Disaster Risk Reduction : The Hyogo Framework For Action 2005 - 2015

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Introduction

Every year, more than 200 million people are affected by droughts, floods, cyclones, earth quake, wild fire and other hazards. Increased population density, environmental degradation and global warming adding to poverty make the impacts of natural hazards worse. Government around the world has committed to take action to reduce disaster risk, have adopted a guideline to reduce vulnerabilities to natural hazards, called the Hyogo Framework for Action 2005-2015 (HFA). (ISDR, 2007 version)

The past few years have reminded us that natural hazards can affect anyone, anywhere invariable of class, status, rich or poor. From the Indian Ocean *tsunami* to the South Asia earthquake, from the devastation caused by hurricanes and cyclones in the United States, the Caribbean and the Pacific, to heavy flooding across Europe and Asia, hundreds of thousands of people have lost their lives, and millions their livelihoods, to disasters caused by natural hazards. While many know the human misery and crippling economic losses resulting from disasters, what few realize is that this devastation can be prevented through disaster risk reduction initiatives.

The HFA assist the efforts of nations and communities to become more resilient to, and cope better with the hazards that threaten their development gains. Disaster risk reduction should be part of every-day decision-making: from how people educate their children to how they plan their communities and cities. The Hyogo Framework for Action is the key instrument for implementing disaster risk reduction. Its overarching goal is to build resilience of nation and communities to disaster, by achieving substantive reduction of disaster losses by 2015-in lives, and in the social, economic and environmental assets of communities and countries. Before going into any details of the Hyogo Framework for Action, it would be in the fitness of things to clarify some of the definitions coming under the ambit of this article.

Disaster Risk Reduction - What is it and why do we need it?

Disaster Risk Reduction (DRR) is the conceptual framework of elements considered with the purpose of minimizing vulnerabilities and disaster risks throughout a society in ordertoavoid(prevention)ortolimit(mitigationandpreparedness)theadverseimpacts ofhazards,andfacilitatesustainabledevelopment.(ISDR,UnitedNationsGuidelines)
Disaster Risk Reduction (DRR) measures are designed to protect livelihoods and the assets of communities and individuals from the impact of hazards by:

• **Mitigation:** reducing the frequency, scale, intensity and impact of hazards.
• **Preparedness:** strengthening the capacity of communities to withstand, respond to and recover from hazards, and of government, implementing partners and to establish speedy and appropriate interventions when the communities' capacities are overwhelmed.
• **Advocacy:** favorably influencing the social, political, economic and environmental issues that contribute to the causes and magnitude of impact of hazards. DRR is often a complementary or integral part of other programmes such as micro-finance, food security, promoting agricultural diversity, or capacity building. On occasions, particularly with preparedness planning and advocacy issues, it can be a stand-alone activity. The **disaster risk** (of a region, a family, or a person) is therefore made up of two elements:

Hazard and ***Vulnerability***

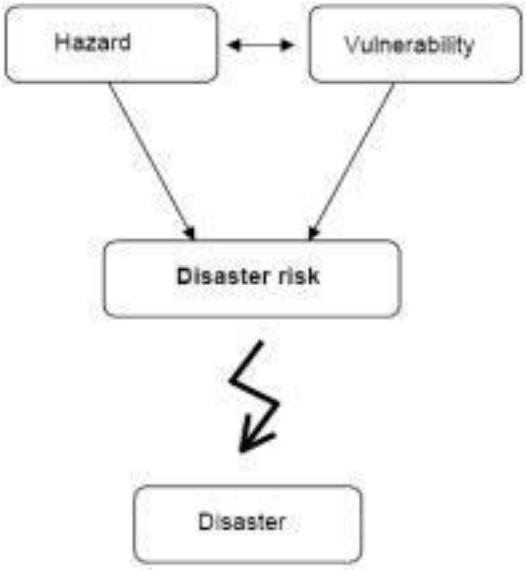

Fig.1: Components of Disaster Risk Reduction
Source: GTZ, Eschborn 2001

Definition of 'disaster'

> *"A serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources."* (UNU-EHS)

Hazard

Hazards are extreme natural events with a certain degree of probability of having adverse consequences. The following formula is used to calculate disaster risk: (*www.unisdr.org)*

Disaster Risk = Hazard x Vulnerability

In this equation risk is the product of the two factors, hazard and vulnerability. Therefore, it is clear that a risk exists only if there is vulnerability to the hazard posed by a natural event. For instance, a family living in a highly earthquake-resistant house would not be vulnerable to an earthquake of 6 on the Richter scale. So, they would not be at risk. If the hazard approaches zero, because, for example, buildings have been constructed in areas far away from continental plate seduction zones and tectonic faults, a house built with minimum precautions will be a safe place for the family, because they would only be vulnerable to very extreme events.

Vulnerability

Vulnerability denotes the inadequate means or ability to protect oneself against the adverse impacts of natural events and, on the other hand, to recover quickly from their effects.

The Hyogo Framework for Action 2005-2015 (ISDR, 2007 version)

The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, was adopted by 168 Governments at the World Conference for Disaster Reduction held in Kobe, Hyogo, Japan in January 2005. The goal of the Hyogo Framework is to achieve a "substantial reduction of disaster losses, in lives and in social, economic and environmental assets".

Since the adoption of the HFA, many global, regional, national and local efforts have addressed disaster risk reduction more systematically, much however, remains

to be done. The United Nations General Assembly has called for the implementation of HFA, reconfirmed the multi-stakeholder ISDR System and the Global Platform for Disaster Risk Reduction to support and promote it. The General Assembly of the United Nations has encouraged Member States to establish multi-sectoral national platforms to coordinate disaster risk reduction in countries. Many regional bodies have formulated strategies at regional scale for disaster risk reduction in line with the HFA, in the Andean region, Central America, the Caribbean, Asia, Pacific, Africa and Europe. More than 100 Governments have designated official focal points for the follow-up and the implementation of the HFA (March 2007). Some have taken actions to mobilize political commitment and establish centers to promote regional cooperation in disaster risk reduction.

Hyogo Priorities for Action

1. Make Disaster Risk Reduction a Priority.

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Strong national and local commitment is required to save lives and livelihoods threatened by natural hazards. Natural hazards must be taken into account in public and private sector decision-making in the same way that environmental and social impact assessments are currently required. Countries must therefore develop or modify policies, laws, and organizational arrangements, as well as plans, programmes, and projects, to integrate disaster risk reduction. They must also allocate sufficient resources to support and maintain them.

This includes:

- Creating effective, multi-sector national platforms to provide policy guidance and to coordinate activities;
- Integrating disaster risk reduction into development policies and planning, such as Poverty Reduction Strategies; and,
- Ensuring community participation, so that local needs are met.

Collaboration is Key

Madagascar's National Platform for Disaster Reduction includes: Government departments, such as Education, Water, Transport and Communication, Agriculture and Livestock, Land and the Office of the Prime Minister; NGOs; the media; the

donor community; and the UN. It carries out disaster reduction training, and has enhanced disaster preparedness by constructing cyclone refuges. It is also finalizing Madagascar's Early Warning System and updating the country's Poverty Reduction Strategy Paper (PRSP) to link disaster risk reduction with poverty reduction.

2. Know the Risks and Take Action

Identify, assess, and monitor disaster risks – and enhance early warning.

To reduce their vulnerability to natural hazards, countries and communities must know the risks that they face, and take actions based on that knowledge. Understanding risk requires investment in scientific, technical, and institutional capabilities to observe, record, research, analyze, forecast, model and map natural hazards. Tools need to be developed and disseminated: statistical information about disaster events, risk maps, disaster vulnerability and risk indicators are essential.

Most importantly, countries need to this knowledge to develop effective early systems, appropriately adapted to the unique circumstances of the people at risk. Early warning is widely accepted as a crucial component of disaster risk reduction. When effective early warning systems provide information about a hazard to a vulnerable population, and plans are in place to take action, thousands of lives can be saved.

Early Warning Saves Lives

Advance warnings mean the difference between life and death. Cuba is one of the best-prepared countries in the Caribbean for the hurricane season.

72 hours before a storm makes landfall, the national media issues alerts, and civil protection committees check evacuation plans. 48 hours before expected landfall, authorities target warnings for high-risk areas. Twelve hours before landfall, homes are secured, neighbourhoods are cleared of loose debris, and people are evacuated.

This early warning system has proven its effectiveness. During 2004, when Hurricane Charley hit, 70,000 houses were severely damaged and four people were killed. When Hurricane Ivan struck the following month, over 2 million people were evacuated. No one was killed.

3. Build Understanding and Awareness

Use knowledge, innovation, and education to build a culture of safety and resilience at all levels.

Disasters can be reduced substantially if people are well informed about measures they can take to reduce vulnerability-and if they are motivated to act. Key activities to increase awareness of disaster prevention include:

- Providing relevant information on disaster risks and means of protection, especially for citizens in high-risk areas;
- Strengthening networks and prompting dialogue and cooperation among disaster experts, technical and scientific specialists, planners and other
- stakeholders; Including disaster risk reduction subject matter in formal, non-formal, and informal education and training activities;
- Developing or strengthening community-based disaster risk management programmes; and,
- Working with the media in disaster risk reduction awareness activities.

Local Knowledge is Critical for Disaster Reduction

On the island of Simeulue, off the coast of Sumatra, from a population of 83,000 people, only seven people died in the Indian Ocean tsunami. On the nearby mainland, in Aceh, more than 100,000 people were killed.

The people of Simeulue have maintained their own local knowledge of earthquakes, which they call *smong*. Each generation teaches the early warning signs of natural hazards to the next.

“In 1907 a tsunami already happened here in Simeulue, and so our Grandmothers always gave us the following advice: if an earthquake comes, we must go and look at the beach: if the sea is at low tide the *smong* or *tsunami* will be coming and we must look for higher ground”, opined Mr. Darmili Bhupati, Simeulue Island.

4. Reduce Risk

Reduce the underlying risk factors.

Vulnerability to natural hazards is increased in many ways, for example:

- Locating communities in hazard-phone areas, such as flood plains;
- Destroying forests and wetlands, thereby harming the capacity of the environment to withstand hazards;
- Building public facilities and housing unable to withstand the impacts of hazards; and,
- Not having social and financial safety mechanisms in place.

Countries can build resilience to disasters by investing in simple, well-known measures to reduce risk and vulnerability. Disasters can be reduced by applying relevant building standards to protect critical infrastructure, such as schools, hospitals and homes. Vulnerable buildings can be retrofitted to a higher degree of safety. Protecting precious ecosystems, such as coral reefs and mangrove forests, allow them to act as natural storm barriers. Effective insurance and micro-finance initiatives can help to transfer risks and provide additional resources.

Building Resilience Protects Communities

Unsafe buildings and the lack of non-enforcement of building codes often cause more deaths than natural hazards themselves. In Bam, Iran, more than 30,000 injured, when an earthquake struck the city on 26 December 2003. A major factor contributing to the high death toll was that traditional mud brick buildings crumbled, suffocating the people inside. Practically all of the survivors were left homeless, as 85% of the city's buildings collapsed.

"The houses killed the people, not the earthquake". Mr. Mohamed Rahimnejad, Civil Engineer, Iran was of the opinion.

5. Be Prepared and Ready to Act

Strengthen disaster preparedness for effective response at all levels.

Being prepared, including conducting risk assessments, before investing in development at all levels of society will enable people to become more resilient to natural hazards. Preparedness involves many types of activities, including:

- The development and regular testing of contingency plans;
- The establishment of emergency funds to support preparedness, response and recovery activities;
- The development of coordinated regional approaches for effective disaster response; and,
- Continuous dialogue between response agencies, planners and policy-makers, and development organizations.

Regular disaster preparedness exercises, including evacuation drills, are key to ensuring rapid and effective disaster response.

Effective preparedness plans and organization also help to cope with the many small and medium-sized disasters that repeatedly occur in so many communities. Natural hazards cannot be prevented, but it is possible to reduce their impacts by reducing the vulnerability of people and their livelihoods.

Disaster Preparedness Takes Practice

Japan prides itself in being well-prepared for earthquakes. On Disaster Prevention Day, held in Japan every year, many people all across the country participate in disaster preparedness drills, involving both emergency workers and the general public.

“It is extremely important for all of us to prepare for such an occasion (natural hazards). Not only public institutions, but also each and every one of us must think about and manifest in our daily lives preparedness for disaster prevention. The government will do everything in its power to further develop Japan into a country with capacity to cope with disasters. However, at the same time, I ask that all of you do your utmost by predicting various damages that could occur and considering rescue efforts that will be required so that you will be prepared for emergency situations”. said Prime Minister of Japan, Junichiro Koizumi.

Who is responsible for implementing disaster risk reduction and the HFA?

Collaboration is crucial to disaster risk reduction: states, regional organizations all have a role to play. Civil society, including volunteers and community-based organizations, the scientific community, the media, and the private sector, are all vital stakeholders. Following is an indication of the variety and diversity of actors and their core responsibilities.

States are responsible for:

- Developing national coordination mechanisms;
- Conducting baseline assessments on the status of disaster risk reduction;
- Publishing and updating summaries of national programmers;
- Reviewing national progress towards achieving the objectives and priorities of the HFA;
- Working to implement relevant international legal instruments; and
- Integrating disaster risk reduction with climate change strategies.

Regional organizations are responsible for:

- Promoting regional programmes for disaster risk reduction;
- Undertaking and publishing regional and sub-regional baseline assessments;
- Coordinating reviews on progress toward implementing the HFA in the region;
- Establishing regional collaborative centers; and
- Supporting the development of regional early warning mechanisms.

International organizations are responsible for:

- Encouraging the integration of disaster risk reduction into humanitarian and sustainable development programmes and frameworks;
- Strengthening the capacity of the United Nations system to assist disaster-prone developing countries with disaster risk reduction initiatives;
- Supporting data collection and forecasting, information exchange, and early warning systems;
- Supporting States' own efforts with coordinated international assistance; and,
- Strengthening disaster management training and capacity building.

The ISDR (The International Strategy for Disaster Reduction) system is responsible for:

- Developing a matrix of roles and initiatives related to the HFA;
- Facilitating the coordination of actions at the international and regional levels;
- Developing indicators of progress to assist States in tracking their progress towards implementation of the HFA;
- Supporting national platforms and coordination mechanisms;
- Stimulating the exchange of best practices and lessons learned; and,
- Preparing reviews on progress toward achieving the HFA objectives.

Conclusion:

All countries are encouraged to establish National Platforms for Disaster Risk Reduction. At the regional level information sharing and coordination among existing bodies are promoted by the UN/ISDR secretariat and partners as Regional Platform for Disaster Risk Reduction.

The Global Platform for Disaster Risk Reduction is the main global forum for Governments, United Nation agencies, international financial institutions, regional bodies, civil societies, the private sector, the scientific and academic communities. It is possible for raising awareness and reiterates commitments, for sharing experience on implementation among stakeholders and Governments, addressing

gaps, and for providing strategic guidance and coherence for implementing HFA. Thematic clusters, groups and platforms work on specific topics of the disaster risk reduction agendas, such as: climate change adaptation, education, urban risk, early warning, recovery and capacity development.

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