

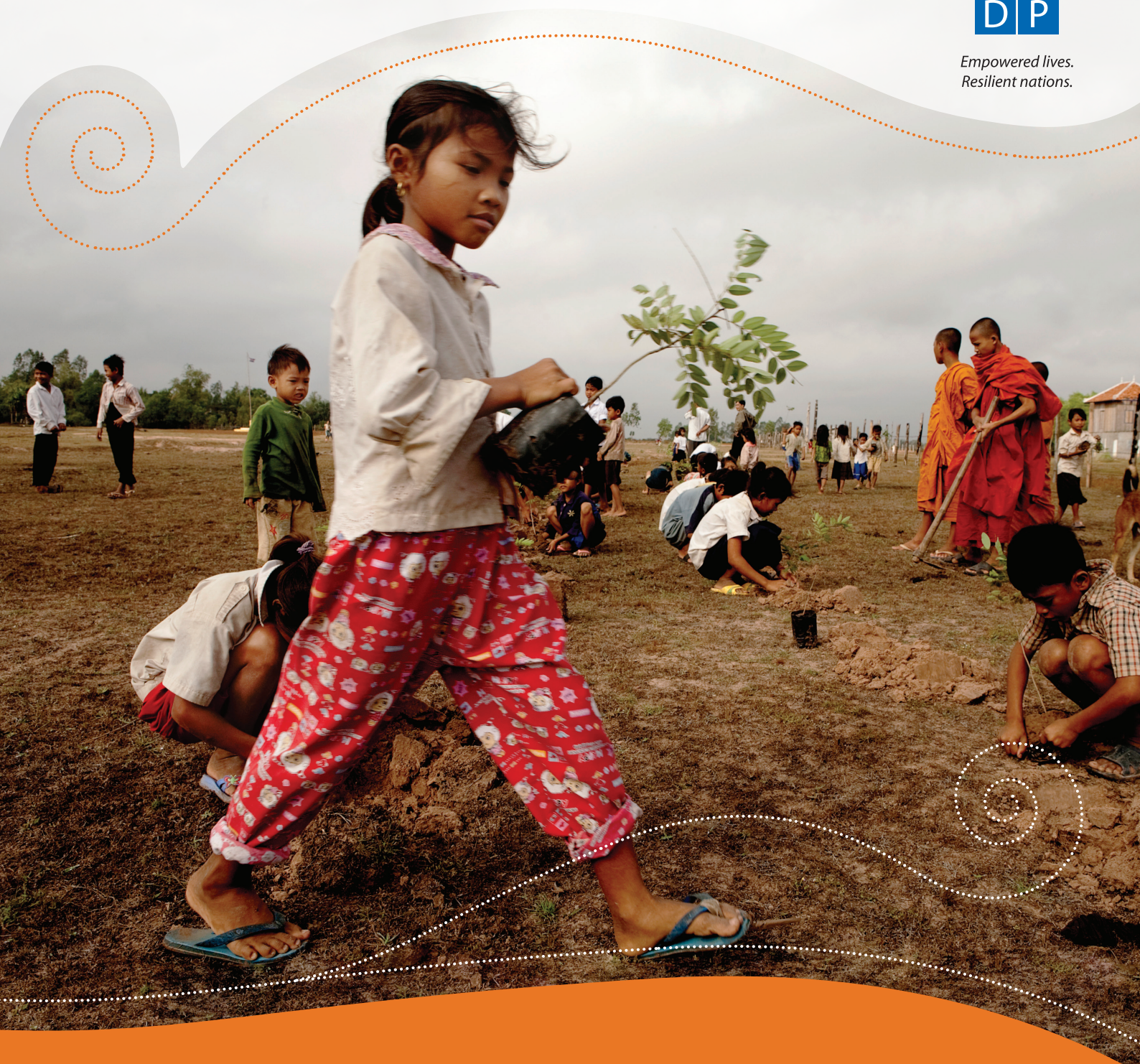


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# Effective law and regulation for disaster risk reduction: a multi-country report

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## Summary

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**Front cover photo:** Six year-old Van Lyna plants a small tree on "Green Day" in Prey Veng province, in south-east Cambodia ©UNDP Cambodia /Arantxa Cedillo

**Back cover photo:** People gather water at the well in Dakhla ©UN Photo/Evan Schneider



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## Summary



# Acknowledgements

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The multi-country report and summary report are the result of a joint initiative by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the United Nations Development Programme (UNDP).

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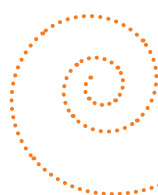
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## Acronyms and abbreviations

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<b>CCA</b>	.....	Climate change adaptation
<b>DRM</b>	.....	Disaster risk management
<b>DRR</b>	.....	Disaster risk reduction
<b>EIA</b>	.....	Environmental impact assessment
<b>EWS</b>	.....	Early warning system
<b>HFA</b>	.....	Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters
<b>IFRC</b>	.....	International Federation of Red Cross and Red Crescent Societies
<b>UNDP</b>	.....	United Nations Development Programme
<b>UNISDR</b>	.....	United Nations Office for Disaster Risk Reduction





Local people working on improving Osh and Jalal-Abad city infrastructure through "Public works" project launched by UNDP upon request from local authorities. ©UNDP





# 1. Introduction







Over the past 20 years disasters due to natural hazards have affected 4.4 billion people, claimed 1.3 million lives and caused 2 trillion USD in economic losses.<sup>1</sup> These disasters not only brought death and destruction, they did so disproportionately to the poor and marginalized. Disasters have become one of the main threats to sustainable development on a global scale, yet they are preventable.

Today, it is well accepted that the actions and decisions of individuals, communities and nations make a significant difference as to whether or not a natural hazard turns into a disaster. Choices made with the aim of reducing the human impact of natural hazards can be described as disaster risk reduction (DRR), in the broadest sense.<sup>2</sup> There is widespread agreement that legal frameworks are a critical tool for governments to shape these choices, both for themselves and for others. This was recognized by 168 UN Member States in 2005 when they adopted the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA), and remains so today, as states and other stakeholders discuss its successor agreement.

However, some DRR experts and activists have expressed doubts and disappointment with the legislative route, arguing that the many new laws and policies that have been developed to address DRR seem not to have made the difference they promised, citing in particular gaps in implementation at the community level. Numerous reports relating to HFA implementation have also indicated slow progress in reducing disaster risk at the community level, and a lack of clear information and analysis on the role of legislation.

With this in mind, the International Federation of Red Cross and Red Crescent Societies (IFRC) and

the United Nations Development Programme (UNDP) have collaborated on a multi-country report to assess legal frameworks for DRR in 31 countries. The purpose of this report is to support legislators, public administrators, and DRR and development practitioners and advocates to prepare and implement effective legal frameworks for disaster risk management (DRM) that are adapted to their own country's needs, drawing on examples and experience from other countries. Its four objectives are to:

- present examples of DRR legal provisions from different country contexts and legal systems as a resource for DRM practitioners and legislators;
- identify factors that have supported or hindered the implementation of DRR as a priority within DRM laws and selected sectoral laws;
- make recommendations for legislators, practitioners and policy makers engaged in reviewing or drafting DRM laws and selected sectoral laws;
- provide an analytical framework against which different DRM laws and selected sectoral laws can be assessed at the country level in terms of effective support for DRR.

The report has examined aspects of different countries' legislation according to how they address relevant themes in the HFA, as well as issues identified by state parties and the International Red Cross and Red Crescent Movement in a 2011 International Conference resolution.<sup>3</sup> This summary report provides a synopsis of the main findings and recommendations of the multi-country report, as well as the individual country case studies and legal desk reviews on which it draws.

<sup>1</sup> For definitions of all terminology used in this report please refer to the multi-country report and UNISDR terminology on DRR at [www.unisdr.org/we/inform/terminology](http://www.unisdr.org/we/inform/terminology).

<sup>2</sup> UNISDR, Impacts of disasters since the 1992 Rio de Janeiro Earth Summit, (2012).

<sup>3</sup> Resolution 7, 31st International Conference of the Red Cross and Red Crescent, November 2011, convening all state parties to the Geneva Conventions, with the IFRC, the International Committee of the Red Cross (ICRC) and the 189 National Red Cross and Red Crescent Societies.

# 2. Background

## Context

The HFA served as an important starting point for the design of this report. The legal and institutional framework for DRM is highlighted in the first HFA Priority for Action, i.e. to “ensure that DRR is a national and a local priority with a strong institutional basis for implementation.” However, it is also integral to the achievement of the other four Priorities for Action.

In the years following the adoption of the HFA, a significant amount of new legislation aimed at strengthening the focus on DRR has been enacted in various parts of the world. However, important gaps still remained at the time of the Third Session of the Global Platform for DRR in 2011, particularly with regard to the impact of legislation at the community level. It was found that communities were not well enough informed, engaged or resourced to take an active part in reducing disaster risks, and that rules to deter risky behavior, particularly in construction and land use, often go unenforced.

In November 2011, state parties took up this issue at the 31st International Conference of the Red Cross and Red Crescent. Resolution 7 of the Conference encouraged states, with support from their National Red Cross and Red Crescent Societies (National Societies), the IFRC, UNDP and other relevant partners to review existing legislative frameworks in light of the key gap areas identified in the IFRC report to the Conference and to assess whether they adequately:<sup>4</sup>

- make DRR a priority for community-level action;
- promote disaster risk mapping at the community level;

- mandate communities’ access to information about DRR;
- enable the involvement of communities, National Societies, other civil society organizations and the private sector in DRR activities at the community level;
- allocate funding for DRR activities at the community level;
- ensure that development planning takes into account cost-benefit analysis and local variability in hazard profiles, exposure and vulnerability;
- ensure full implementation of building codes, land use regulations and other legal incentives;
- promote strong accountability for results in reducing disaster risks at the community level.

Together with the HFA, this 2011 Resolution set the framework for the country studies undertaken for the multi-country report, in particular by stressing the value of civil society and community participation, emphasizing the importance of building codes and land use planning to reduce underlying risks, and considering accountability and legal liability as potential legal incentives for DRR.

<sup>4</sup> alIFRC, Law and disaster risk reduction: background report for the 31st International Conference of the Red Cross and Red Crescent, (2011).





# Methodology

The report draws on research from a sample group of 31 countries, undertaken in the form of desk surveys of the laws of 27 countries, as well as case studies in 14 of these countries for a more comprehensive analysis of the laws and their implementation (see Figure 1). The sample countries were chosen for geographical representation, and to cover a variety of risk profiles, income and human development levels.

**Figure 1:  
Overview of 31 Desk  
and Case Study Countries<sup>1</sup>**

## *North America*

USA (Federal, Illinois, Louisiana)

## *Europe and Central Asia*

Austria  
Italy  
**Kyrgyzstan**  
Ukraine

## *Asia-Pacific*

Australia (Federal, Victoria)  
China (PRC, Hong Kong SAR<sup>2</sup>)  
India (Federal, Odisha, Punjab)  
Japan  
**Nepal**  
**New Zealand**  
Philippines  
Vanuatu  
**Viet Nam**



## *Latin America and the Caribbean*

**Brazil**  
**Dominican Republic**  
Ecuador  
**Guatemala**  
**Mexico**  
**Nicaragua**  
St. Lucia  
Uruguay

## *Sub-Saharan Africa*

Angola  
Kenya  
Ethiopia  
Madagascar  
**Namibia**  
Nigeria  
South Africa

## *Middle East and North Africa*

Algeria  
**Iraq**

**Notes:**

<sup>1</sup>Case studies in bold

<sup>2</sup>SAR= Special Administrative Region

The country studies focused on legal frameworks that support the reduction of risks that arise primarily from natural hazards and that affect the most vulnerable groups, including women, people who are socially excluded, the elderly, people with disabilities, children and the poorest people. The point of departure of the studies was that regulatory frameworks for DRR cut across sectoral laws and regulations, such that they constitute an ensemble of laws and rules beyond any dedicated DRM law or laws on a specific hazard or field of safety regulation. Within these parameters, the focus of the country studies was on:

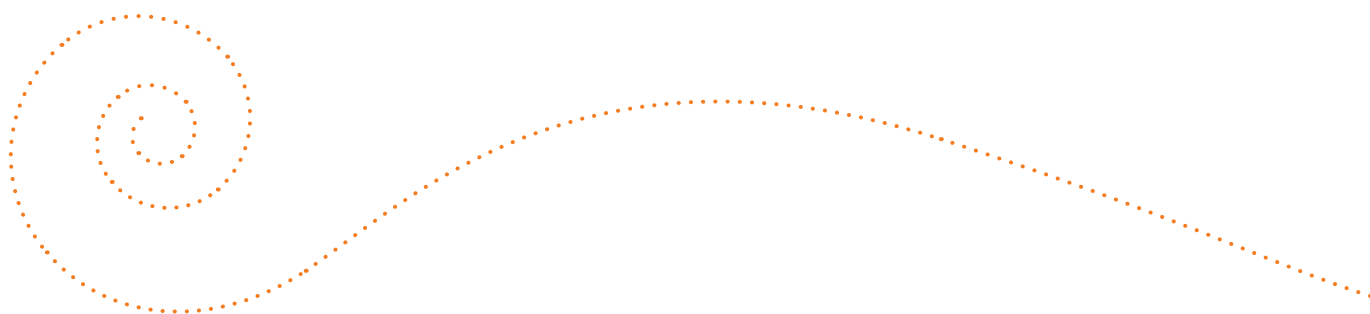
- laws that enable national and local DRM systems;
- a selection of sectoral laws that underpin planning for development, i.e. on buildings and land use, including informal settlements, as well as environmental management.

Ten themes that are essential for DRR implementation were investigated during the study. They were chosen based on key aspects of the HFA Priorities for Action as well as Resolution 7 of the 31st International Conference of the Red Cross and Red Crescent, as follows: <sup>5</sup>

- level of priority given to DRR in DRM laws and the established institutional structures and mandates, including resource allocation and local institutions;

- level of DRR integration in hazard-specific regulations (such as for fires, floods, or earthquakes);
- provisions on early warning systems (EWS) in DRM laws;
- inclusion of community and school education and public awareness on DRR in legislative frameworks;
- specific mention of DRR in urban settings, including building codes, land use planning, land tenure and informal settlements in legislative frameworks;
- specific mention of DRR in rural settings, including references to agriculture and covering slow-onset disasters, environmental management, and the effects of climate change in legislative frameworks;
- inclusion of rights, accountability, responsibilities and liability for DRR in legislative frameworks;
- provisions on risk sharing and insurance in legislative frameworks;
- reference in DRM laws to community and civil society participation, including National Societies as auxiliaries to government in humanitarian assistance;
- recognition of the particular DRR needs of vulnerable groups.

<sup>5</sup> 31st International Conference of the Red Cross and Red Crescent, November 2011, convening all State parties to the Geneva Conventions, with IFRC, the International Committee of the Red Cross (ICRC), and the 189 National Red Cross and Red Crescent Societies.







# 3. Summary of Findings

## DRM Laws

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### How disaster risk reduction is prioritized in DRM laws

DRM laws are dedicated to establishing the priorities, institutional mandates and a number of other aspects of a national DRM system. DRM laws vary in the extent to which they include themes such as national DRM policy and planning, local government responsibilities, resource allocation, community and civil society participation, EWS, and education and public awareness. In some cases, these issues are part of the dedicated DRM law, and in others, they are part of separate or companion laws that also form part of the legal framework.

The analysis found that, although DRR is highly prioritized and integrated into DRM laws in some countries (e.g. Algeria, Japan, Mexico, Namibia, New Zealand, Philippines and Viet Nam), there is still considerable potential in many of the other countries to make DRR a higher priority in their respective legal frameworks and in their implementation. However, it was also noted that the role of DRM laws and institutions in leading a whole-of-society approach to DRR varies in different country contexts, so that those with lower exposure to natural hazards or higher disaster risk governance capacities may not require as much guidance on the

implementation of DRR through their DRM laws. Although setting out detailed provisions for DRR in DRM law can be an important step for many countries in moving towards more effective DRR, it is not the only means of doing so. Depending on disaster risk levels and national and local governance capacities, disaster risk may also be managed effectively through sectoral laws and local government responsibilities.

In terms of the process of legislative change, some countries face much greater challenges than others due to factors such as political instability, income levels and compliance culture. The evolution of DRM laws can also be driven by factors such as the occurrence of disasters, national and sub-national political and law reform processes, and international actors. Thus, it is evident that both the style of legislation and the process of reform need to be adapted to each national context.

The typology of DRM laws in Figure 2 is based on the style and content of the DRM law and the role it plays in a particular country's legislative framework. It considers a country's current level of disaster risk, including exposure to natural hazards and the disaster risk governance capacities at the sectoral and local government level.



A group of women villagers prepare for terracing a hilly ground for conservation and irrigation. © UN Photo/Penangini Toure

## Figure 2: Typology of DRM Laws

### TYPE 1:

#### Preparedness and Response Law

Focuses on emergency response to natural hazard events, although it may also include elements of immediate preparedness, early warning and recovery. Examples include: Iraq, (1978), Madagascar (2003) and Nepal (1982).

### TYPE 2:

#### Broad DRM Law

Covers the key DRM functions of prevention, preparedness, mitigation, response and recovery for multiple hazards. It includes elements of DRR; however, it tends not to include cross-sectoral mechanisms for DRR, nor to regulate a range of related areas such as DRR resourcing, risk mapping, early warning, or specific mechanisms for DRR education. Examples include: Brazil (2010), Nicaragua (2000), and Nigeria (1999).

### TYPE 3:

#### DRR Priority Law (high detail)

Covers the same themes as the Broad DRM law, but in addition it gives clear priority to DRR, which may be expressed as enabling a 'whole-of-society' approach. It specifies local institutional structures and/or responsibilities, and usually covers a number of related areas in addition to the key DRM functions. Examples include: Mexico (2012), Namibia (2012), and the Philippines (2010).

### TYPE 4:

#### DRR Priority Law (low detail)

Gives clear priority to DRR, but does not provide a comprehensive and detailed range of related subject matter, since this is covered by a number of other laws that may range from laws on specific hazards, to laws on natural resource management, building and construction, and local governance. Examples include: Japan (1961), and New Zealand (2002).

Devising a DRM law that is fit-for-purpose in the respective country context is a considerable challenge, both in terms of addressing the most predominant DRR priorities, as well as ensuring the sustainability of the DRM system that it establishes. Importantly, it must operate in harmony with the country's overall legal and institutional framework and be able to complement existing disaster risk governance capacities, especially at the local level.



### **The Relationship between disaster risk reduction policy and DRM legal frameworks**

The findings from the sample countries indicate that DRR is a more distinct priority in policies, plans and strategies than in legal frameworks. However, the interaction between law and policy, whilst complex, is often essential for successful implementation.

Countries rarely tackle the fundamental reform towards DRR without a specific legal framework, since DRM laws are essential for setting the DRR priorities and mandates of implementing institutions. Even countries with successful DRR regimes that are based on policy only, eventually look to codify key elements through legislative provisions. However, they also use policy processes to advance new law reforms. Hence, policy can both set the agenda for the law reform process and be a key tool to guide the implementation of laws.

### **Institutional frameworks for decentralized implementation in DRM laws**

In most of the sample countries, DRM laws established a single agency (such as a national disaster management agency or a civil defense office) as the central national focal point for cultivating a whole-of-society approach to DRR, and providing national leadership and policy direction. However, it was found that these institutions often need to strengthen their coordination with other sectors and stakeholders, especially those related to development planning and climate change adaptation.

Most of the sample countries have established specific DRM institutions or mandates within their legislative and institutional frameworks, from the national to the local level. Some establish implementing institutions at the local level (e.g. in Guatemala and Namibia), while others supplement general governance functions at the provincial and local levels with DRM advisory committees (e.g. in South Africa and Algeria), and still others principally use existing local government institutions (e.g. in Iraq and Italy). In all cases, the key to effective local institutional structures to support DRR is that they have clear legal mandates and authority, matched with dedicated resources and capacity, which can also be enhanced through DRR training and education.

### **Financing of disaster risk reduction in DRM laws**

Funding for DRR from the national to the local level has been a challenge that has hampered implementation in many of the sample countries. The issue is not only one of overall resource constraints for DRM. DRR is rarely separated from general support to DRM, so that it sometimes may not compete favorably with urgent matters of emergency response and recovery. In other cases, this combined method of financial support can result in a highly integrated approach to DRM and DRR, which would not be possible with separate accounting processes.

Special funds established for either broader DRM and/or DRR are often intended not only for annual recurrent expenditure, but to build reserves for the future and to undertake longer-term DRR projects. It is clear that they need a sustainable funding basis, which in some countries will require support from external donors. Such external resources should be seen as a supplement to regular funding through government revenues at all levels, not as a substitute. Models that allocate certain percentages of revenue that are earmarked, if not for DRR alone, then at least for general DRM activities, would seem a more secure means of ensuring that DRR activities are supported as part of a whole-of-society approach. However, some of the country experiences indicate a need, within such resource streams, to designate specific resources for DRR.

### **Participation of civil society and communities under DRM laws**

Some DRM laws make special provision for the participation of civil society and communities in the advisory and implementing institutions, often including a specific role for National Societies as an auxiliary to public authorities in the humanitarian field (e.g. in Nicaragua). Other DRM laws include more general obligations to be inclusive of non-government stakeholders without specifying how. Evidence from the case study countries indicates that these types of provisions are not always easily implemented and that there is often less participation than the law may intend. However, the presence of such provisions in the vast majority of countries represents an important recognition that the input of civil society organizations is a key part of DRR strategies. More particularly, it recognizes communities' rights to be involved in their own



risk management. Overall, community and civil society participation in the DRM system at all levels could be greatly enhanced in many cases by more defined roles in the DRM laws.

### **Inclusion of women and vulnerable groups in DRM laws**

The analysis found a variety of approaches to addressing legal provisions for the participation of women and vulnerable groups. Most DRM laws reviewed do have some kind of legislative mandates on this, but these are mostly general aspirational statements without specific mechanisms for implementation. They also tend to focus on the importance of addressing the needs of these groups without necessarily ensuring that they are represented in DRM institutions.

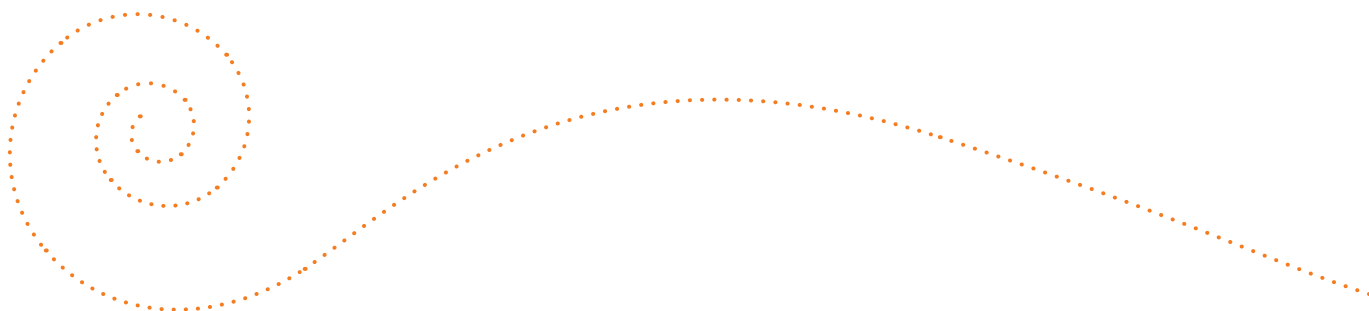
### **Early warning and risk mapping in DRM legal frameworks**

EWS in the sample countries have been developed in a variety of ways: many are hazard-specific (e.g. in Ethiopia and Australia), some are regulated by law (e.g. in Guatemala, Dominican Republic and Italy), and others are governed by policy (e.g. in Nepal, Nicaragua and St. Lucia). Many of these are designed only for specific major hazards, so that not all relevant risks in a country are necessarily covered by their mandates. Some DRM laws include specific mandates on risk mapping, an essential underpinning of effective EWS. A few countries have achieved high levels of integration of various EWS and risk mapping through legislative mandates, but most have not used the potential of legal frameworks to clarify roles and responsibilities, or to integrate communities as givers as well as receivers of hazard and risk information. Even where laws

have been established to support national and local EWS, it is a significant challenge to set up systems that provide timely information to communities for all relevant hazards in all vulnerable areas. Lack of resources and gaps in capacity are consistently recurring reasons given by stakeholders for the lack of comprehensive EWS that reach the local level.

### **DRR education and public awareness in DRM legal frameworks**

Over half of the sample countries have legal mandates requiring public authorities to conduct community education on DRR, although many are expressed at a very general level without specific guidance for implementation. In a number of cases, the law also requires some efforts toward including DRR in school curricula or conducting disaster preparedness drills in schools. Many of these provisions are simple statements in the objective clauses of the DRM laws, while some are included in education laws or in both, the latter approach providing more specific mechanisms for implementation. Some laws also mandate the establishment of special training facilities or curricula aimed at adult professionals as a long-term strategy to build national capacity in DRR and DRM (e.g. in Mexico and Philippines). DRR education is recognized in the HFA as an essential element of a whole-of-society approach, and there is evidently still considerable scope for creating more specific legal mandates for DRR education in schools as well as for public awareness.



# Building, planning and environmental laws

Some of the relevant sectoral laws selected for analysis in the report are those that regulate the physical planning aspects of development and settlements, including building codes, land use, as well as environmental management and climate change. These laws are key pillars of disaster risk governance, since they address underlying vulnerability in both urban and rural areas, in particular by playing a central role in curbing the creation of new risks through development.

## DRR in building and construction laws

Most sample countries have extensive and legally enforceable building laws and codes that apply throughout their territories, whether nationally or at state level in federations. Some countries, however, have only partial codes or guidelines, revealing some gaps in coverage and relevance. Interestingly, only a few of these laws specifically mention a DRR function, and it is rare that they are linked with the DRM law or institutional arrangements. Responsibility for building code implementation is generally held by the local government. Insufficient capacity and resources at this level of government, combined with a lack of a 'culture of compliance' are identified as the two major challenges to implementation in many lower- and middle-income countries. Both education on building safety and the use of legal sanctions for large non-compliant developments are necessary in many cases to achieve higher levels of disaster risk reduction. Training programmes for masons and builders have also resulted in improved compliance in some countries.

## DRR in land use regulations

Most sample countries have national or state legislation that governs development and land use planning. Some of the strongest laws integrate land use planning and building codes, and some take a further step by linking these areas with the DRM system (e.g. in India). In federations, land use planning laws are often a state responsibility, but in almost all sample countries, the primary responsibility for

implementation lies at the local government level. A lack of explicit inclusion of language referring to DRR in the laws and over-stretched local government capacities were identified as the main challenges in implementation in the lower- and middle-income countries.

## DRR in regulations for informal settlements

Urban informal settlements represent the most challenging aspects of building and planning regulation, especially in the lower- and middle-income countries, since by definition they fall outside the usual regulatory frameworks. Yet, they are centers of population growth in many countries which drive both an increase in hazard exposure and vulnerability. Since few of the sample countries have established specific legal frameworks for public safety or DRR in informal settlements, the default position is often to merely regard them as illegal. In the sample countries that have enacted laws regarding safety in informal settlements, the approach of gradual regularization seems most likely to be effective in the long term (e.g. in Brazil). However, when relocation is necessary, frameworks that provide for community consultation and respect for residents' procedural and substantive rights establish important safeguards against arbitrariness and abuse (e.g. in Kenya and Namibia).

## DRR in environmental management laws

All sample countries have environmental management laws, and all but one also have laws providing for some form of environmental impact assessment (EIA) for major developments. However, few of them have specific criteria relating to natural hazard risks, and fewer still provide for community participation in assessment processes. Environmental laws appear in most cases to be administered entirely separately from building and spatial planning regulations and also from DRM laws, so there is little coordination between these sectors, even though all of them have a role in DRR. Mechanisms





Newly constructed residential flats built as a rehabilitation settlement to relocate slum dwellers, Nairobi, Kenya. 2009  
© UN-Habitat /Julius Mwelu

for cross-sectoral coordination with DRM systems and mainstreaming of DRR principles into environmental laws and institutions could greatly enhance the DRR potential of such laws.

#### **DRR in climate change adaptation laws**

DRR and climate change adaptation (CCA) share a common objective of reducing vulnerability to extreme hydro-meteorological events, and thus the need to pursue integrated approaches in policy, planning and implementation is gaining momentum. Only seven of the sample countries (Algeria, Japan, Kyrgyzstan, Mexico, New Zealand, Philippines and Uruguay) have a specific legal framework for managing CCA (as opposed to mitigation). A further 17 have dedicated institutional structures for CCA often underpinned by a national DRM policy. A few countries have also developed laws that coherently integrate DRR, CCA and development planning (e.g. in Algeria, Mexico and Uruguay), however such approaches remain the exception rather than the rule.

#### **DRR in natural resource management laws**

The management of risks from forest fires, floods and droughts is inherently linked with the management of natural resources, since the degradation of forests, water and land exacerbates disaster risks. Laws related to forest management were most often found to be separate from DRM laws within the sample countries. They often include severe sanctions related to causing forest fires, but they tend not to be well enforced in lower- and middle income countries. For most of the sample countries where flooding is a regularly occurring hazard, floods are included as one of the risks to be managed under the national DRM law and system, although in these laws the focus tends to be on shorter term mitigation measures and flood warnings. Despite considerable attention to droughts, especially in Africa, very few laws were found that include specific provisions on droughts. While drought is usually encompassed within multi-hazard definitions of 'disaster' in DRM laws, the laws generally do not provide specific guidance for addressing such slow-onset disasters.



# Cross-cutting areas of law in support of DRR

## Constitutional and human rights in support of disaster risk reduction

Many rights may be relevant to DRR, including the rights to life, security of the person, equality before the law (non-discrimination), a safe and healthy environment, development, property, food, housing, livelihoods, health and access to information. Many of these key rights were found in sample country constitutions, human rights laws and, in some cases, also in their DRM laws. For example, Ecuador's constitution provides a right to protection from "the adverse impacts of natural or manmade disasters;" Ethiopia's constitution requires the government to "take measures to avert any natural and man-made disasters;" and Algeria's DRM law sets out the principle of participation and the right of citizens to information on their own vulnerability to hazards and on measures to be taken to reduce their risk.<sup>6</sup> The challenge remains to apply these rights to governmental duties in DRR and to determine whether they are enforceable by affected people when failures in DRR occur.

## Legal accountability, responsibility and liability for disaster risk reduction

Public reporting and parliamentary oversight mechanisms are not a significant feature of most of the sample countries' DRM laws, nor are express provisions generally made for civil or administrative procedures against governmental officials or private persons neglecting DRR related duties. However, there are some notable exceptions (e.g. in China and Kyrgyzstan). Civil and even criminal sanctions are available under more general legislation or common law in a number

of the sample countries (e.g. in Algeria, Austria, Japan and Kenya). However, these measures are reportedly used quite rarely. There is, therefore, a potential to make better use of liability as a tool to increase accountability for reducing risk, but caution is warranted (in particular with respect to criminal liability) so as not to discourage voluntarism and engagement.

## Legal frameworks for disaster insurance and other risk sharing mechanisms

Legal frameworks for disaster insurance were not identified as a significant aspect of DRM in many sample countries, although several have announced an intention to develop national insurance schemes. For example, Mexico has implemented compulsory disaster insurance rules for its states, and several lower-income countries have started to explore other ways to share risk, including through direct public subsidies, as well as agricultural insurance schemes (e.g. in Viet Nam and China).

## Customary law and DRR

Forms of customary law, including traditional, tribal or indigenous law, are recognized to varying degrees in different countries, most often in post-colonial countries where dual or pluralist systems of law operate. In relation to DRR, customary law is most frequently applied in rural areas to regulate matters such as land ownership and use, water resources and local governance (e.g. in Madagascar, South Africa and New Zealand).

<sup>6</sup> Constitution of Ecuador (Ecuador, 2008), Art. 389; Constitution of Ethiopia (Ethiopia, 1994), Art. 89(3); Loi n° 04-20 du 25 décembre 2004 relative à la prévention et à la gestion des catastrophes dans le cadre du développement durable (Algeria, 2004), Art. 8

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## 4. Conclusions and Recommendations

Effective legal frameworks for DRM are not stand-alone, but form part of a highly integrated system of laws that include both sectoral laws and local government mandates. Recognizing that development can be a key contributor to disaster risk, a multi-sectoral and localized approach allows risks to be regulated where they are most often generated.

The report found substantial challenges in implementation, which raises important questions about how legal frameworks for DRR can help to establish an approach that is sustainable within the resources and capacity of each country. Since some countries clearly face overall resource shortfalls for their DRM needs,

particularly at the level of local government, it is also important to support greater civil society and community participation to engender a whole-of-society approach to DRR.

The report identified 17 recommendations specifically related to disaster risk reduction in DRM law, sectoral laws and other cross-cutting areas of law. Most are proposed to assist lawmakers and administrators in designing and reviewing legal frameworks for DRR. As the first large-scale comparative study of its kind, the report has also defined the need for more research in a number of thematic areas, which could not be adequately covered in the present effort.



# Recommendations on DRM Laws

## No. 1 - Prioritization of disaster risk reduction in DRM Law

The country examples have shown that the level of priority given to disaster risk reduction in DRM laws depends on a range of issues, including the prevailing risk and governance context, the level of understanding of DRR, and the DRM needs and gaps in the country. **It is recommended**, therefore, that lawmakers and administrators base their decisions on which type of DRM law they wish to pursue on a thorough analysis of their country's context and DRM needs, as well as the capacities and resources available to implement the legal provisions. Such an analysis should guide the decision on whether there is a need for a law that focuses on preparedness and response (Type 1 DRM law), a broad DRM law (Type 2 DRM law), or a DRR priority law (Types 3 and 4 DRM laws). If there is consensus that DRR should be the main focus of the DRM law, the following suggestions are offered:

- Give DRR a sufficiently high priority in the objectives of the law and in the institutional mandates that it establishes;
- Emphasize a whole-of-society approach that helps to increase understanding of DRR among administrators, practitioners and the public;
- Mandate a central institution that has the capacity to provide national leadership on DRR;
- Ensure the DRM law provides an umbrella for other laws that regulate disaster risks by establishing mechanisms for cross-sectoral coordination, especially with laws and institutions that govern development planning at both the national and local levels, in order to support DRR mainstreaming into development;
- Build in mechanisms to review implementation of the DRM law, taking a 'continuous improvement' approach to legislative frameworks to ensure that it is adapted to emerging DRR needs.

## No. 2 – Relationship between disaster risk reduction policy and DRM legal frameworks

The country examples indicate that DRR is currently a more distinct priority in policies, plans and strategies than in most legal frameworks. Moreover, they also indicate that DRM policy and law can positively influence each other in order to progress the DRR agenda. **It is recommended**, therefore, that lawmakers and administrators use legislative and policy instruments strategically, as key pillars to foster more effective implementation of DRR, in particular by using policy to set the political agenda for planned law reforms, and to put in place specific mechanisms for the implementation of new or revised DRM laws.

## No. 3 – Institutional frameworks for decentralized implementation in DRM law

There is a marked trend in the country examples towards placing more DRR responsibilities at the sub-national level, including through legislative mandates. Irrespective of whether these responsibilities are integrated into existing local government functions or assigned to dedicated sub-national DRM structures operating under the national focal agency for DRM, they are often reported to be under-resourced and/or lacking skills and capacity for the tasks assigned to them. **It is recommended** that, when establishing or reviewing institutional structures for DRM, lawmakers and administrators ensure that these are sustainable in the long term within the available governmental resources. Resources should be allocated, and capacity strengthened as necessary including through training, to accompany new legislative responsibilities for DRR at the local level. It may also be useful to examine how local institutions could carry out their DRR responsibilities more effectively with increased community and civil society participation.

#### No. 4 – Financing of disaster risk reduction in DRM law

In view of competing priorities for resources, the country examples have shown that it is often difficult to ensure dedicated financing for DRR in the face of pressing response and recovery needs. Especially in poor countries where overall resourcing for DRM is an issue, **it is recommended** to introduce specific DRR resource streams under law as an 'affirmative action' measure within DRM budgets. This could be achieved by establishing special national and/or local statutory funds dedicated to DRR gathered from a variety of funding sources, including from the private sector and external donors. It could also be achieved by mandating specific resource allocations at the national and local levels for DRR from DRM budgets, or by making federal DRR funds available for which local government and communities can apply directly. In view of the still limited information available on national level funding of DRR, the issue of effective national mechanisms for resource allocation for DRR in both legal and policy frameworks needs to be pursued further and would benefit from the involvement of country-level partners that are expert in the design and implementation of DRM financing.

#### No. 5 – Participation of civil society and communities under DRM law

Evidence from the country examples indicates that even when legal provisions mandate participation in DRR, they are not always easily implemented. In order to strengthen community based implementation of DRR, **it is recommended** that lawmakers consider including more comprehensive and detailed provisions in DRM laws that mandate the specific representation of civil society organizations and communities in DRM institutions and processes at the national and local levels. This is an important element in achieving a DRM system that is better adapted to the needs of those at risk from natural hazards, that takes account of local knowledge, and that supports communities in making informed choices about the risks they face and the related decisions that affect their lives.

#### No. 6 – Inclusion of women and vulnerable groups in DRM law

Greater inclusion of women and the most vulnerable in DRR planning and implementation is an important measure to prevent them from being disproportionately affected by disasters. While several country examples mandate the formal participation of women and vulnerable groups by law, in most cases, these legal provisions are merely aspirational statements. **It is recommended**, therefore, to mandate by law specific mechanisms that facilitate the representation of women and vulnerable groups in both national and local DRM institutions and processes. Since the study was not able to gather sufficient data on the implementation of legal provisions for the inclusion of women and vulnerable groups, this is an area that would lend itself to further in-depth research on legal provisions and practice concerning their involvement in DRR needs assessments, planning, implementation and institutions.

#### No. 7 – Early warning and risk mapping in DRM legal frameworks

The potential of legal frameworks to underpin the development of multi-hazard EWS has not yet been sufficiently exploited in most of the sample countries. **It is recommended** that lawmakers consider establishing clear roles and responsibilities for systematic national risk mapping and responsive multi-hazard EWS for different levels of government and technical institutions, and that they mandate the inclusion of communities in order to enhance opportunities to provide 'bottom-up' information.

#### No. 8 – DRR education and public awareness in DRM legal frameworks

Insufficient resources and capacity are identified as issues in the implementation of legal provisions on public education and awareness for DRR in a number of countries. This needs to be addressed in order to support a whole-of-society approach to DRR. **It is recommended** that DRM laws specifically assign legal mandates on community awareness, together with implementation mechanisms, and that consideration be given to the inclusion of corresponding provisions in both DRM and education laws concerning child and adult education.



# Recommendations on building, planning and environmental laws

## No. 9 – DRR in building codes and land use regulations

Although many of the sample countries have legally enforceable building codes and land use planning laws, few of them specifically consider DRR within their provisions and they are rarely linked to existing DRM laws or institutions. In general, local government is responsible for their implementation, and a lack of capacity and resources at this level is identified as a major challenge for implementation in many lower- and middle-income countries, together with issues of compliance. **It is recommended**, therefore, that lawmakers and administrators:

- review laws on building, construction and spatial planning to ensure that they cover the whole territory, are regularly updated to the latest natural hazard standards, and give appropriate priority to schools, hospitals and other public buildings as well as large commercial developments where significant numbers of people gather;
- increase cross-sectoral coordination between building regulations, construction and spatial planning on the one hand, and DRR initiatives under DRM laws on the other hand;
- promote safety regulations in the built environment as a key pillar of a whole-of-society approach to DRR in order to reduce underlying risks and prevent the creation of new risks from natural hazards due to the nature of construction and urban development;
- increase local technical capacity and resources to enforce building and spatial planning regulations;
- use legal sanctions, where available, in cases of non-compliance leading to unsafe buildings or other developments that may increase risk levels, and introduce such sanctions where they are currently absent.

## No. 10 – DRR in legal provisions for informal settlements

Only a few of the sample countries have legal provisions that comprehensively address public safety concerns in informal settlements. When residents face the insecurity of being evicted and their homes demolished, there is little incentive for them to take long-term DRR measures. **It is recommended**, therefore, that countries facing the issue of informal settlements in high-risk areas review their legal and policy frameworks in order to determine how they can be implemented more effectively to reduce disaster risk in informal urban settlements. This should include analyzing issues related to residents' rights, as well as governmental duties to protect the public, options for gradual regularization under local governance, community and civil society participation and predicted population movement and growth. It is also recommended that further inter-disciplinary study be undertaken on DRR in informal urban settlements.

## No. 11 – DRR in legal provisions for environmental management and impact assessments

The potential use of environmental impact assessments (EIAs) as a DRR tool needs to be explored further. However, **it is recommended** that lawmakers and administrators review legislative and policy mechanisms for environmental management through a 'DRR lens'. This will ensure that these laws provide a national (or state) umbrella for environmental management, which includes objectives concerning the safety of people, their property and livelihoods that relate to management of natural hazard risks. Ideally, these objectives should also apply to new risks from the effects of climate change. Legal provisions on environmental management should also feature some form of EIA for new major constructions or other large developments that include specific criteria on natural hazard risks and provide a strong voice for communities and civil society organizations in the assessment process.

### No. 12 – DRR and climate change adaptation laws

Laws that integrate DRR, CCA and development planning into one coherent approach are likely to result in better risk governance. However, in most sample countries, CCA is administered in the environmental sector quite separately from the DRM system, and also from local land planning regimes. **It is recommended** that both environmental and DRM laws include provisions for cross-sectoral coordination that establish more systematic integration of policies, plans and programmes across the adaptation, DRR and development continuum.

### No. 13 – DRR in natural resource management laws

There is significant potential to better integrate natural resource management laws to support DRR with regard to water management and the risk of floods and droughts, as well as the related areas of forest and land management. Each of these areas constitutes a substantial field in its own right and could not be adequately covered by the report. Hence, further investigating the potential of legal frameworks for natural resource management to promote the reduction of risks from floods, droughts and wild fires would be particularly useful. In addition, **it is recommended** to establish cross-sectoral links and include community and stakeholder participation in a more integrated approach.





# Recommendations on cross-cutting areas of law in support of DRR

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## **No. 14 – Constitutional and human rights in support of disaster risk reduction**

An understanding of how human rights relate to DRR can be an important avenue for advocacy, especially on behalf of the poorest and most vulnerable groups. This report was able to provide only partial coverage of this topic. Analyzing whether and how human rights are claimed to promote and advocate for DRR, or to compensate for disaster losses would be an important area of focus for future research. This should also include a closer look at the potential of such an approach to reinforce governmental duties for DRR.

## **No. 15 – Legal accountability, responsibility and liability for DRR**

Based on the report's preliminary findings on reporting, accountability, responsibility and liability for DRR, it has become evident that further study is needed on the range of such mechanisms in use for both DRM laws and sectoral laws. This should include a more detailed investigation of a wider range of practice, including stakeholders' views on the policy arguments for or against such mechanisms in supporting effective DRR, based on the four identified issues of:

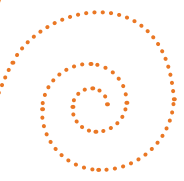
- legal mandates for transparent reporting and parliamentary oversight;
- the use of administrative sanctions, including both internal government procedures and access to administrative tribunals;
- legal liability of government officials and agencies, especially regarding development planning and the reduction of underlying risk;
- legal liability of private individuals and corporations, particularly regarding compliance with safety regulations in building and construction.

## **No. 16 – Legal frameworks for disaster insurance and other risk sharing mechanisms**

Also, the findings on legal frameworks to encourage disaster insurance and other risk-sharing financial mechanisms have highlighted a need for further analysis, ideally in partnership with key stakeholders on insurance and cost-sharing for disaster losses, with a focus on how these legislative schemes can best support a DRR approach.

## **No. 17 – Customary law and DRR**


It is recommended that further studies be undertaken on the impact of customary law on DRR. Based on the experience in preparing this report, it would appear that an inter-disciplinary approach with local and community partners is likely to be the most effective, examining in greater detail the impact of customary rules on DRR in specific communities, and in a range of countries where customary law is recognized. These studies should aim to address how customary laws can support local DRR, including the needs of women, socially excluded and vulnerable people, and how traditionally organized communities can be better connected with national and regional DRR systems.



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