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**FINDING THE MISSING THREAD: THE INCLUSION OF A HUMAN RIGHTS-BASED APPROACH IN TACKLING CLIMATE CHANGE MITIGATION, ADAPTATION AND DISASTER RISK REDUCTION**

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Table of Contents

Introduction 3

Climate Change Mitigation, Adaptation and Disaster Risk Reduction 4

Climate Change Mitigation and Human Rights 6

Climate Change Adaptation and Human Rights 6

Disaster Risk Reduction and Human Rights 7

The Human Rights-based Approach and why it should integrate Climate Change (Mitigation and Adaptation) and DRR 8

Learning from the Case Studies 11

Conclusion 17

References 18

## Introduction

The early discussion on climate change focused mainly on mitigation efforts, especially the need for states to reduce greenhouse gas emissions. The discussion later also developed towards adaptation to climate change, which is in many aspects linked to disaster risk reduction (DRR), for both aim to decrease vulnerability and enhance communities' resilience to disasters linked to natural hazards. However, the discussion has missed an important focus on human rights in the process of addressing climate change, both in mitigation and adaptation efforts. The promotion and encouragement of respect for human rights and fundamental freedoms figure among the purposes of the United Nations. We argue that a human rights-based approach (HRBA), i.e. participation in political life, consultation of affected groups in decision-making processes, access to justice, due process, transparency and accountability provide excellent tools towards a real positive change, including, but not limited to climate change.

We compare four case studies regarding which the legal framework on DRR was recently and jointly researched by the IFRC and UNDP: Brazil, Dominican Republic, Ethiopia and Nepal. Our focus is on how human rights affect progress, or lack of it, in the advancement of DRR, climate change adaptation and climate change mitigation.

The cases covered demonstrate that the mere existence of national legislation covering natural disasters including disaster risk reduction may not be sufficient, but that what enhances the protection of individuals from natural disasters is a rights-based approach to DRR, climate change adaptation and mitigation. Regardless of various ambitious policies on natural disasters we argue that if such basic issues like the human rights protection and empowerment of local community is missed, this impedes the efficiency and effectiveness of efforts to reduce or manage disaster risk and climate change. We argue for the promotion of a HRBA and its adoption in the development of a post-Hyogo Framework for Action.

The paper is structured as follows. Part one reviews the literature on climate change, especially mitigation and adaptation, together with the literature on disaster risk reduction. The aim is to present key concepts and to demonstrate how human rights appear in the literature dealing with each of these subjects. Part two covers the notion of a human rights-based approach and why it should be included in initiatives aiming to tackle climate change (mitigation and adaptation) and disaster risk reduction. Part three deals with the case studies and demonstrates that countries in which more respect for human rights took place also presented a better resilience and less vulnerability in terms of coping with natural hazards and disasters. We argue that therefore it is important to include human rights in a post-Hyogo Framework for Action, an important aspect that is currently missing.

## Climate Change Mitigation, Adaptation and Disaster Risk Reduction

What is climate change? What does climate change mitigation and adaptation measures mean and what examples fall within each category? What is disaster risk reduction and how does it relate to climate change? This section addresses these questions and related issues.

It is commonly believed that **climate change** and global warming are linked to the greenhouse effect (see e.g. Glazebrook, 2009, 329). Greenhouse gases such as water vapour, carbon dioxide, nitrous oxide, chlorofluorocarbons, ozone and methane allow solar energy to reach the earth's surface. Such gases absorb the heat radiation and hence prevent the spread of the radiation back into the space. This is a process that occurs naturally, resulting in heat that warms the atmosphere, and which creates conditions sufficient to sustain life on our planet. The theory of climate change suggests that the temperature increase in the planet is due to the rising of greenhouse gases emission by human action. This leads to changes in the climate, namely an increase in the temperature around the globe.

An important aspect to bear in mind in relation to the debate on climate change is that although it is often suggested that climate change is linked to anthropogenic action, in fact the action of individuals (and companies set up by individuals) based on rich countries are overwhelmingly linked to the increase in the greenhouse gas emission. This gives a smack of injustice, for the poor is left with no choice but paying together with the rich for the burden mainly caused by the rich. The literature captured these developments as suggested by Knodel (2012, 130):

« The driving forces behind the negative impacts of global climate change illustrate a disparity between those countries that have developed and profited on cheap fossil fuels and those countries that now bear the burden of paying the externalized costs of such development. »

But more than that, it actually appears that the poor is paying the lion's share in the negative impact on climate change. This is due not only to the already stretched socio-economic setting of poor countries, but also because of the considerable economic cost of strategies aiming to coping with climate change - namely climate change mitigation and adaptation. The South African Archbishop Desmond Tutu has criticized the scarcity of resources in this context and the global inequality further exacerbated due to climate change-related developments:

« No community with a sense of justice, compassion or respect for basic human rights should accept the current pattern of adaptation. Leaving the world's poor to sink or swim with their own meagre resources in the face of the threat posed by climate change is morally wrong .... We are drifting into a world of “adaptation apartheid»[[1]](#footnote-1)

These developments also give a strong sense that climate change provides us with the opportunity of seeing clearly disparities across the globe, including the uneven distribution of wealth, the unequal life standards, and the further negative impact experienced by the global poor. This observation is probably among the reasons why early writing on climate change has focused on the macro perspective of the equation—namely rich nations with great levels of GHG emissions versus developing states that historically did not pollute as much as rich nations. Although the exposure to the negative impacts of climate change differently experienced by the rich and the poor countries in the globe is definitely one important aspect to be debated, this paper will not focus on it. Rather, the focus will be the micro or individual level, namely on how the empowerment of individuals across the globe (and, from our case studies, mostly in the developing world) shall enhance their ability to deal with challenges posed by climate change.

But before we start our discussion on human rights, we will first identify the key pieces in the climate change jigsaw. If one accepts the climate change theory as outlined above, the next step is to decide what to do in order to cope with the challenge posed by climate change. Two important measures arose from this discussion. They are: climate change mitigation and climate change adaptation.

Climate change **mitigation** aims to slow, stop or reverse climate change, in particular through the reduction of greenhouse gas emissions. The goal here is to address problems at the macro-level, that is, large emissions of greenhouse gases, mainly from industry. Therefore, climate change mitigation efforts have been carried out mainly at international level with negotiations involving different national delegations (HALL and WEISS 2012, 315).

Climate change **adaptation** measures are mainly advocated by those who consider too late for climate change to be contained or reversed only with correction measures. The preferred way would then be to adapt for climate change, in an effort to minimize harm arising from climate change. Examples of adaptation measures include vulnerability assessments, response strategies, capacity-building, risk reduction strategies, disaster reduction strategies and economic diversification to build resilience (Glazebrook, 2009, 337).[[2]](#footnote-2)

In this context, what can one say about **disaster risk reduction** (DRR)? What place it occupies in this debate? As hinted from the above, DRR can be one example of climate change adaptation measure. However, DRR is more than that, for it is not limited to climate change, since disasters also occurred before the issue arose in recent decades. According to the United Nations International Strategy for Disaster Reduction (UNISDR) disaster risk reduction is "the concept and practice of reducing disaster risks through systematic efforts to analyse and reduce the causal factors of disasters."[[3]](#footnote-3) Examples of DRR measures include reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events.

We will now turn to the literature covering the three notions just outlined. How human rights appear in the discussions on climate change mitigation and adaptation, and on disaster risk reduction? Is there any reference to the need for a human rights-based approach, and how far such inclusion is suggested?

### Climate Change Mitigation and Human Rights

On the issue of climate change mitigation and human rights POSNER (2006-2007) focused on human rights litigation and investigated whether it could serve to limit the greenhouse gas (GHG) emissions. He concluded this might not provide the best avenue for advancing climate change mitigation. He points out the shortcoming is that litigation cannot address a global problem, though it can bring world attention to it—and potentially make world leaders realize we need a joint approach to a global problem.

Since the treaty making exercise to limit GHG emissions has failed to secure universal state support,[[4]](#footnote-4) Posner investigates the judicial option. His focus is on the US system, and he uses Alien Torts Act (ATS) litigation as example. The ATS allows non-Americans to bring claims in American courts based on torts that violate treaties and customary international law (POSNER, 2006-2007, 1928). Respondents could be private individuals and companies (American or not) and state officials (though sovereign immunity may halt litigation against states). He argues that the possibility of individuals claiming they have a human right violated by the emission of GHG is not normatively attractive, especially because the human right to a healthy environment is contested internationally. He raises doubts on the parties, the cost of the process, proof of causation by the respondent (corporation or other) for climate change, the risk of corporations evading the US, etc. Similarly, HALL AND WEISS (2012, 313) do not see much hope in using a human rights framework for climate change mitigation, for there are too many conceptual uncertainties especially around the identification and delimitation of obligations of duty-bearers and right-holders, coupled with difficulties in establishing the causal action linked to the negative effects of climate change.

The bottom line here is that to use the human rights framework as potential judicial avenue for addressing climate change mitigation is not a good idea. However, the literature does not further investigate how human rights should be taken into consideration when climate change mitigation measures take place, regardless of any litigation model. The literature also does not clearly address whether there is a need to incorporating a human rights-based approach in mitigation efforts.

### Climate Change Adaptation and Human Rights

HALL and WEISS (2012) suggest that the link between climate change adaptation and human rights is easier made, for two main reasons. Firstly adaptation measures are relatively clearly designed and assigned to particular actors, mainly states, and therefore in case of defective action or inaction it is easier to identify those responsible. Secondly, the authors argue that adaptation measures tend to take place at the community and local levels, therefore they are relatively small-scale and can be identified in terms of accountability for those involved. This also facilitates monitoring adaptation measures so as to make sure measures reach those most vulnerable in society (HALL and WEISS 2012, 322; 352).

A distinction between two types of measures is suggested in the literature. They are proactive and reactive climate change adaptation measures (HALL and WEISS 2012, 321; 326). *Proactive climate change adaptation measures* include those that are taken in anticipation of likely changes in the community and environment due to climate change. They comprise the training of volunteers, evacuation exercises, building protective sea walls or reinforcing or elevating bridges that are likely to be hit during extreme weather events etc. *Reactive climate change adaptation measures* are those taken in reaction to harm already experienced due to climate change. They include post-disaster recovery programs, and relocation and shelter for victims. Both types of measures are possible to be linked to human rights, especially if we consider there is a need to engage community members, notably vulnerable individuals, in such initiatives that affect their lives.

HALL AND WEISS (2012) emphasize that human rights have a role to play in climate change, especially when we consider adaptation separated from mitigation. They identify key areas in which human rights could play in this context including information gathering and sharing on adaptation projects, especially relating to initiatives at the community level (HALL and WEISS 2012, 357-358). Human rights can also make a difference by being taken into account by communities in their decisions making on adaptation projects. For example in Angola community based adaptation projects clearly referred to the human right to adequate food and therefore emphasized on the need for diversifying crops in a sustainable way. Furthermore human rights should enhance procedures in which adaptation projects take place, making sure that communities are not only informed and take part in the decision-making, but also that they have access to remedial mechanisms.

Thus, at least part of the literature sees possible and indeed advisable to link human rights to climate change adaptation measures. However, it is to be noted that the literature suggests that the possibility of holding states accountable for failure or defective action in terms of climate change adaptation measures is likely to occur only *after* a disaster took place (HALL and WEISS 2012, 348). Thus, eventual responsibility of states to take climate change adaptation measures as a means to protect people from disasters seem at the moment in need of further investigation.

### Disaster Risk Reduction and Human Rights

In relation to DRR, one of the recommendations of the mid-term review of the Hyogo Platform for Action was to integrate climate change adaptation measures to initiatives on disaster risk reduction (UNISDR 2011, 50-52). So far it seems that frameworks and policies on the two topics are not always linked and therefore consistency is much needed. Beyond that, we argue that both have to make sure to include human rights, and the GAR15 provides a window of opportunity for this to take place.

On the possible link between DRR and human rights, KÄLIN (2011, 2) suggests that within and outside the context of climate change, there is much benefit in adopting a human rights-based approach to enhance individuals' resilience. He recalls the Budayeva case decided by the European Court of Human Rights in 2008. In that case public authorities did not take timely and effective preventive action to halt a mudslide that was predicted and that indeed later on occurred, killing eight persons. The Court found Russia in violation of the right to life, and also it spelled out the duty of states parties to protect life, including in relation to natural disasters. In other words, the Court did identify the obligation for states to take action to reduce the risk from the occurrence of natural disasters. Actions expected from states in this context include to adopt appropriate legislative measures to deal with disaster risk reduction, to set up administrative procedures to monitor potentially dangerous situations, to inform the population about risks, to set up early warning systems should a danger be imminent, to evacuate the population, to conduct criminal investigations to find out about responsibility of authorities who did not timely act, and to compensate survivors from neglect by state authorities (KÄLIN, 2011, 2). It is however unclear if the Court would reach similar conclusion had the events not developed so dramatically. In other words, one can argue that the Court benefited from hindsight of knowing that the natural hazard led to a natural disaster. It is however by no means clear whether the Court could find already a violation of the positive state obligation to protect the right to life (to take action) if the events that later unfold did not lead to any casualty. In other words, it seems easier to link DRR with human rights especially in cases in which the lack of appropriate action in this area seems to have contributed to the later occurrence of a disaster in a given community.

Leaving aside for the moment the discussion on the exact content of the responsibility of states to protect individuals from natural hazards, and considering the wide possible breadth of DRR measures, it seems that human rights have definitely room for informing the subject.

Aspects of relevance in terms of DRR include those that relate to individuals' vulnerability to disasters, for example the quality of public health service, of livelihoods, housing, of official disaster prevention efforts and response mechanisms, and of the environment. If all or some of those aspects present themselves adversely, it is very likely that the population will be more vulnerable to disaster (FISHER, 2010, 564).

## The Human Rights-based Approach and why it should integrate Climate Change (Mitigation and Adaptation) and DRR

As suggested by HALL and WEISS (2012), human rights are specially suited to inform the climate change debate for two main reasons. First of all because human rights focus primarily on state action, and climate change is also linked to state action (especially of developed nations which over many years consistently emitted GHG). Moreover, the most vulnerable individuals and communities of the globe will be particularly hit by the harmful impact of climate change, and the human rights framework is meant to assist especially those most in need.

For BARNETT (2010), the level of enjoyment of human rights of a given individual or community will very much determine the negative impact experienced from climate change. For example, in any setting farmers who depend on natural resources and favourable climate to make their living including to realizing their right to food will face a difficult position if for example their lands are suddenly flooded. However, in countries where there is no social security system in place, or where freedom of movement is restricted farmers will be worse off, for they will have less alternatives for coping with the situation (BARNETT, 2010, 259).

If we accept that human rights shall inform the debate on climate change and DRR, one should go further and inquire what is a **human rights-based approach** (HRBA)? For the United Nations Office of the High Commissioner for Human Rights (OHCHR, 2006, 15), the HRBA is:

«(…) a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. »

Originally the HRBA was linked to development efforts, and it sought to address inequalities considered to be linked to development. It also sought to redress discriminatory practices and unjust distributions of power considered to impede development progress. Later on, the OHCHR would refer not to one HRBA but to 'various human rights-based approaches' (OHCHR, 2008, 7). The common characteristics to be found in different HRBAs were boiled down to: linking development goals to human rights standards; focusing on marginalized groups, empowerment and participation; and ensuring accountability of duty-bearers.

It was further suggested that human rights cannot be expected to provide detailed recommendations for good development processes or clear answers to resource-allocation and policy choices. Rather, human rights provide a conceptual framework for evaluating and improving practice and ensuring that decision-making is more reasonable, objective and transparent, and will benefit those living in poverty (or those found most vulnerable in a given situation). Nowadays the HRBA surpassed the development sphere only, and it has been referred to in different contexts, including on climate change and disaster risk reduction. Therefore, we believe that a HRBA could inform efforts to deal with climate change (mitigation and adaptation measures), and DRR. A HRBA integrating initiatives in such areas should not precisely tell people what to do, but rather remind them they should pay attention to human rights and their potential breach. The HRBA would for example suggest that the most vulnerable should not be left out, that individuals have rights and that they have to be given the opportunity to take part and effectively contribute in the decision-making process on actions that will impact their lives, including in relation to climate change.

How should a human rights-based approach integrate climate change **mitigation**? The discussion on mitigation, as outlined earlier, tended to focus on litigation based on human rights, or on the identification of duty-bearers and rights-holders in relation to climate change. We argue that despite difficulties in litigating on mitigation measures and on precisely defining what role each actor fills, these are issues that should not impede mitigation initiatives to pay account to human rights principles, even if they may not be justiciable. In relation to duty-bearers and rights-holders, the OHCHR suggests that the HRBA should facilitate the process of developing these concepts, but this is only one among other aspects part of a HRBA.

For the OHCHR a HRBA indicates that "human rights standards must constitute the objective and guiding principles of development, and that the capacities of duty-bearers and rights-holders must be strengthened” (OHCHR, 2008, 7). Thus, the rationale suggests rather a process in which capacities of different actors will be developed and strengthened, and we argue that although in the developmental context this might be clearer, in the context of climate change mitigation this may increasingly gain further clarity.

On a possible human rights legal basis for climate change mitigation efforts, we recall the notion of solidarity rights, namely rights to be enjoyed not only by individuals, but by collective entities. One example of such category of rights is the right to a healthy and safe environment. It is clear that at this point in time it is largely not possible to bring a complaint before judicial courts based on this, also bearing in mind the difficulties in identifying the role played by different actors. However, this difficulty should not impede one to realize that we still share one single planet and that it is on the interest of everyone to keep the planet 'alive'. Thus, every nation and every actor counts and each one is expected to act towards the common goal.

How should a human rights-based approach integrate climate change **adaptation**? Adaptation comprehends measures that aim to reduce vulnerability with the view to cope with the increased occurrence of natural hazards due to climate change, which may or may not lead to natural disasters. We suggest that by incorporating a HRBA to adaptation efforts progress should be made especially in terms of access to information, participation of those involved in the process or potentially affected, enhancing transparency of the process, and finally setting-up remedies to those that argue their rights were violated in this context.

How should a human rights-based approach integrate **disaster risk reduction**? In priciple this should be done very similarly as in relation to climate change adaptation. Once again, disaster risk reduction can be linked to climate change adaptation, but it does not end there. There are further hazard risks that may lead to natural disasters, that were already present before climate change gained so much relevance in the public debate.

The key elements of a HRBA in the context of DRR should include, as a minimum:

* **Accountability:** meaning to be answerable for acts and omissions that impact on human rights, and that there are effective mechanisms available to all those willing to make complaints. As suggested by FISHER (2010, 576): “legal frameworks for risk reduction should also include specific measures to ensure that good intentions are actually carried out.”
* **Information:** sharing information about environmental hazards seems to be crucial in a DRR context, especially in order to encourage local populations to also take part on joint community efforts. Some states address this need to some extent by general legislation on access to governmental information (FISHER 2010, 583). Information should be transparent and easily accessible to the community.
* **Participation**: The involvement of civil society and communities should be sought out and promoted in risk reduction (FISHER 2010, 590). Participation should be active, free, and meaningful. Examples involving participation include settings in which the population is routinely consulted so as to maximize the realization of human rights. Furthermore participation includes ensuring that there is a legal framework in place which is designed in a way that is sensitive to the specific needs and attributes of the community. Participation shall enable all parts of society, including impacted communities, grassroots organizations, minorities, rural populations and women to play an active role in the development of their country and to express their priorities. Especially in relation to DRR **community involvement** plays a very important role, reflected in the Hyogo Framework for Action, which stresses that strengthening community level capacities to reduce disaster risk at the local level is especially needed. Ishiwatari (2012) and Motoyoshi (2006) argue that governments and communities should cooperate to reflect their efforts in local DRR plans to protect the communities. It is also noticeable that there is growing literature on community-based disaster risk reduction (CBDRR) approach (see for example Izumi and SHAW 2012; Kafle and Murshed 2006; Heijmans 2009). CBDRR implies that communication among communities, local and central governments, and various non-state actors should be facilitated. The government’s role in this process is mainly to adopting a suitable legal framework and overall good conditions to strengthen a community’s capacities on DRR, besides encouraging communities to take self-help actions. Research also suggests there is a link between sustainability and partnership, participation, empowerment, and ownership of local communities. *Unless disaster risk reduction efforts are sustainable at individual and community levels, it would be difficult to reduce vulnerability and related losses. We are therefore of the opinion that a human rights-based approach encompasses a community-based disaster risk reduction (CBDRR) approach.*
* **Non-discrimination**: Non-discrimination suggests paying particular attention to groups that are likely to be excluded. International human rights law prohibits discrimination on various grounds, including gender, economic status, social condition, color, and language. Gender issues and the needs of vulnerable groups should be adequately taken into account in disaster risk reduction legislation and planning (Fisher 2010, 590). For example, Todres (2011) points out that children, due to their young age and developmental status, are typically more vulnerable than adults.

## Learning from the Case Studies

In this section we take a closer look at four countries that are affected by natural hazards: Ethiopia, Nepal, Brazil and Dominican Republic. According to EM-DAT,[[5]](#footnote-5) the OFDA/CRED International Disaster Database, the most common natural hazards in Ethiopia are droughts and floods. In case of Brazil, however, droughts cause the greatest number of affected people, but floods are the most common disaster, and cause more deaths and economic losses. Nepal seems to face different types of recurrent disasters, such as landslides, floods, and fires. Finally, the Dominican Republic is mostly affected by floods and droughts but it is also at considerable risk of experiencing seismic events and tsunamis. Undoubtedly, these hazards make the need for strong legal regulation to implement measures seeking to avoid the occurrence of natural disasters. We selected these countries because they represent four different categories of legal frameworks that address the issue of natural hazards as identified by the International Federation of Red Cross and Red Crescent Societies (IFRC).[[6]](#footnote-6) The analysis of these cases allows us to demonstrate that a human rights-based approach (HRBA) to disaster risk reduction may have the potential to decrease countries’ vulnerability to natural hazards associated with climate change.

According to the IFRC (2013a) categorization of the national legal framework of each case study, Ethiopia belongs to the category of countries that do not have appropriate laws dealing with natural disasters. Ethiopia implemented in 1993 the National Policy on Disaster Prevention and Management, which paid little attention to prevention of natural disasters more generally but focused on droughts only (IFRC 2013b). There have been some moves away from the 1993 policy focus on drought but which rather aimed to improve information on community vulnerability and flood preparedness. Some institutional changes begun in 2007 with the government’s Business Process Re-engineering programme, which led to the establishment of a Disaster Risk Management and Food Security Sector (DRMFSS) underneath the Ministry of Agriculture. Moreover, a near-final draft National Policy and Strategy on Disaster Risk Management (NPSDRM) was prepared that contains a greater emphasis on the delegation of powers to the regional and local levels, as well as community involvement. However, NPSDRM remains in draft form with relatively few major amendments since 2009, and still waits being formally approved by the Council of Ministers.

The overall objective of NPSDRM is very ambitious. This policy aims “to reduce risks and the impacts of disasters through the establishment of a comprehensive and integrated disaster risk management system within the context of sustainable development.”[[7]](#footnote-7) In other words, this policy aims to deal with all phases of natural disasters: prevention (avoiding disasters by addressing vulnerabilities); mitigation (minimizing potential disaster impacts through disaster risk management); preparedness (ensuring readiness through strengthening early warning system, building logistic capacity, maintaining adequate resource reserves and other precautionary measures); response (saving lives and livelihoods); recovery (immediate post-crisis assistance); and rehabilitation (building capacities to withstand future crises). However, whilst the policy sets ambitious goals and requirements this has not yet been transposed into enforceable legislation (IFRC 2013b).

In Ethiopia laws relevant to disaster risk reduction include those covering a series of detailed building codes. Such codes provide a strong legal framework for safe building and are a clear example of good practice. Land use planning for urban areas in Ethiopia is a much more detailed process, but it faces significant challenges in implementation.Disaster risk management considerations are also mainstreamed into environmental policy, although at present they do not regulate coordination and integration between the national disaster risk reduction functions and environmental protection functions.

It has become apparent that a draft NPSDRM has been heavily influenced by the Hyogo Framework, but questionable whether adapted to the specific context of Ethiopia. Although Ethiopia has one of the most sophisticated Early warning system (EWS) in Africa, the NPSDRM contains no concrete proposals for community participation and it does not mention the potential integration of community-based EWS practices.

According to the IFRC study there is no sufficient engagement with local communities regarding DRR practices and policies, and the involvement of communities in legal processes such as environmental impact assessments and planning is small (IFRC 2013b). Local authorities lack true decision-making powers and are not comfortable involving communities without proper authorization. As noted in the interim Hyogo progress report for Ethiopia, local administrators can often lack the necessary autonomy to take decisions which would promote DRR within their regions. It is therefore suggested that lack of sufficient engagement of local communities may hinder DRR in Ethiopia.

Knowledge of law and policy is small or even non-existent in Ethiopia. Communities suffer from a severe lack of communication regarding DRR projects and awareness. Moreover, there is a pressing need for promoting community involvement in legal processes. Such lack of empowerment and engagement of people in DRR initiatives may have its roots on the political system of Ethiopia. According to standard regime indicators, like Polity IV or Freedom House, this is an undemocratic country severely curtailing political and civil rights, including freedom of assembly and association, freedom of speech and freedom of religion. Moreover the country is considered to frequently torture and/or imprison individuals because of their religious, political, or other beliefs. Furthermore, the first phase of a research on Risk Reduction Index (RRI)[[8]](#footnote-8) revealed concerns about poor governance as a factor affecting disaster risk that may have an important influence on other factors drivers of disaster risk, such as land use or socioeconomic conditions. Of particular concern was the lack of coordination among government and lower units, the centralization in decision-making, corruption and infringement of laws.

In contrast to Ethiopia, Nepal has legislation on natural disasters that is in force, but the focus is on response and is usually limited to specific types of natural hazards (IFRC 2013a). The main disaster management legislation in Nepal is the National Calamity Relief Act. It outlines the establishment of various bodies and their respective duties, roles and responsibilities at different levels (central, regional and local) in terms of post-disaster response (IFRC 2011b). The National Strategy for Disaster Risk Management (NSDRM) of 2009 mentions a council under the chairmanship of the Prime Minister with a wider role and responsibilities in terms of disaster management, including rescue and relief, preparedness and reconstruction. NSDRM is more focused on participation of various actors. It makes clear that disaster management is only possible through collective efforts. Specifically, the strategy emphasizes the importance of engagement of many actors including governmental and non-governmental agencies, local bodies, academic institutions, private sector, UN agencies, international development partners, civil society and local communities. However, although NSDRM in Nepal includes strategic activities echoing the Hyogo Framework for Action of 2005, it is not a legally binding treaty.

Nepal has also announced a revised draft bill for a new Disaster Management Act (DMA). The DMA will take a very broad approach to disaster management and establish new coordinating mechanisms at national, regional, district and local levels. This act is likely to contribute to DRR in Nepal by establishing new and more broadly representative disaster management institu­tions at all levels and activating non-governmental organizations according to their roles and capacities. It will also provide a strong legislative basis for implementation of the NSDRM. However, the shape of the proposed new Disaster Management Act is not yet entirely clear.

In regards to environmental laws and policies relevant to DRR in Nepal, for example the Environment Protection Act 1996 and the Environment Protection Rules 1997, they do not relate specifically to DRR. Be that as it may, the IFRC report suggests that this system is relatively well established and has the potential to be modi­fied to include DRR criteria as part of the environmental impact assessment. In 2010 the Ministry of the Environment completed a major initiative, namely the National Adaptation Program of Action (NAPA) to Climate Change. The focus of this program fits well within many of the issues and actions that have very direct relevance to DRR. However, what still makes the Nepali population less resilient is a lack of implementation at com­munity level of rules concerning high-risk buildings.

Although Nepal engages its community, there is a need to improving the reliability and geographical coverage of community-based early warning systems and scaling up of community based preparedness and mitigation actions. These are among the major recommendations made by the IFRC for making the country less vulnerable to disasters induced by natural hazards.

Our next case study, Brazil, belongs to the third category of the legal framework suggested by the IFRC. Brazil has laws on natural disasters, but their focus is rather on disaster management, thus including different phases of disasters, together with general aspects of prevention (IFRC 2013a). The legislative framework most directly addressing DRR in Brazil is found in its laws on civil defense, and this area of the law has in recent years been frequently amended (IFRC 2011a). Brazil’s National Civil Defense System (SINDEC) was organized in 1988, reorganized in 1993, updated in 2005, and amended by later legislation. The organs most widely recognized as directly associated with DRR are the Ministry of National Integration and the Ministry of Cities. Moreover, there are several legal texts, which protect the environment and may be of interest for DRR purposes, e.g. the National Policy on Climate Change, aiming, among other things, to implement measures to promote the adaptation to climate change in collaboration with beneficiaries especially vulnerable to its negative effects; and National Policy on Environmental Education, which sets environmental education as an essential component within national education.

Although Brazil is a country with moderate economic growth[[9]](#footnote-9) and relatively good human development indicators (85 place on the list with a rating of 0.73), inequality between the rich and the poor is substantial.[[10]](#footnote-10) The poor sector of the population is much more likely to be affected by disasters than wealthier sectors, because of the fact that low income families are much more likely to live in disaster-prone areas. Certain provisions relevant to this subject are found in the 1988 Constitution, especially articles 5-17 that refer to social rights, among them the right to housing.[[11]](#footnote-11) Moreover, several recent laws and programs address the right to housing. The establishment of the Ministry of Cities is certainly a landmark development in the country in terms of housing. This is the result of a lengthy popular struggle and advocacy to tackle the housing problem. It also demonstrates progress in addressing the notion of citizenship and protecting the dignity of those living especially in slum areas.

Despite all achievements, Brazil’s legal framework on DRR is still a work in progress. To date there is no comprehensive national law covering disaster risk reduction. Furthermore, there is some level of ambiguity of roles among the various levels of government concerning DRR activities. Additional shortcomings include the absence of legislation clearly providing for early warning; the weak coordination among different sections of the government; and the lack of precision in specifying the role of different actors in a disaster situation.

There is a clear tendency towards enhancing popular consultation and participation in Brazil, which took place already during Lula’s two presidential mandates, including in matters regarding possible disasters caused by natural hazards. In relation to civil defence, an example of civil society consultation and participation can be identified in relation to the body responsible for proposing civil defence policies, the CONDEC (Conselho Nacional de Defesa Civil). However, the way in which such civil society representatives are chosen is not entirely clear. Moreover, a law covering the general structure and issues regarding civil defence is far from clear, making its application rather confused, in particular because it does not accurately indicate the role of different actors in a disaster situation. The IFRC report shows that the majority of actions are still mostly undertaken at governmental level, and that community level activities need to be further strengthened, with a more direct involvement and empowerment of community members in order to make them less vulnerable to disasters.

The Dominican Republic is our final case study. The country focuses on disaster risk management, and disaster risk reduction is an integral part of the disaster management legal framework (IFRC 2013a). The country's early legal framework and related instruments focused exclusively on response. However, in the aftermath of Hurricane Georges in 1998, disaster risk reduction was recognized as a necessary component in the development of later Dominican Republic law on the topic. In 2002 the Dominican Republic adopted the Disaster Risk Management Act (Law No. 147-02), which incorporates core criteria promoted by the international community in relation to disaster prevention, mitigation and response (IFRC 2011c).

The DRM Act adopts a holistic approach, thus regulating a range of relevant matters directly related to the reduction of disaster risk. They include the protection of the environment and natural resources, building and construction, education, health and water management. Furthermore, the DRM Act promotes a system of decentralized decision-making and local governance in the application of the relevant DRR legislation. In 2009 revised rules for its application were promulgated providing further detail regarding implementation, and work is currently underway to develop a National DRM Policy. Policy instruments as defined by the Act shall include the National System of Disaster Prevention, Mitigation and Response; the National Disaster Risk Management Plan; the National Emergency Plan; the National System of Integrated Information; and the National Fund for Disaster Prevention, Mitigation and Response.

The Dominican Republic's legal framework demonstrates that effective DRR involves not only a multidisciplinary, but also a multi-level approach. It incorporates a wide range of comprehensive and inter-connected development strategies, covering actions from mitigation (e.g. the reinforcement of public infrastructure), to post-disaster response. Other laws related to disaster risk reduction include laws regulating directly-related sectors, such as management of the environment and natural resources, building and construction, as well as education, health and water management.

The Dominican Republic faces similar vulnerability as Brazil, especially with regards to high proportion of the population living in poverty, and human settlements of marginalized communities located in high-risk areas prone to hazards. Moreover, its rapidly-increasing population mainly due to migration from Haiti, which lives in high-risk areas, as well as a dense concentration of buildings in urban areas stimulated a national discussion on better building practices, regulations, supervision and enforcement mechanisms in order to decrease vulnerability and exposure to disaster risk.

The Dominican Republic case shows that the DRM Act addresses the close link between above-mentioned vulnerability and natural disasters, recognizing for example that it is the poorer communities that are the most vulnerable and have the least capacity to reduce their disaster risk. The Act can be praised for its rights-based approach to DRR, which is a result of the government’s gradual efforts over the last decade building the legislative framework and developing new ways to modernize the democratic system. Although the new Dominican Republic Constitution of January 2010 does not address protection against natural or man-made hazards per se, it refers to the right to life, the protection of human dignity, the right to liberty and personal security and the right to an adequate standard of living, including food security, housing, health, work and education. So it intends to show that it is the duty of the state to provide security and protection for its citizens. The DRM Act addresses the right to life and personal physical integrity, as well the protection of material goods from possible disasters.

The aim of the government was also to decentralize decision-making about local issues to the relevant authorities and promoting the participation of communities most affected by these decisions. As a result of these efforts, community engagement and empowerment are perceived fundamental to local DRR. NGOs, community-level organizations, volunteer groups and other civil society actors in the Dominican Republic are empowered to participate in decision-making, planning and implementation, and in supporting at-risk communities. Such empowerment is fundamental to ensure that services are better targeted to local needs, and to increase popular consensus, support and legitimacy for DRR measures.

Echoing the rationale of the Hyogo Framework for Action, the cases presented here have demonstrated that “sustainable development, poverty reduction, good governance and disaster risk reduction are mutually supportive objectives, and in order to meet the challenges ahead, accelerated efforts must be made to build the necessary capacities at the community and national levels to manage and reduce risk.”[[12]](#footnote-12) However, more importantly, the cases presented here show that the mere existence of national legislation covering natural disasters including disaster risk reduction may not be sufficient. We argue that the protection of individuals from natural disasters can be enhanced through the inclusion of a rights-based approach to DRR in the particular legislation. This may furthermore serve as acknowledgement of the importance of human rights and of community engagement in this process.

We also observe that human a rights-based approach to disaster risk reduction, however, is conditioned on a country’s overall human rights situation. A country that scores well in terms of its commitments to human rights will tend to adopt laws that will ensure that communities are empowered, well-informed and consulted on DRR related initiatives. For example, it is unlikely that a country that regularly abuses or curtails human rights will have laws encouraging extensive consultation and participation of local communities in all phases of disaster risk management, especially disaster risk reduction.

In other words, countries may adopt various ambitious policies on natural disasters, including initiatives aiming to reducing or managing disaster risk caused by climate change. However, if such basic issues like respect for human rights and empowerment of local communities are missing, the effectiveness of policies will be compromised.

## Conclusion

Human rights are specially suited to inform the climate change debate because the most vulnerable individuals and communities are particularly hit by the harmful impact of climate change, and the human rights framework is meant to assist especially those most in need. If basic human rights are restricted, vulnerable communities have even less alternatives for coping with a stressful disaster situation. Therefore, the promotion and encouragement of respect for human rights and fundamental freedoms, which figure among the purposes of the United Nations, should be made a priority when tackling the negative consequences of climate change, particularly in countries frequently affected by natural disasters. For improving the protection of human rights the engagement by the government, representatives of civil society, donors, NGOs, and UN agencies remains pivotal.

The paper also highlights the importance of inclusion of a human rights-based approach (HRBA) in the debate of climate change mitigation, adaptation and disaster risk reduction. This approach not only links development goals to human rights standards, but more importantly it calls for focusing on marginalized groups, empowerment and participation, and ensuring accountability of duty-bearers. In other words, the HRBA suggests that the most vulnerable should not be left out, that individuals have rights and that they have to be given the opportunity to take part and effectively contribute in the decision-making process on actions that will impact their lives, including in relation to climate change.

Finally, as cases presented here have demonstrated, the inclusion of a HRBA contributes to the overall success in implementing laws relating to disaster risk reduction. Countries that did not allow their societies to be well enough informed, engaged and resourced to take an active part in reducing risks reported lack of progress and overall disappointment with the legislative route. Therefore, the incorporation of human rights into the countries’ legislative framework relating to disaster risk reduction, and overall promotion of a HRBA should be a priority in the development of a post-Hyogo Framework for Action.

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1. Quoted in GLAZEBROOK (2009, 338). [↑](#footnote-ref-1)
2. Glazebrook (2009) also explains local initiatives on climate change adaptation, such as the Bali Action Plan. [↑](#footnote-ref-2)
3. <http://www.unisdr.org/who-we-are/what-is-drr> . Accessed on 16 February 2014. [↑](#footnote-ref-3)
4. Canada withdrew from and the US signed but not yet ratified the Kyoto Protocol to the UN Framework Convention on Climate Change, which sets binding obligations on industrialized countries to reduce GHG emissions. [↑](#footnote-ref-4)
5. [www.emdat.be](http://www.emdat.be) . Accessed on 17 February 2014. [↑](#footnote-ref-5)
6. <http://www.ifrc.org/en/what-we-do/idrl/about-disaster-law/legislation-for-disaster-risk-reduction/> . Accessed on 18 February 2014. According to the IFRC’s “International Disaster Response Laws, Rules and Principles” (IDRL) Programme that seeks to reduce human vulnerability by promoting legal preparedness for disasters, the legal framework relevant to disaster risk reduction (DRR) include for example: disaster management laws, building and land management codes, environmental protection rules, flood and fire management laws. [↑](#footnote-ref-6)
7. 26 Article 2.2.1 (NPSDRM 2009) [↑](#footnote-ref-7)
8. <http://daraint.org/risk-reduction-index/> Accessed on February 20, 2014. [↑](#footnote-ref-8)
9. Brazil's growth in 2010 was 7.5 %, in 2011 was 2.7, and 0.9 in 2012 (World Development Indicators by the World Bank). Accessed on 20 January 2014. [↑](#footnote-ref-9)
10. According to the World Development Indicators by the World Bank, Gini coeficient for Brazil was 54.7 in 2009. A Gini index is a measure of statistical dispersion of the income distribution of a country's residents, and a low Gini coefficient indicates a more equal distribution, with 0 corresponding to complete equality. [↑](#footnote-ref-10)
11. For a non-official English translation of the 1998 Brazilian Constitution, see <http://www.v-brazil.com/government/laws/constitution.html> . Accessed on 20 January 2014. [↑](#footnote-ref-11)
12. Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, p. 1, available at <http://www.unisdr.org/2005/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf> . Accessed on 17 February 2014. [↑](#footnote-ref-12)