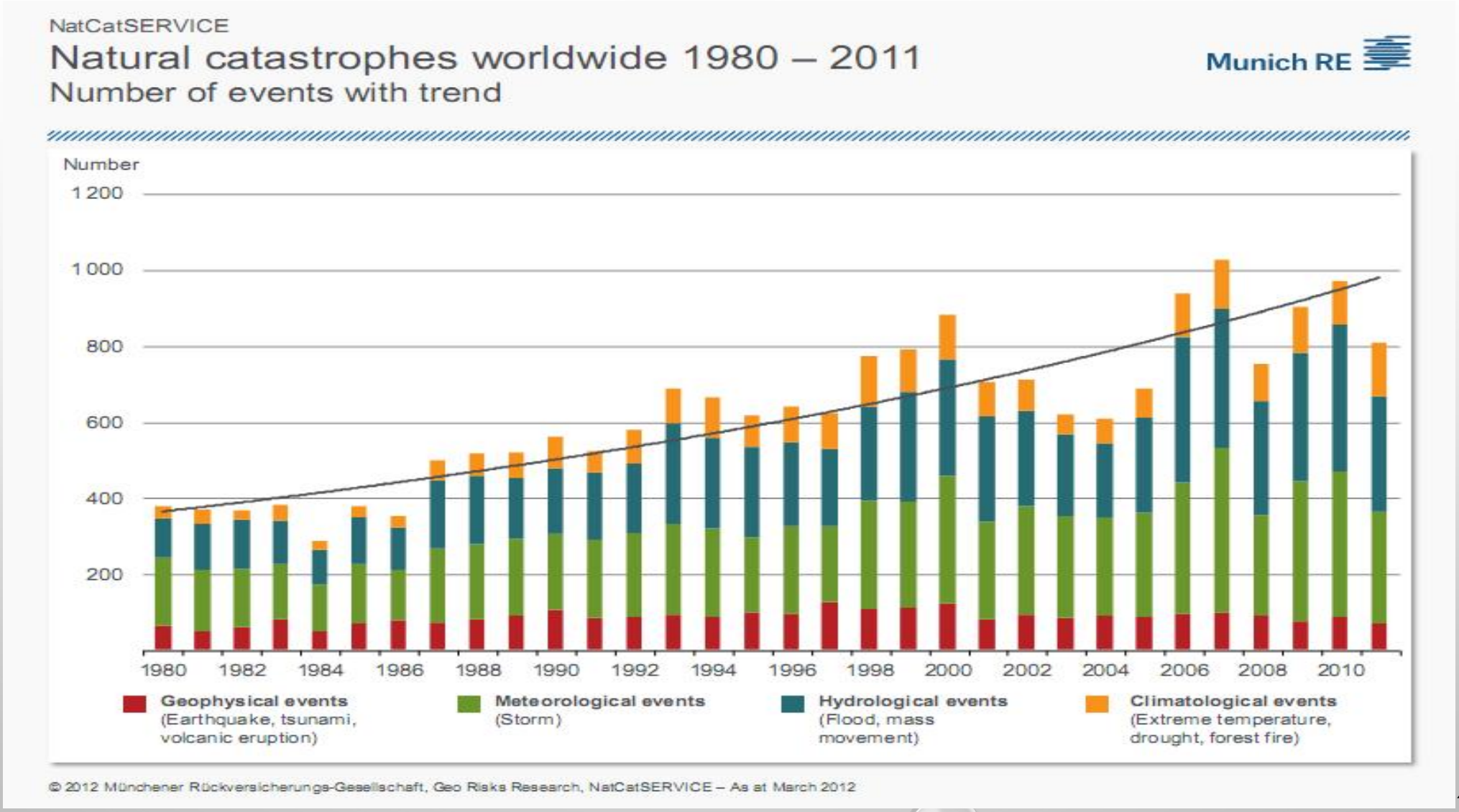
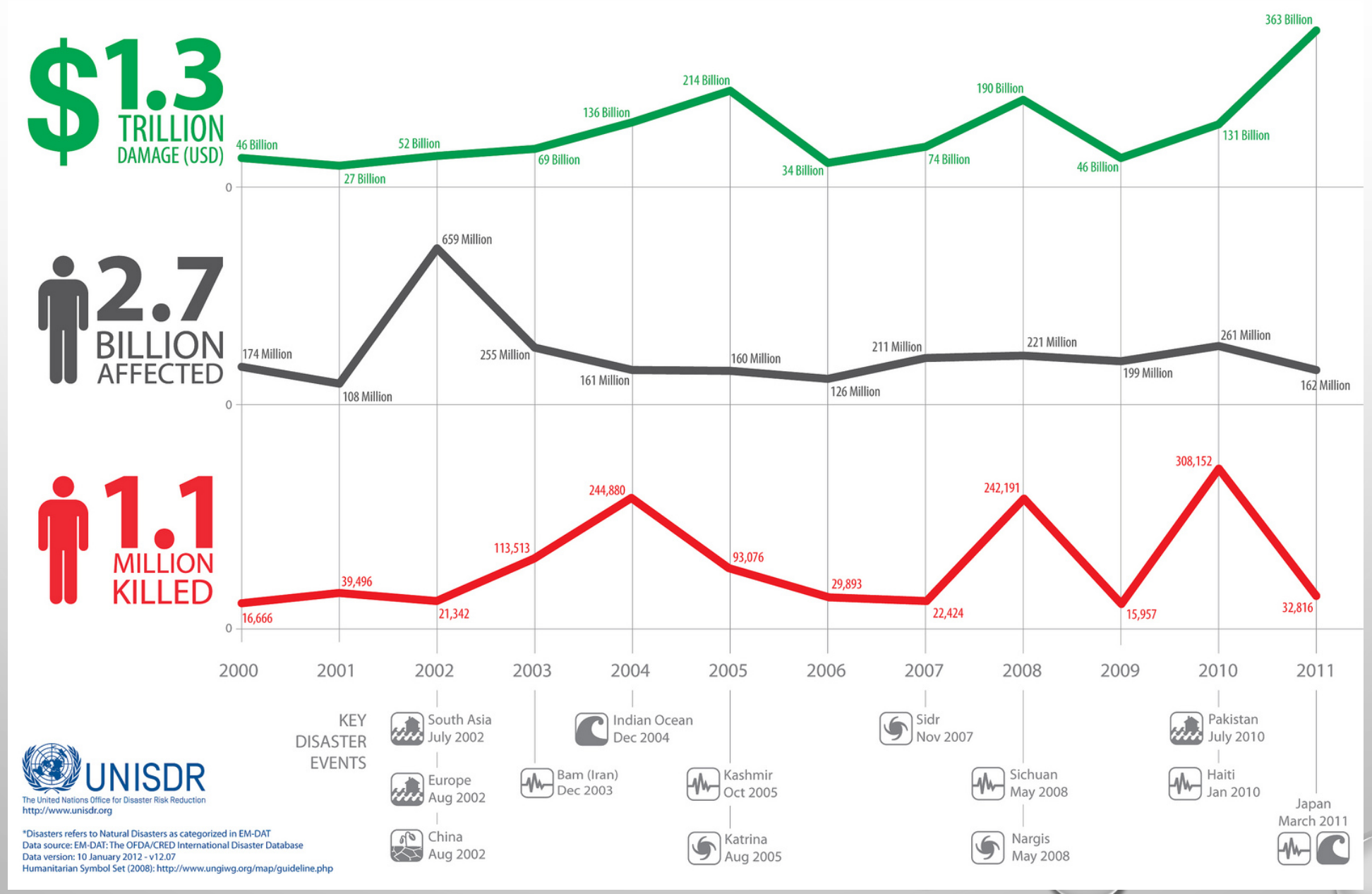
GLOBAL WATER-RELATED DISASTERS



DISASTER OCCURRENCES AND IMPACTS ARE INCREASING

The Economic and Human Impact of Disasters* in the last 12 years



Results of the 6th World Water Forum

Priority of Action 1.4: "Prevent and respond to water-related risks and crises"	
Target 1.4.1.	By 2015, 100 countries have adopted a national policy for disaster risk reduction and resilience and made it a local priority with a strong institutional basis for implementation. (UNISDR, Korean Ministry of Public Administration and Security)
Target 1.4.2.	By 2015, 50 countries have identified, assessed and monitored disaster risk and developed an early warning system. (China Institute of Water Resources and Hydropower Research)
Target 1.4.3.	By 2015, 25 countries have developed social policies to reduce the vulnerability of their most at risk populations. (Korea Ministry of Land Infrastructure and Maritime Affairs)
Target 1.4.4.	By 2015, 50 countries have an effective disaster preparedness plan for response at all levels. (Amiacque)
Target 1.4.5.	Reduce disaster-induced economic losses, in 25 countries with lowest HDI, to <10% of GDP by 2020, <7% GDP by 2030 and <5% GDP by 2050. (US Army Corps of Engineers)
Target 1.4.6.	By 2015, 100% of the level one crisis has been addressed in an effective, coordinated and accountable way, through the humanitarian reform approach and with systematically consideration for rehabilitation. (Solidarités International)
Priority of Action 3.3: "Respond to climate and global changes in an urbanizing world"	
Target 3.3.2.	By 2015, develop a set of internationally recognized methodologies to assess and handle uncertainties of impacts of climate change on surface and ground water and identify priorities of awareness-raising for improving water management, in close partnership with IPCC, UNFCCC and other relevant organizations, and implement them in the preparation of a network of at least 10 river basin management plans within key vulnerable regions. (UNESCO-IHP)

TARGETS OF THE SENDAI FRAMEWORK

7 (NON-BINDING) GLOBAL TARGETS TO GUIDE ACTION ON DRR AND DRM OVER THE NEXT 15 YEARS:

(a) Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015

(b) Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015

(c) Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030

(d) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030

(e) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020

(f) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030

(g) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030

BACKGROUND – POST 2015 DEVELOPMENT GOALS

SDGs Relevant to Theme 1.3	
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable	
Target 11.1.	By 2030, ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums
Target 11.3.	By 2030 enhance inclusive and sustainable urbanization and capacities for participatory, integrated and sustainable human settlement planning and management in all countries
Target 11.5.	By 2030, significantly reduce the number of deaths and the number of people affected and decrease by <X> per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
Target 11.b.	By 2020, increase by <x> per cent the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, develop and implement, in line with the forthcoming Hyogo Framework, holistic disaster risk management at all levels
Target 11.c.	Support least developed countries, including through financial and technical assistance, for sustainable and resilient buildings utilizing local materials

BACKGROUND – POST 2015 DEVELOPMENT GOALS

SDGs Relevant to Theme 1.3	
Goal 13: Take urgent action to combat climate change and its impacts	
Target 13.1.	Strengthen resilience and adaptive capacity to climate-related hazards and natural hazards in all countries
Target 13.2.	Integrate climate change measures into national policies, strategies, and planning
Target 13.3.	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Target 13.b.	Promote mechanisms for raising capacities for effective climate change related planning and management, in LDCs, including focusing on women, youth, local and marginalized communities
Goal 6: Ensure availability and sustainable management of water and sanitation for all	
Target 6.4.	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity
Target 6.5.	By 2030 implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

TOPICS ON WATER RELATED DISASTER MANAGEMENT S 3 WATER AND NATURAL DISASTERS

3.1 TOOLS AND METHODOLOGY DEVELOPMENT ON THE CLIMATE CHANGE IMPACT AND VULNERABILITY

3.2 ADVANCES IN DROUGHT ANALYSIS TOOLS AND COPING STRATEGIES

3.3 FLOOD DAMAGE REDUCTION IN URBAN AREA BY IMPROVEMENT OF FLOOD FORECASTING

3.4 REMOTE SENSING AND GIS-ASSISTED MANAGEMENT OF WATER AND NATURAL DISASTERS

3.5 MANAGING EXTREMES-DECISION SUPPORT SYSTEMS AND RISK MANAGEMENT FOR FLOODS AND DROUGHTS

SESSION T1.3 ADAPTING TO CHANGE: MONITORING RISK AND UNCERTAINTY FOR RESILIENCE AND DISASTER PREPAREDNESS

1.3.1 WATER AND DISASTERS: FROM HUMANITARIAN RESPONSE TO THE PROTECTION OF LIVELIHOOD AND ECONOMIES

1.3.2 ASSESSING, MITIGATING AND MONITORING RISK WITH USE OF INNOVATIVE METHODOLOGIES AND TECHNOLOGIES

1.3.3 PREPAREDNESS, RESPONSE AND ADAPTATION AGAINST EXTREME FLOOD UNDER CLIMATE CHANGE

1.3.4 ADAPTING TO CLIMATE CHANGE: FOCUS ON DISASTER RISK WITH A LONG-TERM PERSPECTIVE

1.3.5 ENHANCING RESILIENCE THROUGH ROBUST WATER POLICIES AND APPROPRIATE WATER MANAGEMENT

1.3.6 CLIMATE CHANGE ADAPTATION IN BASINS: LESSONS LEARNED AND GOOD PRACTICES

1.3.7 URBAN FLOOD RESILIENCY THROUGH ADAPTATION TO CLIMATE CHANGE

IMPLEMENTATION ROADMAP

UNDERSTANDING DISASTER RISK

POLICIES AND PRACTICES FOR DISASTER RISK MANAGEMENT SHOULD HAVE AN UNDERSTANDING OF DISASTER RISK IN ALL ITS DIMENSIONS OF VULNERABILITY, CAPACITY EXPOSURE OF PERSONS AND ASSETS, HAZARD CHARACTERISTICS AND THE ENVIRONMENT. SUCH KNOWLEDGE CAN BE SHARED FOR THE PURPOSE OF PRE-DISASTER RISK ASSESSMENT, FOR PREVENTION AND IMPLEMENTATION OF APPROPRIATE PREPAREDNESS AND EFFECTIVE RESPONSE TO DISASTERS

IMPLEMENTATION ROADMAP

STRENGTHENING GOVERNANCE TO MANAGE DISASTER RISK

DISASTER RISK GOVERNANCE AT THE NATIONAL, REGIONAL AND GLOBAL LEVELS IS OF GREAT IMPORTANCE FOR AN EFFECTIVE AND EFFICIENT MANAGEMENT OF DISASTER RISKS. CLEAR VISION, PLANS, COMPETENCE, GUIDANCE AND COORDINATION WITHIN AND ACROSS SECTORS AS WELL AS PARTICIPATION OF RELEVANT STAKEHOLDERS ARE NEEDED. STRENGTHENING DISASTER RISK GOVERNANCE FOR PREVENTION, MITIGATION, PREPAREDNESS, RESPONSE, RECOVERY, AND REHABILITATION IS THEREFORE NECESSARY AND FOSTERS COLLABORATIONS AND PARTNERSHIP ACROSS MECHANISMS AND INSTITUTIONS FOR THE IMPLEMENTATION OF INSTRUMENTS RELEVANT TO DISASTER RISK REDUCTION AND SUSTAINABLE DEVELOPMENT.

IMPLEMENTATION ROADMAP

INVESTING IN DISASTER RISK REDUCTION FOR RESILIENCE

PUBLIC AND PRIVATE INVESTMENTS IN DISASTER RISK PREVENTION AND REDUCTION THROUGH STRUCTURAL AND NON-STRUCTURAL MEASURES ARE ESSENTIAL TO ENHANCE THE ECONOMIC, SOCIAL, HEALTH AND CULTURAL RESILIENCE OF PERSONS, COMMUNITIES, COUNTRIES AND THEIR ASSETS, AS WELL AS THE ENVIRONMENT. THESE INVESTMENTS CAN BE DRIVERS OF INNOVATION, GROWTH AND JOB CREATION. SUCH MEASURES ARE COST-EFFECTIVE AND INSTRUMENTAL TO SAVE LIVES, PREVENT AND REDUCE LOSSES AND ENSURE EFFECTIVE RECOVERY AND REHABILITATION.

IMPLEMENTATION ROADMAP

ENHANCING DISASTER PREPAREDNESS FOR EFFECTIVE RESPONSE AND TO "BUILD BACK BETTER" IN RECOVERY, REHABILITATION AND RECONSTRUCTION

THE STEADY GROWTH OF DISASTER RISK, INCLUDING THE INCREASE OF EXPOSURE OF PEOPLE AND ASSETS, COMBINED WITH THE LESSONS LEARNED FROM PAST DISASTERS, INDICATES THE NEED TO FURTHER STRENGTHEN DISASTER PREPAREDNESS FOR RESPONSE, TO TAKE ACTION IN ANTICIPATION OF EVENTS, TO INTEGRATE DISASTER RISK REDUCTION IN RESPONSE PREPAREDNESS AND TO ENSURE CAPACITIES ARE IN PLACE FOR EFFECTIVE RESPONSE AND RECOVERY AT ALL LEVELS FROM GLOBAL TO LOCAL STAKEHOLDERS.

IMPLEMENTATION ROADMAP- OBJECTIVES

Understanding Disaster Risk	[1.3.a] By the end of 2017, encourage governance bodies at all levels to share applications of innovative methodologies and technologies in hazard management to quantify flood resiliency and mitigate vulnerability.
	[1.3.b] By the end of 2017, raise awareness on the importance climate change adaptation and disaster risk reduction and support governments in implementation.
Strengthening Governance to Manage Disaster Risk	[1.3.c] By the end of 2016, incorporate a long-term climate change adaptation perspective into national/local disaster risk management policies.
	[1.3.d] By the end of 2016, support enhancing the capacity for responding to extreme water related hazards to policy makers.

IMPLEMENTATION ROADMAP- OBJECTIVES

Investing in Disaster, Risk Reduction and Resilience	[1.3.e] By the end of 2016, suggest several approaches to managing economies and ecosystems through infrastructure, “re-operated” to track emerging changes, and to accommodate a range of potential shifts in water cycle with indicators to guide us through effective decision-making.
	[1.3.f] By the end of 2016, support targeted and cost-effective disaster risk management through exchange of experiences in risk-based approaches.
Enhancing Disaster, Preparedness for Effective Response, and to “Buildback Better” in Recovery, Rehabilitation and Reconstruction	[1.3.g] By the end of 2018, strengthen international cooperation between developed and developing countries in application of new science and technologies and improvement of current systems, linking up with local practice and knowledge, focused on Building Back Better.

IMPLEMENTATION ROADMAP- ACTION (STATUS)
UNDERSTANDING DISASTER RISK

OBJECTIVE	ACTION	
1.3.a	Develop methodologies to monitor, predict and analyze water-related hazards, exposure and vulnerability; and to support assessment of water-related risks and management at local, regional and global scales.	
	Modify or improve the current hazards methodologies and technologies specifically for potential users.	
	Experiment with hazard methodologies and technologies in the field.	
	Define and assess extreme floods in the Asia-Pacific region and world.	
1.3.b	Provide evidence to show how solutions can be applied to achieve results and make regional impacts.	

IMPLEMENTATION ROADMAP- ACTION (STATUS)
STRENGTHENING GOVERNANCE

OBJECTIVE	ACTION	
1.3.c	By the end of 2015, develop specific recommendations for the UNFCCC COP 21 in December, as well as provide inputs for the AGWA decision support system for resilient and robust water management.	
	Expand and strengthen the exchange of experiences within the global network of basins working on climate change adaptation (by INBO and UNECE), add new basins to the network and thereby help them to increase their resilience	
	Mainstream disaster risk reduction, adaptation to climate change and development strategies by facilitating active collaboration and communication within global institutional networks and through dissemination of technical knowledge for water-related hazard and risk management.	
	Highlight prevention in adaptation strategies for extreme floods under climate change.	
	Develop a common framework for sustainable water resources management in the context of climate change.	
	Elicit the preparedness of adaptation strategies for extreme flood under climate change	

IMPLEMENTATION ROADMAP- ACTION (STATUS)
STRENGTHENING GOVERNANCE

OBJECTIVE	ACTION	
1.3.d	Propose practical policy tools for integrated and comprehensive water risk and management to enhance human and ecosystem resilience, for instance through prevention, preparedness, early warning, and integration of “hard” and “soft” approaches.	
	Support approaches for determining the most effective roles and policy actions of national, multilateral and global policy actors.	

IMPLEMENTATION ROADMAP- ACTION (STATUS)
INVESTING IN DISASTER, RISK REDUCTION AND RESILIENCE

OBJECTIVE	ACTION	
1.3.e	Examine and investigate the current status of flood control measures in structural and non-structural aspects	
	Work together to help potential users to determine the applicability of hazard methodologies and technologies to vulnerable area.	
	Confirm the procedure and methodology to prepare for investment to mitigate extreme flood damage.	
1.3.f	Encourage practitioners to build solid theoretical and engineering competence for effective contribution to the planning and practice of disaster management at any level, from local to international.	
	Highlight place-based and thematic work where we can collaborate and contribute joint insights.	

IMPLEMENTATION ROADMAP- ACTION (STATUS)
ENHANCING DISASTER PREPAREDNESS

OBJECTIVE	ACTION	
1.3.g	Share best practices of Business Continuity Plans focused on flood disaster management for critical infrastructure located in water-related hazard exposed floodplains.	
	Build connection by using stakeholder engagement platform	

CONCLUSION

Understanding Disaster Risk	**More flood hazard maps and risk maps need to be produced and disseminate to the public.** **Public must** be informed that simple acts such as improper land clearing and rubbish dumping may increase flood risks Government and academia to look into various possible methologies on risk.
Strengthening Governance	Framework for disaster management is in place. However, drills need to be carried out to test capabilities and find out gaps and weaknesses.that need to be strengthened. There is still a need to look the roles agencies can play and collaborate to prevent or reduce possibility or effect of disasters especially regarding climate change.

CONCLUSION

Investing in Disaster, Risk Reduction and Resilience	Private investments have to play a bigger role to ensure programmes for safety and security can be hastened. This should include projects that involves structural measures and non structural measures, data collection and researches in new methodologies for risk assessment and mitigation. More activities to be carried out with different levels of communities and age groups to inculcate love of clean rivers and safe living.
Enhancing Disaster Preparedness	Awareness programmes must be increased to educate inhabitants in flood prone areas regarding the risks and how to evacuate . Experiences from recent floods will be useful to benchmark level of preparedness needed Post floods seminar among the flood managers to share experiences and identify areas of improvement e.g. work with power authorities to ensure flow ofcommunication and data during floods

THANK YOU