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on Disaster Risk Reduction



Study on Disaster Risk Reduction, Decentralization
and Political Economy

Decentralisation and Disaster Risk Reduction

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**STUDY ON DISASTER RISK REDUCTION,
DECENTRALIZATION AND POLITICAL ECONOMY**

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Decentralization and Disaster Risk Reduction

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The views expressed in this publication are those of the authors and do not necessarily represent those of the United Nations, including UNDP or UNISDR.

Executive summary

Research question and methodology

This report aims to answer the questions:

- **How can decentralization strengthen disaster risk reduction (DRR)?**
- **What obstacles are encountered and how can these be overcome?**

The evidence in this report is drawn from a global literature review and field research in four countries; Colombia, Indonesia, Mozambique and South Africa. However, the research findings are relevant to a wider group of countries pursuing disaster risk reduction (DRR) in the context of far-reaching governance reform such as devolution, constitutional reform and federalism.

This is a very new area of enquiry – very little research has been conducted on the links between decentralization and DRR, and the existing literature does not present a clear answer on whether and how decentralization can strengthen it. A few resources support the theory that participatory DRR is more likely in a decentralized governance system, but this has not previously been thoroughly researched and proven with empirical evidence. It makes theoretical sense that decentralization should open up opportunities for strengthening DRR, but there is little documentation on exactly how it should be achieved (for example through funding arrangements, or participatory decision-making) and what obstacles are encountered on the way to success. It is also clear that there are several specific challenges for DRR that can arise, and may be more likely to arise, within a decentralized governance system, for example, coordination issues, financing difficulties and capacity constraints.

Research findings

Capacity

One of the ways in which decentralization has an impact on DRR is by changing the levels of government capacity. Evidence from the case study countries suggests that **effective decentralization of DRR can be constrained by low capacity at a local level**. This is a major problem in South Africa, Colombia and Indonesia, and the finding is supported by the wider literature on decentralization. Possible strategies for improving local capacity include technical assistance from central government, training programmes and participation by academics and civil society organizations (CSOs) to fill the capacity gap. However, the literature suggests that low levels of district capacity have complex political economy roots. For instance, some authors argue that local government is deliberately underresourced as a strategy to maintain the power of the centre. These concerns suggest the low capacity of local governments is a complex issue that is part of a country's wider governance environment.

Funding

Decentralization also affects disaster risk reduction by changing funding arrangements, which in turn affect the overall level of finance available for DRR. In order to mainstream DRR, it makes sense to incorporate it across all areas of a local budget, rather than concentrating DRR finance within a particular fund. However, evidence from Mozambique,

South Africa and Colombia shows that **un-earmarked funds for DRR are frequently diverted to other areas** that have a higher political profile, or where there are apparently more pressing needs. The issue of funding for DRR is interconnected with the political economy of disaster risk reduction. For example, decentralized funding arrangements can create disincentives for taking a risk reduction approach.

Participation

The policy literature tends to assume that decentralization automatically increases participation which, in turn, is inherently beneficial. There is little empirical evidence to support this view, and it is increasingly being questioned by decentralization experts. In relation to DRR, the report's case study countries demonstrate that generally, the presence of decentralized governance systems does not automatically lead to participatory DRR. There are many reasons for this. For example, people are not educated about DRR and do not understand the disaster risk they experience; communities are wary of engaging in (or pushing for) DRR because they are afraid of being resettled; or simply there is a weak culture of participation within the country because of its political history. **The presence of decentralized participatory governance structures is not enough in itself to enable participatory DRR.** This is less a criticism of decentralization *per se*, and more a recognition that decentralization can only work within the socioeconomic and political context of a country. Participation in DRR is more likely to occur when incentives for engagement are offered alongside the presence of participatory structures. In short, people will participate if they learn they are at personal risk from disasters, or when they can see that participation will help to secure their assets.

Accountability and enforcement

Decentralization can have an impact on DRR by changing accountability systems and enforcement mechanisms. This study found no evidence that decentralization leads to strong external accountability for DRR, but this is likely to be linked to low levels of participation. However, **clear internal accountability systems and reporting lines within different levels of government are essential for good DRR.** This is possible within a decentralized system, although it is probably easier in a centrally controlled arrangement, as in Mozambique. It is much more difficult in countries such as South Africa where there is no formal accountability structure within the layers of government, and provincial/municipal levels are not accountable to the centre for disaster risk reduction.

The case studies also suggest that strong regional and local DRR is more likely when there is a strong national entity playing an oversight and enforcement role. DRR legislation that clearly spells out the roles and responsibilities of each level of government does not ensure that DRR activities are actually undertaken. In both South Africa and Colombia, the legislation is weakly implemented, and in Mozambique no legislation exists. Instead, to enforce DRR it is more important to create personal incentives for officials to take their responsibilities seriously, for instance, through performance assessment initiatives.

Location of decision-makers

Decentralization also affects DRR by changing the proximity of decision-makers to the disaster risk. In theory, this creates a personal incentive to engage with these issues. Also, some argue that when decision-makers are based in the local district there is more opportunity for local knowledge to be incorporated into policy and programming. From a DRR perspective, decentralization means that local politicians and decision-makers are exposed

to similar disaster risks as their constituents and therefore, in theory, they will have suitable incentives to act on DRR issues.

The evidence from the case studies on this issue was inconclusive. In South Africa, Mozambique and Colombia the studies found some evidence that if politicians experience a disaster their engagement with DRR will increase. However, this obviously depends on politicians' awareness of the disaster risk that they face, and evidence from Colombia, Indonesia and South Africa suggests that politicians are often ill-informed on DRR issues. In relation to extensive, as opposed to intensive, risks it also may not be appropriate to assume that local decision-makers necessarily experience the same risk as other local citizens, particularly if the nature of the risk is more likely to affect poorer sections of society.

The research in Colombia and Indonesia suggests there are **other more effective ways to create personal incentives for politicians to engage in DRR than simply relying on geographical proximity to a risk.** For example, in some settings legislation makes mayors personally liable for disaster-related deaths. Financial information that clearly sets out the cost effectiveness of DRR measures, compared with disaster response operations, can also provide a strong incentive for decision-makers to engage in DRR.

Communication and coordination

Decentralization can have an impact on DRR by affecting communication and coordination systems between layers of government. In the literature on decentralization, poor communication between layers of government is identified as a problem. This issue is particularly important for DRR as it involves the collaboration of many different participants across all sectors. The country case studies generally demonstrate that **in decentralized systems DRR can be hindered by communication and coordination problems.** In particular, the regional/provincial level is often judged as raising, rather than resolving, problems with communication and coordination. People interviewed in Mozambique generally argued that a centrally controlled approach supported strong communication and coordination channels.

In Summary...

In answer to the original questions posed, it is possible to conclude that decentralized approaches to DRR present several obstacles, most notably problems with local level capacity, funding arrangements for DRR, accountability structures, and issues with communication and coordination. This means the potential of decentralization to improve DRR through participation is often not realized due to low levels of citizen awareness and general barriers to participation within developing countries (for example poverty, an authoritarian history, etc.).

Decentralization is generally considered to be a critical element of good governance in its own right. In fact, various international agreements – including the Hyogo Framework for Action (HFA) and the Incheon Declaration that resulted from the 2009 international Conference on Building a Local Government Alliance for Disaster Risk Reduction – recognize the importance of local government involvement in DRR. Therefore, it may be useful to think in terms of 'what must be added to decentralization to strengthen DRR?' The research for this report suggests the following aspects must be in place so that decentralization can strengthen DRR:

- incentives that create strong political interest in and engagement with DRR issues (for example high disaster risk levels, personal liability of mayors, pressure from the

electorate, media engagement, academic influence, or convincing financial analysis on the cost effectiveness of DRR);

- adequate technical capacity at a local level, both in relation to DRR and for general government duties;
- good levels of financial resources generally, and also a mechanism for ensuring that DRR funds are not diverted to other areas;
- high levels of civic education and public awareness about DRR;
- strong national government leadership and enforcement mechanisms.

If most of these conditions are not in place there is little reason to expect decentralization to improve DRR. In these circumstances, it may be appropriate to consider using a deconcentrated system for DRR as an interim step. The example of Mozambique shows that a deconcentrated DRR model can represent government down to the district level without necessarily running into the complications that can arise in a devolved system. These include funding complications, weak local technical capacity and coordination difficulties.

However, this is still suggested only as an interim measure. The ultimate aim is to include DRR across devolved systems of local administration. This is because devolution^a, as opposed to deconcentration, operates on a more democratic basis, with increased opportunities for participation, local legitimacy and community accountability and involvement. However, deconcentration can act as an interim step to build up DRR capacity, political will and public awareness at a local level to a point where devolved governance systems could then be used for DRR.

^a Please see Section 1.3 for a more extensive discussion of the various types of decentralization.

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Abbreviations

| | |
|----------|---|
| BAPPENAS | National Development Planning Agency (Indonesia) |
| BNPB | National Agency for Disaster Management (Indonesia) |
| BPBD | Regional Disaster Management Agency (Indonesia) |
| CCA | Climate change adaptation |
| COGTA | Department for Co-operative Governance and Traditional Affairs (South Africa) |
| CREPAD | Regional Committees for Prevention and Attention to Disasters (Colombia) |
| CSO | Civil society organization |
| DRM | Disaster risk management |
| DRR | Disaster risk reduction |
| GAR | Global assessment report |
| IDP | Integrated Development Plan (South Africa) |
| INGC | National Institute for Disaster Management (Mozambique) |
| INGO | International nongovernmental organization |
| MIG | Municipal Infrastructure Grant (South Africa) |
| NDMC | National Disaster Management Centre (South Africa) |
| NGO | Nongovernmental organization |
| NRS | National System for Risk Attention and Prevention (Colombia) |
| PEDD | District Strategic Development Plan (Mozambique) |
| PESOD | Annual District Operational Plan and Budget (Mozambique) |
| UNDP | United Nations Development Programme |
| UNISDR | United Nations International Strategy for Disaster Reduction |

1 Introduction

1.1 Purpose of the report

This report for UNDP/BCPR and UNISDR has been produced as part of a study on decentralization and disaster risk reduction. The study aims to provide background research to assist in developing the Global Assessment Report for Disaster Risk Reduction (GAR) 2011. Material from this study will be included in a GAR 2011 chapter that focuses on disaster risk governance.

It is important to note that this report focuses specifically on decentralization processes and local government in relation to DRR. Local governance for DRR, including community-led approaches, grass roots initiatives and civil society organizations, involves a wider concept that goes beyond the scope of the current report.

The study on decentralization and disaster risk reduction comprises a review of existing literature on the topic and field research in four countries; Colombia, Indonesia, Mozambique and South Africa. The report closes with recommendations for national governments and the international community.

The main target audience for the report is national and local governments. However, there is a wide range of other important targeted readers including intergovernmental organizations, development banks, academics, international nongovernmental organizations (INGOs) and local civil society.

1.1.1 DRR and climate change

Climate change and disaster risk reduction are strongly linked, first, through the effects of climate change on disasters, and second, through commonly shared solutions.

- According to scientific predictions, climate change will increase weather and climate hazards; this is likely to increase the number and scale of disasters.
- Climate change will increase the vulnerability of communities to natural hazards.
- Climate change and disaster risk reduction public policy solutions are intimately related. Climate change policies seek to address its root causes (mitigation) and to manage its impacts (adaptation). Similarly, disaster risk reduction aims at reducing the risk of disasters and the adverse impacts of natural hazards.

The United Nations International Strategy for Disaster Reduction (UNISDR) states that disaster risk reduction is a conceptual framework of elements that can 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.^b It covers the following fields of action:^c

^b <http://www.unisdr.org/eng/library/lib-terminology-eng%20home.htm>

^c See UNISDR *Living with Risk: A Global Review of Disaster Reduction Initiatives 2002*, page 23.

- risk awareness and assessment including hazard analysis and vulnerability/capacity analysis;
- knowledge development including education, training, research and information;
- public commitment and institutional frameworks, including organizational policy, legislation and community action;
- application of measures including environmental management, land-use and urban planning, protection of critical facilities, application of science and technology, partnership and networking, and financial instruments;
- early warning systems including forecasting, dissemination of warnings, preparedness measures and reaction capacities.

This report is intended to address disaster risk reduction as defined above.

1.2 UNDP and decentralization

UNDP is an advocate of decentralization and over the last ten years has increased its support to initiatives that support it. As of 2006, UNDP supported related programmes in 100 countries that particularly emphasize fiscal management, local access to services, community empowerment and capacity development.¹ However, there is some confusion around the term decentralization and to clarify it, UNDP bases its definition of the term on the principle of 'subsidiarity':

"Decentralization refers to the restructuring of authority so that there is a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiarity".²

The principle of subsidiarity is the idea that responsibilities and resources should be decentralized down to the lowest level that can effectively perform necessary tasks. UNDP also recognizes that decentralization is not a substitute for central government, but instead it creates a continuum of governance from the centre to the local.

UNDP is also engaged in decentralization from a human development perspective. Through its focus areas of democratic governance, poverty reduction, environment and energy, and crisis prevention and recovery, UNDP supports local governance and decentralization reforms. These aim to create and enable better opportunities for poor and marginalized people through enhanced democratic participation and representation. Reforms also aim to improve public service provision to ensure universal, equitable and non-discriminatory access for all citizens.

1.3 Types of decentralization

Decentralization is a political and technical process closely tied to national histories, priorities and capacities. It is generally described as involving shifting a combination of political, fiscal and administrative responsibilities between layers of government.

From the start of this report, it is important to establish that there are different types of decentralization and that related processes are carried out differently, to varying extents, in different countries.

There are three broad categories of decentralization:

- **Deconcentration or administrative decentralization** is when the functions performed by central government are implemented by geographically distinct administrative units whose services are funded by centrally assigned resources. The units remain accountable to the central authorities.^d
- **Devolution or political decentralization** (sometimes referred to as democratic decentralization) is when powers and responsibilities are devolved to elected local governments that are then able to make decisions on an array of public issues and gain access to resources to fund actions accordingly. This is considered the most complex and far-reaching form of decentralization.
- **Fiscal decentralization** is required by political decentralization and entails the transfer of financial resources in the form of grants and tax-raising powers to subnational units of government.

Often a combination of these types of decentralization can operate in a country at the same time. For example, in South Africa the police service operates on a deconcentrated model, and its accountability lines run from the national level right down to the community level. In contrast, the country's department of health has a national level department and separate provincial departments that are not directly accountable to the national level, but instead report to provincial governments.

It is important to note that devolution is a much more complex process than deconcentration, as it implies significant changes to the political culture in the countries. Devolution takes very long to become fully embedded in a country; in many countries it remains more of an aspiration than a real ongoing process.

Unfortunately, authors writing about decentralization rarely explicitly mention the particular type of decentralization to which they are referring, which can make research in this area very difficult. Generally speaking, when people use the term 'decentralization' they tend to mean political decentralization or 'devolution', when powers and responsibilities are devolved to elected local governments. This type of decentralization tends to be accompanied by fiscal decentralization, when financial resources such as grants and tax-raising powers are transferred to local government. For the purposes of this report, the term 'decentralization' refers to political decentralization (devolution). However, administrative decentralization (deconcentration) is also discussed at length.

The term 'local government' is itself an extremely broad term that can be used to refer to governance structures covering urban and rural communities of different sizes, cultures, socioeconomic contexts, and so on. Local government can be organized on many levels including regional, provincial, metropolitan, cities, municipalities, townships and villages. Therefore, it is extremely difficult to generalize for such a broad category of institutions, and this study cannot capture the full variety of global experience. However, the report tries to capture some of the most often repeated experience and analysis.

^d 'Delegation' is similar to deconcentration, but slightly deeper, as some forms of administrative control are granted to local agents that are not necessarily part of the delegating authority. A limited transfer of accountability takes place, although it remains primarily with the central authority.

1.4 Why is it important to understand how decentralization affects DRR?

Disaster risk reduction has always been a local issue, and communities have been adapting programmes to reduce their disaster risk for hundreds of years. In contrast, many formal local governments have emerged in developing countries within the last 30 years, and much of the political and institutional framework for supporting DRR is even newer. For example, several national disaster management offices and authorities have been created in the last decade.

Much of the recent literature on DRR stresses the importance of good governance as a key factor that creates an enabling environment for DRR policies and programmes.^e For example, the Global Assessment Report on DRR 2009 points to poor governance as a key underlying risk driver. Disaster risk is always experienced locally, therefore good local governance is key to strong national governance in relation to DRR. In addition, decentralization processes are well underway throughout most of the developing world. This means that in most countries it is very likely that DRR will be carried out in the context of decentralized governance. For this reason alone, it is important that all participants understand the dynamics of the impact of decentralization on DRR decision-making structures, policies and processes. It is obviously also important to understand how decentralization processes could be used to improve DRR work, and to ensure case studies that demonstrate good practice and success are internationally available.

There is a broad consensus in the literature that governments need to play a role in designing and implementing comprehensive disaster risk management (DRM) systems.^f The question is how extensive that role should be and how it can be best structured. Some experts argue that national government must retain DRR responsibility, policy and programming to ensure it has adequate political profile and resources (for example, GAR 2009). However, DRR literature points out the importance of community-based approaches, in which projects and programmes are developed by nongovernmental organizations (NGOs) focusing on 'grassroots' community involvement and ownership.

There is no easy answer to the question of how to reconcile these two broad approaches to DRR; the 'top-down national government driven' approach and the 'bottom-up community-led approach'. Freeman et al. stated³ there is concern about top-down approaches that focus "disaster policy on existing government systems that sometimes enhance narrow power structures and draw away from local concerns and initiatives."³ As a result, other experts favour community driven projects and programmes developed by NGOs. "Such an approach to risk management is not guaranteed to be comprehensive, but applies directly to identifiable needs and the empowerment of local populations."³

The effect of this debate is that opposing views are emerging in DRR literature – some authors call for DRR to be nationally driven so that it retains political profile, countrywide coordination and the necessary resources. Others recognize the benefits of local community-

^e UNDP defines good governance as "among other things, participatory, transparent and accountable. It is also effective and equitable. And it promotes the rule of law. Good governance ensures that political, social and economic priorities are based on broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocation of development resources."⁴

^f DRM refers to the complete system to manage disaster risk, of which DRR is a part. DRM includes pre-disaster, emergency and post-disaster phases.

driven DRR that is immediately relevant to the local situation and offers a greater opportunity for citizen views to be included in DRR planning and implementation. Potentially, it seems there should be an adequate opportunity for local government to step in and bring together the benefits of these two approaches. However, unfortunately, local government DRR operations have not been able to merge the two approaches.⁵ Instead, a recent Oxfam study⁶ argued for the need to specifically create platforms to smooth out the interface between government, NGOs and communities in order to help citizens to gain direct access to government and to feel a sense of ownership of DRR activities.⁶ To bolster this process, this report aims to provide insight into how policy-makers and practitioners can best use decentralized governance arrangements to advance DRR in countries.

1.5 Summary of previous research in this area

Very little has been written on decentralization, local government and disaster risk reduction in general. Even less research has been carried out on the specific question of how decentralization and decentralized governance systems have an impact on DRR work, and how decentralization can lead to improved DRR. Typically, resources are policy-oriented documents which incorporate a few brief case studies, rather than large-scale empirical research projects (for example UNISDR 2010).⁷ There is also a geographical bias; most DRR resources are spent in Latin and Central America and Asia - only a few focus on sub-Saharan Africa.

Concern is growing globally about the fact there no large body of literature on either decentralization and DRR or the role of local government in achieving successful DRR. This is despite the reality that the International Strategy for Disaster Reduction has always recognized that local government is key to successful DRR. Its Hyogo Framework for Action 2005-2015 clearly states that local authorities should be empowered to manage and reduce disaster risk by having access to information, resources and the authority to implement solutions. Furthermore, a 2009 international conference on 'Building a Local Government Alliance for Disaster Risk Reduction' in Incheon, Republic of Korea, gave rise to the 'Incheon Declaration' that further stresses the important role of local government in DRR.

The literature is inconclusive on the question of whether, and how, decentralization can support successful DRR. The few resources on the topic tend to generally support the idea that participatory DRR is more likely in a decentralized governance system, but this has not previously been thoroughly researched and proven with empirical evidence.^{8,5,7,9}

It makes theoretical sense that decentralization should open up opportunities for strengthening DRR, but there is no good documentation of exactly how (for example through funding arrangements or participatory decision-making), where and what obstacles are encountered on the way to success. It is also clear there are several specific challenges for DRR that can and may be more likely to arise within a decentralized governance system. These include coordination issues, financing difficulties and capacity constraints. DRR also faces challenges at the national level, for example how to ensure sustained political will for DRR; something that may even be intensified at the local level.

2 Methodological Framework

This Section of the report outlines the methodology used to carry out the research, including discussion of the specific research questions the report aims to answer and some of the assumptions that were investigated.

2.1 Defining the research question

The main overarching questions this report aims to answer include:

- **How can decentralization strengthen DRR? What obstacles are encountered and how can these be overcome?**

It is important to note that the term ‘decentralization’ refers to many different governance arrangements ranging from deconcentration – when the functions of central government are transferred to geographically distinct administrative units – through to devolution – when powers and responsibilities are devolved to locally elected governments.⁹ This study primarily considers political or democratic decentralization (devolution), although it also deals with administrative decentralization (deconcentration). All of the countries included in this report as case studies are at various stages of implementing political decentralization.

2.2 Assumptions

Before determining how decentralization can strengthen DRR, one needs to first identify exactly how it affects DRR. The impacts are listed below as a set of assumptions. It is worth noting that decentralization largely affects DRR in much the same way as it affects policy and practise in any sector. Changing the responsibilities of central and subnational levels of government means that decentralization can have the following effects, although these are not automatic:

Decentralization can:

- 1) **have an impact on government capacity**, for example, through changes in personnel, staffing levels, infrastructure and resources such as office space and information technology equipment;
- 2) **change funding arrangements** between layers of government. This affects the way sectors such as DRR are funded, and also the levels of finance available;
- 3) **affect participation** and citizen involvement in policy-making and programming;
- 4) **change accountability structures and enforcement arrangements**;
- 5) **change the location of decision-making power** and the proximity of decision-makers to the problem (i.e. disaster risk);
- 6) **affect communication and coordination** between sectors and levels of government.

⁹ See Section 1.3 for a more extensive discussion of the different types of decentralization.

The above points illustrate the different ways in which decentralization has an impact on DRR. Section 4 of this report will take each of these points in turn and investigate each one further by using information from the literature review and evidence from the case studies.

2.3 Methodology

The following activities were undertaken to test the assumptions and reach some conclusions regarding the overarching research question:

- a desk-based literature review;
- country case-study research.

2.3.1 Literature review

As part of this report, a wide range of literature was reviewed from both the DRR and decentralization disciplines. Extensive internet searches were carried out and some published and unpublished material has been provided by UNISDR and UNDP. Preference has been given to recent literature (at least post-2000, and preferably from the last three years) and material from reputable NGO, academic and donor sources.

2.3.2 Country case study research

Field visits were undertaken to four different countries to interview relevant people on the impact of decentralization on DRR. The four countries were Colombia, Indonesia, Mozambique and South Africa. Semi-structured and anonymous interviews were deliberately held with a range of different stakeholders in each country, including politicians, government officials, UN agencies, donors, NGO and civil society organization (CSO) staff, academics and independent consultants.

The four countries were selected with assistance from UNDP and UNISDR. The following criteria were considered during the selection process:

- countries prone to different types of disasters, with different levels of vulnerability;
- broad geographical coverage, with representation from South America, Africa and Asia;
- a range of political economy environments;
- different types and levels of decentralization.

As previously mentioned, most of the research on DRR has focused on Latin America and Asia. However, disasters also have substantial effects on Africa which is a priority region for several donors. For this reason, two African countries were included on the list of case study countries.

3 Evidence from case studies

This Section of the report is structured around the six assumptions identified in Section 2 on the 'Methodological Framework' for the research. Each of these assumed impacts of decentralization will be considered for their effect on DRR, drawing on findings from across the literature and from each country case study. Essentially, the report aims to identify whether the impact strengthened or weakened DRR, and to spell out the conditions that led to this result.

Each country has different decentralization arrangements and structures. Each country also faces different disaster risks. Annex A provides a brief history of decentralization and DRR arrangements in each of the case study countries to help the reader gain an overall understanding of the DRR context in each location.

3.1 Decentralization changes government capacity

3.1.1 Findings

Decentralization has an impact on DRR by changing the level of government capacity. Evidence from the case study countries suggests that local capacity for DRR is a major problem in South Africa, Colombia and Indonesia. This finding agrees with the general literature on decentralization and relevant DRR literature.^h Possible strategies for improving local capacity include technical assistance from central government, training programmes, and the use of academics and CSOs to fill the capacity gap. However, the literature suggests that low levels of capacity at district level have complex political economy roots. For example, some authors argue that local government is deliberately underresourced as a strategy to maintain the power of the centre. These concerns suggest the low capacity of local governments is a complex issue that is part of a country's wider governance environment.

3.1.2 Evidence from case studies

The case studies show that strong local level capacity is extremely important in facilitating decentralized DRR. In Colombia, South Africa and Indonesia, the weak level of capacity at both regional/provincial and district/municipal levels was identified as a major hindrance to achieving improved DRR through decentralization.

Colombia illustrates this point well. Generally, the further a locality is from a major city, the weaker its capacity. There are 1098 municipalities in the country, of which approximately 900 have created local committees as required by Colombia's disaster management legislation. However, they are so hampered by resource and technical capacity constraints to carry out, risk assessments and other DRR tasks, that decisions are often taken without the required technical inputs. Only 153 municipalities (around 14% of the total) have local emergency and contingency plans fully or partially in place. The situation is similar at regional level, and the management of Regional Committees for Prevention and Attention to Disasters (CREPAD) is also limited by a lack of capacity, staff turnover, limited reliable information, poor technical

^h Annex B includes a summary of the literature review for the six topics addressed in this report.

skills and weak information management systems. As a result, departmental emergency plans remain underdeveloped.

To counteract Colombia's low level of local DRR capacity, several municipal governments have been able to draw on the experience and skills of academics and civil society participants to close capacity gaps. For example, academics have provided technical skills and knowledge and some civil society groups have viable existing local networks. This is particularly the case in wealthier regions of the country. The participation of the country's academic institutions has helped to generate high quality information, standardized methodologies and improved technical capabilities. This has increased the credibility of DRR information provided to the public and supported government decision-makers in devising DRR policy. Academic institutions tend to have lower staff turnover than government institutions which means that capacity, skills and experience are better retained. Colombia's Red Cross organization is another important and highly credible participant that works closely with communities on DRR issues.

In South Africa, the lack of local capacity is a key obstacle to achieving effective disaster risk reduction. Almost all respondents said DRR was severely hampered because of wider capacity issues at district and municipal levels. This is considered to be an issue of quality (lack of DRR expertise and understanding), as well as quantity (South Africa is a large country and interviewees said there are too few disaster managers). There is a widespread perception that staff throughout government, but especially at lower levels, and elected politicians do not have an adequate understanding of DRR. There are also few government staff with the required skills to carry out many of the technical DRR duties such as risk assessments and vulnerability studies. These capacity gaps become wider the poorer the area and the further one travels from major cities.

During the field research, local disaster managers said DRR would be better implemented if it was not decentralized beyond the district/metropolitan level because there is simply not enough capacity at local ward level. They stressed that instead of decentralizing DRR down to the lowest level (the current situation), it would be preferable to create district level 'centres of DRR excellence'. In their view, this would lead to a more efficient use of budget and aid coordination. Instead of local level staff having to spread their work thinly across many different areas of DRR, it would allow more focus and specialization.

In Indonesia, disaster management legislation requires creation of regional and local disaster management agencies. However, this started only very recently (2007) and should be judged accordingly. Evidence shows the move has been relatively successful in creating the agencies, but that directors are political appointees. This leads to very high rotation and the appointment of bureaucrats with no DRR knowledge.

Another possible strategy for improving capacity is to introduce mandatory DRR training programmes across sectors. In South Africa, several research participants recommended training programmes for local disaster management staff and particularly for local councillors. They said that training local politicians was particularly important because of their role in shaping the priority work areas for administrative officials. In South Africa, Indonesia and Colombia, several key DRR job holders are political appointees. This means the person in the position potentially has very little understanding of DRR, and is unlikely to drive reform in this area. Regions such as Bogotá, Colombia, which is a strong DRR performer have technocrats, not politicians, in key DRR positions.

Unfortunately in South Africa, the complex decentralized governance arrangements work to intensify local lack of capacity. For example, the Department of Water and Forestry Affairs

(DWFA) has the experience, skills and capacity to carry out flood and pollution management, but the DRR legislation has made the municipal level responsible for DRR, not the DWFA.¹⁰ South Africa's three spheres of government operate relatively independently, and this prevents the DWFA from being able to step in and fill the local capacity gap. Unfortunately, there is often little municipal technical capacity and political will to carry out DRR work. This means the work is not being done, or is implemented without the necessary technical skills.

In Mozambique, the situation is different as the DRR system is highly centralized and DRR functions are carried out through deconcentrated mechanisms. Therefore, alongside a decentralized local administration system, there is a deconcentrated disaster management system. It operates from national government through the National Institute for Disaster Management (INGC), through to regional offices and local committees. DRR has a very high political profile in Mozambique, so these deconcentrated mechanisms are kept well resourced. Depending on climatic conditions, staff relocate freely between the national office in Maputo and the regional offices. For example, the research team saw stockpiles of computers, printers and satellite communication equipment ready to be taken to different regions to coincide with seasonal changes in the disaster risk profiles of different areas.

In contrast to the strong capacity of the deconcentrated DRR mechanism, interviewees said regional and (particularly) district government disaster risk reduction capacity is extremely low. They said this was largely due to the weakness of Mozambique's fiscal decentralization in which revenue-raising powers and financial resources are only transferred to local government in theory, and not in practice. As such, local administrations do not fully engage in DRR across their sectors; instead they leave DRR to various local INGC staff.

3.2 Decentralization changes funding arrangements

3.2.1 Findings

To mainstream DRR, it makes sense to incorporate it across all areas of a local budget, rather than concentrating DRR finance within a particular fund. However, evidence from Colombia, Mozambique, South Africa shows funds that are not earmarked for DRR are often diverted to other areas. The issue of funding for DRR is interconnected with the political economy of disaster risk reduction. For example, decentralized funding arrangements can create disincentives for taking a risk-reduction approach.

3.2.2 Evidence from case studies

In both South Africa and Colombia, DRR is intended to be incorporated into all sectors of local development plans and therefore mainstreamed across local government budgets. Unfortunately, in both countries this largely results in DRR funds being diverted to areas that have a higher political priority.

For instance, in South Africa there is no specific subnational DRR funding mechanism. The 2005 Disaster Management Framework includes a chapter on DRR funding arrangements, but it was unfortunately never officially finalized by the Treasury. The Framework sets out various areas of funding, including for risk assessments linked to planning processes, but the actual finances for these operations were not specifically made available. Furthermore, the Framework requires establishing disaster management centres at different levels of government, but start-up funds for these centres were never specifically transferred. As a result, many of the centres are not fully operational.

Meanwhile, in terms of funding general DRR initiatives, the framework did not create separate finances for DRR activities, but aimed to incorporate them into existing financing, mainly through integrated development plans (IDPs) developed at the district/metro level of municipal government. These plans are required by the 2000 Municipal System Act. They were introduced to facilitate participation in service delivery plans and to integrate developmental efforts across different sectors and departments. In theory, local risk assessments are carried out and the findings are integrated into the IDPs, which are then funded by the Municipal Infrastructure Grant (MIG). The MIG was introduced in 2004-2005 to make the system to simplify intergovernmental fiscal transfers by providing one large grant managed by COGTA, rather than using many separate grants from different departments. It was intended that DRR be funded across different sectors in an integrated participatory way. Participants in the research suggested that in reality this approach has not worked. The obstacles in the process are set out below.

First, risk assessments are carried out more to fulfil legal requirements than with any degree of genuine local government ownership. They are generally contracted out to consultants, who may or may not carry them out in a participatory way. Once risk assessments are completed and submitted, the department/disaster management centre records it has received them and has therefore fulfilled its obligations. However, the assessments are rarely integrated into IDPs because officials do not understand how to incorporate them effectively.

Several participants also mentioned that people are unwilling to share risk assessments for other reasons. These include a general lack of information sharing across government, fear of being seen as inactive, and political disinterest. There are also problems even when participatory risk assessments are of good quality and a particularly engaged disaster manager ensures they are mainstreamed across departments and integrated into the IDP. Participants complain that the eventual local budget does not match the IDP and has no 'ring-fenced' DRR funding. As a result, DRR's general low political profile means disaster risk reduction is inadequately funded.

Several research participants noted that across South Africa there are few funds for any projects, not just DRR activities. DRR funding is not protected, therefore it is likely to be squeezed even further.

In Colombia, there is a different system of DRR funding, but the results are similar. The legislation makes municipalities responsible for handling disasters, but it does not specify the amount of funding to be made available to do so. This lack of guidance was intentional; the legislators believed that Colombia's disaster risk needs are so diverse it would not be appropriate to offer a uniform amount of funds to each and every municipality. However, this has led to a general under-financing of DRR. According to Act 715 of 2001, municipalities can elect to spend budgetary transfers on disaster prevention and response. However, by law, most resources transferred to municipalities are specifically designated for areas such as health, education and water management.

As a result, municipalities only have a small percentage left over to comply with all of their legal responsibilities, including DRR. In addition, small and poorer municipalities cannot raise income through local taxation. The overall result is that DRR work such as risk assessments and vulnerability studies are cut from budgets, and decisions are made without necessary inputs.

In Mozambique, DRR funding is managed centrally through the INGC. Recently it tried to improve the national-local interaction of its deconcentrated disaster management system by

transferring DRR funds to provincial governments. However, provincial officials just spent the money on other areas and argued there were no disasters at the time, so the money was not needed and could be paid back. This failure led the INGC to revert to working outside the decentralized governance system through its own regional offices and local committees.

In recent research by UNDP Mozambique, Kulipossa¹¹ argues that DRR funding should be incorporated into the Annual District Operational Plan and Budget (PESOD - a joint mechanism that combines the District Strategic Development Plan (PEDD) and the local budget) to help mainstream and local government ownership of DRR. However, the plan's authors argue that DRR must have earmarked funds within the PESOD or the money will be spent in other ways. Mozambique's new decentralized planning and financing rules stipulate that all districts must now include DRR in their PESODs, with funds earmarked for it. Provinces are also urged to include DRR in their provincial economic and social plans.

3.2.3 Corruption

In Colombia, large and small scale corruption continue to be an unacceptably extensive problem.ⁱ The general literature on decentralization generally argues that it can increase opportunities for corruption because money passes through several layers of government, and financial controls and audit functions tend to be weaker at a local government level. However, the increased opportunities for corruption that decentralization implies generally relate to petty corruption rather than embezzlement on a grand scale. This means only small amounts of money are going astray, but this petty corruption damages levels of confidence and trust in government and satisfaction with services. Research in the country has tended to corroborate this view.

In the case of Indonesia, in 2005 famine expert Peter Walker¹² examined the effects of disasters on corruption and affirmed that disasters increase "power inequalities and create opportunities to exploit people and resources." He noted this means that "State and municipal officials, backed up by aid agencies, need to act decisively to ensure that the rights of the victim communities are protected and that commonly held resources of forest, land and water, are not exploited for unfair profit."¹²

DRR suffers from local government corruption in several ways. First, corruption now centres more on infrastructure contract awards. DRR can suffer if building contracts for public infrastructure such as schools and bridges are not awarded based on merit in accordance with all relevant building codes. Second, the large amount of funds transferred to local governments can spur guerrilla and paramilitary groups to try to infiltrate municipal governments, particularly in areas with weak monitoring and control of intergovernmental fiscal transfers. This infiltration can ultimately reduce governance standards which negatively affects disaster risk reduction. Finally, any money lost to corruption reduces the overall amount of public resources that can be invested in activities such as DRR.

3.2.4 Funding disincentives

Both South Africa and Colombia demonstrate that decentralized funding arrangements can also hinder DRR. For example, in South Africa disaster response thresholds are determined for both provincial and municipal governments. Municipal governments can request financial support from provincial governments if they experience a disaster in which they reach their threshold and cannot finance the relief operation. Similarly, provincial governments can

ⁱ See Bertelsmann Stiftung, 2009.¹³

request funds from the national level if their threshold is reached. However, the legislation (Clause 56 of the Act) specifically states that higher levels of government can refuse to provide relief funds to lower levels if inadequate risk reduction measures were taken prior to the disaster.

This measure was intended to encourage governments to engage in DRR. Unfortunately, case study respondents said it has done the opposite. This is because politicians regard disaster relief as a 'vote winner' and do not want to refuse to pay for response activities as this would cause negative publicity. Therefore, they mostly grant all requests for help with disaster response and recovery. This is to be expected, and there is no reason why citizens affected by a disaster should not receive help. However, there should be subsequent investigations into whether adequate risk reduction measures were undertaken prior to the disaster. The national law requires lower level of government to carry out work to reduce the risk of a disaster. However, the National Disaster Management Centre (NDMC) in Pretoria confirmed that funds have never been refused because they did not.

Therefore, municipal governments do not have enough incentives to allocate scarce financial resources to DRR activities as they know they can always ask for help in an emergency. A similar system operates in Colombia. Lower government politicians know they can ultimately obtain 'bail outs' from a higher level of government, so there is no incentive for them to spend their precious resources on DRR. It is not realistic to advocate that governments withhold funds in the event of an emergency. However, other measures could be implemented to penalize municipal governments that do not undertake DRR measures and then request emergency funds to solve their disaster-related problems.

3.3 Decentralization affects participation

3.3.1 Findings

The general literature on decentralization tends to assume that it automatically increases participation – something that is inherently beneficial. However, there is little empirical evidence to support this view and decentralization experts increasingly question it. The DRR literature similarly states that there is little evidence to support the frequently repeated theory that decentralization leads to more participatory DRR. Evidence from the case study countries in this report demonstrates that generally, the existence of decentralized governance systems does not lead to a large increase in participatory DRR. There are many reasons for this, for example people are uneducated in relation to DRR and do not understand the disaster risk they face; communities are wary of engaging in (or pushing for) DRR because they are afraid people will be resettled after a disaster; or simply the country's political history has led to a weak culture of participation in politics.

A country may have decentralized participatory governance structures, but these are not enough on their own to enable participatory DRR. This is not criticism of decentralization *per se*, but more a recognition that decentralization can only work within the socioeconomic and political context of a country. Participation in DRR is more likely to occur when there are incentives for people to engage with participatory structures. For example, engagement usually happens when people have been made aware they face personal risk from disasters or when they can see that DRR participation will help to secure their assets.

3.3.2 Evidence from case studies

Evidence from each of the case-study countries shows that even when decentralized governance systems present opportunities for participation, they are often not used for DRR. For example, at Colombia's regional and municipal levels, legislation calls for the creation of DRR committees, with meetings attended by local citizens and civil society groups. However, interviewees said committee meetings are very poorly attended. In South Africa, community involvement is weak despite various DRR mechanisms being available, such as community policing forums. Similarly, in Indonesia at the sub-district level, communities elect a village head and council that hold meetings with the community and discuss public investment needs and priorities. However, at these meetings DRR is rarely raised as a priority issue despite the high levels of disaster risk experienced in Indonesia.

There are many reasons for low levels of participation in DRR – some relate to decentralization in general, and some are specific to the issue of DRR.

Some of the main reasons for this include the fact that people are less likely to engage in participatory DRR if they are not aware of the disaster risk they face, or if they live in poverty and have more pressing concerns. For instance, South Africa is not a highly disaster-prone country. It tends to experience 'extensive' rather than 'intensive' risk, i.e. fires in informal settlements as well as localized flooding generally. The poorer sections of society feel this type of disaster risk the most. However, they are the least likely to participate in DRR through local government arrangements, or make DRR demands on government. This is primarily because they have more pressing needs and concerns such as food, water and shelter. If someone is caught up in meeting their immediate needs, they are less likely to worry about a future disaster that may or may not happen. These groups likely have a lower level of education and often are not aware they face disaster risk. They also do not likely know about the participatory mechanisms they could use to lobby for government support. In Indonesia, poor public awareness of disaster risk was also cited as a reason why participatory governance DRR mechanisms were so little used.

This report's research also found that the fear of being resettled after a disaster sometimes led communities to deliberately disengage from DRR. This was a common issue encountered in all of the case-study countries. For example, in Colombia, the Galeras Volcano is categorized as 'active' and yet only 300 out of the 7000 nearby residents living in the area at risk have agreed to relocate. The fact the volcano has been active for many years without major incident lowers people's perception of risk. They feel the economic benefits of living in the danger area around the volcano outweigh their perceptions of the risk they face there. Disaster risk reduction relocation projects are generally extremely unpopular with the populations being moved, often because their economic livelihood depends on their home or work being located in the disaster risk zone. Another example of this fear is found in the country's coastal areas that are prone to flooding. Many of people affected are fishermen who earn their living by being close to the sea or rivers. In the La Mojana river region, annual flooding causes devastation, yet people remain there because they rely on the river for their income. In these situations, it is important to inform the local population about other mitigation strategies and to emphasize that DRR is a much wider issue than simply resettlement.

There is another broader reason why participatory structures may not be used for DRR in many developing countries; they do not have a widespread established culture of political participation. In many countries, democratic decentralization is a recent phenomenon that does not easily fit with traditional governance networks, indigenous collective decision-making arrangements, or the country's recent political history. For instance, in Indonesia

democratic decentralization was introduced fairly recently after 32 years of authoritarian rule. The country's political history has entrenched patterns of non-participation in people's political behaviour. Therefore, it is unrealistic to expect fledgling participatory structures to be fully operational. They may develop as democratic norms are further established in the country.

Colombia also demonstrates this point. The country's history of conflict makes people in affected regions less willing to engage in any form of political activity because they are afraid it will be dangerous. This finding is obviously relevant to other fragile geographical areas or to situations where the state is weak.

During the course of the field visits, examples were noted of local government facilitating citizen DRR participation. For example in Bogotá, a city that has worked to raise community DRR awareness for many years, an earthquake simulation that involved 3 million people was carried out in October 2009. Plans for a repeat exercise are now underway. In South Africa, the legislation requires that community risk assessments be carried out. The government engaged Disaster Management Solutions, a South Africa-based disaster management consultancy to undertake a participatory community risk assessment in Cape Town where the community was asked to identify and quantify disaster risks experienced at a ward level. This activity significantly raised the profile of DRR work in the city. In fact, the Head of the Disaster Management Centre of Cape Town said that ward committees had contacted the centre specifically to ask how the risk assessment findings were being implemented by the government and what new initiatives were underway. Both of these examples demonstrate that if people understand their exposure to disaster risk and are deliberately educated about DRR, they have an incentive to participate in DRR activities.

Colombia provides another example of how people can participate in local government-led DRR, for example, through helping to develop local land use plans. This activity generates much public interest and involvement as it has an impact on the value of personal property. Therefore, citizens have an incentive to participate to protect the value of their economic assets. Similarly in Mozambique, citizens have participated in initiatives to capture indigenous knowledge of seed and crop storage rather than focus on resettlement.

Administrative decentralization (deconcentration) also offers citizen participation opportunities. For example, in Mozambique the INGC has established local risk management committees that include Red Cross volunteers and other members of the local community. Their role is to mobilize communities in an emergency and to promote local risk reduction. These committees are funded centrally through the INGC, and are part of a strategy to improve local ownership of and participation in disaster management.

3.4 Decentralization changes accountability structures and enforcement mechanisms

3.4.1 Findings

The field research for this report found no evidence that decentralization strengthens citizen accountability for DRR. However, this issue is linked to much wider governance issues including low levels of participation in the country case studies (see Section 4.4), and the lack of systems and standards in place for citizens to use to hold governments to account.

High quality DRR depends on clear internal accountability systems and reporting lines within different levels of government. This is relatively easy to achieve in a deconcentrated system, as in Mozambique, but more difficult in countries such as South Africa where there is no formal accountability structure within the layers of government, and provincial/municipal levels are not accountable to the centre for DRR. The case studies also suggest that strong regional and local DRR is more likely when there is a strong national entity that provides oversight and enforcement. DRR legislation that clearly states the roles and responsibilities of each level of government still does not ensure DRR activities are undertaken. In both South Africa and Colombia this legislation is weakly implemented, and in Mozambique no legislation exists. Instead, DRR enforcement functions effectively when there are personal incentives for officials to take their DRR responsibilities seriously, for instance, through performance assessment initiatives.

3.4.2 Evidence from case studies

The case studies provide little evidence that decentralization leads to greater government accountability on DRR issues, primarily due to the lack of citizen participation (see Section 4.4 for more details on this issue). However, in each country internal accountability and enforcement mechanisms were investigated at length.

A research study notably found that DRR has support if there is a strong accountability structure throughout decentralized levels of government. South Africa and Mozambique provide examples. In South Africa, each level or 'sphere' of government operates independently. This means municipal government is not directly accountable to provincial or national government. As a result, there is no clear line of internal accountability between district and provincial governments and the NDMC. Interviewees identified this lack of oversight and accountability as a key DRR constraint. If a national oversight entity does not provide leadership or require provincial and municipality accountability, then DRR simply drops off the agenda at all levels.

Many participants in the South African research felt that the low political profile of DRR at the centre has led to weak local DRR. The lack of clear strong DRR leadership that sets an example at the national level has filtered through to subnational levels. The problem is partly due to the fact that the NDMC is located in a government department that has little political influence. All research participants felt the NDMC should be moved to President Zuma's Planning Commission which would improve the situation and lead to improved DRR across all levels of government.

In contrast, under Mozambique's deconcentrated DRR system, there are clear internal reporting lines right up to the Prime Minister who chairs the Coordinating Council. Many people interviewed in Mozambique said this strong oversight and enforcement was a key reason why DRR activities are prioritized within each level of government; non-compliance with strict reporting structures on disaster management receives quick Council attention and action.

The evidence from Colombia supported this view. Many research participants argued that the lack of central oversight and enforcement - specifically from the National System for Risk Attention and Prevention (NRS) - hindered successful local DRR. The NRS was first established when DRR had a high political profile and the agency operated out of the President's office. However, it has since lost both position and oversight powers and is now located in the Ministry of the Interior and Justice.

In South Africa, there are almost no DRR internal accountability mechanisms due to the weak central oversight body (the NDMC) and the separate spheres of government. Several interviewees called for creation of incentives and accountability structures so that local government officials could undertake DRR activities. Some also called for a formal accountability structure that includes DRR activities in individuals' job descriptions and performance assessments. Most current government individual performance management uses a 'scorecard' system. However, the scorecards are only updated annually, meaning that there is no constant DRR monitoring. Nevertheless, an improved system could provide a mechanism to internally monitor DRR progress.

3.4.3 Legislation

The report research also investigated the importance of legislation as an internal enforcement mechanism that operates at different levels of government. In both South Africa and Colombia, formal DRR legislation exists and specifically sets out local government DRR roles and responsibilities. In South Africa, most interviewees involved in provincial or municipal disaster management broadly support the 2002 Disaster Management Act and the 2005 Disaster Management Framework. These documents clearly identify the different roles and responsibilities of national, provincial and district levels of government, and require that disaster management centres/units be established within different spheres and line functions. They also specifically make it mandatory to set up national, provincial and municipal disaster management advisory forums to help coordinate DRR activities between the line functions.

However, major problems hinder enforcement of South Africa's DRR legislation. One research participant commented that "it is all there, we have the legislation and the forums and the structures – we just need to make it work." For instance, the legislation spells out district/metro and local municipal government responsibilities, but not those specifically related to DRR. As a result, local councils can regard DRR as a district matter and not assign the necessary budget to it. To solve these and other issues, several respondents said that authorities needed to rework both the Act and the Framework in order to remove ambiguities about DRR and other matters.

Similar findings emerged from the research in Colombia. Interviewees said the Disaster Management Act governing DRR is effective, but that unfortunately implementation is often poor. For example, the legislation provides establishing local and regional committees with clear roles and functions, but the committees rarely fulfil their obligations.

In contrast, Mozambique has no formal disaster management law to provide a legal framework for DRR, although planning is underway to pass one.^j Despite this, DRR is generally very successful in the country. It appears Mozambique's internal accountability and enforcement mechanisms (through the deconcentrated model) are so strong and effective that a formal legislative DRR framework is not needed.

^j However, there are several legally binding Presidential and Council of Ministers' decrees, by-laws, resolutions and policy documents.

3.5 Decentralization changes the location of decision-making power

3.5.1 Findings

Some theorists argue that if local decision-makers are located close their constituents and can help them with development challenges, including DRR, they then have a personal incentive to engage with these issues. Furthermore, if decision-makers are based within a local district there is more opportunity for local knowledge to be incorporated into policy and programming. From a DRR perspective, this suggests that decentralization would strengthen DRR since local decision-makers would be exposed to the same disaster risks as their constituents and therefore would have an incentive to act on DRR issues.

The case study evidence on this issue was inconclusive. In South Africa, Mozambique and Colombia evidence showed that personal experience with a disaster increases politicians' engagement with DRR. However, this obviously depends on politicians' awareness of the disaster risk they face. Data from South Africa, Indonesia and Colombia suggest that politicians are often ill-informed on DRR issues. In addition, in relation to extensive, as opposed to intensive, risks one cannot assume that local decision-makers necessarily experience the same risk as other local citizens; risk may possibly only affect poorer sections of society.

The research in Colombia and Indonesia suggested other methods of creating personal effective incentives for politicians to engage in DRR, other than simply relying on their geographical proximity. For example, in some countries legislation holds mayors personally liable for disaster-related deaths. Another strong incentive comes from providing DRR cost effectiveness information and comparing it with the extremely high cost of disaster response operations.

3.5.2 Evidence from case studies

The case studies offer mixed findings on this issue. In some cases, the evidence shows that a decision-maker's proximity to a disaster risk encourages their engagement with DRR. However, there are also obstacles.

Colombia is a country with very diverse disaster risks; some areas are prone to earthquakes and some to flooding. In reality, the country is so big there are few disasters that are felt nationally or even regionally. This is similar to South Africa where major disasters are not common; most are small scale and experienced at the municipal level.

Several local government research interviewees felt that proximity to the disaster risk area did give them an advantage over national government authorities in understanding the issues and being able to design locally relevant policies and programmes. Colombia's Armero volcano disaster is a case in point. The volcano erupted in 1985 before DRR had been decentralized and unexpectedly killed over 20,000 people. President Virgilio Barco Vargas was elected shortly after the disaster and used the Armero eruption as evidence to publicly argue that DRM should be decentralized. He complained that the response effort was particularly weak because the national government managed the response from the capital city, Bogotá, rather than coordinating and managing it locally. He claimed that Colombia is simply too large and diverse for disaster risk to be managed effectively from the centre, and that effective DRR critically depends on local knowledge and understanding of the situation on the ground.

Similarly, in South Africa, mayors with personal experience of disasters were identified as being those who were most engaged on DRR issues. However, being geographically close to a disaster risk does not necessarily result in awareness of DRR issues. In fact, in Colombia, South Africa and Indonesia lack of DRR understanding among politicians was identified as a problem area. If decision-makers are not educated about DRR, their proximity to disaster risk will not automatically lead to greater engagement.

There may also be a difference between intensive and extensive disaster risk. Intensive disasters (for example volcanoes, earthquakes, etc.) affect all people fairly equally. Therefore, it is likely that proximity to this type of risk would lead local decision-makers to be engaged in DRR as they stand some chance of being personally affected. However, extensive risks (for example drought, repeated flooding, etc.) disproportionately affect poorer communities that are more likely to live in affected areas, or to feel the effects of a disaster more keenly because of their poverty. In these cases, decision-makers who are from the political elite are less likely to be affected and therefore may be less likely to engage in related DRR. Evidence on this issue was difficult to find in the case studies. However, in South Africa where most disaster risk is extensive rather than intensive, local politicians are generally not engaged in DRR despite their geographic proximity to the risk. In Colombia, politicians are most engaged in Bogotá and the coffee growing regions of Manizales, Medellín and Armenia, all of which are at risk from earthquakes.

The geographical location of a decision-maker does not necessarily ensure they have greater access to local knowledge in relation to DRR. This depends on the level of DRR education and awareness among local politicians and whether local communities participate in DRR activities. However, when local decision-makers become aware of local risks, they often make DRR a priority. Politicians in Bogotá began to take DRR seriously after local government officials worked with academic institutions in the city to carry out a cost/benefit study on DRR. They demonstrated that an earthquake in the city could result in direct damage of about US\$ 11.5 billion, with the district being directly responsible for paying US\$ 2 billion of the total. This information was presented in a clear manner and was effective in engaging decision-makers in DRR.

There are other effective methods of creating personal incentives for politicians to engage in DRR. For example, in Colombia, the DRR legislation makes politicians personally liable for ensuring their constituents are safe from disasters. Mayors can be imprisoned if a citizen needlessly dies from a disaster that could have been prevented. This action has in fact been taken in several instances. If a politician has to bear this burden of personal responsibility, it dramatically increases the likelihood he or she will take DRR seriously. Similar legislation is in place in Indonesia; the disaster management law establishes clear criminal charges (both fines and imprisonment) for “every person who out of negligence implements high risk development... that causes disaster.”^k

3.6 Decentralization affects communication and coordination within government

3.6.1 Findings

The literature on decentralization identifies poor communication between layers of government as a general problem. This issue is particularly important for DRR development

^k Unfortunately, during the course of the research it was not possible to find examples of implementation of this law.

as it depends on extensive collaboration between many different participants across all sectors. The country case studies generally provide examples of decentralized systems that create communication and coordination problems, particularly at the regional/provincial level. Meanwhile, interviewees in Mozambique generally argued that their deconcentrated approach supported strong communication and coordination channels.

3.6.2 Evidence from cases studies

South Africa has three separate levels of government: national, provincial and municipal, and each has a disaster management centre and a disaster management advisory forum. However, government devolution means that each of these levels operates autonomously from the others. Therefore, the municipal level is not answerable to the provincial or national level. Each line function must include a disaster management function within it, but each line function is structured differently at subnational levels. Some are deconcentrated and some are decentralized. For example, the South African Police Service follows a deconcentrated model, so the disaster management focal point at national level is able to demand accountability and coordinate activities right down to a ward level. In contrast, the health department, for example, has a different system in which provincial and municipal levels are not accountable to each other. Several participants in the research identified the complex, disaggregated governance arrangements in South Africa as a clear obstacle to DRR, because they hinder coordination, information sharing and reduce accountability.

In both Colombia and South Africa, legislation outlines various mechanisms that aid coordination of DRR work including disaster management advisory forums that operate in all spheres of the South African government. These forums facilitate liaison between line functions, but are widely regarded as ineffectual 'talking shops' as DRR has a low political profile and not all line functions send a representative to the forums or they send a different representative each time. All of these factors result in very little DRR progress. To solve this it has been proposed that forum meeting attendance be included in the job description of a suitably qualified person and form part of the individual's performance assessment.

The research also identified general provincial or regional government weaknesses in relation to DRR. In Colombia, South Africa and Mozambique there was a clear feeling that provincial government did not have a clear role generally in the governance structure and, at worst, posed a communication and funding 'bottleneck'. In Colombia, the research showed that a lack of clear links between national and municipal governments was a key problem that had a negative impact on DRR. In addition, regional governments have no clear mandate and are perceived as being particularly weak, while the national government tends to deal directly with municipal governments on DRR, often bypassing regional governments altogether. This blocks any regional DRR approach and prevents the design of any regionally appropriate DRR solutions. A stronger regional DRR presence would also enable better coordination of land use planning between the different municipalities in a region.

In contrast, in Mozambique's deconcentrated DRR system, interviewees felt that recently real progress has been made in using deconcentrated structures to reduce the amount of time it takes for information to move from local committees up to the INGC, and ultimately to the Coordinating Council chaired by the Prime Minister.

4 Conclusions

This study poses two overarching questions: 'how can decentralization strengthen DRR?' and 'what obstacles are encountered and how can these be overcome?' The literature review and the four country case studies do not yield universal conclusions, as decentralization processes are complex political, administrative and fiscal processes that differ in every context. However, the evidence leads to some preliminary conclusions.

Local government involvement in DRR is essential since disasters are first experienced locally. Some DRR functions such as early warning systems work well when they incorporate local communities and knowledge, and local DRR preparedness is also critical. In an ideal situation, local government can be involved through administrative decentralization (deconcentration – in which central government oversees regional and district offices) or through political decentralization (devolution – in which responsibilities and powers are transferred from the centre to other levels of government).

Effective governance at national, subnational and local levels is vital for strong DRR. DRR risk assessments are generally conducted at national, subnational and local levels, with the scale, resolution, technical inputs and costs varying significantly at each level. A national risk assessment brings together high level national technical agencies, various databases and state-of-art software and focuses on technical capacity and excellence. On the other hand, local risk assessment can function in a decentralized manner with risk maps prepared from local records, emerging development plans, peoples' memories and their shared perceptions of risks and vulnerabilities. Generally, local government officials, educational institutions and citizens are the key participants in this risk assessment development.

In a similar fashion, early warning systems have several tiers. A national level early warning system is the backbone that supports local early warning systems. The national system has a countrywide meteorological agency with sub-offices that report to headquarters. These sub-offices do not engage in much lateral communication. The national agency issues warnings that provide broader trends and a general course of action, but are not sufficiently location-specific. A local early warning system works differently. The officers who issue the warnings are from local government; people who need to know are contacted directly; places that will be affected are pinpointed more accurately; and the action to be taken is described more precisely. The conclusion is that both national and local systems complement each other and need to be strengthened simultaneously.

Meanwhile, in many countries there is a vast difference between the anticipated benefits of decentralization and the reality of actually implementing the approach. **Decentralization is often expected to produce greater participation and more engaged decision-makers, local knowledge, funding and accountability. In reality, these results do not automatically occur.** Essentially, decentralization has the potential to lead to these improvements, but often fails to do so. The following major obstacles can hinder successful decentralized DRR:

- Failure to implement. Often, decentralized governance arrangements exist on paper, but are not fully implemented. In particular, financial arrangements can remain centralized, meaning the local government system does not have the resources to carry out its functions.

- Weak local capacity. Across developing countries, major problems include the lack of general local administrative and managerial capacity and little technical capacity to carry out DRR.
- Lack of political engagement in DRR. Interviewees in South Africa and Colombia consistently stated that local politicians did not engage in DRR as they did not perceive it to be a vote-winning strategy in comparison with engaging in disaster response.
- The wider political economy and governance environment. The local context is not divorced from the national political environment. Therefore, if central government is not performing on DRR, then local government will likely follow suit.
- Low public awareness of DRR. This leads to a lack of participation and engagement that, in democracies, reduces pressure on politicians to focus on DRR.

The report concludes that in developing countries **political decentralization in itself often does not systematically strengthen DRR**. Instead, it can introduce problems for DRR capacity, reduce the overall DRR funding available, complicate coordination and communication systems, and possibly reduce internal accountability on DRR issues. Information from a recent disaster prevention forum states that “future work would do well to recognize that decentralization has weakened many municipalities.”⁸ The evidence shows that devolution does generally create opportunities for citizen political engagement in DRR, but that the system’s decentralized mechanisms are often not used to raise DRR issues.

Many of these problems are related to inherent issues with decentralization processes and not specifically DRR. However, when DRR has a low political profile, these issues are likely to become worse (i.e. funding being diverted, weak participation and low capacity).

Therefore, in itself, political decentralization does not answer the question of how to strengthen DRR. It may be more useful to think in terms of ‘what conditions need to be in place for decentralization to strengthen DRR?’ This report’s research suggests that various key aspects must also be in place for decentralization to strengthen DRR:

- incentives that create strong political interest in and engagement with DRR issues (i.e. high disaster risk levels, personal liability of mayors, pressure from the electorate and academics, an engaged media, and convincing financial analysis of the cost-effectiveness of DRR);
- adequate local technical capacity, both to carry out DRR and general government duties;
- adequate general levels of financial resources and mechanisms to ensure that DRR funds are not diverted to other areas;
- High levels of DRR civic education and public awareness;
- Strong national government leadership and DRR enforcement mechanisms.

Bogotá, Colombia provides an example in which several of these conditions are in place and the city government has been able to use its decentralized powers and resources to improve DRR. A detailed case study of Bogotá’s effective DRR practise can be found in Annex C of this report. There are other major cities where local governments have achieved DRR success because they had adequate financial and technical resources These include metro Manila in The Philippines, Bangkok, Thailand, Tehran, Iran and Istanbul, Turkey.

The reality is that decentralization cannot improve DRR unless the above conditions are in place. Therefore, if these conditions are lacking it may be appropriate to consider using a deconcentrated system for DRR as an interim step. The Mozambique case shows that a deconcentrated DRR model can represent government down to the district level without necessarily running into the complications of a devolved system. However, it is suggested that a deconcentrated system should only be an interim measure; the ultimate aim is to include DRR across devolved systems of local administration. This is because devolution is more democratic and provides increased opportunities for participation, local legitimacy and community accountability and involvement. However, interim deconcentration can build DRR local capacity, political will and public awareness to a point at which devolved governance systems could provide successful DRR.

UNISDR's Global Assessment Report 2009 states that "institutional and administrative responsibility for risk reduction has to be vested at the highest possible level in government, in order to have the necessary political authority and resources to influence development policy."¹⁴ This is not necessarily the case – if several other conditions are in place, then DRR could conceivably be decentralized. Also, a heavily centralized system may not be responsive enough, with officials who know local realities, and may not be able to provide opportunities for citizen participation and involvement in DRR. Instead, in line with the principle of subsidiarity, decentralization of DRR activities should only happen in contexts with enough local capacity and resources for disaster risk reduction work to be carried out effectively.

5 Recommendations

This Section of the report sets out a series of recommendations to both the international community and national governments to strengthen DRR.

One of the major objectives of any seminal study is to serve as a catalyst to promote change. As such, UNDP/BCPR and UNISDR should continue to make this topic a priority. The recommendations presented in this report cannot be a blueprint. Instead, they are a set of rolling recommendations that recognize decentralization is very complex and multidimensional and unfolds in a variety of ways over time. Therefore, any future strategy needs to respond to ever changing conditions in the field and to opportunities to establish DRR. These recommendations can help UNDP/BCPR and UNISDR establish programme and funding priorities, identify coordination mechanisms and find appropriate entry points for decentralization and DRR. It is also critical for UNDP/BCPR and UNISDR to use the report to engage donors and national government staff in policy development discussions.

Recommended model for decentralizing DRR – an incremental approach

It is important that local governments play a role in DRR, but the report's findings suggest that rushing to decentralize DRR is not necessarily an appropriate strategy. In many developing countries, capacity constraints, low political will and poor public awareness of DRR issues, mean that authorities should consider using an interim deconcentrated DRR system. This decision would need to be taken on a case-by-case basis, but the Mozambique example shows that a deconcentrated DRR model can represent government down to the district level without necessarily running into the previously cited complications of a devolved system. To achieve a truly mainstreamed result, a deconcentrated DRR system needs to include participants from all government sectors. Otherwise, DRR risks becoming the mandate of one institution only, rather than being embedded in all government functions.

A deconcentrated model should still be only an interim measure; the ultimate aim is to include DRR across devolved systems of local administration because devolution is more democratic. For example, Mozambique's local committees set up as part of decentralized local administration include traditional community leaders and village chiefs. These individuals have more authority and influence over community behaviour than disaster managers recruited by central government and located at a district level.

Incentives

This report's research shows it is crucial to provide incentives for governments and people to engage in DRR. These incentives are needed for the following groups:

Politicians – in both South Africa and Colombia, local politicians engage more in disaster response than risk reduction, as they perceive the a quick response will be more likely to win favourable publicity and, ultimately, votes. Clearly then, there is a major incentive to build public pressure for DRR through public awareness and civic education campaigns. Evidence from Colombia and Indonesia also demonstrates the effectiveness of making local politicians personally liable for disaster-related deaths, with strong penalties including prison sentences and high fines. Another option is to use financial information that shows the potential future costs of disasters and the possible savings DRR can secure. This type of financial analysis was a strong incentive in Bogotá, Colombia.

Local officials – a key way to create incentives for local government officials to become involved in DRR is to include activities within their job descriptions and performance assessments.

Citizens –Section 4.3 spells out many barriers that block citizen participation in DRR. Therefore, creating citizen DRR incentives is very important. Pressure from citizens on their locally elected politicians encourages these officials to take DRR seriously. A first step is to launch public awareness campaigns that ensure that citizens understand disaster risks and DRR incentives. Then, steps can be taken to make any DRR approach more participatory. South Africa has been successful in using community risk assessments to make communities aware of their vulnerabilities and thereby to encourage DRR participation. In a similar way, some communities are more motivated to engage with DRR when they are confident the government is keen to find alternatives to the complex issue of resettlement. When individuals understand that DRR can help secure their personal assets they are more motivated to engage in it. For instance, crop storage solutions in flood areas in Mozambique, and participatory land use plans in Colombia have bolstered DRR approaches.

Disincentives

In both South Africa and Colombia, the national governments have created disincentives that stopped local governments from making DRR a priority. In both countries, national governments have provided ‘bail outs’ in emergencies, even if the local governments made no effort to reduce disaster risk in their areas. This national government action undermines legislation that makes DRR a municipal responsibility. It also sends a message to local governments that DRR expenditure is not necessary since higher levels of government will always finance costly disaster response operations. Obviously, in any emergency financial help should be available so citizens do not suffer. At the same time, penalties should be imposed on local governments that request post-disaster financial help when they have not undertaken DRR prior to a disaster. These penalties could include a public inquiry or fines. In short, national governments should ensure they do not create disincentives for DRR at the local level.

Capacity

This report’s proposed model of an incremental approach to decentralizing DRR is designed to counteract local weak DRR capacity. Other options for addressing this problem include:

- **strengthening current but imperfect systems and institutions;**
- **not decentralizing down to the lowest possible level,** but instead, for example, creating centres of excellence at district level in order to pool DRR technical resources and capacity. Several interviewees in South Africa recommended this strategy;
- **taking a ‘layered’ approach** in which different DRR functions are decentralized to different layers depending on capacity. However, none of the case study countries has taken this approach, so the report’s fieldwork team could not observe this strategy in operation. Instead, the evidence shows that DRR functions tend to be wholly devolved or retained centrally. Layering would have to take place with an effective understanding of the local context; it needs to avoid following instinctive logic. For each DRR activity, it is likely that national and local levels would each make

different contributions. For instance, it may seem obvious that the national level be responsible for risk assessments because it has the capacity to carry them out. However, in South Africa risk assessments are carried out in a participatory way at the community level; sometimes with good results. Similarly, in theory, it makes sense that local governments be responsible for disaster-related early warning systems. However, the opposite case has been effective in Mozambique; an excellent early warning system is locally operated but managed by central government. Essentially then, there are no obvious perfect approaches for layering DRR. Success depends on analysing the capacity gaps at each level of government, and more research is needed in this area.

- **Using academics and CSOs.** In Colombia, academic institutions have successfully provided technical DRR skills that local governments do not have, for example, in relation to risk assessments and financial analysis. These organizations tend to have fewer problems with staff turnover and can help to raise technical standards, thereby improving the credibility of information to the public. INGOs such as the Red Cross are also major DRR participants. In Mozambique and Colombia, they are critical to raising local resources.

Funding

One key problem in implementing successful DRR is the issue of funding. From a mainstreaming perspective, DRR should be incorporated across the entire local budget so that all sectors set aside funds for DRR. However, in South Africa, Mozambique and Colombia, this approach has been tried but has resulted in DRR finance being diverted elsewhere. This led several interviewees in South Africa, Colombia and Mozambique to request that local budgets contain an earmarked amount for DRR that all sectors can access. However, these funds would still require close management. In Mozambique, earmarked DRR funds were provided to the provincial government, but they were spent on other sectors. As a result, DRR funding was switched back to being channelled through regional INGC offices coordinated by the central government.

Likewise, it is important to ensure that finance earmarked for disaster management is also spent on DRR. In the case of Indonesia, the National Development Planning Agency, (BAPPENAS), stated that only 2.2% of the 2007 national budget allocated to disaster management activities went to DRR (the other 97.8% was used to finance post-disaster rehabilitation and reconstruction). In 2008, the percentage devoted to DRR increased to 15%. Therefore, there is a trade-off between mainstreaming finance for DRR across all sectors. On one hand, it means that funds are susceptible to being diverted. At the same time, earmarking funds in local DRR budgets may hinder mainstreaming efforts.

In recent years, donor funding for climate change adaptation has risen significantly. This may provide opportunities to link DRR activities more clearly with climate change adaptation work, and to use some of this funding to overcome disaster risk reduction capacity constraints within local government.

National leadership

Strong national government DRR leadership has a very positive effect on reducing the risk of disasters at the local level. This report's research suggests that the national DRR oversight agency plays a critical role in achieving effective local DRR. This is enhanced if the

organization is located in a powerful ministry or if it is linked to the office of the country's president or with another high-level authority.

Training politicians and policy-makers

All government staff need to receive DRR training. However, politicians potentially have a great deal of control over the workloads of public officials, so it is particularly important to train them in DRR. Political appointees who hold DRR positions should also receive mandatory training, along with elected councillors – preferably at the beginning of their term of office.

Bibliography

1. Clairs T. *Decentralization and Biodiversity Management: Opportunities to Improve UNDP – GEF projects*. Oslo, Oslo Governance Centre, UNDP, 2006.
2. UNDP. *Decentralised Governance for Development: A Combined Practice Note on Decentralisation, Local Governance and Urban/Rural Development*. UNDP, 2004.
3. Freeman et al. *Disaster Risk Management: National Systems for the Comprehensive Management of Disaster Risk and Financial Strategies for Natural Disaster Reduction*. Washington DC, Inter-American Development Bank, 2003. http://www.crid.or.cr/cd/CD_Inversion/pdf/eng/doc15073/doc15073-contenido.pdf
4. UNDP. *Governance for Sustainable Human Development: A UNDP Policy Document*. New York, UNDP, 1997. <http://gis.emro.who.int/HealthSystemObservatory/Workshops/WorkshopDocuments/Reference%20reading%20material/Literature%20on%20Governance/GOVERN~2.PDF>
5. Messer N. *The Role of Local Institutions and their Interaction in Disaster Risk Mitigation: a Literature Review*. Rome, FAO, 2003.
6. Lakshmi A, ed. *Building Local Capacities for Disaster Response and Risk Reduction*. An Oxfam/BEDROC study, India, Oxfam, 2010. <http://bedroc.in/report.pdf>
7. UNISDR. *Local Governments and Disaster Risk Reduction: Good Practices and Lessons Learned*. Geneva, UNISDR, 2010. <http://www.preventionweb.net/english/professional/publications/v.php?id=13627>
8. Pelling M. *Making Disaster Risk Reduction Work*. Dar es Salaam, Provention Consortium, 2007.
9. UNISDR. *Global Assessment Report on Disaster Risk Reduction: Risk and Poverty in a Changing Climate*. Geneva, UNISDR, 2009.
10. UNDP forthcoming. *Mainstreaming Disaster Risk Reduction into Development at the National Level: A Practical Framework*. Geneva, UNDP.
11. Kulipossa F, Duran L. *Support Elements for the Decentralization Process of the Integrated Disaster Risk Management*, Maputo, UNDP Mozambique, 2009 (unpublished).
12. Walker P. *Opportunities for Corruption in a Celebrity Disaster*. Background Paper submitted to the Expert meeting on Preventing Corruption in the Tsunami Relief Efforts, ADB / OECD Anti-Corruption Initiative for Asia and the Pacific, 7-8th April 2005. Berlin, Transparency International, 2005.
13. Bertelsmann Stiftung. *BTI 2010 – Colombia Country Report*. Bertelsmann Stiftung, Gütersloh, 2009.
14. UNISDR. *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*. Extract from the final report of the World Conference on Disaster Reduction. Geneva, UNISDR, 2009.
15. Jackson P. Chiefs, Money and Politicians: Rebuilding Local Government in Post-War Sierra Leone, *Public Administration and Development*, 2005, vol.25, pp.49-58.

16. Scott Z. *Decentralisation, Local Development and Social Cohesion Governance and Social Development Resource Centre (GSDRC) Research Paper*. Birmingham, GSDRC, 2009.
17. UNISDR. *Building a Local Government Alliance for Disaster Risk Reduction: The Incheon Declaration*, summary from the 11-13 August 2009 Conference. Incheon, South Korea, UNISDR, 2009.
18. Christoplos I. *Incentives and Constraints to Climate Change Adaptation and Disaster Risk Reduction – A Local Perspective*, Commission on Climate Change and Development. Stockholm, Commission on Climate Change and Development, 2008. http://www.ccdcommission.org/Filer/pdf/pb_incentives_linking_climate_change.pdf
19. Scott Z. *Decentralisation: A Topic Guide*. London, Commonwealth Secretariat, 2009.
20. Crook R, Manor J. *Democracy and Decentralisation in South Asia and West Africa: Participation, Accountability and Performance*, Cambridge, Cambridge University Press, 1998.
21. Crook R. Decentralisation and Poverty Reduction in Africa: The Politics of Local/Central Relations, *Public Administration and Development*, 2003, 'vol. 23, 77-88.
22. Robinson M. Introduction: Decentralised Service Delivery? Evidence and Policy Implications, *IDS Bulletin*, 2007, vol. 38, no. 1.
23. Robinson M. Does Decentralisation Improve Equity and Efficiency in Public Service Delivery Provision?, *IDS Bulletin*, 2007, vol. 38, no.1
24. Batley R, Scott Z. *Capacities for Local Service Delivery: The Policy Link Report to UNDP*. Birmingham, University of Birmingham, 2009.
25. Conyers D. Decentralization and Service Delivery: Lessons from Sub-Saharan Africa, *IDS Bulletin* 2007, vol. 38, no.1.

Other useful publications

ActionAid. *Disaster Risk Reduction: Implementing the Hyogo Framework for Action (HFA)*. ActionAid International Briefing Paper. London, ActionAid International, 2006. http://www.actionaid.org/docs/implementing_hyogo.pdf

Andrews M, Schroeder L. Sectoral Decentralization and Intergovernmental Arrangements in Africa, *Public Administration and Development*, 2003, vol.23, pp.29-40.

Ahmad J et al. Decentralization and Service Delivery, *World Bank Policy Research Working Paper*, 2005, 3603, Washington D.C.

Barron P, Clark S. Decentralizing Inequality? Center-Periphery Relations, Local Governance and Conflict in Aceh, *World Bank Social Development Paper*, 2006, no. 39, Washington DC.

Center for Disaster Preparedness Foundation Inc (CDP). *Enhancing Local Government Unit Capacities in Disaster Preparedness, Prevention and Mitigation, Final Report to Local Government Support Programme*, Center for Disaster Preparedness Foundation. Manila, CDP, 2005. <http://www.proventionconsortium.org/themes/default/pdfs/CRA/Philippines.pdf>

Devas N et al. *Financing Local Government*. Commonwealth Secretariat Local Government Reform Series, London, 2008.

Dilley M et al. *Natural Disaster Hotspots: A Global Risk Analysis*. Washington DC, International Bank for Reconstruction and Development/The World Bank and Colombia University, 2005.

Faguet JP. Does Decentralization Increase Responsiveness to Local Needs? Evidence from Bolivia. Washington D.C, World Bank Policy Research Working Paper, 2001.

Faguet JP. Decentralization's Effects on Educational Outcomes in Bolivia and Colombia. London, London School of Economics, 2006.

Gwimbi P. *Report of the South African Forum on Local Perspectives on Disaster Risk Reduction*. Provention Consortium, Johannesburg, 2006.
http://www.proventionconsortium.org/themes/default/pdfs/ProVention_IFRC_Johannesburg_ws.pdf

International Recovery Platform (IRP). *Local Governments and Disaster Risk Reduction, Extract from Info Kit 4 Disaster Risk Reduction and Preparedness*. Kobe, International Recovery Platform, 2009.

Jackson, P, Scott Z. Local Government in Post-Conflict Environments; Paper for UNDP. Oslo, Oslo Governance Center and University of Birmingham, 2007.

Jutting J et al. *Decentralisation and Poverty in Developing Countries: Exploring the Impact*. OECD Development Centre Working Paper no. 236, Paris, OECD, 2004,

Jutting J, Corsi E, Stockmayer A. Decentralisation and Poverty Reduction. OECD Policy Insights no. 5. Paris, OECD, 2005,

Kanta Kafle S, Murshed Z. *Community Based Disaster Risk Management for Local Authorities: Participant's Workbook*. Bangkok, Asian Disaster Preparedness Center, 2006.
'http://www.preventionweb.net/files/3366_3366CBDRMShesh.pdf

Kelly C. *Local Government Preparedness Assessment: Limbe and Montrouis, Haiti*, Consultant report provided by DAI and USAID. Washington DC, USAID, 2009.
http://pdf.usaid.gov/pdf_docs/PNADP070.pdf

Kocal YB. *The Role of Local Governments in Reducing the Risk of Disasters*, in 'The Role of Local Governments in Reducing the Risk of Disasters'. Washington DC, World Bank, 2006.

Provention Consortium. *Cities and Resilience*, Climate Policy Brief. Geneva, Provention Consortium, 2009.
http://www.proventionconsortium.org/themes/default/pdfs/Cities_Resilience_Climate_Policy_Brief_No_v09.pdf

Ribot J. *African Decentralization: Local Actors, Powers and Accountability*. Geneva, UNRISD, 2003.

Trohanis Z, Shah F, Ranghieri F. *Building Climate and Disaster Resilience into City Planning and Management Processes*, 5th Urban Research Symposium. Washington DC, World Bank, 2009.
http://www.preventionweb.net/files/12506_buildingclimateandEN.pdf

UNDP. *A Global Review: UNDP Support to Institutional and Legislative Systems for Disaster Risk Management*. New York, UNDP, 2007.

UNISDR. *Living with Risk: A Global Review of Disaster Reduction Initiatives*. Geneva, UNISDR, 2002.

UNISDR. *Words Into Action: A Guide for Implementing the Hyogo Framework*. Geneva, UNISDR, 2008.

Annex A - Case study background: decentralization and DRR

A.1 South Africa

Decentralization in South Africa is advanced and includes political, fiscal and administrative measures. It is a complex system with several ambiguities. South Africa has three 'spheres' of government – national, provincial and municipal – that are largely autonomous from each other. These spheres do not report to each other, although financial transfers are made between them. The municipal sphere is also divided into the metro/district level ('metro' is an urban area; 'district' is a rural area), followed by the local municipal level, and finally the ward level. Every ward has a locally elected councillor who sits on the local municipal council. Councillors are also elected to the district municipal council. The national government is only supposed to interact with the provincial level. In turn, the provincial level liaises with the municipal level so there is very little interaction between national and local levels. Meanwhile, some South Africans advocate removing the provincial level of government entirely, arguing that it blocks information flow and coordination between governments levels.

Within government, line functions differ across sectors in the way they are decentralized. For example, the South Africa Police Service operates on a deconcentrated model; accountability lines run from the national level directly down to the community level. In contrast, the Department of Health is a national department with separate provincial departments that are not directly accountable to the national government. Instead, they report to provincial governments. All the government-owned hospitals report to provincial departments of health although they provide services in local communities.

Each sphere of government has a mandate to play a different DRR role. The national level focuses on policy making and reporting and has an oversight role. The provincial level of government is expected to coordinate DRR activities within provincial boundaries. At municipal level, district and metro government is supposed to mainstream DRR activities through a bottom-up development planning strategy called the Integrated Development Plan (IDP). The ward level is to facilitate participatory and community approaches to DRR.

A.2 Colombia

The Natural Disaster Hotspot study by the World Bank, states that Colombia ranks 11th in the world for high economic risk to multiple hazards: 84.7% of Colombia's population and 86.6% of its assets are located in areas exposed to two or more natural hazards.¹ The country is exposed to both intensive risk events (mainly earthquakes, volcanic eruptions and occasional Atlantic hurricanes) and extensive risk events (such as floods and landslides).

Colombia is still undergoing a process of decentralization. Compared with other countries, it has made significant progress through delegating and deconcentrating government functions in many areas. However, full devolution is not a reality. This is partly because Colombia is a unitarian state and most local governments still depend heavily on Bogotá for decision-making. It is also partly because many local governments still lack basic capacities to

¹ See Table 7.2 in Dilley et al. *Natural Disaster Hotspots: A Global Risk Analysis*. 2005.

manage transferred funds, and do not have a clear constitutional mandate to raise their own resources.

Historically, fiscal decentralization preceded other reforms. In 1983, the government passed Act 14 to establish new rules on property boundaries and values, property tax and income tax. The changes were designed to strengthen mechanisms for local authority revenue collection and management. Later, a 1986 law strengthened the powers of municipal treasuries. Political decentralization also followed the same year, with laws establishing that mayors would be democratically elected. This fiscal and political decentralization underpinned widespread service decentralization to answer the criticism that the centralized arrangements of previous governments provided poor quality service delivery.

Colombia has three layers of government; national, regional and municipal or local. Many functions are decentralized including those within the health and education sectors. The country has made rapid progress in creating an appropriate legal and institutional framework, but decentralization remains a 'work in progress'. In particular, the regional level is regarded as weak, with no clear roles or mandates. This means that national government often seeks to communicate directly with local governments, bypassing the regional level all together. Furthermore, the local level lacks capacity and resources, so departments and municipalities have often not fully assumed their responsibilities. Colombia is an extremely diverse country – some regions are much poorer and less developed than others. Subsequently, the poor areas tend to have local governments that lack the technical capacity and resources of their wealthier counterparts. In general, the wealthier regions are the big cities, Bogotá in particular, and other cities in areas such as the coffee growing region. Local governments within these economic hubs tend to have much better resources than more remote municipalities, particularly towns with less than half a million inhabitants.

Back in the early 1980s, disaster risk reduction was the first government function to be decentralized. The National System for Risk Attention and Prevention (NRS) made municipalities responsible for risk management. Municipalities rely on three main instruments to mainstream disaster risk reduction into development strategies. These are plans for municipal development, land-use and environmental management.

A.3 Indonesia

After 32 years of autocratic rule, in 1998 Indonesia became a democracy. This transition implied rapid political and administrative reforms. An important component was the change from a highly centralized form of government to a decentralized structure. This change was intended to give more functions to the provincial/district level, thereby empowering local authorities and making government more accountable to local constituents. To date, the process of decentralization continues to evolve and is characterized by policy and regulatory inconsistencies.

In 2004, a devastating earthquake and tsunami that killed 200,000 people led the country to reassess its approach to disaster response and risk reduction. In fact, it shifted its focus from concentrating on disaster response to being centred on disaster risk reduction. In 2007, the Government passed its new Disaster Management Law (Law 24) and in 2008, Presidential Regulation No. 8 gave a legal mandate to the National Agency for Disaster Management (BNPB) to coordinate both pre- and post-disaster management activities, and to take charge of all activities in the emergency response phase.

Law 24 provides the basis for DRR in Indonesia. It makes national and regional governments responsible disaster management operations. The Law states that, 'the State of the Republic

of Indonesia has the responsibility for protecting all people of Indonesia and their entire native land in order to protect life and livelihoods, including from disaster.

The Law requires that disaster management be incorporated into national and regional development planning. Disaster risk reduction forms part of that planning and Article 37 of the law sets out DRR activities as follows: (i) identification and monitoring of disaster risk; (ii) disaster management participatory planning; (iii) promotion of a culture of disaster awareness; (iv) strengthening commitment to disaster management participants; and (v) application of physical and non-physical efforts, and instructions on disaster management

The National Disaster Management Agency is a non-departmental body equal to a ministry with a steering committee and an executive body. Each regional government is responsible for establishing its own identically structured disaster management agency. To date, all provinces have done so.

A.4 Mozambique

Mozambique is a very disaster-prone country and is particularly vulnerable to annual floods, cyclones and droughts. The country is in the inter-tropical convergence zone, southern Africa's thermal depression area and has over 2000 kilometres of coastline on the Indian Ocean. It also has arid and semi-arid zones with high rainfall variability and its position in the Rift Valley makes it vulnerable to earthquakes. In 2000, devastating floods killed approximately 600 people and caused approximately US\$ 450 million of damage. Over 400 boats and 21 helicopters were needed to handle disaster relief. Since then, the Government has made dramatic progress in reducing the risk of disasters. In 2007, similar floods occurred, but this time no one was killed, and only 50 boats and 3 helicopters were needed for disaster relief.

Mozambique has a comprehensive Disaster Management System headed by the Coordinating Council of Disaster Management. This Council is an interministerial forum chaired by the Prime Minister and includes many ministers. The Council undertakes DRR political work and approves the main policies and strategies. The National Institute for Disaster Management (INGC) is the Secretariat for the Coordinating Council and sits within the Ministry for State Administration. There is also a Technical Council of Disaster Management chaired by the Director of the INGC. The Council includes the national directors of the ministries represented in the Coordinating Council. It is a multisectoral forum that convenes once a month to discuss disaster management and DRR issues.

The INGC is an autonomous body with a budget that comes directly from the Ministry of Finance. The INGC also operates three regional offices (in the north, centre and south of Mozambique) and provincial technical councils. In districts there is often a district technical council – a multisectoral forum coordinated by the local government administrator. In some localities, there are also INGC-created and funded local committees for risk management that include representatives from the local community and Red Cross volunteers.

Many international donor agencies and INGOs carry out DRR activities in Mozambique, most notably UNDP and the Red Cross. Despite its high level of poverty, Mozambique is often viewed as a regional leader in disaster risk reduction.

Annex B Literature review

B.1 Decentralization changes government capacity

Decentralization changes the structure of decision-making and funding, since it changes to government's human resource and infrastructure needs. The general literature on decentralization clearly states that lack of human and financial resource capacity at a local level is a major obstacle that hinders local government effectiveness. Local governments in developing countries notoriously struggle with poor infrastructure (e.g. lack of computers, internet access, etc.), and human resource constraints (lack of funds to appoint enough staff, difficulty finding suitably qualified personnel). A common complaint is that responsibilities are decentralized, but there is no accompanying transfer of resources required to meet those responsibilities.

A common explanation for this is that central government is rarely keen to devolve power and resources. Therefore, decentralization remains something that works on paper, but is not operational in reality. For example, following pressure from donors, governments may embark on decentralization to offload some of their responsibilities or to establish power bases in the regions where government may previously have had little control.^{15,16} Several authors argue that local government is purposely kept underresourced by central government so it can keep most of the power.

Much of the DRR literature on local government focuses on the constraints imposed by limited local capacity. For instance, the Incheon Declaration – the outcome of the 2009 international Conference on Building a Local Government Alliance for Disaster Risk Reduction – states that a key challenge to effective DRR is local authorities' low institutional capacity to provide land and services to the poor. It notes that this leads to urban growth of informal settlements in hazard-prone areas.¹⁷ Similarly, Messer commented⁵ that local governments “lack the capacity to develop and enforce land use management plans and building standards to improve the conditions of these settlements,”⁵ and “local capacity thus remains one of the Achilles heels of participatory disaster risk management.”⁵ Christoplos commented¹⁸ that climate change adaptation (CCA) and “DRR ambitions are often too high.” He adds that “elaborate multifaceted programmes may reflect the complexity of the CCA/DRR problem, but they are unlikely to find a place within the existing plans of overburdened local officials.”¹⁸ This issue is linked to inadequate local DRR financing. Indeed, Messer commented⁵ that devolution of DRR responsibility often happens when central government does not have the financial resources to carry out the task itself, and therefore it is decentralized to local government.

B.2 Decentralization changes funding arrangements

Decentralization theory states that if governments devolve their responsibilities they should also transfer the associated necessary finance to the level of government taking on the responsibility. Fiscal decentralization allows local governments to be financed through intergovernmental fiscal transfers and by gaining the power to raise local revenues. In practise, the theory has not always been successfully implemented. Local governments often complain that they do not receive the financing needed to match their responsibilities. Central governments often have no incentives to provide adequate resources to lower levels of government by transferring revenue raising powers or by allocating financial grants. Often, fiscal decentralization does not result in as much revenue being collected as originally

anticipated. This is either because in developing countries local opportunities for raising revenues are so limited, or because the local authority does not have the capacity to administer tax systems and collect taxes.

The current DRR literature stresses the need to mainstream disaster risk reduction activities. It also calls for DRR to be incorporated into the activities of all sectors, rather than just being a stand-alone activity that works in isolation from other development activities. It is also true that many activities that could legitimately be described as DRR are carried out in isolation. These 'non-implicit' activities make it very difficult to trace DRR projects and funding. From a mainstreaming perspective, it is preferable to have DRR incorporated across the entire budget so all sectors can gain access to DRR funds, rather than having a separate fund. However, tracing non-implicit DRR funding is difficult and few studies have assessed whether this approach is effective, particularly in contexts of high competition between sectors for funds and low political will for DRR.

B.3 Decentralization affects participation

One of the key arguments in favour of decentralization is that it increases citizen participation. When decentralization is democratic, on a basic level, opportunities automatically open for citizens to participate through local elections, committees and forums, etc. However, few studies specifically attempt to measure and evaluate the broad impact of decentralization on participation. The literature tends to assume that decentralization improves participation because it makes theoretical sense, not because of overwhelming empirical evidence.¹⁹

Similarly, much of the literature fails to discuss whether participation – even if increased – actually leads to greater reform that helps poor people and improves accountability. Studies that do consider this question seem to show that local participation does not automatically lead to a greater poverty focus. Crook and Manor²⁰ analyse decentralization in Ghana, Cote d'Ivoire, Bangladesh and Karnataka (India). They argue that decentralization increased participation in each country, but note that enhanced participation alone is not enough to improve service delivery. Crook emphasizes this finding in a later paper²¹ when he states that "[a]lthough there are examples of decentralized government in Africa enhancing participation, there is very little evidence that it has resulted in policies that are more responsive to the 'poor' – or indeed, to citizens generally."²¹

In terms of disaster risk reduction, the literature shows there is little reason to assume that decentralized governance structures automatically lead to more participatory DRR. It also notes that that one cannot assume increased participation will ultimately lead to 'better' DRR policies and programmes that more adequately represent society's poorer groups – people who are always most affected by disaster risk.

The DRR literature is similar to the broad literature on decentralization and participation. In general, it states that decentralized DRR is more participatory. In fact, a participatory governance system and structure are the most commonly mentioned feature of a supportive local governance DRR environment in which local citizens are able to participate in design, planning and implementation of DRR activities.^{8,5,7,9} This is viewed as a critical step in creating a strong sense of local buy-in and ownership of any DRR work. Various experts argue this is important as it first allows people with local knowledge, skills and experience to shape DRR design. Second, it raises local awareness and therefore increases the chance that DRR measures will be accepted on the ground. Several experts also believe that participation leads to greater accountability – citizens are more aware and engaged and are therefore more able and likely to hold local government to account for its DRR progress (or

lack of it). This theory is widespread in the DRR literature, but there was no strong empirical evidence for it and for the research studies that supported this view.

Instead, there is some evidence of barriers to participation. For example, it is often argued that the poor do not have the time or resources to participate in political affairs. Messer⁵ concurred with this view. He noted that in Chad poorer population groups do not have the time and capital to participate in local organizations as much as other groups, and must mainly assume risk management on their own. He also noted that the limited participation of poorer groups at the community level results in diminished risk management possibilities such as those acquired through participation in reciprocity mechanisms, voluntary transfers, etc.⁵

Decentralization may facilitate participation. However, if there is little DRR awareness among the population, accompanying DRR education and awareness campaigns will be needed to increase the likelihood of participatory DRR.

B.4 Decentralization changes accountability structures and enforcement mechanisms

It is often claimed that decentralization improves government responsiveness and accountability to citizens, as they can hold local representatives to account over their actions and policies in devolved systems of governance. In the final analysis, locally elected representatives can ultimately be voted out of government if the electorate perceives they did not adequately represent their interests. Citizens can also participate in local committees, forums, etc. as ways to make demands on government. However, recent research questions this theoretical assumption, and Robinson^{22,23} emphasized the lack of supporting evidence. There is also little discussion of how decentralization changes the internal accountability systems of government, or 'chains of command', apart from noting that central government plays a key role in enabling local government by providing leadership.²⁴

In relation to DRR, the literature does not address the issue of how decentralization changes the accountability and enforcement of DRR policy and activities. The literature review did not reveal any resources that investigated these issues in any depth.

B.5 Decentralization changes the location of decision-making power

The wider literature on decentralization often assumes that it creates decision-makers with more access to local knowledge and added incentives to act on important local issues because they are among those affected. Essentially, the theory states that if a decision-maker is located in a district government and not in central government, he or she will be more aware of local development issues and service delivery problems, and therefore have more incentive to act.

However, this theory is not supported by strong empirical evidence and several experts argue that a politician's or official's geographical location is less important than the inherent institutional culture. For example, Conyers²⁵ argued that "most of the weaknesses of local governments – including their lack of power – are a reflection of the problems of governance in general' in a specific country. Local officials may be located closer to the citizens they are meant to serve, but this does not automatically make them more participatory in their practises or more interested in representing citizens' concerns.

The DRR literature also tends to assume that if decision-makers are located geographically close to disaster risk this will lead to increased dedication to DRR activities. For example,

Christoplos stated¹⁸ “Decentralization is probably good for climate change adaptation/disaster risk reduction since it puts decision-making in the hands of those who are directly experiencing climate change and disaster risks.”

The literature review offered no discussion of DRR-related studies that either supported or refuted these claims.

B.6 Decentralization affects communication and coordination within governments

Several decentralization researchers highlight problems with central-local government relations within political decentralization, for instance, lack of trust and poor communication between layers of government.²¹ In the context of DRR, it is vital to coordinate the activities of many stakeholders inside government, as well as to achieve coherence between different government departments and sectors. Otherwise, DRR work will not progress. DRR requires strong sectoral collaboration, along with robust administrative capacity for joint working. Messer⁵ stated that “The thematic breadth of necessary mitigation and preventive measures, as well as the intimate linkage between natural disasters and development illustrate that DRM needs the collaboration of a wide cross-section of participants from different sectors.” Therefore, it is important to analyse the impacts of decentralization on coordination and communication and to identify examples of good practice.

In many developing countries, disaster legislation has led to a proliferation of local disaster management committees, often without considering if they are viable or have adequate technical and financial resources. The Maldives is a case in point. It is one of the smallest countries in the world; just 300,000 people live there. Yet it has a National Disaster Management Council, a National Disaster Management Committee and both island- and atoll-level disaster management committees. Some observers argue that creating this large number of committees in the name of decentralization has weakened the country’s disaster management structure.

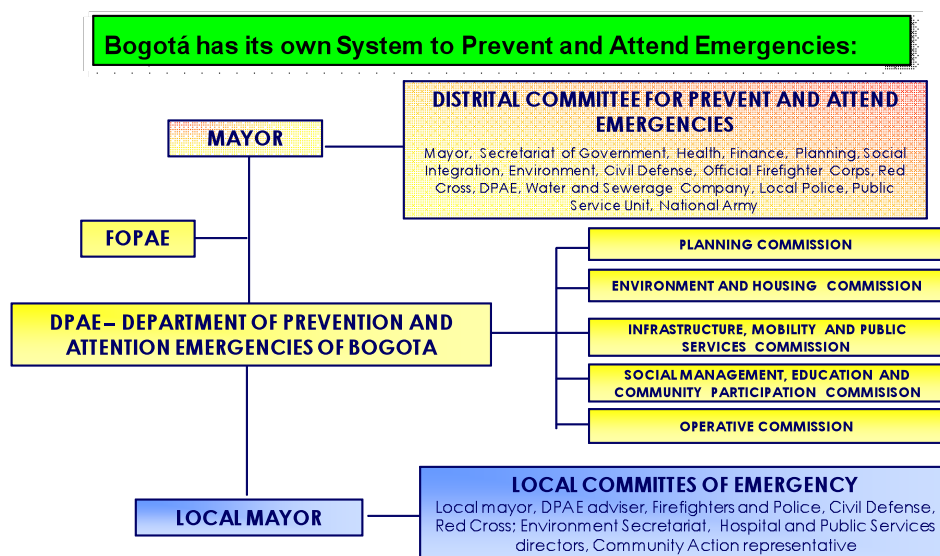
Annex C Bogotá case study

Bogotá is the capital of Colombia. In 1993, the city administration decided to decentralize its functions and passed a law called the ‘Organic Statute’ that enabled the city administration to – among other things – establish its own transport and tax policies, institutional arrangements and DRR. The city’s changes show how decentralization can strengthen DRR by keeping disaster risk management separate from the national system.

This approach has been successful for many reasons including:

- extensive publicity campaigns that spelled out the city’s vulnerability to disasters including earthquakes and flooding. Floods and landslides frequently affect Bogotá and the city also faces relatively high seismic risk. The recurrence of disasters has increased political awareness in the city;
- a history of electing DRR-engaged mayors. Antanas Mockus was mayor of Bogotá from 1995 to 1998 and included DRR as one of his government’s priorities for ‘protecting life’. He assigned resources to increase information on disaster threats and to strengthen people’s knowledge of Bogotá’s seismic risk. Since then, other political leaders were also aware of and interested in DRR. Lucho Garzon, the mayor, from 2004–07, also included DRR in his political programme. He was particularly motivated by the impact an earthquake could have on children. Garzon’s government launched a plan that included works to reduce earthquake vulnerability in over 200 public schools;
- a strong state presence. The National System for Disaster Prevention and Response (SNPAD) is decentralized and enables Bogotá to have its own DRR system and an independent disaster risk management office. Bogotá’s system effectively assigns responsibilities to different city participants and coordinates the work of the various institutions involved.

Figure 1. System for prevention and emergency response: Bogotá



Bogotá has a 10-year plan established by decree in 2006, the ‘Plan for Prevention and Emergency Response’. It defines policies, general objectives, areas, strategic zones and programmes that guide the city’s public and private DRM activity and includes:

- allocating higher levels of local revenue income that the mayor can choose to assign to DRR;

The Fund for Prevention and Emergency Response (FOPAE) was established in 1987 and is part of Bogotá's DRM system. DRM awareness led the city government to allocate to the FOPAE a fixed percentage of income collection. The Fund receives 0.5% of tax income which the city uses to invest in DRR. Funded activities are prioritized according to one-year and 10-year prevention and emergency response plans that emphasize disaster prevention. Case study interviewees said the city currently assigns approximately 80% of its DRM resources to risk prevention activities.

- technocrats, not politicians occupy key DRR positions;

Public officials in charge of managing DRR in Bogotá are technical consultants who do not depend on political support. They have the technical knowledge to make appropriate decisions on prevention and mitigation, including decisions that are sensitive matters for the population and the private sector.

- an educated population that is aware of the risks due to several high-profile public awareness raising campaigns;

One component of Bogotá's long-term strategy is to increase children's awareness of disaster risk. The city's Secretary of Education has produced education tools (books, videos, etc.) that are used in private and public schools. In 2004, the city also launched a communication campaign – 'Bogotá with its feet on the ground' – that is still currently active. It aims to make all city residents aware of the need to be informed and prepared in case a strong earthquake hits the city. The campaign also focuses on educating children on disaster risk in Bogotá. Its success is shown by the fact that over 3 million people participate in the annual simulated earthquake drills run by the city.

- engagement of a range of participants;

The topic of DRR in Bogotá has permeated various parts of society. Academics are actively involved in generating information, the media plays an important role in spreading disaster risk information, and the private sector also supports DRR activities. For instance, a group of manufacturing companies in Puente Aranda, one of Bogotá's industrial neighbourhoods, has included DRR as part of its strategic plan. Bogotá's water and sewage company has done the same.

Annex D List of participating institutions

D.1 Colombia

Government organizations

- National Risk Management Department (DGR)
- National Planning Department (DNP), Sustainable Environmental Development Section
- Ministry of Environment, Housing and Territorial Development
- Department for Prevention of and Response to Emergencies, Bogotá (DPAE)
- National Geological and Mining Institute (INGEOMINAS)
- Geographical Institute Agustin Codazzi (IGAC)

Non-governmental organizations and donors

- United Nations Development Programme (UNDP)
- US Agency for International Development (USAID)/ Office of US Foreign Disaster Assistance (OFDA)
- Red Cross
- OXFAM
- Office for the Coordination of Humanitarian Affairs (OCHA)

Academic institutions and others

- National University of Colombia (Manizales)
- University of Los Andes
- Various experts in:
 - decentralization and disaster risk management
 - economic policy and disaster risk management
 - disaster risk management for the Andean countries

D.2 Indonesia

During the research approximately 35 individuals were interviewed from the following institutions:

Government organizations and parliament

- Ministry of Home Affairs
- National Development Planning Agency (BAPPENAS)
- Meteorology, Climatology and Geophysics Agency (BMKG)
- Public Works Department
- Jakarta Provincial Government
- Ministry of Social Affairs
- Indonesian Democratic Party of Struggle (PDIP)
- Indonesian Parliament

Non-governmental organizations and donors

- Board of Humanitarian Forum Indonesia
- Satunama, Jogjakarta
- Skala
- Indonesian Society for Disaster Management (MPBI)
- Humanitarian Forum Indonesia (HFI)
- Handicap International Kupang
- OXFAM UK
- UNDP

Academic institutions and others

- Gajah Mada University
- Dryland Crisis Centre, Cendana University
- Muslim Student Association, Kupang
- Christian Student Association, Kupang Branch
- Unilever
- Media

D.3 Mozambique

During the research, more than 25 individuals were interviewed from the following institutions:

Government organizations

- INGC
- Ministry of Public Works and Housing
- Electoral Administration
- Mozambican Chapter of the APRM
- SETSAN

Donor agencies and embassies

- DFID
- UNDP
- Danish Embassy
- Norwegian Embassy
- GTZ

- World Food Programme

Nongovernmental and research organizations

- Eduardo Mondlane University
- Red Cross

D.4 South Africa

During the research approximately 30 individuals were interviewed from the following institutions:

Government organizations

- National Disaster Management Centre (NDMC)
- Department of Transport
- Department of Agriculture, Forestry and Fisheries
- Department of Defence
- Department of Water and Forestry Affairs
- Department of Human Settlements
- South African Police Service
- Provincial Government of Kwa Zulu Natal
- Disaster Management Centre, West Coast
- City of Johannesburg
- City of Tshwane
- Ekurhuleni Metropolitan Municipality

Nongovernmental organizations and donors

- World Vision
- UNDP
- UNOCHA

Academic institutions and others

- University of Free State
- GCRO, Wits University
- Independent consultants