

INTRODUCTION

BACKGROUND

The world has witnessed an alarming increase in the frequency and severity of disasters: 240 million people, on average, were affected by natural disasters world-wide each year between 2000 and 2005. During each of these six years, these disasters claimed an average of 80,000 lives and caused damage of an estimated US\$ 80 billion.¹ Disaster losses are rising throughout the world due to a number of factors that include:

- more frequent extreme weather events associated with increasing climate variability and change;
- agricultural production systems that increase risk (e.g. heavy reliance on irrigated crops resulting in aquifer depletion and salinization, or unsustainable pasture/livestock or bio-fuel production on land that was formerly and more appropriately covered in forest);
- population growth combined with demographic change and movements leading, for instance, to unplanned urbanization, growing demand for food, industrial goods and services; and
- increasing pressure on (and over-exploitation of) natural resources.

Higher living standards and more extravagant life styles in the more prosperous nations also result in very high economic losses when disasters strike. While better emergency response systems will save lives and properties, many of these losses can be avoided – or reduced – if appropriate policies and programmes are instituted to address the root causes and set in place mitigation, preparedness and response mechanisms that are effectively integrated into overall development planning.

These issues were called into public scrutiny and exhaustively debated during the World Conference on Disaster Reduction (WCDR) in Kobe, Hyogo, Japan (January 2005). Governments, UN agencies and Civil Society Organizations (CSOs) present in Kobe insisted on the need to move from theory to concrete action in disaster risk reduction. Strongly endorsing the Conference’s recommendations, the UN General Assembly Resolution RES-59-212 (March 2005) on “International Cooperation on Humanitarian Assistance in the Field of Natural Disasters, from Relief to Development” called upon all States to implement the Hyogo Framework for Action (HFA), and

1. CRED. March 2007. The data source - EM-DAT, does not include victims of conflict, epidemics and insect infestations. For more on disaster statistics and issues relating to disaster data: www.em-dat.net

requested the international community to continue assisting developing countries in their efforts to adopt appropriate measures to mitigate the effects of natural disasters, and to integrate disaster risk reduction (DRR) strategies into development planning. This represents a paradigm shift from a heavy pre-occupation with reactive emergency relief (which nonetheless remains important) to pro-active DRR *before* a hazard can turn into a disaster.

The second of the three strategic goals of the HFA is “the development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards”.² A particular challenge in meeting this objective is to acquire a sound understanding of existing institutional capacities, possible gaps and the comparative strengths of different actors at different levels as a basis for mobilizing the participation of local organizations, together with higher level institutions, in the design and implementation of locally relevant DRR strategies.

In order to build institutions that are better prepared for, resilient to and able to cope with hazards, it is useful to enrich the concept and practice of disaster risk reduction (DRR) used in the HFA which focuses on *pre-disaster stages* (prevention, mitigation and preparedness) by placing them within the broader concept and practice of *disaster risk management* (DRM) which combines (through a *management perspective*) prevention, mitigation and preparedness with response.³

Recent studies⁴ and projects of FAO show that in spite of the considerable documentation available on DRM, there are few practical tools to guide the analysis of national, district and local institutions and systems for DRM, and to conceptualize and provide demand-responsive capacity-building thereafter. The lack of tools to analyse the institutional capacities of community-based organizations to participate effectively in the design and implementation of local DRM strategies as well as in the continuous management of hazard threats and/or disaster situations before, during and after their occurrence is of particular concern. To address this gap, in 2003 FAO launched a programme focusing on the role of local institutions in natural disaster risk management. The programme combines and mutually reinforces normative and operational, field-based activities to assist countries in their efforts to shift from reactive emergency relief operations towards better planned, long-term disaster risk prevention and preparedness strategies including, where appropriate, their integration into on-going agricultural development work. The approach is premised on (i) a sound understanding of existing institutional capacities, possible gaps and the comparative strengths of different actors

2. The other strategic goals are: (a) The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction; and (c) the systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

3. Definitions of DRR and DRM are given in Module 1.

4. FAO. 2004. The role of local institutions in reducing vulnerability to recurrent natural disasters and in sustainable livelihoods development. Consolidated report on case studies and workshop findings and recommendations. Rural Institutions and Participation Service (SDAR). Rome.

in DRM at different levels, and (ii) effective coordination between key stakeholders in the design and implementation of demand-responsive projects and programmes that address, in a sustainable way, the root causes of vulnerability of local stakeholders to natural hazards. FAO's key entry points build on the following closely inter-connected questions:

- (i) what institutional structures, mechanisms and processes are driving national DRM programmes in the agriculture, forestry and fisheries sectors?
- (ii) what technical capacities, tools, methods and approaches are available within existing institutional structures to operationalize DRM at national and local levels (that is, assessing comparative strengths as to *who* could do *what* best)?
- (iii) what existing good practices (of either indigenous and/or scientific origin) are actually applied at local level to strengthen community resilience against climatic and other natural hazards, and what are the potential technology gaps (including access to technologies) at local level?

PURPOSE AND SCOPE OF THE GUIDE

This Guide provides a set of tools to assess existing structures and capacities of national, district and local institutions with responsibilities for DRM in order to improve the effectiveness of DRM systems and the integration of DRM concerns into development planning, with particular reference to disaster-prone areas and vulnerable sectors and population groups. The strategic use of the Guide is expected to enhance understanding of the strengths, weaknesses, opportunities and threats facing existing DRM institutional structures and their implications for on-going institutional change processes. It will also highlight the complex institutional linkages among various actors and sectors at different levels. Finally, it will help identify gaps within the existing DRM institutions and/or systems including sectoral line agencies that are often responsible for implementing the technical aspects of DRM (e.g. agriculture, water and health sectors).⁵

The assessment and analysis process outlined in the Guide is thus a first step towards strengthening existing DRM systems. The major areas of application are:

- Strengthening institutional and technical capacities for DRM at national and/or decentralized levels;
- Integrating key aspects of DRM in emergency rehabilitation programmes;
- Designing and promoting Community-Based Disaster Risk Management (CBDRM);
- Operationalizing the paradigm shift from reactive emergency relief to pro-active DRM; and
- Mainstreaming DRM into development and sectoral planning (e.g. agriculture).

The Guide focuses on risks associated with natural hazards of hydro-meteorological (floods, tropical storms, droughts) and geological (earthquake, tsunami, volcanic activity)

5. In this context, DRM institutional systems are understood as the combination of institutional structures, practices and processes (*who* does *what* and *how*?).

origin. Users interested in the management of other types of hazard risk are encouraged to adapt the general concepts, tools and methods to their own situations.

TARGET/USER GROUP FOR THE GUIDE

The target/user group includes technical staff of: national and local government departments/agencies, multi- and bi-lateral development agencies, NGOs/CSOs/CBOs, and national and international DRM practitioners engaged in designing and/or evaluating national and/or decentralized DRM systems in specific countries/regions. Investment project formulation missions concerned to include institutional aspects in national risk profiling are also likely to find the Guide useful. While the Guide briefly covers definitions and concepts of DRM, sustainable livelihoods and DRM institutional systems, users with some prior knowledge of these concepts and practical experience in working with DRM institutional systems in developing countries are likely to find the Guide more meaningful.

HOW TO USE THE GUIDE

The modular form of the Guide covers the sequential steps to undertake a comprehensive institutional assessment of DRM systems across administrative levels and sectors. If, however, the assessment has a predefined sector- or hazard-specific focus, DRM practitioners as well as other interested development professionals including NGO/CSO/CBO staff, disaster managers and policy makers, may prefer to select certain modules only and/or adjust the tools and checklists to sector- or hazard-specific issues.

DEFINITIONS AND CONCEPTUAL FRAMEWORK

The approaches and methods for DRM institutional assessments outlined in this Guide build on and combine elements of two conceptual frameworks: (a) a revised Disaster Risk Management framework, which conceptualizes Disaster Risk Management as a **continuum** closely linked to the development process, and (b) the Sustainable Livelihoods (SL) framework which puts people, their livelihood assets and vulnerabilities, as well as the policy and institutional context that impinges on these, at the centre of analysis.

The **purpose** of this module is to:

1. Provide basic definitions of terms used in this Guide;
2. Introduce the key elements of disaster risk management; and
3. Introduce the Disaster Risk Management (DRM) and sustainable livelihoods (SL) framework and highlight the key linkages between vulnerability, disasters, livelihoods and institutions.

HAZARDS AND DISASTERS: SOME BASIC DEFINITIONS

Disasters of all kinds happen when hazards seriously affect communities and households and destroy, temporarily or for many years, the livelihood security of their members. A disaster results from the combination of hazard risk conditions, societal vulnerability, and the limited capacities of households or communities to reduce the potential negative impacts of the hazard. The recognition of vulnerability as a key element in the risk context has also been accompanied by growing interest in understanding and enhancing the positive capacities of people to cope with the impact of hazards. The existence or absence of appropriate socio-economic and institutional systems to mitigate or respond rapidly to hazards determine a society's or a community's susceptibility or resilience to the impacts of hazards. In other words, the coping capacities ensured by these systems translate directly into enhanced resilience.

This Guide adopts the ISDR terminologies and distinguishes disaster risk management from disaster risk reduction in the following way:

- **Disaster Risk Reduction (DRR)** refers to the conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.⁶

6. Sustainable development is defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Refer to the UN Department of Economic and Social Affairs, Division for Sustainable Development: available at www.un.org/esa/sustdev).

- **Disaster Risk Management (DRM)** includes but goes beyond DRR by adding a management perspective that combines prevention, mitigation and preparedness with response.

The term Disaster Risk Management (DRM) is used in this Guide when referring to legal, institutional and policy frameworks and administrative mechanisms and procedures related to the *management* of *both* risk (*ex ante*) and disasters (*ex post*), therefore including also the *emergency management* elements. The term Disaster Risk Reduction (DRR) is used to refer to those programmes and practices which are specifically targeted at avoiding

BOX 1.1

BASIC DEFINITIONS

Hazard: A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. **Natural hazards** can be classified according to their geological (earthquake, tsunamis, volcanic activity), hydro-meteorological (floods, tropical storms, drought) or biological (epidemic diseases) origin. Hazards can be induced by human processes (climate change, fire, mining of non-renewable resources, environmental degradation, and technological hazards) Hazards can be single, sequential or combined in their origin and effects.

Disaster: A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk.

Risk: The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

Resilience: The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.

Definitions from ISDR Terminology version 2007 (www.unisdr.org/terminology)

(prevention) or limiting (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.

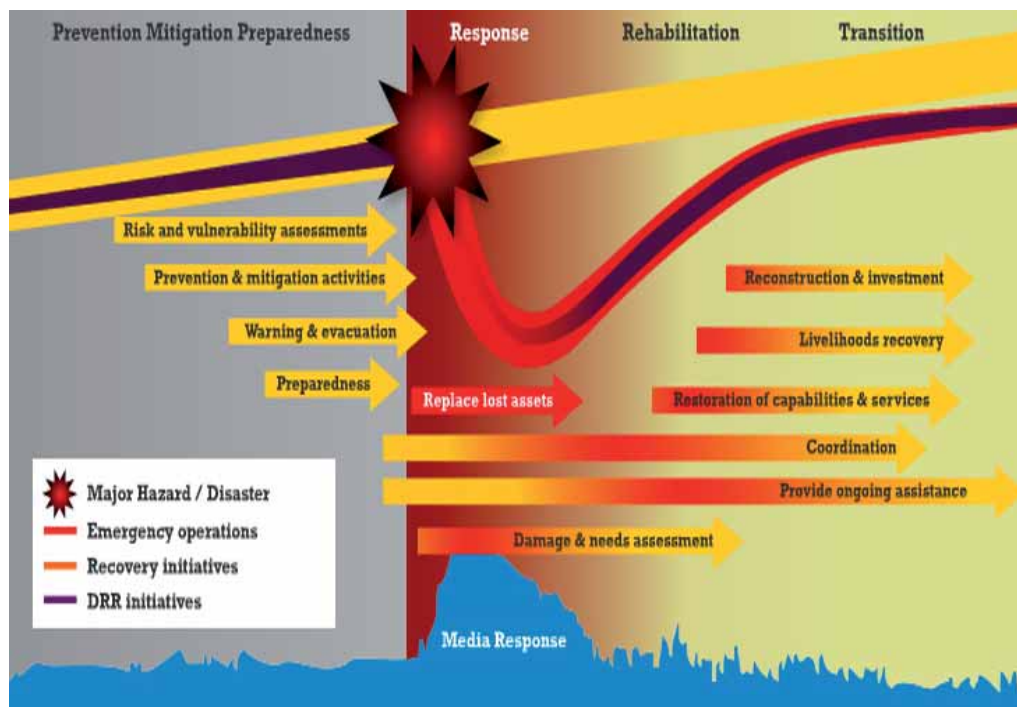
THE DISASTER RISK MANAGEMENT FRAMEWORK

The purpose of **Disaster Risk Management** is to reduce the underlying factors of risk and to prepare for and initiate an immediate response should disaster hit. The **Disaster Risk Management Framework (DRMF)**, illustrated in Figure 1.1, considers conceptually, DRM as a continuum, and thus as an ongoing process of interrelated actions, which are initiated before, during or after disaster situations. The framework is aiming, in particular, at countries and regions, which face recurrent exposure to natural hazards.

DRM actions are aimed at strengthening the capacities and **resilience** of households and communities to protect their lives and livelihoods, through measures to avoid (prevention) or limit (mitigation) adverse effects of hazards and to provide timely and reliable hazard forecasts. During emergency response, communities and relief agencies focus on saving lives and property. In post-disaster situations, the focus is on recovery and rehabilitation, including, however, the concept of “building back better”. This implies to initiate DRR activities also during recovery and rehabilitation. The paradigm shift to conceptualize DRM as continuum (and no more in phases) reflects the reality, that the transition between pre- during and post disaster situations is fluid, in particular in countries, which are regularly exposed to hazards. The elements of the framework⁷- further elaborated in Box 1.2 - include both structural (physical and technical) and non-structural (diagnostic, policy and institutional) measures.⁸

FIGURE 1.1

Revised Disaster Risk Management Framework (DRMF)



7. Disaster Risk Management Cycle Diagram modified from TorqAid; <http://www.torqaid.com/default.asp>.

8. Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk and related impacts. ISDR Terminology, version 2007 (www.unisdr.org/terminology).

BOX 1.2

ELEMENTS OF DISASTER RISK MANAGEMENT (DRM) FRAMEWORK**Disaster risk reduction continuum**

Ongoing development activities – Ongoing DRM aspects in development programmes

Risk assessment – Diagnostic process to identify the risks that a community faces

Prevention – Activities to avoid the adverse impact of hazards

Mitigation – Structural/non-structural measures undertaken to limit the adverse impact

Preparedness – Activities and measures taken in advance to ensure effective response

Early warning – Provision of timely and effective information to avoid or reduce risk

Immediate disaster response

Evacuation – temporary mass departure of people and property from threatened locations

Saving people and livelihoods – Protection of people and livelihoods during emergency

Immediate assistance – Provision of assistance during or immediately after disaster

Assessing damage and loss – Information about impact on assets and loss to production

Post-disaster to continuum

Ongoing assistance – Continued assistance until a certain level of recovery

Recovery – Actions taken after a disaster with a view to restoring infrastructure and services

Reconstruction – Actions taken after a disaster to ensure resettlement/relocation

Economic & social recovery – Measures taken to normalise the economy and societal living

Ongoing development activities – Continued actions of development programmes

Risk assessment – Diagnostic process to identify new risks that communities may again face

The value of this framework is its ability to promote a holistic approach to DRM and demonstrate the relationships between hazard risks/disasters and development. For instance, the activities on **mitigation and prevention** comprise the **development** portion, while **relief and recovery** comprise the **humanitarian assistance** portion, with **preparedness linking both types of efforts**.

Furthermore, the framework provides the basis to address public commitment and institutional systems, including organizational capacities, policy, legislation and community action, as well as environmental management, land-use, urban planning, protection of critical facilities, application of science and technology, partnership and networking, and financial instruments. The framework also provides the space to positively value and constructively include communities' and households' traditional coping strategies, recognizing the importance of their **ownership** of the DRM process, thus diminishing the (passive) dependency typically generated by relief offered by outsiders.

The key elements of the DRM framework are reflected in the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) which elaborates the five priorities for action adopted by the World Conference on Disaster Reduction to achieve its strategic goals by 2015.⁹

9. For the details, see Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disaster (available at www.unisdr.org/eng/hfa/hfa.htm).

The HFA priorities for action are to:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation,
2. Identify, assess and monitor disaster risks and enhance early warning,
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels,
4. Reduce the underlying risk factors and
5. Strengthen disaster preparedness for effective response at all levels.

The HFA priorities for action are used in this Guide as the framework for organizing the major findings of the DRM system analysis, identifying gaps and strengths and developing the recommendations (see module 6). The expected outcome, strategic goals and priorities for action of the HFA are presented in Figure 1.2.¹⁰

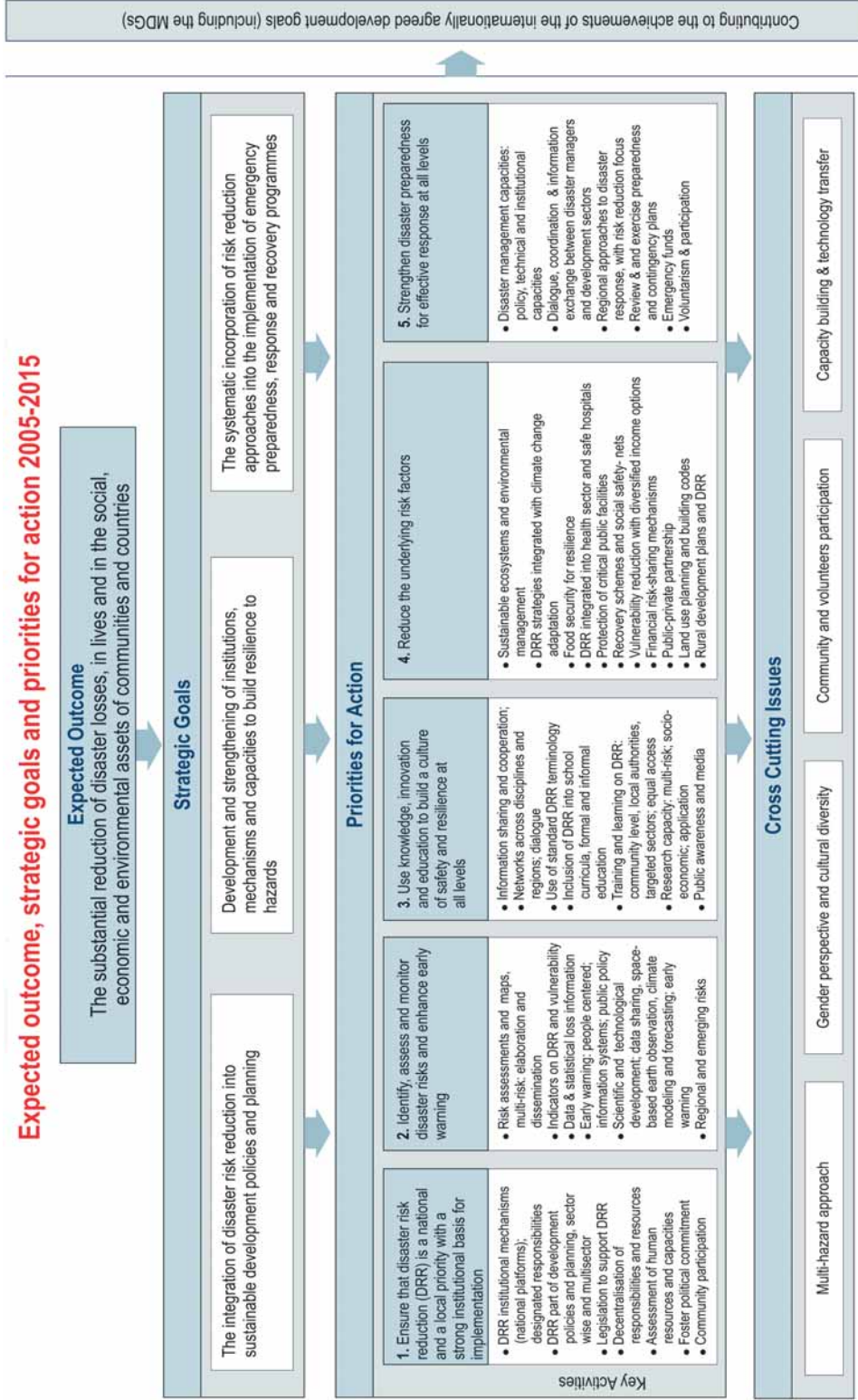
WHY IS IT IMPORTANT TO ANALYZE DRM SYSTEMS?

The sound analysis of DRM systems will make a crucial contribution to assessing, and strengthening the institutional capacities needed for achieving the HFA strategic goals and the five priorities for action which are all closely linked to the broader context of sustainable development. The strengths or weaknesses of existing DRM systems can favour or threaten development progress. The close link between DRM and development and the integral role of DRM within development are illustrated by the following examples:

- *Natural disasters set back development gains:* the destruction of infrastructure and erosion of livelihoods are direct outcomes of disasters. Disasters cause significant pressures on national and household budgets diverting investments aiming to reduce poverty and hunger and provide access to basic services.
- *Unsustainable development increases disaster risk:* unplanned urbanization, environmental degradation and inappropriate land use are key factors contributing to the increase in natural hazards and loss of lives and assets when hazards turn into disasters. For example, the destruction of forests can increase the risk of devastating mud slides during heavy rains and storms.
- *Disaster losses may be considerably reduced by integrating DRM practices in development programmes:* development policies and programmes can make a vital difference to reducing vulnerability and risk by: a) strengthening institutions and mechanisms for DRM; b) assisting vulnerable groups to build assets, diversify income-generating activities and strengthen community-based self-help institutions; and c) adopting DRM practices and principles in sectoral development and post-disaster rehabilitation plans.
- *Special long-term interventions may be needed to increase the coping capacities of the poorest and most vulnerable:* while an entire community may be vulnerable to a particular hazard (e.g. drought, flood, hurricane), the poorer population groups are likely to be at greater risk of the hazard turning into a disaster. Their meager assets, heavy dependence on their labour for survival, limited opportunity for

10. Taken from UN/ISDR. 2007. Words into Action: a guide for implementing the Hyogo Framework. Geneva.

FIGURE 1.2
Summary of the Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters (HFA)



(Source: UNISDR - <http://www.unisdr.org/eng/hfa/hfa.htm>)

- migration/evacuation and little or no access to insurance and credit contribute to their vulnerability. Development policies and programmes that assist poor men, women and youth to build livelihood assets, diversify income-generating activities, improve human capacities (health, nutritional status, education, technical skills), and strengthen community-based self-help organizations, can make a major contribution to reducing vulnerability and risk, and improving the coping capacity of the poorest.
- *Improved technologies can help prevent or mitigate damage caused by natural hazards:* various methods of water control, for example, can reduce the danger of flood damage, or help humans, animals and plants survive drought. Improved crops varieties that are drought- or flood-tolerant and/or disease- and pest-resistant can make the difference between crop failure and an acceptable harvest. Improved or zero tillage methods and soil conservation techniques can increase production in unfavourable agro-ecological areas, halting environmental degradation and ensuring greater sustainability. Development programmes need to get these DRM technologies into the hands of farmers in vulnerable communities.
 - *Disasters may become opportunities for building back better development practices:* relief associated with enhancing development in the post-disaster, recovery and rehabilitation periods, has a strong multiplier effect. It represents the difference between giving a person a fish, and teaching her/him how to fish. This means that s/he will be more independent and self-sufficient in the future, and thus, in terms of the cyclical nature of the DRM framework, will be better able to strengthen her/his resilience to future hazards.

DISASTER RISK, VULNERABILITY AND LIVELIHOODS

Disaster risk is usually described as a function of the hazard and the vulnerability context, including the resilience of the societal system under threat. Communities and households may be exposed to different forms of vulnerability ¹¹ that include:

- **Weather-related shocks and natural calamities:** drought, earthquakes, hurricanes, tidal waves, floods, heavy snow, early frost, extreme heat or cold waves
- **Pest and disease epidemics:** insect attacks, predators and diseases affecting crops, animals and people
- **Economic shocks:** drastic changes in the national or local economy and its insertion in the world economy, affecting prices, markets, employment and purchasing power
- **Civil strife:** war, armed conflict, failed states, displacement, destruction of lives and property
- **Seasonal stresses:** hungry season food insecurity
- **Environmental stresses:** land degradation, soil erosion, bush fires, pollution
- **Idiosyncratic shocks:** illness or death in family, job loss or theft of personal property
- **Structural vulnerability:** lack of voice or power to make claims.

¹¹ This list of different forms of vulnerability and the definitions given in Box 1.3 are taken from FAO. 2005. *Rapid guide for missions: Analysing local institutions and livelihoods*, by A. Carloni., Rural Institutions and Participation Service. Rome, page 3, box 3. While this DRM Guide focuses on **vulnerability to natural hazards**, in line with FAO's mandate, the assessment processes described could be adapted to the other types of vulnerability mentioned in the bullet points. However, it should be stressed that this DRM Guide is not designed to assess institutional structures underlying economic shocks, civil strife and seasonal stresses.

Vulnerability to the various types of natural hazards is not homogeneous across geographical areas or within communities.¹² Some communities and some households within given communities will be more vulnerable than others.

The Sustainable Livelihoods (SL) framework (Fig.1.3) provides an insightful analytical approach to help identify which types of households are likely to be particularly vulnerable. This is accomplished through the analysis of the inter-relationships between shocks, vulnerabilities and households' bundles of assets and coping strategies, within the context of on-going policy, institutional and development processes. The SL framework puts households and their livelihoods at the centre of analysis, assuming that they are continuously influenced by potential threats of shocks and/or disasters.

In the SL framework, vulnerabilities, of all kinds, and institutions form core parts of the overall context within which development processes. The different bundles of assets of different households, social groups and communities and the institutional contexts ultimately determine the capacities of these households, social groups and communities to cope with disasters before, during and after their occurrence.

BOX 1.3

DEFINITIONS

A **household** is a group of people who eat from a common pot, and share a common stake in perpetuating and improving their socio-economic status from one generation to the next.

A **livelihood** comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain its capabilities and assets both now and in the future, while not undermining the natural resource base.

The SL framework adapted to DRM, represents a **cause-effect model** for understanding the situations that poor households face, depending on the relationships between household assets, the vulnerability context and institutional processes which shape their lives. For instance, while some hazards may affect all members of a community

BOX 1.4

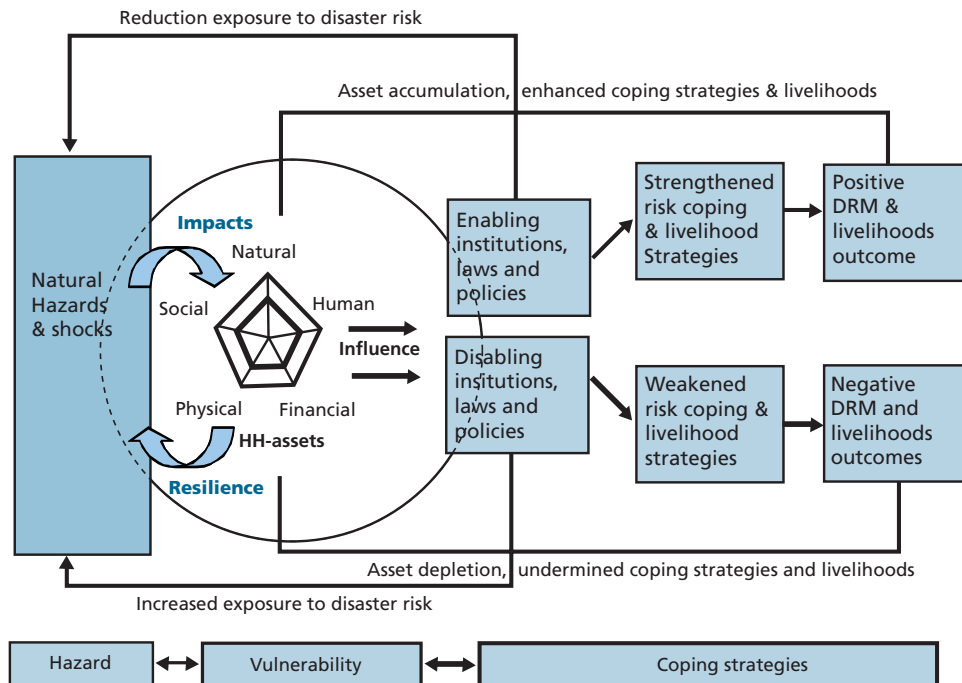
LIVELIHOODS AND RESILIENCE

A livelihood perspective suggests that households with a larger bundle of assets will be more resilient to a hazard than a relatively asset-less household. It is not just the amount of any one asset that counts – for example, in the event of a livestock disease epidemic, a rich pastoralist household could also lose its entire herd just as a poor household.

The important point is that the "capitals" are to some extent fungible. Thus, the rich pastoralist household would be more resilient to disaster if it could draw on financial reserves to buy food and restock, or enable educated/skilled household members to migrate temporarily for employment in another area. The poor pastoralist household may have no assets other than its dead animals, and the disaster could result in a huge and un-surmountable tragedy.

12. In line with FAO's mandate, the assessment processes described could be adapted to the other types of vulnerability mentioned in the bullet points. However, it should be stressed that this DRM Guide is *not* designed to assess institutional structures underlying economic shocks, civil strife and seasonal stresses.

FIGURE 1.3

Sustainable Livelihoods framework adapted to DRM

to a similar degree (e.g. a hurricane or heavy snow), richer households with greater assets may have the means to adopt more effective coping strategies that can prevent a hazard turning into a disaster. Furthermore, the framework's focus on the institutional context describes how effective community and higher level institutions can cushion the effects of a disaster on poor households, mobilizing community or outside action for the benefit of the most vulnerable.

While the linkages between the DRM and the SL frameworks are complex, they highlight a number of key factors that determine the degree of **vulnerability of different socio-economic groups to disaster** situations, as evidenced by the following examples:

- Natural resources provide key livelihood assets and security, especially in rural areas
- Disasters reduce household livelihood assets to different degrees depending on the asset and type of disaster and lead to livelihood insecurity (and may result in death or injury)
- Policies and institutions influence household livelihood assets positively or negatively
- Policies and institutions can increase or decrease vulnerability to disaster
- Enabling institutions and diversified household assets widen livelihood options
- Asset ownership decreases vulnerability and increases ability to withstand disaster impacts
- Livelihood outcomes depend on policies, institutions, processes and livelihood strategies
- Livelihood outcomes influence the ability to preserve and accumulate household assets

Policies and institutions are thus key factors that influence access by different population groups to assets and DRM technology, livelihood options and coping strategies as well as key services to reduce the loss of lives and property in the aftermath of a disaster.

BOX 1.5

DEFINITION OF INSTITUTIONS

The use of the term “institutions” in this Guide refers to rules and social norms as well as to the organizations that facilitate the coordination of human action.

The two components of “institutions” are the “rules of the game” (norms, values, traditions and legislation which determine how people are supposed to act/ behave), and the “actors” (organizations) and their capacities that operate according to these rules. Both dimensions need to be addressed in an institutional analysis. Institutions include formal institutions and membership organizations:

- Formal organizations - government institutes, organizations, bureaus, extension agencies
- Formal membership organizations - cooperatives and registered groups
- Informal organizations - exchange labour groups or rotating savings groups
- Political institutions - parliament, law and order or political parties
- Economic institutions - markets, private companies, banks, land rights or the tax system
- Social-cultural institutions - kinship, marriage, inheritance, religion or draught oxen sharing

THE CRUCIAL ROLE OF INSTITUTIONS

Institutions play a key role in **operationalizing** the different phases of the DRM framework and mediating the link between development, DRM and humanitarian actions. Without institutions, there would be no action and DRM would remain a concept on paper.

For example, during the mitigation/prevention phase, a variety of **institutional** actors including the public sector technical ministries and agencies (e.g. agriculture, forestry, fisheries, health, education, local government), international organizations, professional bodies, NGOs and other civil society organizations, operate important programmes to build up livelihood assets, improve household production and incomes, and enhance resilience and coping strategies. In the relief stage, for instance, these various organizations focus on “save and rescue” operations, and meeting basic needs such as shelter, food and water. In the rehabilitation stage, their aim is to prevent further erosion of productive assets or coping strategies and to help households re-establish their livelihoods.

Specialized DRM focal point ministries/agencies are expected to play a vital role in coordinating these many activities and ensuring their relevance to medium- and long-term development objectives and activities. In this context, sound analyses and understanding of the role of formal and informal organizations in DRM, their institutional and technical capacities (including strengths and weaknesses), best operational and technical practices, and comparative strengths in coordinating and promoting vertical and horizontal linkages are required. A particular challenge for governments and development agencies is to build up strong local capacities, and mobilize public and private sector and civil society organizations at different levels to participate actively, according to their comparative advantages, in the design and implementation of locally relevant DRM strategies.

PLANNING AN INSTITUTIONAL ASSESSMENT OF DISASTER RISK MANAGEMENT SYSTEMS

This module gives an overview of the interrelated steps of planning, conducting and analysing the results of an institutional assessment of DRM systems. Complementary diagnostic studies at national, provincial/district, and local levels to obtain the basic primary data for the assessment are also discussed. The module suggests who should do what and where during the assessment process. The proposed sequence should be followed in a flexible way and adapted to location- or study-specific circumstances, as needed.

HOW TO PLAN AND ORGANIZE THE INSTITUTIONAL ASSESSMENT?

It is recommended that the institutional assessment be planned in three phases:

1. Getting started: the preparatory phase
 - (a) initial preparations and literature review
 - (b) inception meeting and field work planning meetings
2. Field work
 - (c) diagnostic study at the national level
 - (d) diagnostic study at the district level
 - (e) diagnostic study at the local level
 - (f) linkages and coordination among and between institutions
 - (g) sector-specific diagnosis
3. Data analysis, report writing and wrap-up meeting(s)
 - (h) data analysis and report writing
 - (i) wrap-up meetings with in-country stakeholders
 - (j) consolidating the final report

1. GETTING STARTED: THE PREPARATORY PHASE

(a) *Initial preparations and literature review*: Before starting the assessment it is essential that the study team is familiar with the key concepts and terminology related to disaster risk management, institutional development, and sustainable livelihoods (module 1). Other steps to be taken before data collection in the field include:

- Desktop research on national hazard profiling
- Review of existing national (or relevant regional) risk and vulnerability maps

- ❑ Collection and review of background information on existing national DRM institutional structures, mandates, policies, laws and disaster codes, DRM-related projects, relevant agricultural sector strategies and programmes¹³
- ❑ Collection and review of studies on the socio-economic, cultural and traditional/community-based institutional system(s) prevalent in the vulnerable areas, including information on local disaster risk coping strategies¹⁴
- ❑ Collection of information on national, regional and local focal point organizations
- ❑ Collection and review of relevant corporate and regional/country strategy documents and the main DRM-related programmes and projects of concerned international and national development organizations and NGOs operating in the country

These activities may require three to five working days depending on the existing knowledge of the assessment team and its working experience in DRM and institutional analysis. The most suitable entry points to start the desk review are:

- ❑ The UNISDR website: www.unisdr.org/eng/country-inform/introduction.htm, which provides basic data on country profiles, maps on disaster and hazard profiles, country reports on DRM (not always up to date) and official contact points
- ❑ The International Disaster Database managed by CRED (www.em-dat.net)
- ❑ The websites of national DRM focal points and ministries

(b) Inception meeting and field work planning meetings: The first step is to organize an inception meeting with the key government officials who are responsible for the overall coordination of the country's DRM systems as well as those officials with sectoral responsibilities for DRM. In countries where coordination between the national authority for DRM and sectoral ministries/line departments is still weak the presence of representatives of the latter institutions at the inception meeting might help strengthen this coordination. Otherwise there may be a need for separate meetings, particularly if the assessment has a sector-specific focus. The purpose of the inception meeting is to:

- ❑ Obtain government support and commitment at the senior decision-making level
- ❑ Convey the government's overall policy orientation/guidance for the assessment
- ❑ Agree on key issues to be addressed during the assessment process
- ❑ Agree on the disaster prone-areas to be covered by the assessment

The **key participants** in the inception meeting should include:

- ❑ The DRM focal points and/or officials with **decision-making power** related to DRM policies, strategies and programmes (e.g. from the National Disaster Management Office, Council and/or Bureau)
- ❑ Representatives of key INGOs and national NGOs/civil society organizations active in DRM and, if appropriate, any relevant private sector organizations¹⁵

13 An organigram of the national DRM institutional set-up is very useful for this purpose and may be requested from the responsible national authority or recent setup may be downloaded from their respective websites.

14 These are often available from national and international NGOs with a strong field presence in areas chronically exposed to natural hazards

15 The IFRC (International Federation of Red Cross and Red Crescent Societies), for example, is a valuable source of information and an experienced player in emergency preparedness and response in many countries.

Representatives of the following **organizations/agencies should be invited as appropriate:**

- ❑ Ministry of Local Government, particularly units representing disaster-prone districts
- ❑ Ministries/technical departments of vulnerable sectors (e.g. agriculture, livestock, fisheries, forestry, infrastructure/public works, water resources, health, education)
- ❑ Ministries of Planning and Finance (if appropriate)
- ❑ National research institutions (if appropriate)
- ❑ INGOs, NGOs/CSOs and Private sector organizations (if appropriate)
- ❑ UN/bilateral development and relief organizations (if appropriate)

The inception meeting should, inter alia, explicitly:

- Discuss the key features of the national hazard context and identify the **major** strengths and weaknesses of the overall DRM policies and institutional structure that may require in-depth analysis during the assessment
- Agree on the level of counterpart support and the names of counterpart officials from the coordinating and sectoral ministries including their participation, if possible, in the field work, and allocate financial resources/logistical support (e.g. transport) as needed. Identify other key national/international governmental, inter-governmental or NGO/CSO organizations involved in DRM at various levels
- Select the pilot disaster-prone provinces/districts/villages for the field studies
- Discuss other policy or resource-related topics, depending on the specific situation

Given the number of topics to cover, it would be helpful if the inception meeting could be scheduled for half a day. Since it will not be possible to cover all these topics in sufficient depth in one session, it will be necessary to schedule follow-up meetings with some of the participants to flesh out the details, and to undertake the detailed planning for the field work. As the inception meeting proceeds, it would be advisable for the chair/facilitator to set up one or more smaller technical group meetings on specific topics, so as to be able to move forward on the main agenda. It may be useful to invite representatives of international development and relief organizations to these meetings.

Field work planning meetings: Following the broad lines of agreement reached at the inception meeting, it will be essential for the assessment team to hold a series of planning meetings with the local counterparts and interpreters for the field work in order to:

- identify and select other field staff/assistants if necessary
- undertake the detailed planning of the field work programme and itinerary
- make logistical arrangement for the field visits
- agree on the participatory tools and methods to be used
- agree on and fine-tune the key questions and related indicators for the institutional assessment at the national, district and local levels

It would also be useful to start planning how to undertake the data analysis and envisaging what logistical/technical support might be needed.

2. FIELD WORK

(c) *Diagnostic study at the national level:* It is recommended that the first diagnostic study be undertaken at the national level, as this will provide an understanding of the overall DRM framework, policy objectives, technologies, institutional structures and existing DRM coordination mechanisms before moving to decentralized levels, where the institutional structures and coordinating mechanisms may be less developed or effective. A series of group-based brainstorming sessions and interviews on the key issues should be planned and conducted at the national level with representatives of the most relevant organizations identified at the inception meeting. If the inception meeting concluded that particular sectors were especially vulnerable, the ministries and departments responsible for these sectors are likely to be the key entry points for the assessment. The detailed description about who should be contacted and what should be looked for is described in module 3.

(d) *Diagnostic study at the district level:* Key informant interviews/brainstorming sessions/informal meetings should be conducted at provincial/state/district level to explore key issues identified in the inception meeting and other issues that might only emerge at this level. The purpose is to assess the formal and informal institutional systems available at intermediary levels, their roles, strengths, weaknesses and comparative advantages for implementing DRM programmes. The process should contribute constructively to the selection of villages/communities to be visited during the local-level diagnostic study. The detailed description about who should be contacted and what should be looked for is presented in module 4.

(e) *Diagnostic study at the local level:* The fifth step during the assessment process involves community-level field work in the selected villages identified through the national- and intermediary-level consultations. This community-level study involves two steps:

- (i) community profiling
- (ii) community-level institutional assessments.

The community profiling is an essential step before undertaking the local-level institutional assessment as it provides a basic understanding of the study context, key socio-economic parameters including production and livelihood systems, and the overall vulnerability characteristics of the villages/communities and the specific hazards faced.

Field visits may be conducted in 3 to 5 villages depending on time availability. It is important to decide in advance on the participatory methods and tools with which to start the study and employ other participatory and rapid rural appraisal methods and tools depending on the need and the information requirements. It is advisable not to ask the volunteers participating in the study to devote more than half a day to these exercises and discussions, and to plan group and individual sessions accordingly throughout the day.

The more detailed description about who should be contacted and what should be looked for is presented in module 5.

(f) Linkages and coordination among and between institutional levels: The issues of coordination, communication and collaborative linkages between institutional levels constitute a crucial topic to be addressed in the overall assessment. Key questions to identify strengths and weaknesses of vertical and horizontal linkages and proposals for improvement should be incorporated into the studies at each level.

A specific session to discuss these issues across levels and with a variety of key stakeholders is essential. The best moment to call such a joint stakeholder meeting to discuss vertical and horizontal coordination, communication flow and integration of DRM issues between levels, is once the raw data from the individual levels have been screened and some hypotheses drawn to serve as a basis for discussion. While the primary roles and functions that DRM organizations have or should have at the national, district and community levels will be covered in more depth in modules 3-5, an example of key roles and functions of each level are given in Table 2.1 in order to provide the basis for comparing the complementary contributions of each level.

(g) Sector-specific diagnosis: Many DRM functions overlap/coincide with the mandates of sectoral ministries or agencies. For instance, Ministries of Agriculture and/or Water Resources often address DRM-related challenges such as sustainable water and soils management, and sustainable natural resource management. It is therefore crucial that the assessment also takes account of these sectoral ministries' DRM-related mandates and programmes and the specific sectoral issues. These aspects need to be carefully analyzed to understand how coordination mechanisms with the formal DRM system are set up and function is equally important. By way of illustration, this Guide provides some insights into the issues in the agricultural sector with a view to highlighting the disaster risks inherent in agriculture, and the roles and contributions which agriculture should make to a fully functioning DRM system. It is important to stress that a sector-specific diagnosis should be integrated with the analyses of the national DRM system and institutional structures.

3. DATA ANALYSIS, REPORT WRITING AND WRAP-UP MEETING(S)

(h) Data analysis and report writing: A draft report dealing with the overall findings and recommendations should be prepared for presentation during a wrap-up meeting with representatives of the national government organizations, NGOs and donor organizations. One possible approach to analysing, integrating and structuring the findings from the field studies is described in Module 6. At least three to four days will be needed for the analysis and report-writing.

(i) Wrap-up meetings: A single or separate wrap-up meetings should be organized with the intermediary- and national-level organizations to share the team's indicative findings

TABLE 2.1

Primary roles and functions of various organizations¹⁶ at different levels by DRM elements (illustrative example)

Level	Actors	Pre-disaster			Disaster/emergency		Post-disaster	
		Prevention	Mitigation	Preparedness	Response	Recovery	Development	
International agencies		Raise awareness on DRM	Ensure quality in donor funded infrastructure projects	Treat DRM as an inclusive activity	Mobilize financial aid as grants and long-term loans	Fund Food For Work and rehabilitation programmes	Mainstream DRM activities in development planning	
National government		Establish early-warning systems, infrastructure, legal and policy framework for DRM	Promulgate construction code and safety regulations	Prepare national disaster relief plan	Declare a disaster and state of emergency	Set up emergency and recovery fund	Prepare Codes of Conduct in relief and development	
Province/district/municipality		Set local administration rules; Provide incentives for promotion of risk-reducing technology	Promote multi-sectoral, integrated approaches in DRM	Provide agro-ecological data for national disaster relief plan	Coordinate and mediate actions between national and local levels	Implement Food For Work or other rehabilitation programmes	Protect infrastructure; promote risk-reducing technologies	
Technical line agencies & research institutions		Develop risk reducing technologies	Test risk-reducing technologies and sector- specific forecast systems	Prepare sectoral risk management and response plans	Assist in needs assessment and distribution of sector specific inputs	Promote sector specific recovery processes	Develop risk-reducing technologies	
Intermediary-level NGOs		Provide training to local NGOs	Undertake watershed/ river basin planning	Provide skills training to local NGOs	Mediate between national & local level	Set up rehab. projects to restore lost assets	Promote local institutional development	
Local government		Develop local disaster prevention plan	Undertake watershed/ river basin planning	Prepare evacuation and contingency plans	Provide shelter to displaced households	Set up rehabilitation projects for public goods	Prepare local risk maps and disseminate information	
Community local leaders/ representatives		Plan/implement awareness-raising campaigns	Solicit external technical assistance on DRM	Carry out awareness-raising campaigns	Act as advisory focal points	Promote improved technologies	Facilitate links and coordination between organizations	
Local emergency committees		Undertake hazard risk diagnosis	Undertake household vulnerability assessments	Prepare evacuation plans	Deploy search and rescue teams	Deploy food aid committees/teams	Advise how to reduce local vulnerability	
Local-level NGOs		Provide training to local CBOs	Undertake household vulnerability assessments	Conduct awareness raising campaigns	Deploy trainers on hygiene & health	Provide psychological counselling & support	Define local priorities to reduce vulnerability	
Micro-financial intermediaries		Undertake hazard risk diagnosis	Promote mitigation practices	Spread risk across portfolio	Undertake client damage assessments	Arrange loan rescheduling and other special activities	Integrate DRM in development activities	
Community-based organizations		Undertake hazard risk diagnosis	Maintain public infrastructure	Construct infrastructure to protect property	Tap customary solidarity networks	Mobilize communities for joint action	Provide moral support and advice	

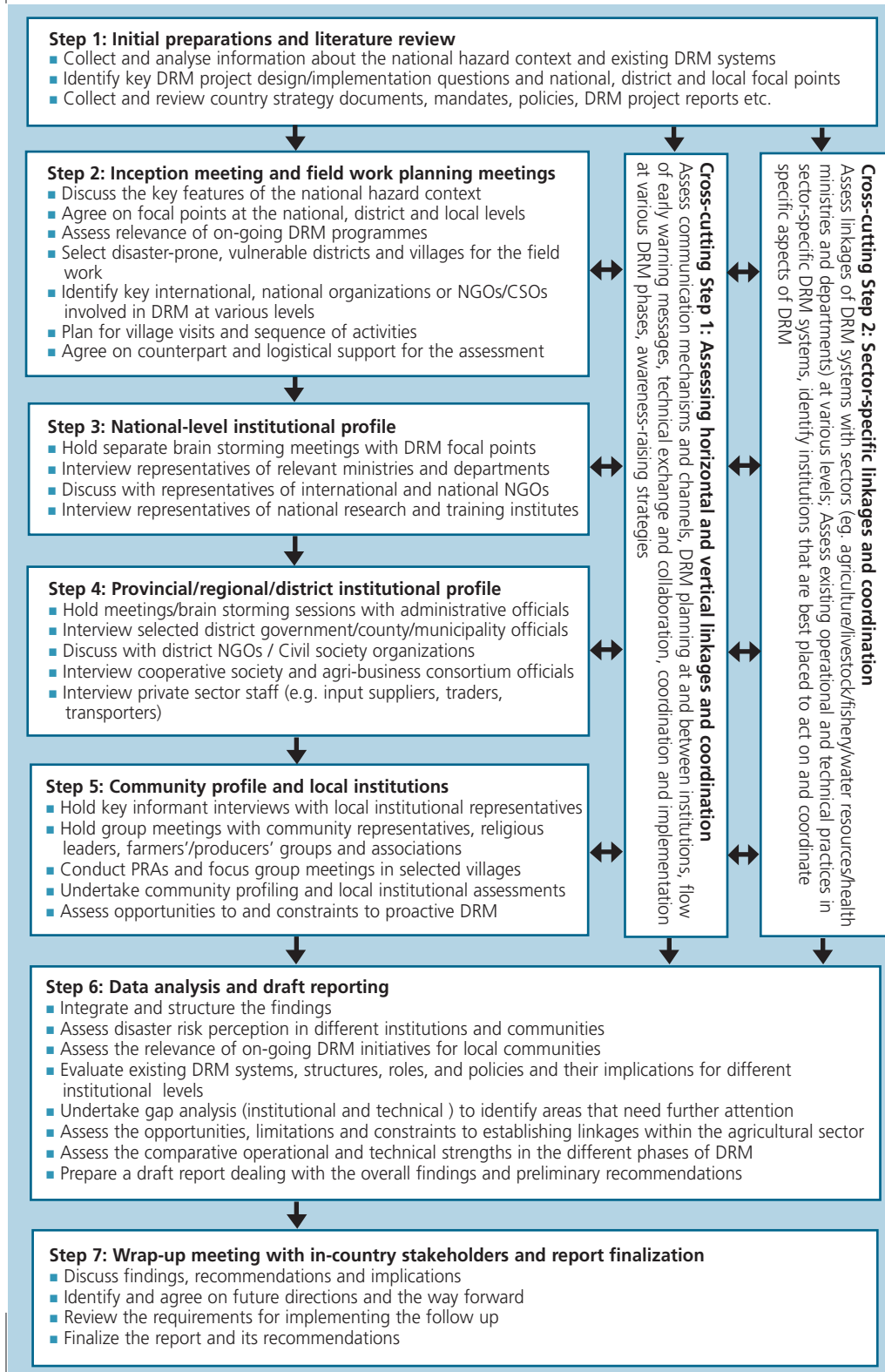
¹⁶ The roles and functions described in this table are only indicative.

and to discuss the implications of the findings and recommendations with national stakeholders. A separate wrap-up meeting may also be held with national-level project partners and donor agency representatives. The decision as to whether to hold joint or separate meetings with different stakeholder and interest groups will need to be taken in the light of local circumstances and sensitivities.

(j) Consolidating the final report: Final meetings before completing the assessment report may be required with the national DRM focal points to clarify facts and interpretations of the team's findings and the feasibility of the proposed recommendations.

In conclusion, the various steps outlined above are summarized in Box 2.1 in order to highlight the logical sequence of these steps and the coherence of the approach.

BOX 2.1 FLOW CHART FOR A DIAGNOSTIC STUDY OF DRM INSTITUTIONAL SYSTEMS



ASSESSMENT OF DISASTER RISK MANAGEMENT SYSTEMS AT THE NATIONAL LEVEL

WHAT IS THE ROLE OF NATIONAL DRM INSTITUTIONS?

National DRM systems and institutions are the driving forces to plan, implement, monitor and evaluate DRM processes and products within a country and to ensure coordination among all stakeholders involved in any phase of DRM. In addition, they play a pivotal role in integrating DRM efforts into development policies and programmes in order to reduce the vulnerability of rural livelihoods to natural hazards. The national DRM institutions develop policy frameworks, disaster management plans and codes of conduct in relief and development; they guide and assist in developing early warning systems, and in declaring states/phases of emergency during disasters; and they lead the communication with the general public and sectoral agencies at different levels.

The existence (as a basic requirement) and coordinating role of DRM institutions are essential, though not sufficient, to ensure that DRM systems are functional and operational. Equally important are the formal links with sectoral line agencies which have complementary sectoral responsibilities for DRM, and thus need to integrate DRM aspects into their regular development work. Although there is a growing emphasis on disaster risk reduction in most developing countries, the mandate of the national DRM institutions usually focuses on *coordination* of and advocacy for prevention and mitigation strategies. The ultimate *implementation* of prevention and mitigation actions and the direct responsibility for the emergency response, however, remain the task of the sectoral line agencies. Therefore, depending on the topical entry point of the assessment, relevant sectoral agencies should be included in the analysis. Agriculture is used to illustrate sector-specific issues, questions, demands and challenges in the context of DRM.

WHY DO INSTITUTIONAL ASSESSMENTS AT THE NATIONAL LEVEL?

The purpose of a national-level institutional assessment is to provide insights, guidance and check-lists to assist DRM practitioners to:

- better understand the strengths and weaknesses of existing DRM policies, legal frameworks, codes of conduct, institutional structures and the coordination mechanisms among them, including national DRM focal point ministries, other concerned sectoral ministries, research organizations and/or NGOs and CSOs;
- assess the availability, appropriateness and effectiveness of key DRM instruments, the degree to which these are actually used/promoted by the institutions at the national level, and how DRM programmes and services are communicated and promoted at decentralized levels;

- undertake more in-depth assessments of technical capacities in countries that are undergoing processes of organizational restructuring to better support a shift from reactive emergency relief operations towards long-term disaster risk prevention, mitigation and preparedness strategies;
- contribute to the development of an effective and coherent national DRM policy in order to guide the development of complementary district and local DRM strategies and plans; and
- identify the tangible institutional attributes (policies, organizational mandates and structures, and the supporting instruments such as finance, logistical support, technologies) and intangible attributes (attitudes, perceptions and underlying motivating factors) that determine the success of DRM programmes.

HOW TO INITIATE THE ASSESSMENT?

The success of any institutional assessment depends on the “right” institutional entry point. Thus, it is important at the outset to identify the national focal point which will host the assessment process and the most relevant partner organizations. In most cases, the entry point is likely to be the National Disaster Management Office (NDMO), if there is one, or the lead institution with the mandate for DRM.¹⁷ The agency¹⁸ responsible for developing, interpreting and disseminating early warning information must also be involved from the outset of the assessment. In a subsequent step, selected sectoral ministries such as Ministries of Agriculture, Water, Environment or Health as well as selected multi-sectoral ministries/agencies such as Ministries for Rural or Local Development, Finance and Planning should be involved.

BOX 3.1 HOW TO SELECT SUITABLE INSTITUTIONAL ENTRY POINTS

- What are the scope, purpose and specific objectives of the assessment?
- Does the assessment have a pre-determined hazard focus (e.g. hurricane preparedness or drought mitigation)?
- Has the assessment a sectoral focus? If the focus is still to be determined, which sector(s) are of key relevance with regard to the objectives of the assessment?
- Does the assessment have a pre-determined focus on certain phases of the DRM framework? e.g. preparedness, mitigation, relief, reconstruction, rehabilitation, mainstreaming etc.?
- Which institutions have the mandates and/or responsibility for implementing the DRM system, including overall coordination and sectoral responsibilities?
- Which ministries/institutions and technical agencies are designated as national focal points for aspects of DRM-related activities?

17. The title of the focal point institution responsible for coordinating all DRM issues at national level varies from country to country. Some commonly used titles include: the National Disaster Management Office (NDMO), the National Disaster Management Authority (NDMA), the National Disaster Management Centre (NDMC), the National Disaster Management Bureau (NDMB) or the National Emergency Management Agency (NDMA). These offices/authorities are often hosted by the Ministry of Interior (or Home Affairs) although in some countries other ministries perform this lead role such as the Ministry of Civil Defence, the Ministry of Disaster Management or the Ministry of Relief and Rehabilitation. In other cases, the focal point unit reports directly to the Head of Government.

18. In most countries National Meteorological Agencies (NMA) and National Hydro-Meteorological Services (NHMS) are the focal points for all types of early warning systems and the dissemination of early warning information and alerts.

Other Ministries such as Labour and Social Welfare, the Interior, Public Works, Relief and Rehabilitation, or Defence often provide focal point functions for DRM and should thus also be consulted on selected aspects of DRM, as appropriate. The institutional entry point will also depend on the specific purpose of the analysis and its relevance to or focus on a particular sector. For instance, if there are key pre-determined elements relating to emergency health issues, the Ministry of Health would be the ideal entry point.

Building on the outcome of the inception meeting (see Module 2), it will be necessary to deepen the technical discussions with national-level DRM institutions. Three basic methodologies are recommended for the initial assessment at national level:

- Semi-structured interviews with selected key informants/key resource persons
- Multi-stakeholder brainstorming sessions
- In-depth topical group discussions.

BOX 3.2 STEPS FOR CONDUCTING DATA COLLECTION AT THE NATIONAL LEVEL

The following steps for conducting the data collection at the national level are indicative, and should be amended or sequenced differently according to specific situations.

1. Organize a joint brainstorming session with representatives of key national stakeholder organizations, including government, research and training institutions, producer organizations/cooperatives, and NGOs/CSOs to gain the “big picture” and assess the critical issues, strengths and weaknesses, as well as areas of potentially conflicting information or taboos. The card method is a useful tool in brainstorming sessions to collect initial perceptions. Participants are asked to fill out cards (one idea per card) which are then arranged in categories or groups of ideas on a board or table. A variant on this method would be to display Table 3.1 with the first column of the matrix filled out with the key questions, leaving the second and third columns blank. The group would then fill in these two blank columns during a facilitated brainstorming process which would attempt to address the issues in a structured way. This exercise could, in this way, stimulate in-depth discussion and country-specific fine-tuning of the matrix.
2. Analyse the outcome of the brainstorming session. Identify further information needs/gaps and useful informants/stakeholders for individual follow-up meetings. The number of interviews will depend on the time available for the assessment.
3. Conduct semi-structured interviews with selected DRM government officials and other relevant stakeholders in order to gain a deeper understanding of some of the topics raised in the brainstorming session.
4. Initiate as a final step and cross-checking mechanism a technical group discussion (2-3 hours) with selected invitees, to try and resolve conflicts over perceived facts and widely divergent viewpoints and fill the remaining information gaps. Such a meeting requires careful preparation; the key issues to be discussed should be presented in the form of working hypotheses.
5. Throughout the process, cross-check or clarify facts, hypotheses and recommendations found in key publications such as strategy documents, leaflets, pamphlets, annual reports, financial statements or, if available, reports documenting experiences of and lessons learned from previous disasters.

Usually group work produces more filtered, “socially controlled” and thus more neutral and broadly accepted findings and recommendations. Individual interviews tend to provide more in-depth insights and critical reflections, with the risk, however, of only reflecting one viewpoint. Therefore triangulation in the use of the three methods is strongly recommended.

Before initiating any meetings, it is essential to prepare a detailed check-list of specific questions applicable to the particular ministries/departments and line agencies. Given the great variety of contexts and country-specific circumstances, this Guide does not prescribe a single method or interview schedule but recommends the use/adaptation of the analytical categories, generic questions and indicators presented in Tables 3.1 and 3.2 to identify situation-specific issues for discussion and design appropriate interview guidelines and questions. Thus, these tables should not be used as ready-prepared questionnaires.

The assessment team needs to bear in mind that key informants may have very limited time. The team should therefore invite such busy informants only to those events and/or focus on those questions most relevant to them. This is particularly important the higher the informants are positioned within the national DRM system. A careful interim analysis of the national-level findings is also crucial since these “set the scene” for the subsequent analysis of the DRM organizational structures, institutional mechanisms and processes at the decentralized levels.

SPECIFIC ISSUES TO ADDRESS AT THE NATIONAL LEVEL

Table 3.1 provides a set of key issues regarding different aspects of organizational structures and a checklist of institutional mechanisms to help guide the assessment of the national DRM structures and their functioning. These broad issues can be complemented by sector-specific issues, depending on the focus of the assessment. Examples from the agricultural sector are given in Box 3.3.

KEEPING TRACK OF THE INFORMATION AS THE ASSESSMENT PROCEEDS

Table 3.2 complements Table 3.1 by adding a more specific set of DRM-related technical topics and issues. However, its main purpose is to serve as an aide-mémoire for monitoring outcomes and findings from the brainstorming sessions, group discussions and interviews, and identifying gaps for future exploration and analysis. The Table should be filled in at the end of the national assessment. Similar tables should also be filled out after completing the district- and community-level assessments (see modules 4 and 5). All three tables will serve as valuable inputs to the overall analysis and formulation of recommendations (see module 6).

TABLE 3.1

Key generic issues on national institutional capacity for DRM

Key issues	Related organizational structures “where to look”	Indicators and/or relevant institutional mechanisms or processes
What are the existing DRM policies and legal frameworks?	<ul style="list-style-type: none"> ■ Specialized DRM Ministry ■ Intergovernmental Committee on Disaster Management ■ National Disaster Management Advisory Board/Forum ■ National Disaster Management Office ■ National Platform for Disaster Risk Management ■ National Disaster Management Council/Committee ■ Sectoral government agencies 	<ul style="list-style-type: none"> ■ Formal DRM legal framework, related acts or government decrees, disaster codes, safety standards, standing orders for DRM/DRR and/or emergency response ■ DRM national policy frameworks, vision or strategy documents ■ Sectoral DRM mandates specified; sectoral DRM policy papers/strategies in place ■ A national DRM implementation strategy (such as DRM cycle management) and/or plan of action exists ■ Plan of action for emergency response and/or plan of action for DRM are available/regularly updated ■ Formal guidelines with criteria and triggers to declare emergency situations exist ■ Formal guidelines exist to promote community drills and simulation exercises
What organizational structures are currently in place to implement DRM throughout the country?	<ul style="list-style-type: none"> ■ National Disaster Management Committees and Operations Centres ■ National Disaster Management Office ■ National Early Warning (EW) Agency ■ Meteorological/Hydrometeorological Service ■ Sectoral line agencies involved in DRM ■ DRM training centres ■ Research institutions ■ National civil protection ■ INGOs, NGOs and CSOs 	<ul style="list-style-type: none"> ■ DRR/DRM operations and training centres in place ■ Multidisciplinary strategic management task force for disaster management (also DRR) in place at all /some levels ■ Multidisciplinary task force for disaster response mandated and in place ■ DRM frameworks mainstreamed in the line ministry's activities, task forces in place ■ National EW and emergency communication systems in place ■ Rescue teams in place ■ Roles and responsibilities of INGOs, NGOs and CSOs in DRM and emergency response defined
What are the operational capacities of the formal DRM system (during different phases of the DRM process)?	<ul style="list-style-type: none"> ■ National Disaster Management Office ■ Sectoral line ministries ■ Comprehensive Disaster Management Programme (if any) ■ National Meteorological and Hydrometeorological agencies ■ Disaster Management Coordination Centres ■ National level specialized DRM groups or task force ■ Government, INGO, NGO training centres ■ UN agencies and national platforms ■ INGOs, NGOs and CSOs 	<ul style="list-style-type: none"> ■ Size of budget and number of people formally employed in DRM at the different levels ■ Frequency and timing (within DRM cycle) of meetings of the key National Disaster Management bodies ■ National training programmes and training centres for DRM (operational budgets and staffing levels) exist ■ Training materials available in local language(s) ■ EWS in place (and operational at which levels?) ■ Response operation centres properly equipped for emergency ■ Centres and/or task forces (TFs) have clearly written mandates and responsibilities ■ DRM task forces exist in sectoral line agencies ■ TF managers at all levels know content of DRM policies, standing orders and responsibilities ■ A formal communication centre exists and provides information & exchange ■ EW messages reach local DRM teams/populations ■ DRM info/materials available and disseminated ■ Organization of test/mock exercises ■ Trained people available for emergency needs assessment

Key issues	Related organizational structures “where to look”	Indicators and/or relevant institutional mechanisms or processes
<p>What are the coordination mechanisms within the national DRM system?</p> <p>What are the roles and responsibilities of sectoral line agencies, NGOs and the private sector for DRM?</p>	<ul style="list-style-type: none"> ■ Sectoral line ministries/agencies ■ Interdisciplinary disaster management advisory forum/groups at various levels ■ Coordination committees/groups ■ INGOs, NGOs and CSOs ■ ISDR national platform 	<ul style="list-style-type: none"> ■ Mandates and responsibilities for all types of key stakeholders /organizations for DRM defined ■ Integrated, cross-sectoral DRM plans at various levels exist ■ Sectoral DRM action plans make reference to other sectors ■ Institutionalized linkages/MoUs between government agencies, research and training institutions, and NGOs exist ■ Existence of DRM core groups/task forces in line agencies ■ Regular meetings of DRM coordination committees ■ Work plan for DRM committee in place ■ Job descriptions include DRM-related tasks
<p>What are the mechanisms for regional and international co-operation on DRM and/or emergency response?</p>	<ul style="list-style-type: none"> ■ National DRM organization or decision-making body ■ National platform ■ UN System Coordinator ■ ISDR platform ■ IFRC 	<ul style="list-style-type: none"> ■ Country participates in/leads regional DRM programmes ■ Study tours and exchanges with other countries ■ On-going international programmes on DRM ■ Investment projects with risk reduction components ■ Established linkages with the UN ISDR system ■ Flash appeals submitted to donor countries ■ Regional agreements for DRM standardization, planning and implementation (“fire” management) ■ National emergency coordination committee/ unit/centre coordinates national/ international emergency assistance
<p>What resources are allocated for DRM?</p>	<ul style="list-style-type: none"> ■ National budget allocation mechanism ■ Administrative and finance section responsible for DRM ■ DRM thematic projects and budgets ■ Sector-specific projects and budgets ■ Humanitarian assistance projects of donor agencies, INGOs, NGOs 	<ul style="list-style-type: none"> ■ DRM institutions receive finance for regular operation and maintenance ■ DRM institutions implement donor-funded projects ■ Budgets are committed to key activities under the DRM national action plan ■ Development programmes with DRM components exist ■ Size of budget and number of people formally employed in DRM at the different levels
<p>Is there a link between DRM and development planning?</p>	<ul style="list-style-type: none"> ■ Integrated DRM/emergency coordination groups ■ Sectoral development line agencies ■ NGOs ■ Country or trust fund programmes/projects 	<ul style="list-style-type: none"> ■ Institutional arrangements have been transformed from emergency response to also include DRM ■ Development programmes with a DRM component/element exist

BOX 3.3 EXAMPLES OF AGRICULTURAL SECTOR-SPECIFIC ISSUES AT THE NATIONAL LEVEL

Crop agriculture

- History of disaster impacts, estimates of crop damage and loss
- DRM activities carried out by the Ministry and/or Department of Agriculture or relevant agencies, with adequate financial resources
- Government policy on food security, crop production and diversification, crop protection, horticultural development, and DRM in the agricultural sector.
- Formal institutions/NGOs/civil society at the national level involved in specific activities in promoting DRM in the agricultural sector
- Public sector DRM institutions/NGOs involved in interpreting EWS messages and communicating these to the farmers
- Details of DRM planning, contingency crop planning, relief and rehabilitation plans, the main actors, gaps, constraints and integration of mitigation/preparedness components into DRM planning in the agricultural sector
 - Contingency crop plans – drought, flood, saline-tolerant crop varieties, famine reserve crops
 - Rain water harvesting systems – watershed management, farm ponds, canal re-excavation
 - Crop diversification, alternate enterprises, mixed, integrated farming systems etc.
 - Soil reclamation, drainage systems, erosion control structures etc.
 - Weather/climate forecast, responsive alternate management strategies
 - Communication of short-, medium- and long-lead forecasts to farmers
 - Innovative post-harvest operations, seed banks
 - Integrated pest and disease management practices
 - Tank rehabilitation, flood proofing, embankments etc.
- Integration of livelihood development strategies into DRM planning for agriculture
- Challenges or constraints in implementing DRM programmes and projects in the agricultural sector
- Technical capacity of specialized core groups, DRM focal points in the Ministry and/or Department of Agriculture and/or extension unit (training attended, experience etc.)

Livestock

- Disasters affecting livestock and estimates of damage and loss
- DRM activities carried out by livestock institutions
- Government policy for the animal husbandry sector and its relevance to DRM
- Formal institutions/NGOs at the national level involved in DRM
- Status of integration of disaster mitigation/preparedness concerns into DRM planning in the livestock sector
- Contingency plan – fodder provision, fodder banks, livestock shelter, vaccination centres, community poultry hatching centres
- Challenges or constraints in implementing DRM programmes and projects in the livestock sector
- Strengths and weaknesses in institutional and technical capacity and the need for effective DRM programme implementation

INTERIM STUDY “PRODUCTS” AT THE NATIONAL LEVEL

Interim “products” to be obtained from the national-level study as inputs for the overall assessment include:

- National hazard profile
- Multi-hazard vulnerability map
- Summary chart of the different organizations involved in DRM at the national level, indicating briefly their different mandates, roles and responsibilities
- Strengths and weaknesses diagram (SWOT chart) of the national-level DRM system
- Filled-in monitoring sheet

TABLE 3.2

Monitoring sheet of key processes in DRM systems at the national level

Key processes and instruments (related to the DRM framework)	Indicators ¹⁹	Status ²⁰	Name of institutions involved with		Measures & capacities for implementation ²¹			Remarks
			Lead responsibility	Support role	Staff	Techn. skills	financial resources	
1. Disaster risk assessment	<ul style="list-style-type: none"> ■ Guidelines for undertaking a disaster risk assessment available ■ Disaster risk assessment methods and approaches agreed/standardized ■ Assessment of past experiences/lessons learned in applying risk assessment tools available ■ Responsibilities and roles of the organizations responsible for risk assessment defined and operational ■ National-level hazard-specific and multi-hazard risk and vulnerability maps drawn up ■ Measures in place to check accuracy of disaster risk assessments ■ Procedures for consolidation, classification and analysis of disaster risk information established, with criteria for levels of alert ■ National disaster risk profiles across sectors consolidated/disseminated 							
2. Disaster risk management planning and monitoring	<ul style="list-style-type: none"> ■ Comprehensive national (i.e. country-wide) DRM plan addressing specific and multiple vulnerabilities and risks ■ Major national/sub-national disaster risks and risk areas defined ■ Representatives of the most at-risk groups consulted in the planning process ■ Vulnerability maps exist addressing single and multiple vulnerabilities ■ Indicators defined for monitoring the implementation of the DRM plan and assessing the effectiveness of the different components ■ Existence of DRR and/or DRM projects and programmes ■ Mechanisms and responsibilities for planning, monitoring and updating early warning and disaster risk information defined ■ Risk prevention and mitigation aspects (building back better) included in recovery and rehabilitation projects/plans 							
3. Disaster mitigation and prevention	<ul style="list-style-type: none"> ■ Assessments of past experiences of disaster mitigation actions disseminated ■ Mandates and responsibilities of sectoral agencies for prevention specified in existing development and/or DRM plans 							

¹⁹ Indicators help to identify the institutions with specialized institutional and technical capacity in each element of the DRM framework and to identify future opportunities for intervention

²⁰ Proposed assessment categories: NE - Non existent; ENO: existent but non operational; O: operational

²¹ Proposed assessment categories: G: Good; S: Satisfactory; I: Inadequate

Key processes and instruments (related to the DRM framework)	Indicators ¹⁹	Status ²⁰	Name of institutions involved with		Measures & capacities for implementation ²¹			Remarks
			Lead responsibility	Support role	Staff	Techn. skills	financial resources	
	<ul style="list-style-type: none"> ■ Funding mechanisms and resources available for prevention / mitigation ■ Prevention and mitigation technologies and standards exist at national level and applied/reinforced through sectoral line agencies ■ Knowledge within lead agencies about available prevention and mitigation technologies or where to access them 							
4. Mainstreaming DRM into development planning	<ul style="list-style-type: none"> ■ DRM elements incorporated into on-going development programmes and sectoral action plans ■ Prioritization of DRM activities within development programmes, and allocation of adequate funding and human resources ■ DRM incorporated into sectoral development plans (e.g. agriculture, including dissemination of technologies to reduce impact of natural hazards such as water control, soil management, environmentally sustainable cultivation practices) ■ Mechanisms for scaling up good practices and lessons learned 							
5. Awareness- raising and dissemination of risk information	<ul style="list-style-type: none"> ■ Mechanisms for risk assessments, incorporation of early warning information/alerts and communication of the risk to districts ■ Mechanisms to communicate the above risk information to relevant ministries/departments ■ Mechanisms to disseminate risk information rapidly to the public through mass media, local alert systems, with support from specialized agencies and information networks 							
6. National early warning systems	<ul style="list-style-type: none"> ■ Country's national early warning focal point/institutions established, with adequate budgets and human resources ■ Mechanism to link with international Early Warning Systems exist ■ Mechanism to link with sectoral ministries, departments and emergency centres, ■ Mechanism to ensure rapid dissemination of early warning information throughout the country at district and local levels exist 							
7. Preparedness	<ul style="list-style-type: none"> ■ Sector-specific impact warning systems, indicators and alert criteria, and risk/disaster management plans prepared ■ Mechanisms to translate early warning information into local languages exist 							

Key processes and instruments (related to the DRM framework)	Indicators ¹⁹	Status ²⁰	Name of institutions involved with		Measures & capacities for implementation ²¹			Remarks
			Lead responsibility	Support role	Staff	Techn. skills	financial resources	
	<ul style="list-style-type: none"> ■ Directory available of the names, contact addresses and phone numbers, roles and responsibilities of all key national players ■ Resources and relief assistance/technical support that can be quickly mobilized (national, international, regional, NGO agencies) identified and listed with contact points and contact details ■ Rescue organizations established and equipped with infrastructure and equipment to save lives and property ■ Shelters, high grounds and facilities to protect lives and livelihood assets available (in collaboration with district/local level officials) ■ Functionality of warehouses and emergency food storage facilities checked ■ Basic stocks of relief materials (drinking water, foods tents and blankets) permanently available in hazard-prone districts (centrally monitored & equipped) ■ Logistical arrangements planned – transport, fuel, water etc ■ Emergency health teams defined and ready ■ Relief provision standards exist for most vulnerable people (children, elderly, disabled, women, the very poor) ■ Criteria for different levels of alert and for evacuation established ■ Procedures/criteria to identify evacuation routes (in collaboration with district/local- level officials) established ■ Practice evacuation exercises carried out and procedures agreed ■ Emergency communication systems at different levels to ensure rapid evacuation (pre- and post-disaster) and/or relief, as needed, in place ■ Hazard monitoring system installed/implemented to ensure rapid response (evacuation, relief, as needed) 							
8. Providing immediate response and/or relief assistance	<ul style="list-style-type: none"> ■ Reliable alarm system in place to alert concerned officials to initiate emergency response and further evacuation as needed ■ Relevant service providers and recovery operations mandated and linked through EWW/information network ■ Coordination committee/senior official of the national coordinating authority and relevant sectoral ministries nominated to form emergency committee when needed ■ High level of government assisted in past emergency situations to solve problems, ensure adequate funding and logistical support 							

Key processes and instruments (related to the DRM framework)	Indicators ¹⁹	Status ²⁰	Name of institutions involved with		Measures & capacities for implementation ²¹			Remarks
			Lead responsibility	Support role	Staff	Techn. skills	financial resources	
	<ul style="list-style-type: none"> Declaration of emergency status exists as basis for calling for international/regional relief and technical assistance (UN, governments, INGOs) Monitoring of relief/assistance operations to ensure the aid reaches those in need and prevent diversion of aid to others 							
9. Assessing damage and loss	<ul style="list-style-type: none"> Instruments, standards and processes for impact/damage/loss assessment, and needs for food, shelter, water, medicines, hospitalization etc. established Sectoral and cross-sectoral teams designated and trained Standardized reporting formats and analysis methods in place 							
10. Reconstruction of settlements, infrastructure, and services	<ul style="list-style-type: none"> Mechanisms exist and responsibilities defined for the design of integrated response and recovery measures/plans Coordination mechanisms for national/international response and recovery efforts established/operational Arrangements for repair/reconstruction of infrastructure (e.g. roads, bridges, wells, schools and other key buildings) and services (e.g. health, education, agricultural extension and provision of inputs) in place Guidelines exist for "building back better" Criteria for selection of people to be resettled/analysis of their skills and opportunities for gainful employment established Assessments and information on transient livelihood options for those displaced temporarily or on a long-term basis available National emergency and reconstruction fund exists Standards/criteria to decide length of emergency assistance exist Mechanism to prepare plans for rehabilitation and economic recovery exist 							
11. Rehabilitation, economic and social recovery	<ul style="list-style-type: none"> National funding mechanisms promoting rehabilitation exist Evidence of provision of key production inputs needed for livelihood recovery e.g. fishing boats and equipment, farming implements, seeds and fertilizers Role of micro-financing institutions in rehabilitation defined Plans to re-build area-specific livelihoods in rehabilitation programmes exist Guidelines for local institutions and informal groups to help affected communities exist DRM elements incorporated into livelihood restoration/development programmes to build resilience to future hazards 							