identifying
policy, legal
& institutional
arrangements

2

Chapter Brief

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Institutional Framework
Legal Arrangements
Policy
Stakeholders

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Chapter Brief

- Policies, institutional frameworks and legal arrangements comprise the disaster risk management framework.

- For a disaster risk management programme to succeed, the participation of all stakeholders is crucial.

- Circumstances can encourage or catalyse policies to be made in order to address inadequacies in any part of existing risk management mechanisms.

- In some countries disasters have triggered the formulation of policies and disaster risk management systems which have become turning points for improvements in disaster risk management.

- National governments play a vital role in establishing a disaster risk management framework that applies to all government levels, non-government organisations and institutions and all sectors.

- Legal arrangements establish basic guidelines for governmental and non-governmental actions related to disaster risk management. The legal arrangements can establish the institutional framework by defining authorities, responsibilities and roles of officials and organisations.

- Institutional frameworks define the relationships and locations of the organisations and institutions assigned with disaster risk reduction responsibilities.

- Disaster risk management policies should support collaborations, partnerships, coalitions and stakeholders.

- Implementation of disaster risk management policies involves the participation of many individuals, organisations and institutions.

Key Words

Coalition

An alliance or union, usually a temporary one.

Collaboration

On-going, working relationships with other governmental and non-governmental organisations that have key roles in the prevention and mitigation of disasters.

Context

"The set of circumstances or facts that surround a particular event, situation, etc." (Random House Webster's Unabridged Dictionary, 1997). The social, political and economic context surrounding the development of the disaster risk management framework will determine the resulting structure and content.

Framework

An overall organising structure that identifies and defines the main components of a process. In DRM, it may delegate administrative roles and responsibilities and explain how each component fits together.

Partners

People or organisations participating in a common activity; such as a partnership between two cities or countries.

Policy

Policies express a government's political philosophy. They establish *"a course of action* pursued by a government, ruler, political party, etc. (Random House, Webster's Unabridged Dictionary, 2001)." Policies form the framework for the legal arrangements necessary to put policies into action, such as local, state and national legislation, resolutions; programmes, appropriations, administrative practices, and/or court decisions.

Programme

"A plan of action to accomplish a specified goal (Random House Webster's Unabridged Dictionary, 1997)." A disaster risk management programme provides a plan to put policies into practice.

Legal Arrangements

Legal arrangements include a framework of laws, executive orders and other legal instruments that *establish basic guidelines* for governmental and non-governmental actions. They *define authorities, responsibilities and roles* of officials and organisations.

Institutional Framework

An institutional framework *establishes the structure and relationships* of governmental and non-governmental organisations, including ministries, departments, local governments, individuals and the private-sector.

Stakeholders

Individuals, groups or organisations that have an interest or investment in the actions that will be taken to reduce disaster risks. Involvement of those who will be affected by disaster risk reduction actions is critical for successful development, implementation and maintenance.

Introduction

The three pillars of the disaster risk management framework consists of policies, institutional frameworks and legal arrangements. They combine to form mechanisms necessary to implement and maintain disaster risk reduction actions at all levels - national, provincial, district and local. Each element of this integrated framework must be equally strong for disaster risk reduction to be successful.

The disaster risk management framework forms the foundation for managing disaster risks by:
• Providing common goals and approaches for disaster risk reduction.
• Directing and securing resources (human, financial, information and material). towards disaster risk reduction.
• Promoting coordinated efforts and partnerships in reducing disaster risks.

National governments play a vital role in establishing a disaster risk management framework that applies to all government levels, non-government organisations, institutions and sectors, such as housing, health care, economics, etc. Good governance and strong leadership are necessary to generate the political will to drive the development, implementation and maintenance of the national disaster risk management framework including:
• Recognising the need for a national disaster risk management policy.
• Establishing a policy formulation process.
• Defining the main policy elements.
• Arranging for implementation and maintenance procedures, including monitoring and reviewing the effectiveness of risk reduction actions.

(Carter, 1992)

A disaster risk management programme is unlikely to succeed without the participation of all stakeholders who will be affected by the implementation of risk reduction actions. The stakeholders include the government, ministry departments, private sector companies, city developers, NGOs, and communities.

The ideal disaster risk management framework requires a set of implementation tools. Policies, institutional and legal arrangements serve as these tools that address the need for each action displayed in the framework as well as identifying the roles and responsibilities of the actors and the resources required to put the framework into practice.

Figure 2.1
Disaster risk manegement framework

Mainstreaming disaster risk management through the integration of disaster risk management in other sectors
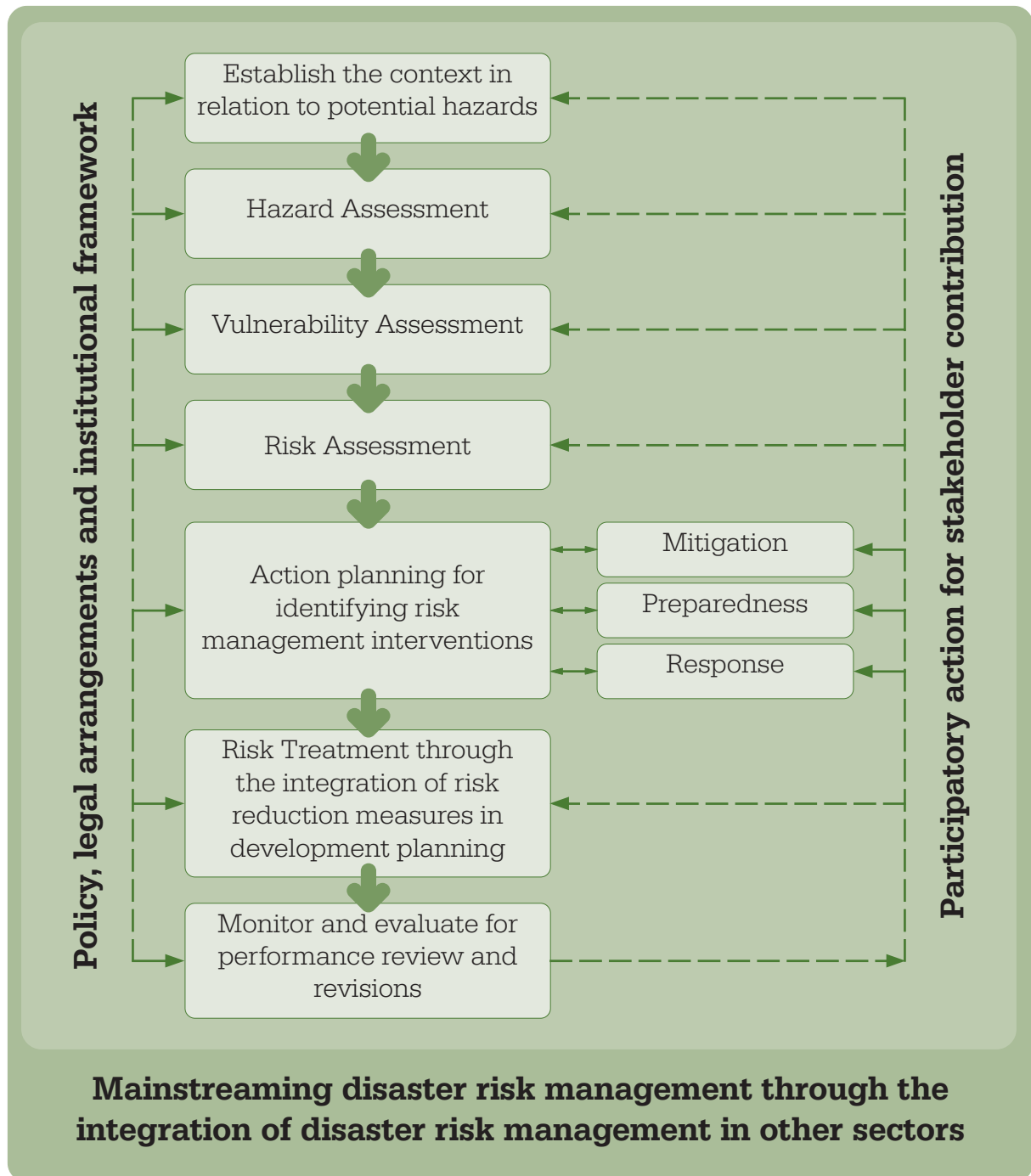
Concepts of Policy, Legal and Institutional Arrangements for Disaster Risk Management

Policy, Legal Arrangements and Institutional Framework

The presence of policies, legal arrangements and an institutional framework is essential for effective risk management and institutionalising risk reduction. These three components demonstrate the commitment, action and progressive thinking of the national governments that employ them.

This section discusses each of these three interrelated elements; policies, legal arrangements and institutional frameworks and how they form the platform of disaster risk management.

Policy Formulation

Policy is the starting point for risk reduction activities. It sets ideas and concepts into motion and outlines the course of action to be taken. Policy making brings important issues to the attention of governments. Below are some examples of what policies can do:
• Actions (high-level jurisdiction forces action at lower-level jurisdiction).
• Focus attentions (on risk reduction).
• Direct action (authorise direct action by the administration).
• Regulate policies (establish mandatory requirement).

(Mattingly, 2002)

Policies are integral to institutionalising disaster risk reduction. They help to incorporate risk reduction into everyday life, government strategies and customs. They have the benefits of building lasting capacity and lasting constituencies for risk reduction. (Mattingly, 2002)

The integration of disaster risk management into routine government operations provides a mechanism to ensure efforts to reduce disaster risks becomes a sustaining part of government activities.

Reasons for policy formulation - examples from historical events

There are a number of reasons why policies are formulated. Reasons are mostly based on the social, economic, environmental and political circumstances (context) surrounding the risk management process. Circumstances can encourage or force policies to be made or they can be created in order to address inadequacies in any part of existing risk management mechanisms. Disasters have often triggered the formulation of policies and disaster management systems and they have become turning points for improvements in disaster management as evident from history. A few examples are listed below.

1980s	Run-up to the start of the International Decade for Natural Disaster Reduction (IDNDR).
1990/91	The eruption of Mt. Pinatubo and Bagiou earthquake saw consolidation of NDCC in the Philippines.
1991	Cyclone in Bangladesh saw birth of a separate Disaster Management Bureau in 1993.
1994	Yokohama conference stimulated the preparation of national and sub-regional disaster management action plans for presentation there.
1995	Kobe Earthquake in Japan led to fundamental review of Japanese building control as well as national and regional disaster management arrangements.
1996	Typhoon Linda as well as 1998 and 2000 floods in Vietnam led to better implementation of the 1993 Water Disaster Management Plan and 2001 NDM Partnership.
1997	El Niño induced forest fires showed the regional scale of disaster and regional response (ASEAN Haze Task Force).
1998	After the 1996 and 1998 Anhui and Yangtse floods, China adopted a Natural Disaster Reduction Plan (1998-2010), a unique example of risk reduction mainstreamed in development planning.
1998	IDNDR had catalysed action and new commitment, national committees and plans were formed. ADRC was formed in Japan.
2000	In India (1998-2000), a series of disasters, floods, earthquakes and the Orissa super cyclone expedited the formation of a high-power committee (HPC) on disaster management policy and plans. The way the disasters were managed raised expectations for wide ranging institutional reform.
2001	Gujarat Earthquake shook India and accelerated the HPC report and the shift of disaster management responsibility from the Ministry of Agriculture to Home Affairs.
2000	Mekong Floods in Cambodia and Vietnam led to regional river basin approach to Flood Management and Mitigation (FMM) led by the Mekong River Commission (MRC). The MRC FMM Strategy was formed.

(Rego, 2000)

Similarly, the recent 2004 Asian Tsunami triggered the development and review of tsunami early warning systems, land zoning, building codes, emergency preparedness and response, and reform in government and intergovernmental risk reduction arrangements.

However, policy-making directed to risk reduction should not only be a reaction to disasters. Policies should be made in order to reduce the risk of disasters occurring as a proactive practice.

Creating interest and support for policy formulation

The formulation of policy, as well as risk reduction in general, must be driven by political will. There must be a desire to make improvements as this is what translates programme elements into action and establishes disaster risk management as a routine part of government operations.

Political will requires strong leadership to advocate and find support for forming policies. Support can come from within the government, private sector, NGOs, media and the general public. It can be generated through creating awareness of the particular issue or risk. Support is essential as it presents a case in favour of the policy.

The strength of the community should not be underestimated in their ability to create change and enforce policies. The petitioning and pressure of affected communities to the government is influential and provides much needed support for advocates of the particular policy.

Issues surrounding policy formulation:
- National and sub-national governments assign different values and preferences to concerns related to disaster risk reduction due to variations in disaster experience, governmental goals and objectives, cultures, etc. These differences affect whether disaster risk reduction policies are developed, funding is allocated and long-term efforts are supported.
- Many countries and communities rank potential disaster impacts far behind more immediate concerns for health care, education, economic growth, etc. Infrequent disasters generally account for this relative lack of concern. In addition, the inability to see the link between a sustainable society and disaster management lowers the importance given to the formulation of disaster risk reduction policies.
- Even when the formulation of disaster risk reduction policies are a priority, differences in circumstances will influence the nature of the policies developed. Priorities and views at a ministerial / national level will differ from those at community level.
- A strategy for 'inter-relations' with other national policies such as National Development Policy or Environmental / Resource Management Policies, or Land-use planning may be a more effective means of putting disaster risk

management on the National agenda than establishing independent disaster risk management policies.
- Other sectors need to recognise the need for mainstreaming disaster risk management and apply policies, legal and institutional arrangements in their systems to enable risk reduction actions and programmes to be implemented.

Legal Arrangements

Legal arrangements, consisting of a framework of laws, executive orders, regulations, acts and other legal instruments, establish basic guidelines for governmental and non-governmental actions related to disaster risk management. The legal arrangements can establish the institutional framework by defining authorities, responsibilities and roles of officials and organisations.

Legal arrangements may include, but are not limited to, establishing programmes, plans and projects:
- For multiple types of hazards (eg. floods, earthquakes, cyclones, etc.).
- At multiple levels of government (national, provincial/regional, district, local).
- Among multiple sectors of society (eg. educational, financial, medical, industrial, power, communications etc.).
- Among multiple stakeholders (eg. business owners, parents, facility managers, utility companies, donor nations, NGOs, neighboring countries etc.).
- For multiple disaster phases (before, during and after).
- To establish cooperative agreements and collaborative relationships.

Issues surrounding legal arrangements:
- If governments and bodies become too dependent on law to govern their roles, responsibilities and actions, there is the danger that holes will occur where laws do not cover particular circumstances or if a law does not govern a specific action it may be left undone. There are two approaches (which can be combined) for addressing these deficiencies:
  1) Create consensus for institutional arrangements and plans that overcome the law's deficiencies;
  2) Propose new legislation and generate institutional and political support for its passage (Mattingly, 2002).
- Legal arrangements should address the issues vital to the institutional framework such as decentralisation of disaster management arrangements, as it is vital to the success of the overall risk reduction strategy.
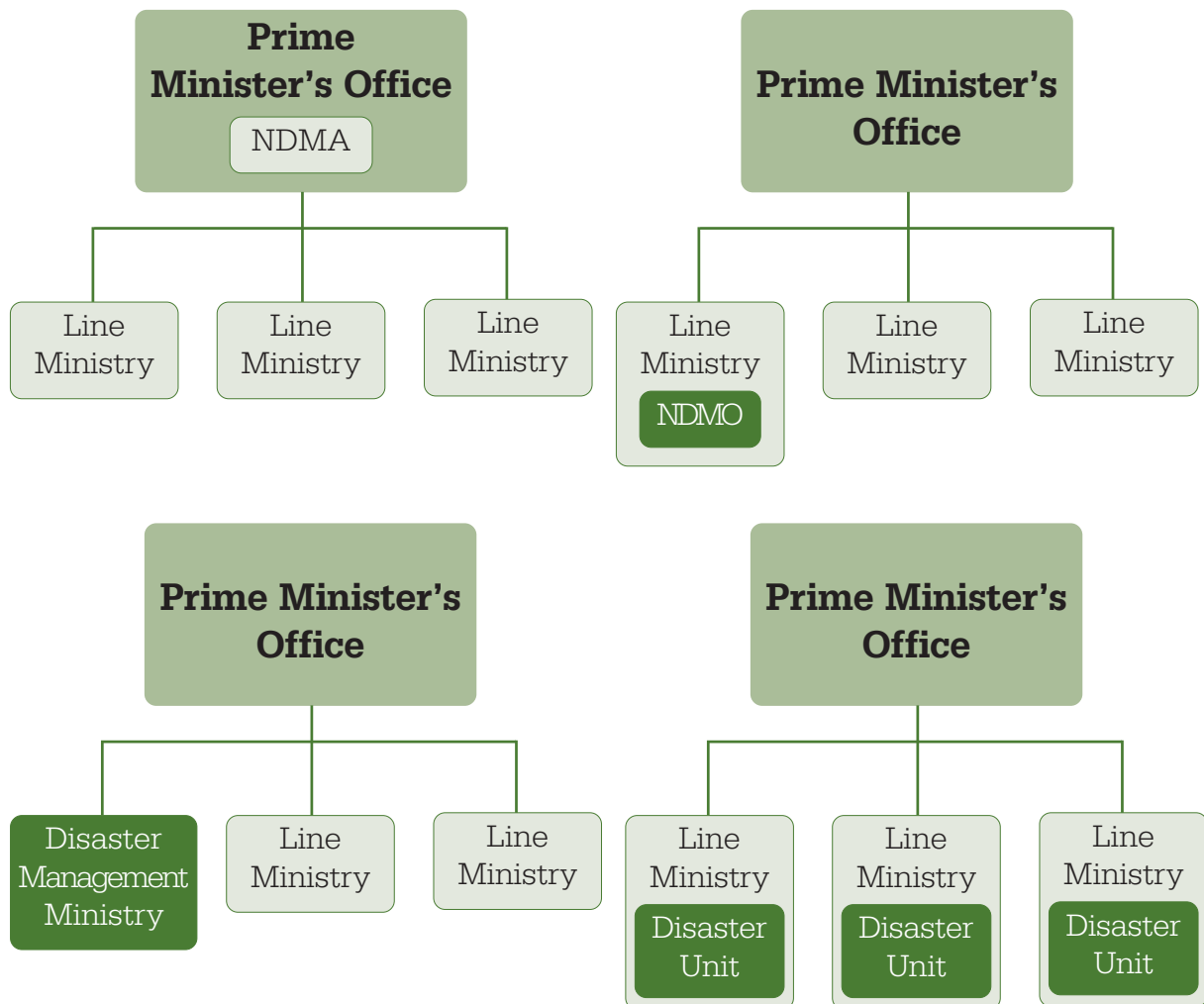
Institutional Framework

Institutional frameworks define the relationships and locations of the organisations and institutions assigned with disaster risk reduction responsibilities. The government is a major part of the framework, but ALL of

the stakeholders have a role to play in planning, supporting or implementing disaster risk reduction actions. The institutional framework identifies the reporting structure among organisations and institutions and establishes a mechanism for coordination and the implementation of duties. It commonly establishes a single coordinating entity at each government level and shows the relationships among those levels and with non-government sectors and stakeholders. Figures 2.2 show four examples of national level institutional arrangements that have been used throughout Asia for disaster management institutions.

Figure 2.2
Different arrangements for National Disaster Management

(Source: UNDMTP, 1998)

Issues surrounding the institutional framework:
- Decentralisation of the institutional framework is a target to aim for. In many countries more power is needed at sub-national levels for decision-making, handling funds ind prioritising and implementing risk reduction measures.
- The framework should seek to integrate disaster management into all levels of society, through the education and health systems, therefore the framework must be integrated and include representation from these ministries and departments as well as NGOs and private sector organisations.

- Achieving coordination and cooperation of agencies is a difficult task. Power struggles, lack of trust and difference in opinions create a significant challenge for the institutional framework. These must somehow be overcome through mediation and the establishment of legitimacy and trust in the core disaster management unit driving the programme.
- Capacity building in how their sectors relate to risk reduction is needed for relevant people across the ministries as they are all likely to be involved with integrated risk reduction, it also creates support for specific policy formulation.
- The institutional framework should have suitable arrangements to deal with all risk reduction activities including preparedness and response.

Having discussed policy, legal framework and institutional arrangements, Box 2.1 summarises the ideal characteristics of the Risk Management Framework.

Box 2.1

Ideal characteristics of the risk management framework
- Advocated at the highest government level.
- A strong central agency for disaster risk management.
- Appropriate authority distribution. Decentralisation where possible.
- Multi-stakeholder participation in decision-making.
- Formalising of risk management strategies through polices and legal arrangements.
- Direct attention to total risk reduction covering mitigation, preparedness, response and recovery.
- Integration of all sectors in all aspects of risk reduction as disasters impact upon many different sectors.
- Co-ordination and management as well as clear structures in place so that each knows its responsibility and position.
- Good communications throughout the institutional framework because of the involvement of all the organisations. Some structures emphasise only one way communication, eg., top down, but this is inadequate, communities and local governments must be able to approach the higher levels with ease.
- The risk reduction framework should seek to increase the resilience of the country and its people. Communities must have a role in the institutional arrangements.
- It must be strategy driven to ensure the focus is kept and goals are achieved.
- The framework should be flexible enough to respond to all hazards, robust enough to deal with them well and to the detail required.
- The framework must be based on risk assessments. There needs to be knowledge of risks, hazards and vulnerability.
- Supporting mechanisms such as IT management, training schemes, finance and logistics are essential. There should be adequate human and material resources.
- There should be suitable arrangements to generate or mobilise funds for proactive interventions for risk reduction.

What is the Conducive Environment for Establishing an Appropriate Risk Management Framework?

It has been highlighted previously in this chapter how disasters have led to the formulation of policy. Disasters not only change policy relating to the reduction of a specific risk, but they along with other factors, as listed below, can contribute to the establishment of appropriate policy and risk management frameworks:

- Impact of disaster event.
- Ill effects of development (urban and sector based development activities).
- Environmental policies (Environmental impact assessment process and recommendations).
- Government commitment to global forums (Agenda 21, Kyoto Protocol, WCDR 2005).
- National policies for the conservation of natural resources.

Government commitment to global forums may be effective in encouraging the establishment of a risk management framework as international advocacy and awareness and collaboration emphasises the need for this issue to be addressed. They go as far as detailing the requirements of suitable frameworks to adopt. Some examples are given in Box 2.2:

Box 2.2

Agenda 21 - excerpts about Agenda 21, the roles of Governments and the need for policies, legal arrangement and institutional framework

'Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organisations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment. It reflects a global consensus and political commitment at the highest level on development and environment cooperation. Its successful implementation is first and foremost the responsibility of Governments. National strategies, plans, policies and processes are crucial in achieving this.'

Caption from Chapter 11 - combating deforestation

'Governments at the appropriate level, with the support of regional, subregional and international organisations, should, where necessary, enhance institutional capability to promote the multiple roles and functions of all types of forests and vegetation... in supporting sustainable development and environmental conservation in all sectors. This should be done... by strengthening and/or modifying the existing structures and arrangements, and by improving cooperation and coordination of their respective roles. Some of the major activities in this regard are as follows:

a) Rationalising and strengthening administrative structures and mechanisms, including provision of adequate levels of staff and allocation of responsibilities, decentralisation of decision-making, provision of infrastructural facilities and equipment, intersectoral coordination and an effective system of communication.'
(Agenda 21, www.un.org)

Agenda 21 is a particularly relevant international agreement to adhere to and adopt as the protection of natural resources is of great importance in disaster risk reduction.

World Conference on Disaster Reduction, 2005 (Kobe, Japan)

Excerpt from proceedings (Thematic cluster on governance, closing statement)

'Governance was at the heart of the Yokohama review and it remains a significant component of disaster programming.

The panel stressed the importance of participation by all stakeholders in actions implemented to reduce disaster risks. Legal and regulatory frameworks are needed to ensure that governments have the authority to act. Equally, the establishment of national and regional platforms to promote disaster reduction is central to ensure multi-stakeholder, multi-sectoral and multilevel approaches. Platforms need to have the commitment of governments, strong leadership and guaranteed resourcing. Advocacy is important to ensure that disaster risk reduction remains high on government agendas especially when it is competing with so many other priorities.'

The Habitat Agenda
The agenda addresses the needs to improve the quality of human settlements through solidarity, cooperation and partnerships, guided by the purposes and principles of the charter of the United Nations.

> *'The Habitat Agenda is a global call to action at all levels. It offers, within a framework of goals and principles and commitments, a positive vision of sustainable human settlements. The Habitat Agenda will guide all efforts to turn this vision into reality'* (The Habitat Agenda, UNCHS, 1996).

The Kyoto Protocol
The 1997 Kyoto Protocol provides a legally binding set of rules to address the issue of climate change. It holds the membership countries accountable of their greenhouse gas emissions and their commitment to the protocol ensures their national reduction of emissions of least 5% from 1990 levels in the commitment period 2008-2012 (The Kyoto Protocol, UNFCC, 1997).

Process for the Implementation of a Disaster Risk Management Programme

Key Factors

Collaborations, stakeholders, partners and coalitions

Disaster risk reduction policies should establish collaborations, partnerships, coalitions and stakeholders to help further disaster risk management goals and objectives. Implementation of disaster risk reduction policies involves the participation of many individuals, organisations and institutions. Relationships among these entities provide an opportunity to expand the personnel, expertise and funding available to implement risk reduction actions. These relationships also provide a number of pathways for disseminating knowledge and advice.

Collaborations
Collaborations among government ministries and departments with responsibilities related to disaster risk management, such as community development, land-use planning and public works, help advance consistent approaches to disaster risk management. These collaborations can take the form of round-table discussions among agency managers, workshops to exchange information on inter-related activities (eg. irrigation, meteorology, mineral resources) and inclusion of government representatives on an inter-ministry disaster risk management committee.

Stakeholders
Stakeholders include all those who may be affected by a disaster. This may include the residents of a community, representatives of the national government, the owner of a power company, etc. The broad range of stakeholders typically leads to subcommittees focused on select issues related to disaster risk management.

Partnerships
Partnerships with private sector organisations can enhance national and local disaster risk management capacity through direct monetary contributions and / or provision of in-kind services. Such services might include the provision of technical expertise, publication assistance, planning, etc. Partnerships with the

international community may provide shared resources capable of advancing the disaster risk management programme of both partners.

Coalitions

Coalitions among multiple communities, countries or mixed public and private sector organisations provide a mechanism to address issues that extend beyond individual borders.

Implementation is a Long-term Process

The time from policy formulation to the implementation of disaster risk reduction actions involves a long-term effort and the results may take decades to show. The wide-spread vulnerability related to unsustainable development practice, including poor building construction, lack of land-use planning, inadequate water systems etc., combined with rapid population growth and other pressures to maintain these practices, make disaster risk reduction a long-term, continual process. Success requires patience, attention to opportunities, the identification of priorities and an integrated approach that maximises results through coordinated efforts with other agencies tasked with improving conditions.

Examples of long-term efforts to implement disaster risk reduction policies:
- California initiated an earthquake risk management programme 75 years ago that today is considered an international model. Improved building codes and stronger enforcement practice has produced buildings more capable of resisting earthquake damage, especially school buildings. Despite the success of this programme, vulnerable buildings still exist in most communities. Continued political process will be needed to further the goals and objectives of the programme.
- After a decade and a half of concerted international effort to reduce earthquake disasters, the continued occurrence of catastrophic damage and loss of life in areas frequented by earthquakes show that it will take even longer for effective measures to be implemented at an international scale. A magnitude 6 plus earthquake in the Iranian city of Bam, the site of frequent past earthquakes, resulted in about 20,000 dead, tens of thousands injured and left most of Bam's 80,000 to 90,000 residents homeless. There is clearly much more that needs to be done regarding risk reduction.
- After Hurricane Andrew hit South Florida in 1992, it was decided that major changes must be made to the Florida Building Code. These changes were enacted in 2002 - a full decade later. Four hurricanes hit Florida in 2004 causing wide-spread destruction to many structures built prior to the implementation of the new wind-resistant standards.

These are a few examples of the need to view disaster risk reduction as a long-term, on-going process with rewards that may not be apparent for many years.

Leadership and good governance

In order to be effective, risk management framework must be built on a foundation of strong leadership and good governance. It is crucial for the government as a whole to be legitimate and respected. Features of good governance include:

- Allowance and promotion of public participation.
- Equity and rule of law.
- Responsiveness; effectiveness and efficiency.
- Sustain the legitimacy of political processes.
- Accountability and transparency in actions.
- Strategic vision.
- Values of equality, empathy and tolerance.

(Cadribo, 2004)

Strong leadership will direct the course of action, the development management and the success of the whole risk reduction programme and framework. It is a driving force; it generates support and ensures success. The leadership is integral in forming public opinion and in upholding the motivation for those involved in the risk reduction framework. This leadership must be endorsed at high government level through support and representation.

Multi-sector and multi-level cooperation

Disaster risk management requires a wide-range of interests and abilities. There is a growing need for more political and professional interaction through multiple and innovative forms of multi-sector cooperation. There is still a general need to develop policies and plans for various sectors at different levels, with clear roles and responsibilities for contributing to the national disaster risk reduction strategy.

Regional and international partnerships

Regional and international partnerships can provide information and technical assistance to help reduce the consequences of disasters before they occur. While this expands the traditional role of providing emergency funds for disaster relief and recovery, pre-disaster risk reduction actions lower the need for post-disaster relief. Resources from donors, international and regional agencies, and government and non-government organisations include funds, technical expertise, information and networks for exchange of information.

Many high-level policy makers from the government sector and international agencies, including ADB, DFID, ECHO, UN agencies, USAID and the World Bank recognise the importance of disaster risk reduction.

Suggested forms of cooperation among regional and international partnerships include, but are not limited to:

- Training in different aspects of disaster risk reduction.
- Exchange of both operational and technical professional information.

- International and national partnerships and coalitions.
- Multi-national and multi-jurisdictional coordination in policy formulation and implementation, especially for hasards affecting neighboring countries.
- Development of consistent methodologies in information collection, assessment of risk.

see Chapter 6

The advancement of information and communications technology has made cooperation easier. However, without the commitment of individuals to cooperate in reducing risk, interventions are likely to fail.

Monitoring and evaluation

It is possible that even when policies are implemented, they do not reduce risk or that the cost outweighs the benefits. Sometimes there are no accountability mechanisms to ensure that policies are followed. The risk reduction framework should cover monitoring and evaluating the effectiveness of both the policies, laws and enforcement of the laws themselves as well as the effectiveness of the framework and institutional arrangements.

Monitoring can be carried out through reports and assessments submitted by implementing organisations and institutions and to provide a process for revising existing policies, legal arrangements and institutional frameworks. The capacity to monitor and evaluate the effectiveness and compliance of policies needs to be part of the disaster risk reduction framework.

see Chapter 8

Process

Policy, legal arrangements and institutional framework are the basis of risk management. The process below demonstrates this.

Step 1. Establishing the context of the disaster risk management process
The circumstances surrounding the initiation of the disaster risk management process will influence the level of effort, types of issues and concerns to be addressed. The following identifies items that may inform initiation of the process:

communication

consultation

initiation
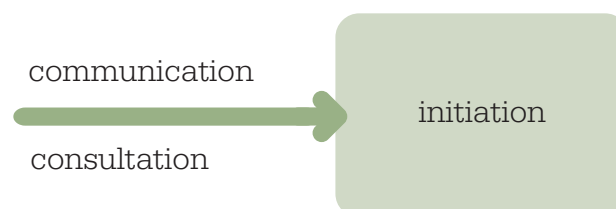
- Identify an advocate and leader to guide the disaster risk management process.
- Communicate risks.
- Establish a consultation process.
- Identify the management team.

- Assign responsibilities and resources.
- Review social, economic and political goals and objectives of entity initiating the disaster risk management process.
- Report on past disaster experience.
- Identify stakeholders.
- Review existing disaster policies, plans and procedures.
- Review existing legal and institutional arrangements.
- Determine governance and management arrangements.
- Identify land-use practices.
- Determine demographic parameters.
- Determine socio-economic conditions.
- Identify financial protection instruments.

Step 2. Formulate disaster risk management policies

Disaster risk management policies set the course of action to be followed to reduce potential risks. Policies reflect the context of the disaster risk management process. The context typically changes as part of the disaster risk management process. This emphasises the iterative nature of this process and the importance of on-going communication and consultation.

Step 3. Establish legal arrangements to enact or encourage the implementation of disaster risk management policies

Legal arrangements include the laws, executive orders, acts etc. necessary to translate policy into action.

Step 4. Establish the institutional framework necessary to enact disaster risk reduction policies.

The institutional framework establishes the roles and relationships among entities charged with implementing the disaster risk management programme.

Policies, institutional and legal arrangements combine to produce a disaster risk reduction framework that supports the implementation and maintenance of disaster risk reduction programmes, plans and projects.

Case Studies

The case studies provide examples of disaster risk reduction policies, legal arrangements and institutional frameworks established in China, Sri Lanka and Bangladesh. They illustrate the influence of unique social, political, economic and environmental circumstances on the formulation and implementation of disaster risk reduction programmes. A common theme in each case study is the importance of past disaster experience as a motivation to establish disaster risk management programmes.

Japan
Acting with great determination

Japan

Motivation
The Japanese are determined that the catastrophic losses caused by the Great Hanshin-Awaji Earthquake that hit the city of Kobe and surrounding areas on 17 January 1995 do not happen again. The Great Hanshin-Awaji Earthquake caused more than six thousand deaths and US$ 95 billion of direct damage. As a result, the Japanese have prepared a comprehensive disaster risk reduction framework. Japan has experienced the consequences of many natural hazards:
* Frequent earthquake activity
* Volcanic activity, landslides and flooding
* Tsunamis

Japanese scientists and engineers have collected and analysed hazard data and applied results to the development of modern earthquake resistant design. Many public works projects focus on providing hazard alerts (flow monitors on streams that automatically activate gates to prevent cars from crossing them) and mitigating hazard affects (lava diversion channels and traps for volcanic debris; upgraded seismic building codes (for new construction). The occurrence of the Great Hanshin-Awaji Earthquake caused attention to the need to expand existing disaster risk reduction efforts.

Policy and legal arrangements
Japan's policy and legal arrangements for disaster risk reduction is given in the Disaster Countermeasures Basic Act passed in 1961 and revised in 1997 based on lessons learned from the Great Hanshin-Awaji Earthquake. The revised act aims to remedy inadequacies in the old disaster reduction framework and promote comprehensive and systematic efforts to reduce disasters.

The Disaster Countermeasures Act has five main foci:
1. Provide public financial resources to cope with disaster;
2. Clarify disaster reduction responsibilities and implement programmes to prepare for, provide emergency response to, and recover from disaster;
3. Promote comprehensive administrative efforts towards disaster reduction;
4. Promote systematic administrative efforts towards disaster management: and
5. Set out procedures for proclaiming disaster emergencies.

Funding

Approximately 5% of the national budget was allocated in fiscal year 2001. Although not yet a provision, Japan categorises the use of funds for disaster management into four categories:
1. Research and Development
2. Disaster Preparedness
3. Land Conservation
4. Disaster Recovery and Reconstruction

Roles and responsibilities

Before, during and after disasters, the Disaster Countermeasures Basic Act defines roles and responsibilities for:
- The Prime Minister
- The State and the Central Disaster Prevention Council
- The Prefecture and the Prefecture Disaster Prevention Council
- A City, Town or Village and their Disaster Prevention Council
- National and Local Public Corporations (such as Nippon Telegraph and Telephone, the Bank of Japan, the Japanese Red Cross Society, Nippon Hoso Kyokai (NHK) and other corporations engaged in power, gas, transportation, communication and other public utility work)
- Residents and Others

In addition, there are other laws besides the very general Disaster Countermeasures Basic Act including the Flood Control Laws, the Disaster Relief Law, and the Large-scale Earthquake Countermeasures Act that are part of the legal arrangements for disaster risk reduction. Tables 2.1 and 2.2 show excerpts from the Disaster Countermeasures Basic Act and the Large-scale Earthquake Countermeasures Act.

Table 2.1
Excerpts from the Disaster Countermeasures Basic Act

Article 34 Paragraph 2 of the *Disaster Countermeasures Basic Act* states that the Central Disaster Prevention Council shall formulate a basic disaster prevention plan, which shall be reviewed each year in the light of research findings, conditions of disasters that have occurred, and the effect of emergency measures taken, and revise it if deemed necessary.

In Article 34 Paragraph 2 of the *Disaster Countermeasures Basic Act* the provisions shall apply *mutatis mutandis* to the formulation and revision of Earthquake Disaster Prevention Basic Plans pursuant to Paragraph 1.

(Source: ADRC, 2002)

Table 2.2
Excerpts from the Large-scale Earthquake Countermeasures Act

In Article 5 of the *Large-scale Earthquake Countermeasures Act* it states: The Central Disaster Prevention Council shall formulate and promote the implementation of an Earthquake Disaster Prevention Basic Plan for an "Intensified Area," as defined according to the provisions of Article 3 Paragraph 1 of the Act.

When the Central Disaster Prevention Council has formulated or revised a basic disaster prevention plan as provided under the preceding paragraph, it shall promptly report it to the Prime Minister, inform the chief officers of designated administrative organs, governors of prefectures, and designated public corporations, and release to the public an outline of the plan or revision.

The prefect disaster prevention council, the city, town or village disaster prevention council and public corporations are expected to develop and revise annually the operational disaster prevention plan based on the basic disaster prevention plan.

(Source: ADRC, 2002)

Bangladesh
Moving from disaster response to a more comprehensive approach

Bangladesh

Bangladesh experienced a significant number of disaster impacts affecting an increasing percent of people in 1990's. One of the highlights of the actions taken by government is the establishment of institutional framework and policies. Bangladesh is one of the few countries in Asia where there is a separate ministry dedicated to disaster management.

Decision-making at the national government level to develop and devise plans and policies that delegate tasks, roles and responsibilities is an indication of a nation's capacity to recognise the importance of disaster risk reduction at top-level planning.

Since the mid-1990s, the Government of Bangladesh has taken steps to move from disaster response to a more comprehensive approach of reducing disaster risk. This is reflected in Bangladesh's institutional arrangements for disaster risk reduction and in their policies and plans.

Roles and responsibilities
The structure of the Bangladesh Disaster Risk Reduction Framework comprises:
- Ministry of Disaster Management and Relief (MDMR)
- Disaster Management Bureau (DMB)
- National Disaster Management Council (NDMC)

- Inter-Ministerial Disaster Management Coordination Committee (IMDMCC)
- National Disaster Management Advisory Committee (NDMAC)
- District, Upazila and Union Disaster Management Committees

Bangladesh is the only Asian country to have set up a separate ministry for disaster risk reduction which is the focal point for disaster-related issues. The DMB assists the Ministry with information management in all phases of disaster risk reduction, and with developing awareness and capacity building programmes for stakeholders at different levels and sectors.

The NDMC is chaired by the Prime Minister and meets twice annually. It is responsible for: policy formulation; issuance of guidelines; examining the recommendations of the IMDMCC and NDMAC and issue directives for their implementation; arranging framing of disaster-related law; and approving the standing orders and national disaster management plans.

Bangladesh's report 1999

The IMDMCC chaired by the Minister of Disaster Management and Relief is responsible for implementation, coordination, and monitoring and evaluation. District, Upazila and Union Disaster Management Committees have also been established at local-levels. Activities include:
- Standing Orders 1994
- Accountability defined and delegated
- Active political involvement at the highest level
- National Disaster Management Council
- Inter-Ministerial Disaster Management Coordination Committee

A Disaster Management Act has been drafted which gives provision for the formulation of disaster risk reduction policies and plans. Although the Act has not yet been passed, this has not stopped the Government of Bangladesh in taking actions to reduce disaster risks.

Standing orders on disasters

Bangladesh has created an enabling environment for disaster risk management. The "Standing Orders for Disasters" drafted in 1994 is one such important actions. It spells out the roles and responsibilities of each ministry and major agency / department to facilitate early warning and response actions in a coordinated manner. The National Disaster Management Plan for the period 1995-2010 has been developed in conjunction with the Standing Orders but also covers rehabilitation, preparedness and mitigation measures. In addition, Disaster Action Plans for district, upazila and union levels are developed. For example, action plans to simplify existing cyclone warning signals have been initiated.

Comprehensive Disaster Management Programme

In 2004, the UNDP initiated a Comprehensive programme for risk management with the government of Bangladesh called the "Comprehensive Disaster Management Programme" (CDMP). It is currently being implemented with the

participation of the government and other stakeholders, such as NGOs, academic institutions and private sector.

CBDM is made up of five components, one of which is capacity building. Capacity building addresses the training and professional development of the Ministry of Food and Disaster Management (MFDM) staff. This is done through:
• Policy changes - Review and revision of MFDM rules of business.
• Professional development plan.
• CDMP standard training curriculum for professional development.
• Partnerships.
• Support from international institutes.

Other components address the wide ranging topics important in risk reduction to create a useful framework and plan.

The NDMC is comprised of the following members:
• Minister, Ministry of Water Resources
• Minister, Ministry of Finance
• Minister, Ministry of Local Government, Rural Development & Cooperatives
• Minister, Ministry of Communications
• Minister, Ministry of Health and Family Welfare
• Minister, Ministry of Home Affairs
• Minister, Ministry of Food
• Minister, Ministry of Disaster Management and Relief
• Minister, Ministry of Agriculture
• Minister, Ministry of Shipping
• Chief of Staff, Army
• Chief of Staff, Navy
• Chief of staff, Air Force
• Cabinet Secretary
• Principal Secretary to the Prime Minister
• Secretary, Ministry of Agriculture Secretary, Ministry of Finance

• Secretary, Ministry of Health and Family Welfare
• Secretary, Ministry of Home Affairs
• Secretary, Ministry of Defence
• Secretary, Ministry of Local Government
• Secretary, Ministry of Roads and Railways
• Secretary, Ministry of Shipping
• Secretary, Jamuna Bridge Division
• Secretary, Ministry of Water Resources
• Secretary, Ministry of Food
• Secretary, Ministry of Disaster Management and Relief
• Secretary, Ministry of Information
• Member, Socio-Economic Infrastructure, Planning Commission
• Principal Staff Officer, Armed Services Division

Bangladesh's commitment to risk reduction has enabled it to create this effective risk reduction framework. The risk reduction strategy supported and driven by the top government level has included many programmes that have enabled effective risk reduction to take place. Community based programmes have been very effective as well as the standing orders, disaster management plan and mitigation measures.

Vietnam
Policy and institutional framework spanning from central to local-level

Vietnam

Motivation
People in Vietnam have been living with floods for centuries, constructing stilted houses, evacuating to higher grounds during the flood season and planting seasonal crops to reduce flood risks. After several decades of constructing large structures to control flood in Vietnam, it is evident that these historical approaches and large structures have not provided adequate protection from floods.

Policy and legal arrangements
Over the past decade, Vietnam has adopted a number of policies and legal arrangement to address flooding, including:

1. The Central Committee for Flood and Storm Control (CCFSC) was established in May 1990 in accordance with the Law on Water Resources. CCFSC mainly focuses on emergency response.   Tasks of CCFSC include:
   - Developing programmes, plans, measures for disaster reduction in coordination with other agencies, related organisations, and science and technology research.
   - Direct implementation of disaster mitigation activities.
   - Coordination with international organisations to increase cooperation in the field of disaster reduction in Vietnam.

2. Decrees 168-HDBT of the Council of Ministers - 1990
   - During the year 2000, the Government of Vietnam introduced the "Living with Flood" concept that became the strategy for disaster risk reduction in the Mekong River Delta. By building on traditional practices and by promoting regional and international cooperation (see Box 2.3), the Government of Vietnam has been planning and implementing a range of long, medium, and short-term measures to reduce flood risk. These measures contribute to the government's vision of achieving socio-economic stability and sustainable development by 2010.
   - Second Strategy and Action Plan for Disaster Management and Mitigation (2002-2020).

Box 2.3

Article 5 of Vietnam's ordinance on prevention and control of flood and storm states: "Vietnam shall expand its cooperation with countries, international organisations, foreign organisations and individuals in the field of scientific research and study, technology transfer, technical and professional training on forecasting, preventing, controlling and mitigating the consequences of floods and storms."

(Source: *www.adrc.or.jp*)

Vietnam has a comprehensive system of organisations spanning from central to local government. Provincial, district and village People's Committees, elected by the people, form a hierarchical ladder of political power sharing. There is also a network of Women's Unions, which contribute to the hierarchical flow of information.

The Philippines
Option for city development and risk management, Naga City experience

"Successful leadership starts with a vision. When I ran in 1987, I knew clearly where Naga is (problem definition), what I want Naga to be (vision) and what must be done to get there (strategic management). The important corollary is that the leader must be competent and adequately prepared for the demands of the leadership".

Jesse M Robredo, Mayor, Naga city Philippines

"*During the local elections in 1988, a young bachelor named Jesse M Robredo was among the mayoral candidates who were invited to a forum organised by the local NGOs and the city's civic organisations. With the fervor and spirit of the EDSA revolution still fresh in the hearts, the people demanded that sincere and committed leaders should earn their vote.*"

"*At the forum, the upstart candidate listened and responded positively to the people. He signed a covenant with the people that if elected, he would attend to urban concerns as poverty and burgeoning number of squatters were among the top issues of the time. A former Program Director of the Bicol River basin Development office, Robredo seems to have made a positive impression on the urban poor in Naga city.*"

*True to his word, Robredo immediately convened a meeting after becoming the mayor, to flesh out details of an Urban Poor Affairs Office (UPAO). This was a beginning of a mutually beneficial partnership between the poor people and the local government. Barely a year in his post, Robredo established the "Kaantabay sa Kauswagon" program. The program is a tripartite partnership of local government, the urban poor, and private landowners designed to empower the urban poor to respond to two main problems underlying urban poverty, viz., "**the absence of land tenure and lack of basic infrastructure and facilities**. This approach helped him to create safer communities in Naga. Attempts to empower the urban poor were done three years before the local government code of the Philippines was enacted to provide local government units greater autonomy in managing their affairs. The City Government of Naga mobilised its resources to put up housing projects for urban poor and provided land tenure to them.*"

"*Emergency Rescue Naga (ERN) is a showcase of a successful community resources mobilisation effort in Naga city combining the resources of the city*

Philippines

government, other government agencies and private sector institutions. ERN provides the following round the clock services;

- *Emergency rescue and transfer*
- *First aid*
- *Ambulance services*

- *Quick police response*
- *Fire fitting and disaster preparedness and control."*

"ERN is able to respond to disasters and emergencies within three to five minutes. For further barangay (villages) the response time is 30 minutes."

"Another successful endeavor of Mayor Robredo is the "Metro Naga Development Council" or "Metro Naga" concept. Metro Naga is composed of Naga and 14 rural municipalities clustered around the city for the task of local development in an environment of increased autonomy and ever present problem of limited resources. Given the poor condition of the area, municipalities in Metro Naga can hardly afford to provide the services needed by their constituents. But Naga city as a big brother helps in providing services including emergency services for other smaller municipalities. In return they provide opportunities for city of Naga to use the spare areas for projects such as housing and human settlement development projects, solid waste disposal through development of landfill sites and even to tackle flood problem since it is easy to handle the flood problem in upper watershed area rather than within the city of Naga."

Extracted from book "Making Local Governance Work, The Naga City model" by Jesse M Robredo, published by city development Information Office, City Hall Complex, City of Naga, December 2003.

http://www.naga.gov.ph

Lessons Learned from the Case Studies

Lessons learned from the case studies include:

- Catastrophic disasters can generate the political will to adopt disaster risk reduction policies and legal arrangements, and establish institutional frameworks to guide their implementation. This is shown repeatedly in the case studies by the adoption or revision of disaster risk reduction programmes following a disaster.

- Unsustainable development resulting from rapid population growth, increased development in hazardous areas and lack of construction codes increases vulnerability to disaster. This increased vulnerability contributes to the motivation to adopt disaster risk reduction programmes.

- Incorporation of disaster risk reduction into legal arrangements guiding programmes targeting local communities, such as planning, construction, health and welfare, provides a mechanism for delivering information and encouraging and or mandating disaster resistant practices.

- Local government, non-government organisations and community networks are increasingly being recognised as necessary to the development of an effective disaster risk management programme. The case studies mention mechanisms and efforts to provide information and technical expertise to the local-level and to establish rules and regulations that mandate or guide planning and building practice.

- Disaster risk reduction does not depend on a single organisation or institution but requires internal and external collaboration. Case studies involve adopting policies that establish mechanisms to coordinate among key stakeholders.

- The case studies demonstrate that there is no one model to the formation of a disaster risk reduction framework. The various approaches presented in the case studies provide you with an opportunity to identify one that may work in your circumstances or provide ideas that will help you develop individual approaches.

- To formulate or revise a risk reduction framework it is important to assess what the risks are: how big, how frequent and where they occur.

- It is important to examine the recommendations made by implementing organisations and use to make revisions to existing policies, legislation and

institutional arrangements. Capacity to effectively monitor and evaluate the effectiveness and compliance of policies needs to be built. Indicators need to be developed to measure effectiveness. Evaluation studies developed by non-government organisations and academic institutes could be promoted.

- Many government institutions involved in disaster risk reduction have largely focused on response activities. Now with a shift to a more integrated approach, understanding and commitment for such an approach needs to be fostered in order to effectively frame laws and policies.

- An understanding and commitment for the disaster risk reduction approach should not be limited to those formulating the policies but also to those implementing the policies.

- Placing greater emphasis on the role of municipalities, local governments and individuals would help foster disaster risk reduction at the local-level. However, responsibilities at the local-level cannot simply be increased without any support from the provincial and national governments. The absence of a strong provincial commitment may make it difficult for municipalities to reject development in flood risk areas or conversely municipalities may loosen development restrictions to encourage local economic development. In addition, a lack of technical and financial support would make it even more difficult.

Discussion Questions

The following questions are intended to foster discussion among participants in disaster risk reduction activities. There are no "right or wrong" answers to these questions. Participants may want to discuss other issues of greater concern than the ones presented below. In discussing these or other questions, consideration must be given to the unique circumstances surrounding the development of your risk reduction approach.
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Policies and legal arrangements (national, provincial, district, community)
- What laws, acts, standards, guidelines etc. exist in your community, ministry, department, country etc. to implement disaster reduction actions?
- Who should be involved in developing new or revising existing disaster risk reduction policies?
- Are there policies and legal arrangements that can be amended to include disaster risk reduction goals and objectives?
- If your organisation has implemented disaster risk reduction policies and legal arrangements, did they have:
  - Intended effects on the target population?
  - Unintended side effects?
  - Were unintended side effects adverse?
  - Did implementation take place within a reasonable time frame?
  - Were the costs of implementation acceptable and reasonable?

Institutional frameworks
- Is there a central organisation or institution in your country or community charged with coordinating disaster risk reduction activities?
- Is there an institutional framework that shows how governmental and non-governmental organisations and institutes coordinate to address issues related to disaster risk reduction?

Disaster risk reduction framework
- What plans, procedures, documents, etc. does your community, ministry, department, etc. have to implement disaster risk reduction activities?
- Are these activities identified in disaster risk reduction policies and legal arrangements?

Challenges

Over the past decade many Asian countries have improved their ability to respond to disasters. Most states have legislated and established disaster risk reduction apparatus and many have developed national emergency plans that serve as the basis for inter- and intra-governmental coordination during disaster events. In recent years, the increased severity of disasters and a range of public awareness endeavors have raised governments' sensitivity to the need for more interventions to reduce disaster risks.

While this new environment provides an opportunity for more cost-effective and sustainable efforts in disaster risk reduction, the increased awareness of governments and donors has yet to translate into tangible action where disaster risk reduction is incorporated in the plans and practices of multiple sectors and government levels.

Motivation and capacity

Disaster risk management policies and legal arrangements may not be a priority due to competing concerns. The occurrence of disaster events in the region and in other parts of the world may increase disaster risk reduction priority. Communication of risks from credible sources that are presented in a manner accessible to government officials and policy makers may provide the motivation needed to proceed.

People must be convinced that their lives, property and livelihood are in danger unless disaster risk reduction is implemented and maintained. "People" refers not only to communities and businesses likely to be affected by disasters, but also to government officials who have to juggle a number of other development needs and to donor agencies that have not included disaster risk reduction as part of their development agenda.

Disaster risk management policies and legal arrangements may be in place, but are not being implemented. Motivation tools used to increase the priority is not being addressed at all may also help improve implementation and maintenance.

see Chapter 6

For disaster risk management policies to be implemented, people need to have the capacity to actions. People need to know what can be done to reduce risk and have the capacity to reduce risk. Priority needs to be given to the development of information and understanding (knowledge development) that can develop capacity. The various and complex dimensions of disaster risk management need to be taught and continually reinforced through structured educational programmes and professional training, as well as through informal training and community-based capacity building initiatives. For more details see Chapter 6.

Integrating risk reduction into governance

Although risk reduction is now widely adopted as a concept, it still remains a challenge to fully integrate it into governance. It is a process that takes time and must follow a change in culture and thinking. Risk reduction should be held as an important part of development plans, and economic and political strategies. It should be given its own budget line, be a subject in capacity building of civil staff and allocated resources.

The changing environment

Demographic, social and environmental changes take place quicker than policy, plans or simple procedures can be applied and be effective. The government must be able to anticipate change to develop the capacity to adapt and respond quickly to changes. Complex conditions with multiple dimensions such as urbanisation and climate change require timely and strategic action that takes into consideration the wider environment context and stakeholders.

Measuring effectiveness

Indicators and assessment methodologies need to be developed to measure programme effectiveness. A number of organisations are working to develop a global framework to monitor and evaluate disaster risk reduction for application at a national level. They include:

- The Instituto de Estudios Ambientale's Indicators for Disaster Risk Management Project for countries of Latin America, supported by the Inter-American Development Bank.
- Benfield Hazard Research Center's Disaster Risk Reduction Mainstreaming Framework, complete with indicators and benchmarks.
- United Nations Development Programme's Disaster Risk Index that allows country-by-country comparisons of the risk of loss of life associated with earthquakes, tropical cyclones and floods. The Index also identifies some development factors that contribute to risk.
- United Nations International Strategy for Disaster Reduction's Draft Framework to Guide and Monitor Disaster Risk Reduction.

Finding the motivation and resources to use these indicators to regularly measure the effectiveness and achievements of disaster risk management programmes will be a major challenge.

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