

**Total Disaster Risk Management Approach: Towards Effective Policy Action
in Disaster Reduction and Response**

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The enormity of the disaster problem: an introduction

In today's fast changing global environment, the detrimental consequences of disasters on society, economy, natural environment, and even politics, cannot be overemphasized. More so in developing countries, the impact of disasters inevitably goes beyond their immediate devastation as the perennial toll on human lives, properties and resources exacerbates poverty and setbacks economic development.

Global disaster statistics for 1996–2000 revealed staggering economic costs estimated at US\$ 235 billion and 425,000 lives lost (CRED International Disaster Database). Disasters caused by natural hazards alone reportedly affected an average of 211 million people per year in the past decade. Asia bears much of the brunt. Nearly half of the world's major natural disasters, recorded over more than three decades, occurred in the region. As a result, Asia has become the world's most disaster-prone region, absorbing 80 percent of the total affected populations, 40 percent of the total deaths, and 46 percent of the total economic losses (CRED statistics for 1997–2001).

Notwithstanding the fact that the United Nations, national governments and non-governmental organizations have made significant strides in promoting and establishing programs and strategies for disaster reduction and response, many countries and local communities, especially in Asia, are becoming increasingly vulnerable to disasters as technological, environmental, political and economic change combine to increase disaster risks. Moreover, socio-economic studies have revealed that the secondary effects and indirect costs of disasters have long-term effects on societies, regardless of their level of development.

In Asia, the populations vulnerable to disaster risks are increasing. While Asian countries have developed at varying levels their respective capacities and capabilities in disaster reduction and response, many communities remain vulnerable to disasters as poverty prevails and populations and population densities grow rapidly. Unfortunately, the increasing prevalence of disaster risks and the growing vulnerability of communities to disasters tend to reduce the effectiveness of local capacities and coping mechanisms. The situation challenges the effectiveness of existing approaches, strategies and mechanisms for disaster reduction and response.

While prevailing disaster management approaches and strategies have promoted a comprehensive approach that embraces all the phases of the disaster management cycle, in actuality, much of the focus has been on disaster response and relatively lesser activities have been undertaken on disaster prevention and mitigation. Yet, the constant challenge to translate effectively disaster management policies and approaches into concrete program strategies and activities at the community and local levels still remains.

The foregoing context has characterized disasters as an important development issue and as a long-term problem requiring government priority attention and action. Particularly in Asia, the current situation has presented the critical need for a more effective, holistic and proactive approach to disaster management that focuses on disaster risks and the vulnerability of communities, and emphasizes multilevel and multidimensional coordination and collaboration among all stakeholders in addressing existing gaps in the disaster management cycle.

The conceptual development of the TDRM Approach

Based on a consensus on this emerging need, this holistic and proactive approach has now evolved as the Total Disaster Risk Management Approach or TDRM Approach. It is a direct outcome of the Consultative Meeting on Regional Cooperation in Disasters convened by the Asian Disaster Reduction Center (ADRC) and the Asian Disaster Response Unit of United Nations Office for the Coordination of Humanitarian Affairs Kobe office (ADRU/UN-OCHA Kobe) in

Katmandu, Nepal, in July 2001. The initial concept has been developed and presented in several fora to various organizations, academicians and disaster management practitioners, and has generated myriad comments and appreciation. Also, the approach was received positively during its presentation to representatives of governments and non-government organizations from Asian countries in January 2002 in New Delhi, India, and in February 2002 in Kobe, Japan, respectively. The approach was also shared among important regional organizations in June 2002 in Bangkok, Thailand.

The TDRM Approach builds on the gains of the International Decade of Natural Disasters, the International Strategy for Disaster Reduction and other existing endeavors. It integrates existing knowledge and techniques on disaster reduction and response, and risk management. Inherent to this approach is effectively communicating these knowledge and techniques at all levels and facilitating the appreciation of governments of the relevance of disaster risk management in achieving sustainable development objectives.

In pursuit of more effective disaster reduction and response, the TDRM Approach aims to address holistically and comprehensively the various concerns and gaps in the different phases of the disaster management cycle. It goes beyond responding to disaster events by considering the broader set of issues associated with disaster risk and its management. It addresses the underlying causes of disasters by focusing on the conditions of disaster risks engendered by unsustainable development and enables concerned sectors and the community to appreciate them and to examine ways to reduce their vulnerability.

The approach also promotes effective integration of stakeholders' action through multilevel, multidimensional and multi-disciplinary coordination and collaboration, a critical strategy toward improving disaster reduction and response. Also, it facilitates broad-based participation in policy and program development in disaster reduction and response and in other related development concerns (i.e. poverty alleviation, land use, environmental protection, food security, etc.)

In implementing the TDRM Approach, accurate and reliable hazard, vulnerability and disaster risk information is vital and relevant to all phases of the disaster management cycle. The approach attaches great importance to hazard mapping and vulnerability assessment as a fundamental tool for good decision-making and efficient sharing of disaster risk information.

TDRM Approach: objectives and strategies for implementation

The strategic objectives of the TDRM Approach are the following:

- (1) To address holistically and comprehensively the various concerns and gaps in the different phases of the disaster management cycle by considering the underlying causes of disasters (i.e. the conditions of disaster risks) and the broader set of issues and contexts associated with disaster risk and its management.*
- (2) To prevent, mitigate, prepare for, and respond effectively to the occurrence of disasters through the enhancement of local capacity and capability, especially in disaster risk management (i.e. recognizing, managing and reducing disaster risks, and ensuring good decision-making in disaster reduction and response based on reliable disaster risk information);*
- (3) To promote multilevel, multidimensional and multidisciplinary coordination and collaboration among stakeholders in disaster reduction and response as they ensure the participation of the community, the integration of stakeholders' action, and the best use of limited resources.*

The proposed implementation strategies for the TDRM Approach are the following:

- (1) Achieving effective disaster reduction and response through multilevel, multi-dimensional and multidisciplinary cooperation and collaboration*

The increasing prevalence of disasters has become a critical concern of peoples and governments, which transcends organizations and politics. Considering the detrimental impacts of disasters and the current local capacities to reduce them, the need for effective mechanisms for collaboration, cooperation and

integrated action among stakeholders (i.e. governments, non-governmental organizations, international organizations, local communities) has become more compelling. While governments and communities assume a significant role in disaster reduction and response, no one stakeholder could effectively address the problem in isolation.

In the TDRM Approach, networking is one such mechanism that can sustain linkages and pull together organizational strengths and capacities, including resources and expertise in times of need. It is a rational and viable strategy to overcome organizational constraints through complementation.

(2) Making decisions are based on reliable disaster risk information from hazard mapping and vulnerability assessment

The TDRM Approach ensures good decision-making. It attaches great importance to hazard mapping and vulnerability assessment as a fundamental tool for generating reliable disaster risk information which serves as basis for making decisions on disaster reduction and response interventions, including the best use of limited resources.

The appreciation of disaster risks information and its importance by different sectors encourages critical involvement in disaster reduction. For example, some major financial institutions and development assistance agencies are now beginning to require risk assessment and risk management processes to be included in new infrastructure development projects. This broadening involvement of various sectors previously less concerned with disaster reduction and response is a positive development.

(3) Enhancing coordination and integration of stakeholders' action through good communication and efficient exchange of relevant and reliable information

Information plays an extremely important role in effective disaster reduction and response. The wise and timely use of disaster risk information could mitigate, if not prevent disasters. Moreover, good communication and

exchange of critical disaster risk information could enhance coordination and integration of stakeholders' actions in disaster reduction and response.

However, ensuring the availability and accessibility of accurate and reliable disaster risk information when required entails an efficient system for information sharing. In this regard, an efficient disaster risk management information systems is important. Moreover, it should be effectively linked to local early warning systems, local authorities and the media to ensure effective use of disaster risk information for public awareness and education, among others.

(4) Ensuring that appropriate enabling mechanisms are in place, including policy, structure, capacity building, and resources

The following enabling mechanisms support the successful implementation of the TDRM Approach:

1. Policy. A clear and comprehensive policy that defines the objectives and commitment of the government, organization, or community to disaster reduction and response efforts is important. This may assume the form of a law, policy guidelines, promulgated plans, or protocols. A policy developed through a strategic and consultative planning process could effectively address the identified gaps in the disaster management cycle.
2. Structures and systems. Organizational structures and systems that facilitates and ensures coordination of stakeholders' action and contributions should be in place. This involves the establishment and strengthening of focal points and coordination bodies for disaster reduction and response activities
3. Capacity–building. The enhancement of national and local capacity to establish and implement disaster reduction and response measures, especially for vulnerable sectors and communities, is a constant undertaking.

4. Resources. The identification and provision of resource requirements, including funds and trained human resources, are important. This includes means to access and use authorized fund appropriations for disaster reduction and response.

These enabling mechanisms are more effective when sustained by institutional enthusiasm, political commitment, and responsible focal points and advocates in government.

(5) *Implement the disaster risk management process from the national level to the community level*

The disaster risk management process is a process for good decision-making and ensuring the best use of limited resources. It applies the standard principles, process and techniques of risk management to disaster management. The process presents a framework and systematic method for identifying and managing disaster risks in six systematic steps:

1. Establish the disaster risk context.
2. Identify the disaster risks.
3. Analyze the disaster risks.
4. Assess and prioritize the disaster risks.
5. Treat the disaster risks.
6. Lastly, monitor, review and communicate.

In general, this process aids decision makers in determining possible outcomes of risks and undertake appropriate measures to control or mitigate their impact based on reliable information and the available resources. In this regard, disaster risk management promotes good disaster management practice, and therefore, should be implemented in all sectors.

The TDRM Approach: towards effective policy action

Based on the above, the TDRM Approach is a purposive viewpoint that addresses holistically and comprehensively the various concerns and gaps in the different phases of the disaster management cycle. It focuses on the

underlying causes of disasters, the conditions of disaster risks and the vulnerability of the community. It also emphasizes multilevel, multidimensional and multidisciplinary cooperation and collaboration, in achieving effective disaster reduction and response. This approach intends to integrate, complement, and enhance existing disaster reduction and response strategies.

Moreover, the TDRM Approach could serve as a framework for policy action in identifying and addressing the gaps in existing policies, programs, structures, systems and resources towards more efficient and effective implementation of disaster reduction and response activities

Of fundamental importance in the TDRM Approach is hazard mapping and vulnerability assessment. This diagnosis helps ensure good decisions in choosing appropriate interventions and in ensuring the best use of limited resources.

Overall, the TDRM Approach presents as its added value quality and credible disaster management, enhanced efficiency in disaster reduction and response, and cost effectiveness through sound allocation of limited resources.

The challenge at hand is to explore opportunities and initiatives to pilot the TDRM Approach at the provincial and community levels. It is also crucial to build consensus and political commitment at the highest level for adopting the TDRM Approach as a strategy to address effectively the prevalence of disaster risks, the current state of disasters, and the existing gaps in the disaster management cycle.