# The Role of Regional Organizations in Disaster Risk Management

Simon Hollis

A Strategy for Global Resilience

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Simon Hollis
*Swedish National Defence College, Sweden*

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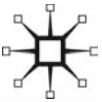



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*Michaela*

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# About the Author

Simon Hollis is a postdoctoral researcher at the Swedish National Defence College. His research and various publications centre on regional and global aspects of disaster risk management. He is currently working on the impact international organizations have on supporting disaster risk reduction in developing states. He received his PhD in International Relations in 2012 from the Hertie School of Governance, Berlin, Germany.

# 1
# The Role of Regional Organizations in Disaster Risk Management

On 6 November 2013, one of the strongest typhoons ever recorded struck the Philippine archipelago. The resulting damage was immense. Flying debris, flattened houses, damaged buildings and the loss of basic infrastructures caused copious deaths, displaced over 4 million people and affected roughly 14 million lives (UNOCHA, 2013). Blocked roads and a damaged airport only compounded the hardship felt by the survivors, many of whom were in need of basic necessities such as shelter, fresh water, food and medicine.

Three months later, a cyclone of similar strength passed through the Ha'apai group of Tongan islands. Intense winds and storm surges destroyed homes, damaged public buildings, schools and plantation crops, disrupted roads and ports, and impaired critical communication links. Logistical problems of sending relief aid were hampered by the loss of communication to affected islands and by limited transport infrastructure. It is estimated that recovering from the destruction will take a good number of years (IFRC, 2014; BBC, 2014).

These weather-related disasters clearly overwhelmed national capacities to effectively manage the disasters. In response, the Association of Southeast Asian Nations (ASEAN) deployed an ASEAN-Emergency Rapid Assessment Team (ASEAN-ERAT) to Manila and Tacloban City to coordinate with local authorities and assess possible relief support. In an expression of solidarity, ASEAN Secretary-General Lê Lu'o'ng Minh noted: 'ASEAN stands shoulder-to-shoulder with the Philippines in these difficult times and we are ready to show the ASEAN spirit of a caring community to affected population in the country' (2013). Tonga did not receive a similar regional response. This is largely due to a general lack of capacity to facilitate responses to disasters by the two main regional organizations in the Pacific: the Pacific Islands Forum (PIF) and the

Secretariat of the Pacific Community (SPC). However, the SPC has been active in supporting Tonga and other Pacific island countries to establish Joint National Action Plans on climate change adaptation and disaster risk management (UNISDR, 2013c).

These regional activities on Disaster Risk Management (DRM) represent a fairly new development that is not specific to Southeast Asia or the Pacific. The European Union, for example, has been increasingly active in supporting prevention and preparedness measures by conducting simulation exercises, courses and exchanges as well as facilitating responses to disasters through what is now called the European Commission's Emergency Response Coordination Centre (ERRC). Other examples of regional programmes on DRM include the Central American Integration System (SICA), the Caribbean Community (CARICOM), the Southern Common Market (Mercosur), the Organization of American States (OAS), the Southern African Development Community (SADC), the African Union (AU), the League of Arab States (LAS) and the Economic Cooperation Organization (ECO).

Since the last quarter of the 20th century, over 30 regional programmes on DRM have emerged across the world, 18 of which were formed within a seven-year period from 2000 to 2006. Regional organizations appear set to provide increased resilience to their member states, a strategy encouraged by the global community of states, non-governmental organizations (NGOs) and international organizations that advocate the importance of reducing disaster risk. This rise in international attention is clearly reflected in the high participation of states in world conferences on disaster reduction that have contributed to elevating DRM as a global priority (see UN, 1994b, 2000a; UNISDR, 2005). Despite this global activity and the emphasis placed on the important role of regional organizations, DRM has received relatively little attention from international relations scholars.[1] The development of these DRM programmes is a global phenomenon that may be changing the way in which disasters are perceived and how states respond to them.[2] This important policy space must be analyzed more succinctly and understood more thoroughly.

We currently know very little about regional DRM activities and how, or even if, they reduce the vulnerability of states and their citizens from natural hazards. What role do these and other regional organizations actually play in managing disaster risk and what do they aim to achieve? Does ASEAN-ERAT provide a value added beyond existing state capacities? Do regional organizations reflect an emerging global strategy for increasing the resilience of communities? Gaining a more fine-tuned and holistic understanding on the current functions and future possibilities of

regional DRM can provide important insights for increasing the resilience of states from natural hazards. Knowing the strengths and weaknesses of regional organizations and how they operate globally and locally is crucial for expanding our knowledge on, and capabilities for, the most effective means of mitigating and responding to transboundary disasters.

This book addresses these issues by examining why states have chosen to cooperate on DRM through regional organizations. Understanding what motivates states to cooperate on regional DRM provides us with important insights on the *anticipated* role of regional organizations.[3] That is, what states aim to collectively achieve as reflected in regional framework agreements and strategies on risk management.

At first glance it would seem that states are motivated by a clear, rational-based logic. In a highly interdependent and globalized world, a major flood, volcanic eruption or earthquake can easily transgress political boundaries, disrupt important trade routes and damage tightly knit economies. The continual increase in the frequency of weather-related disasters – a phenomenon that is increasingly connected to the effects of climate change (Stern, 2006; Field et al., 2012) – only increases the urgency for forming collective insurance regimes against the disruptive forces produced by natural hazards. States presumably cooperate through regional organizations to produce a common public good to reduce the loss of social and economic capital (see Rhinard, Hollis and Boin, 2012). Indeed, many regional DRM agreements legitimize collective cooperation on this very basis (see ASEAN, 2005a; PIF, 2005; LAS, 2011) and often emphasize the general rise in economic damages incurred through disasters (OAS, 2005c; SADC, 2009; Georgieva, 2010a). These are standard, rational and logical motivations that provide important insights into why states would cooperate through regional organizations. The role of regional organizations is clear: it provides an additional layer of protection for the state. A role that is predominantly formed from functional demand in a set of geographically defined states.

Yet, this is only one side of the coin. Motivations to cooperate on regional DRM also come from dominant norms that are reified through global discourse (Meyer, 2010), deliberation (Boli and Thomas, 1999) or argumentation (Risse, 2000). A dense network of humanitarian and relief organizations, that have a particularly strong influence on developing states, advocates specific 'recipes' used to strengthen the resilience of states from natural hazards. This argument suggests a different role for regional organizations: they are used as legitimate conduits to transfer ideas from the global to the local level. A role that is predominantly formed from the global supply of DRM-related norms.

These two arguments are pursued and developed in this book. It begins with a rationally orientated approach (Chapter 3) based on neoliberal institutionalism. This approach emphasizes the usefulness of collective cooperation, citing the importance of interdependence, 'regional paymasters', and financial flows in affecting cost-benefit calculations for improving the safety of individuals, states and regions. A concentrated study and comparison of ten regional organizations located across the globe reveals fractures in these rational arguments. There is no parsimonious explanation based solely on the logic of interdependence or transaction costs. Instead, a complex set of variables helps to partly explain the role of regional organizations as providers of a complementary layer of protection for the state. While limited, this explanation provides an important contribution that can be seen to work in parallel to an additional cultural argument.

The second line of thought based on world society theory claims that states have created regional capacities in DRM through the emulation of dominant norms that make up today's global culture of protection (Chapters 4, 5 and 6). States are institutionalized through a global cultural system of images, myths and rituals. This, in turn, has produced endemic decoupling between official aspirations and operational practices. Appropriate behaviour trumps rational concerns. The empirical outcome of this exercise provides much support for the argument that there is a standardized world model on DRM that states have largely emulated, albeit, to differing degrees. This has certainly had the effect of increasing knowledge and awareness on disaster management, but it has arguably done little else in providing an additional layer of protection for vulnerable states. Indeed, it predicts that even when states agree to cooperate on DRM, in reality, little will be achieved. It is more important for states to conform to global standards on DRM rather than implement them. This means that it is crucial not only to analyze anticipated cooperation but also to examine what states have actually achieved.

Does the self-conceived role of regional organizations as disaster managers translate into practice? Chapter 7 provides a survey of what is actually happening on the ground which is compared against what states aim to achieve (Chapter 2). In line with the argument made by world society theory, the outcome of this comparison reveals significant gaps between expectations and capabilities for a majority of the examined regional organizations. The standing capacities of many regional organizations remain low. The ambitious goals of regional agreements on DRM often go far beyond the commitments of member states. Yet, the added value of protection that the rational approach anticipates

remains promising even if not fulfilled. It is argued that regional organizations stand to play a vital role in today's complex and interdependent environment where crises can easily cross over political borders or overwhelm the capacities of a single state. However, until states match their words with political will and financial backing, they run the risk of delegitimizing this new and vital role for regional organizations that they so emphatically endorse.

This book is a comparative study of ten regional organizations, which provides for a holistic view and general understanding of regional DRM. While there is now a healthy number of studies that compare regions (Haas and Schmitter, 1964; Etzioni, 1965; Nye, 1965; Dell, 1966; Schmitter, 1970; Fawcett and Hurrell, 1995; Katzenstein, 1996; Boås, Marchand and Shaw, 1999; Hettne, Inotai and Sunkel, 2000; Hettne and Söderbaum, 2000; Acharya and Johnston, 2007; De Lombaerde et al., 2010; Börzel, 2012b), few comparative studies have systematically compared particular policy spaces across more than two or three regional organizations. As most of these studies are interested in forming generalizations about regional processes and outcomes, it is surprising that the number of cases has been so low. Of course, careful case selection can reveal highly useful and important results. However, this means that complexity is commonly given precedence over generalizability. In order to contribute to this deficit, a total of ten organizations have been selected to produce reliable generalizations and to sketch out the 'big picture'. This helps to reveal, for example, whether there is a common model that states adopt into their regional organizations, it provides an indication of what one can expect from regional organizations and it reveals whether regional diversity is important for resilience.[4] The cases include ASEAN, PIF, Mercosur, CARICOM, the OAS, SADC, the AU, the EU, LAS, and ECO. These organizations are selected because they are different from each other in most regards except for their participation in DRM.[5] The cases have also been purposefully chosen to provide variation from low-to-high levels of cooperation on DRM for the purpose of avoiding selection bias. Other scope conditions include regional organizations that are geographically diverse, are multi-dimensional and have existed for more than 20 years. The following section introduces the reader to regional DRM as a modern and global phenomenon.

## Regional disaster risk management

The following defines and briefly discusses central terms used in this book. This is important for not only delineating the main subject of

concern, but also providing important standards to measure and compare regional organizations as risk managers. Regional DRM is the process by which an association of states agrees to cooperate on reducing the vulnerability of its regional community from natural hazards. This often materializes through DRM programmes that include anything from an official statement on the awareness and need for regional solutions to regional problems, to legally binding documents designed to streamline national DRM efforts, establish regional centres for the facilitation of response to disasters and the pooling of resources. Mercosur, for example, has produced an agreement establishing a committee on DRM that caters for preparedness (Mercosur, 2009). On the other hand, ASEAN has established a legally binding document that includes preparedness, prevention and response to, and recovery from, disasters (ASEAN, 2005a). Table 1.1 lists these and 34 other regional organizations that cooperate on DRM. The dates in parentheses indicate when the regional organization signed an agreement or produced a particular programme on DRM.[6] The table illustrates not only the global spread of regional DRM but also highlights the short time in which a majority of cooperation on DRM began. Indeed, the timing is somewhat peculiar. Note that the table is not exhaustive but designed to provide a reflection of the global rise of regional disaster risk management cooperation. The following section unpacks the laden term – Regional – Disaster – Risk – Management – in order to gain some clarity on this global activity.

Regional organizations are an association of states. They are 'non-sovereign governance systems with (partial) statehood properties' that intersect the national and global level (De Lombaerde et al., 2010: 740).[7] These organizations are furthermore multi-dimensional (Hettne and Söderbaum, 2000) and are usually united by at least one commonality, such as community (Deutsch et al., 1957), cultural homogeneity (Russet, 1967), territory (Hettne and Söderbaum, 2000), mutual interdependence (Nye, 1965) and common ideas (Katzenstein, 1996).[8] To be clear, regionalism – the general phenomenon of regional organizations or 'ideology of regionalism' (Hettne and Söderbaum, 2000: 457) – is not the principle unit of analysis. It rather constructs the scope conditions around which DRM is analyzed. This study is more interested in regionalization: an empirical 'process that leads to patterns of cooperation, integration, complementarity and convergence within a particular cross-national geographical space' (Hettne and Söderbaum, 2000: 457–458).

A disaster is a negatively 'perceived disruption' from the normal functioning of society (Boin, 2005a: 163).[9] This definition folds neatly into the standard UN International Strategy for Disaster Reduction (UNISDR)

definition as a 'serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources' (UNISDR, 2009g). This more elaborate definition emphasizes the social dimension of a disaster that is inextricably tied to the natural. The corollary of this is that the naturalness of a disaster is a myth (Wisner et al., 2004). Thus a 'natural disaster' is understood as the combination of vulnerability and a natural hazard that produces a disruption to the functioning of a society. Natural hazards or natural triggers can come in the form of astronomical, geophysical, hydrological, meteorological, climatological, and biological events. These can include, for example, earthquakes, volcano eruptions, epidemics, insect infestations, drought, wildfire, floods, and (solar) storms. When a natural hazard disrupts a number of critical infrastructures (transfunctional crisis) and/or when its effects cross political boundaries (transgeographical crisis) it is classified as a transboundary disaster (Boin and Rhinard, 2008: 4).[10] It is often when these transboundary disasters occur that a regional organization can provide an important role in facilitating response efforts. A good example of this is the EU's responses to disasters. In 2012, the ERRC monitored or facilitated 37 requests for assistance from 25 countries, such as tropical Cyclone Sandy in the United States, forest fires in Portugal, floods in Nigeria and tropical Cyclone Evan in Fiji (ECHO, 2012). The very definition of a (transboundary) disaster in the regional context thus speaks to why states would want to cooperate on preventing future risks from natural hazards.

Risk is the vulnerability of a social system to natural hazards. Vulnerability thus brings to light the human side of disasters: a transgeographic flood occurring in multiple riparian countries is not a disaster if it does not affect any social system or individual. It is only when humans get in the way of a natural hazard that it becomes a disaster. Vulnerability is thus defined as: '*the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard* (an extreme natural event of process)' (Wisner et al., 2004: 11, original emphasis; see also Kasperson et al., 2003).[11] Thus, understood as additional social structures, regional organizations will have a positive, negative or zero effect on the level of vulnerability of its member states.

The connection risk has to vulnerability ushers in and gives meaning to the term management. The more effective an association of states is in preparing, preventing and responding to, and recovering from, disasters, the less vulnerable it will be in the future. These four categories of

*Table 1.1* Regional organizations cooperating on DRM

| Region | Regional organization |
|---|---|
| Africa | The Intergovernmental Authority for Development (IGAD, 2000) – Southern African Development Community (SADC, 2001a) – Indian Ocean Commission (IOC, 2002) – African Union (AU, 2004) – Economic Community of West African States (ECOWAS, 2006) – Economic Community of Central African States (ECCAS, [2009] 2010) – East African Community (EAC, 2012) |
| Americas | Caribbean Community (CARICOM, 1991) – Coordination Centre for Natural Disaster Prevention in Central America (CEPREDENAC, 1993) – Organization of American States (OAS, 1994) – Latin American and Caribbean Economic System (SELA, [1975] 2008) – Andean Community of Nations (CAN, 2004) – Southern Common Market (Mercosur, 2009) – Association of Caribbean States (ACS, 2010) – Central American Integration System (SICA, 2010) |
| Asia | Association of South East Asian Nations (ASEAN, 2004) – South Asian Association for Regional Cooperation (SAARC, 2006) – Economic Cooperation Organization (ECO, 2008a) – League of Arab States (LAS, 2011) – Gulf Cooperation Council (UNISDR, 2013a); Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA, 2009) |
| Europe | Council of Europe (CoE, 1987) – Central European Initiative (CEI, 1996) – Euro-Mediterranean Partnership (EMP, 2010) – European Union (Council, 1997) – North Atlantic Treaty Organization (NATO, 1998) – Council of the Baltic Sea States (CBSS, [2000] 2012) – Disaster Preparedness and Prevention Initiative for South-Eastern Europe (DPPI SEE, 2000) – Nordic Council (2002) – International Sava River Basin Commission (ISRBC, 2002) – International Commission for the protection of the Danube River (ICPDR, 2004) – Barents Euro-Arctic Council (BEAC, [2010] 2012) – Arctic Council (EPPR, 2010) |
| Pacific | Secretariat of the Pacific Community (SPC, 2005) – Pacific Islands Forum (PIF, 2005) – Asia Pacific Economic Cooperation (APEC, 2005) – Secretariat of the Pacific Regional Environment Programme (SPREP, 2011) |

risk management are commonly known as the 'disaster cycle' (Jaques, 2007). Preparedness is concerned with mitigating harmful effects from natural hazards through planning, training and the use of manuals. Prevention is concerned with reducing the probability of a disaster through establishing early warning mechanisms, identifying risks and understanding their potential impact. Response entails inter alia activating operational units, strategy selection, media response and damage

mitigation. Recovery includes but is not limited to operational recovery, market retention, share-price protection, judicial inquiries, litigation and management assessment (Jaques, 2007; see also Crondstedt, 2002). It should be noted that the 'disaster cycle' is understood here as an analytical categorization of the different aspects of DRM. Operational aspects of DRM are clearly much more complicated where each aspect folds into the other and does not always follow a progressive and cyclical movement. Understanding the different aspects related to management helps to define important benchmarks for measuring the role of regional DRM, which is outlined in more depth in Chapters 2 and 7.

One should also note that the term Disaster Risk Management (DRM), rather than Disaster Risk Reduction (DRR), is predominantly used in this book. The latter is considered a sub-field of DRM, as it usually covers disaster mitigation, prevention and preparedness rather than response and recovery.

As one of the aims of this book is to understand if regional organizations provide the means for greater global resilience, it is important to also define what I mean by this highly contested term. Often referred to as the 'flip side' of vulnerability, resilience has traditionally been understood in the form of 'jumping back' from a disaster (Alexander, 2013).[12] However, this immediately raises problems in a development context, whereby going back to pre-disaster standards in not a desirable option as it will most likely produce similar levels of social and financial dishevelment in the future (Manyena, 2006). An alternative definition of resilience when applied to organizations and states is 'the ability to resist disorder' (Fiksel, 2003, cited in De Bruijne, Boin and van Eaten, 2010: 13). This general definition is adopted in this book, and conjoined with the word global, to mean the global spread of regional DRM capacities that are *designed to resist and effectively respond* to natural hazards. It should be noted that this definition tends to emphasize the consequences of a disaster rather than its causes (Lewis and Kelman, 2010: 202). The natural inclination to view resilience as the opposite of vulnerability thus risks forming blind spots for comprehensive DRM. The two terms are arguably mutually constitutive – revealing either the causes or consequences of a disaster – rather than being diametrically opposed. Keeping this in mind, resilience is nevertheless understood as a useful, albeit general, concept for the purpose of this book in understanding the role of regional DRM in providing the means for resisting and responding to natural hazards.

The various concepts and categories summarized above define a significant global policy field that has been rarely analyzed, discussed and

debated.[13] Studies on comparative regional studies have tended to focus on economic and legal issues, such as dispute settlements, trade agreements and judicial integration (Crawford and Fiorentino, 2005; Börzel, 2012b; Fioramonti, 2012). Of course, important contributions have been made on regional and global security studies (see Buzan, 1991; Beck, 1999; Buzan and Weaver, 2003; Bailes and Cottey, 2006; Williams, 2006; Hough, 2008; Haacke and Williams, 2009). However, as an important issue area within the broad spectrum of security, and despite its clear connection to the responsibility of the state to protect its citizens, it is surprising that very few comprehensive comparative studies on regional DRM have been made. By focusing on DRM, this book attempts to fill a gap by researching an empirically neglected field that can offer insights into broader social and political processes such as the 'state of the state' in a globalized era and regional organizational development.

## Chapter outline

This book begins with a qualitative overview and quantitative measurement of ten regional organizations and their historic profile on DRM cooperation. The description and measurement of each regional organization provides a helpful resource for gaining a comprehensive overview of a new and important global policy space. Principally based on an analysis on the various declarations and agreements made by member states of a given regional organization, this survey reflects the *anticipated* role of the regional organizations. That is, their projected aims on DRM as defined on paper (see Chapter 7 for a similar review on actual cooperation). Two identifiable periods of regional DRM cooperation can be identified. The first is from the 1970s to late 1990s, which is defined by a low level of activity. The second is from the late 1990s to 2011, which is defined by a high level of global activity.

Chapter 3 provides an alternative explanation for the role of regional organizations in DRM. Through the application of neoliberal institutionalism it argues that the role of regional organizations is based on improving the economic capacity of a region and protecting member states' economic well-being. The main findings suggest that states are motivated by a rational concern to decrease financial costs in the future. However, this can only be achieved if there is a favourable cost-benefit ratio. This ratio is improved when the apparent knowledge that the costs of disasters are increasing is spread, when intra-regional trade interdependence increases and when there are consistently high asymmetrical risks. However, even when these conditions are present the capacity

of regional organizations – which often have small budgets – to create advanced forms of cooperation will be limited without assistance from the international community.

Chapter 4 provides an alternative perspective on the role of regional DRM. It begins by linking into and developing an empirical observation gleaned from a comparison of regional organizations in Chapter 2. That is, there is a remarkable similarity in the goals, language and structure of the DRM programmes despite the different threat perceptions, local customs, traditions and political systems that define regional organizations. This standardization is difficult to explain if regional DRM policies are defined by local geographical and social demand. Why would highly diverse regional organizations establish highly similar forms of cooperation on DRM? The threat perception of the PIF, for example, is centred on rising water levels and hurricanes while the threat perception of the AU is centred on drought and food security. The organizational cultures of these regional organizations are also different in terms of their membership, political cultures, and the level and breadth of the regional institutions and budgets. Yet, their DRM programmes are structured in a strikingly similar fashion, using similar language, goals and definitions (see AU, 2004; PIF, 2005). It is argued that these striking similarities are illustrative of a global model on DRM that can be largely traced to the international community's involvement in the global advocacy of DRM in the last two decades. Standardization is illustrative of the presence and influence of the international community in shaping particular roles for regional DRM.

If the fourth chapter describes the global standardization of DRM, then Chapter 5 explains how the international community has influenced regional DRM capacities. Based on world society theory's emphasis on relational and cultural mechanisms of diffusion, this chapter explains how the global DRM model has been successfully diffused through a variety of diffusion mechanisms. Relational diffusion tactics include technical, operational, information and policy intervention, agenda setting, and the publication of best practices on DRM legislation, education, technical standard and terminology. Cultural diffusion tactics include the layering of additional 'global models' that legitimate DRM-based activity, such as the use of rational, scientific and rights-based discourse. Relational and cultural diffusion are furthermore understood to be mutually constitutive in promoting the successful diffusion of DRM. However, it is also argued that effective diffusion can also limit effective implementation. The role of regional organizations, as expressed in this chapter, is understood as a conduit of ideas that enacts a global model DRM.

Chapter 6 examines how the DRM model, once diffused, is reified or reproduced through defined roles between the international community and regional organizations. This 'norm reproduction' thus complements the previous chapters by focusing on how the global DRM model is duplicated through the intersubjective roles of international organizations. Drawing on world society concepts of 'actorhood' and the 'disinterested other', this section analyses the extent to which regional organizations are 'students' of norms and international organizations are 'teachers of norms'. It is shown that these ideal types do not accurately describe all regional organizations. The EU, in particular, stands out as a regional organization that is increasingly taking on the role of an international advocate of DRM. This chapter thus looks at the changing roles of regional organizations in DRM.

Chapter 7 analyses the extent to which DRM aims of regional organizations are expressed through action. Do regional expectations turn into quantifiable capabilities? The analyses based on world culture expect a high amount of decoupling between pen and practice, which is largely confirmed through an empirical investigation of the regional organizations. However, this view should be seen in light of the practical value regional DRM holds, which is emphasized by a more rational outlook on the role of regional organizations. Preparedness and prevention support are being administered through some regional organizations, research is being funded, risk maps are being created, and some regional organizations have even begun to facilitate responses to transboundary disasters. A discussion centring on these empirical observations in light of theoretical expectations informs the latter part of this chapter, leading towards the concluding chapter.

The final chapter provides an assessment and reflection on the main theme of this book: what role do regional organizations play as disaster managers? The short answer is that their current role is limited and their potential role in reducing risk from natural hazards is promising. These issues are explicated according to the two theoretical lenses used throughout this book with a particular focus on the role of the state in these intergovernmental organizations. This chapter also assesses the added value of regional DRM, pointing to a number of potential issues that will help to narrow the existing expectations-capability gap to ensure a more resilient world of regions.

# 2
# Regional Disaster Risk Management

Regional cooperation on DRM is now a global phenomenon. From the isolated islands in the South Pacific to landlocked countries in central Asia, regional DRM is in vogue. This is a fairly recent phenomenon that has only become evident in the last two to three decades. Before the 1970s, regional organizations did not prioritize, and in some cases did not even consider, DRM to be a policy space under its jurisdiction. Yet, from the mid-1970s, regional organizations such as the EU, ASEAN, LAS, OAU and the PIF either presented declarations of intent or acknowledged the importance of regional cooperation on natural disasters. While these declarations were rarely followed by any precise agreements or any substantial cooperation that exceeded information sharing, it did mark a period of nascent regional DRM cooperation.[1] This period was followed by a significant and global increase in cooperation. From the late 1990s, regional organizations produced more sophisticated agreements on DRM. The EU created legal competencies in the area of civil protection in 1997, NATO created a Euro-Atlantic Disaster Coordination Centre in 1998, and SADC and ASEAN began working in earnest on frameworks for DRM cooperation that were established between 2001 and 2005, respectively. During this short period, from 2000–2006, at least 16 regional organizations began or updated cooperation in DRM. These include the OAS, the Intergovernmental Authority on Development (IGAD), the Gulf Cooperation Council (GCC) the Disaster Preparedness and Prevention Initiative for South Eastern Europe (DPPI-SEE), the Andean Community (CAN), the AU, and the South Asian Association for Regional Cooperation (SAARC). By 2012, most regional organizations held well-stipulated and concise agreements on disaster risk management.

This chapter provides an empirical description on a representative sample of these organizations, which reflects an emerging global policy

space on the protection of individuals. A comparison of these agreements surfaces some interesting questions on the perceived role of regional organizations as a useful tool for increasing the resiliency of its member states from natural hazards. It becomes clear, for example, that a majority of the examined cases have highly standardized goals despite diverse historical, political and cultural histories. This accordingly raises the likelihood of a much more limited role for regional organizations as decoupling is likely to occur between the anticipated goals and their implementation in a local context. In alphabetical order, the representative sample of regional organizations include the African Union, the Association of Southeast Asian Nations, Economic Cooperation Organization, European Union, Caribbean Community, Common Southern Market, League of Arab States, Organization of American States, Pacific Islands Forum, and the Southern African Development Community.[2]

## Measuring regional DRM

The following review uses a method known as fuzzy-set Qualitative Comparative Analysis (fsQCA) to systemically compare the regional organizations under review.[3] This tool moves beyond simple co-variations by employing the concept of set-variation. A set is defined as a 'collection of items of individuals ... that can be distinguished from one another as individuals and that share some property' (Klir et al., 1997: 48). In crisp-set QCA, cases are arranged according to whether they are in or out of a theoretically determined set where 1 is equivalent to membership of a set and 0 is equivalent to non-membership. Arranging empirics according to this system provides a useful tool for uncovering necessary and sufficient combinations of explanatory conditions, which provides for parsimonious formulations of causal properties. This study applies a fuzzy-set QCA (fsQCA) technique, which provides for a more nuanced depiction of collating and interpreting data. Fuzzy-set QCA extends the classical QCA analysis based on crisp sets – simple dichotomizing conditions between 0 and 1 – by allowing for variation in the distance between the two figures. This means that conditions are not forced into a particular category, but can be fully, mostly, or more or less, in or out of a set (Ragin, 2009).[4] This means that fsQCA can allow for differences in the level of regional DRM cooperation and its corresponding explanatory conditions. For example, a regional organization can be totally out, partially in, more in than out or a full member of the set of advanced DRM. Instead of either being nascent or advanced, partial membership

is allowed that is represented by an interval scale between 0 (completely out of the set) to 1 (completely in the set, or highly advanced) with 0.5 as the crossover point. This can then be compared to other causal conditions, such as whether regional organizations are in or out of the set of interdependence (see Chapter 3).

In order to establish the extent to which a case has a high or low membership in a set is based on substantive and theoretical reasons rather than a simple ordinal scale. For the purposes of this study five categories, or 'qualitative anchors', of cooperation are constructed according to a cost-benefit calculus and substantive knowledge of the issue area. This produces a range from nascent to advanced forms of regional DRM cooperation (Table 2.1). It is assumed that an increase in the level of cooperation will incur greater costs to the state. These costs are principally financial but may also be connected to the political costs of relieving a part of state sovereignty in a particular issue area. Based on this formula the following stages of cooperation (qualitative anchors) are briefly explained and expanded upon in the following pages.

The qualitative anchors are depicted in Table 2.1. The first two levels (0.0–0.4) are based on the amount of information member states are willing to share (DeSombre, 2009: 152). The next level (0.4–0.6) is defined through the proposed operational output stated in the agreement, which is understood to involve higher costs than sharing information. Finally, the last two indicators (0.6–1.0) reflect a push towards supranational capacity, where member states are required to standardize procedures and practices. This can also include the establishment of operational assets at the regional level that can be used in the event of a major disaster. For a more fine-tuned categorization of the qualitative anchors, see the 'scorecard' used for systemically measuring each variable in Appendix A1.

As most organizations have produced a series of official documents in DRM the above-mentioned indicators of cooperation are assessed across time, beginning with the first official statement of cooperation in the 1970s and ending with the current status of a regional organization's DRM activities in the year 2011. By using these indicators as a guide for determining the level of cooperation, a scale can be established that plots the selected regional organizations between the two ideal types of cooperation. This scale can then be used to establish the degree of membership in each case of regional DRM cooperation (see Table 2.1). The following describes how these levels are distinguished and how different values can be given for each level.[5] The label 'nascent' is representative of any regional organization that is more out than in

*Table 2.1* Qualitative anchors for determining the calibration of membership in the set of regional cooperation on DRM

| | Nascent | | | Advanced | |
|---|---|---|---|---|---|
| **Qualitative anchors** | **A** | **I** | **OP** | **S** | **AP** |
| Values | 0.0–0.2 | 0.2–0.4 | 0.4–0.6 | 0.6–0.8 | 0.8–1.0 |

*Note*: Awareness (A); Information (I); Operational Capacity (OP); Standardization (S); Asset-Pooling (AP)

the set of regional DRM (<0.5). The label 'advanced' is representative of any regional organization that is more in than out of the set of regional DRM (>0.5).

### Justifying the qualitative anchors

Beginning with the most important classification, regional commitment to operational capacity determines whether a regional organization crosses the threshold between being in, or out of, the set of regional DRM. In other words, when a regional organization collectively decides to facilitate, manage, or directly respond to future crises with a specified set of capacities, its membership crosses the threshold in the set of DRM cooperation. Regional organizations that hold a total value of more than 0.5 are considered to have established regional DRM as it is more advanced than nascent. The justification for using operational capacity as the main determinant for the threshold indicator is built on the following propositions. First, agreeing to cooperate on an operational basis means a significant deepening and widening of regional integration, an increase in collective responsibility, and overall commitment to engage in cooperation. Operational activity, for example, can increase the possibility of unintended policy spill-over effects: introducing more sophisticated coordination mechanisms in the area of flood response necessitates flood preparedness mechanisms in each country that can lead to structural changes in city planning and the harmonization of flood monitoring standards.[6] Furthermore, response will often entail the establishment of a coordination office that can facilitate requests for assistance, such as the EU's Emergency Response Coordinating Centre (ERCC) or the ASEAN coordinating centre for Humanitarian Assistance (AHA centre). The establishment of such mechanisms ought to increase its visibility, and in turn, heighten member state commitment and responsibility to protect.

Second, the costs will also significantly increase with the response phase. This can include increased administrative, technical, and

educational costs, as well as the cost of increased member state commitment as mentioned above. For example, the indicative 2012 budget set for tenders on civil protection modules and support teams in the EU amounts to 2.2 million euros (Commission, 2012a). This creeps towards regional asset ownership and certainly requires an increase in financial and human capital. Third, agreeing to operational activity presupposes cooperation on preparedness. As the response phase of the generally accepted components of DRM – prevention, preparedness, response, and recovery (Altay and Green, 2006: 480) – also include these other features, it is consequently at a more advanced stage.

Locating operational capacity in regional DRM agreements is premised on the following indicators. In order to receive a value of 0.2 – the maximum value for a qualitative anchor – the strategy not only must make a reference to all four dimensions of DRM (prevention, preparedness, response and recovery) but also must state specific provisions for the accomplishment of the task. This can include, for example: the establishment of simulation or desktop exercises; a centre for research; or a hub for the management of transboundary crises that can include inter- and intra-regional requests for assistance. When operational capacities are limited or when these capacities are affiliated to a regional organization (such as the White Helmets to OAS), a value of 0.15 is given. Finally, when operational capacities are limited to low-cost preparedness and prevention initiatives (such as data analysis centre) a value of 0.10 is awarded.

The two qualitative anchors that determine the extent to which a regional organization is more out than in the set of regional DRM – and thus classified as more nascent than advanced – is the level of awareness and information. To be sure, a value below 0.5 does not mean that cooperation is not taking place, as this would be indicated by a value of 0.0; it rather means that the level of cooperation requires relatively little costs to each member state of a regional organization. Thus, a value of 0.20 will be given to any regional organization that formally acknowledges the need to cooperate on DRM. A formal agreement is an official statement, agreement, or declaration that is signed at the executive level (heads of state). If an agreement is formulated below the executive level, a value of 0.15 is awarded. When there is no explicit regional cooperation on DRM, but related cooperation is being conducted within the regional organizations, such as SADC's drought mitigation cooperation in the early 1990s, a value of 0.10 is awarded.

When these acknowledgements are complemented by specific and numerous instances of information exchange a further value of 0.2 can be added. Examples of information sharing include the formation

of a network of national emergency management practitioners (see Council, 1994), regular DRM conferences, the exchange of experts, as well as commissioned studies, surveys and risk mapping. When information exchange is limited to inter-organizational cooperation (such as a UNISDR-based regional platform) or institutionalized regional cooperation (such as the establishment of national emergency management meetings) a value of 0.15 is awarded. When only one or two means of information exchange and cooperation is made, such as a conference or workshop a value of 0.10 is awarded.

The two qualitative anchors that determine the extent to which a regional organization is more in than out of the set of regional DRM – and thus classified as more advanced than nascent – is the level of standardization and asset pooling. The principal reason for standardizing DRM-related activity is to increase the effectiveness and efficiency of prevention, preparedness, response and recovery. However, standardizing information exchanges, national emergency management agencies, or catering for the interoperability of collective operational projects, heaps more commitment and costs on each member state.[7] The value of harmonization is divided into three components according to the perceived level of costs to the member state. First, a value of 0.1 is awarded to regional organizations that address the need to harmonize information, such as creating common transboundary risk maps for flooding or workshops on harmonizing national emergency response institutions (see ASEAN, 2005a; CARICOM, 2007). The agreements ought to be specific on standardizing practices across countries. A value of 0.15 is awarded when efforts are made to instigate transboundary operational harmonization, such as simulation exercises. A full value of 0.20 is awarded to regional organizations that engage in institutionalized interoperability at the operational level, which requires a higher degree of coordination and cooperation between countries, such as the European Commission's module system (see Council, 2007b).

The main reason for pooling assets is to provide a faster response time and overcome potential collective action problems. However, the costs are also particularly high as this transfers the national responsibility to protect towards a collective responsibility. These costs are again divided into three separate indicators. A value of 0.10 is given if states agree to pre-register national capacities that can be used in the event of a transboundary disaster (see Council, 2007b). A value of 0.15 is provided when states agree to stockpile emergency response assets for immediate use. A full value of 0.20 is awarded to organizations that have regionally

owned and operated response-based assets such as aeroplanes, boats, and search and rescue teams.

The outcome of the values is displayed in Table 2.2. The primary documents used to calculate the values for the outcome condition come from official regional agreements, declarations and framework strategies on DRM. The following review of each regional organization explicates the documents used to assess these final values. References are also provided for each document to promote code reliability and the possibility for replication of the results. The final figure that determines the level of DRM cooperation is based on a logical OR statement where the highest value for each category is cumulatively calculated over the 40-year period.[8] Values that are below the threshold of 0.50 represent regional organizations that are more out than in the set of regional DRM and values above 0.50 represent regional organization that are more in than out of the set. If these values are divided across the last four decades one can also observe a definite rise in the number of regional organizations that are now in the set of advanced regional DRM: from no regional organizations in the 1980s, three in the 1990s, and nine in the 2000s.

## African Union

The intellectual seeds of pan-Africanism can be traced back to at least the 1930s with the writings of W.E.B. Du Bois. The sentiments espoused by Du Bois found fertile soil in the political actions of a number of African leaders in the 1960s such as Kwame Nkrumah and Haile Selassie (Badejo, 2008: 25–26). Amidst a period of political independence from colonial

*Table 2.2* Set values for regional expectations

| | A | I | OC | S | AP | Total (2009) |
|---|---|---|---|---|---|---|
| ASEAN | 0.20 | 0.20 | 0.20 | 0.15 | 0.15 | 0.90 |
| AU | 0.20 | 0.20 | 0.15 | 0.10 | 0.00 | 0.65 |
| CARICOM | 0.20 | 0.20 | 0.20 | 0.15 | 0.15 | 0.90 |
| ECO | 0.20 | 0.10 | 0.10 | 0.00 | 0.00 | 0.40 |
| EU | 0.20 | 0.20 | 0.20 | 0.20 | 0.10 | 0.90 |
| LAS | 0.20 | 0.20 | 0.20 | 0.20 | 0.00 | 0.80 |
| Mercosur | 0.20 | 0.15 | 0.00 | 0.00 | 0.00 | 0.35 |
| OAS | 0.20 | 0.20 | 0.15 | 0.10 | 0.10 | 0.75 |
| PIF | 0.20 | 0.20 | 0.15 | 0.10 | 0.00 | 0.65 |
| SADC | 0.20 | 0.20 | 0.20 | 0.10 | 0.00 | 0.70 |

*Note*: Awareness (A); Information (I); Operational Capacity (OP); Standardization (S); Asset-Pooling (AP)

rule in the 1960s, the Organization of African Union (OAU) was created in May 1963 to form a common front against apartheid, foreign influence and colonialism (Ibid: 12). The idea of eradicating political borders created by colonial masters certainly reinforced the vision of a single government for the continent (Murithi and Ndinga-Muvumba, 2008: 2). However, the goal of a common union was resisted by a number of states that preferred to proceed at a more gradual pace (Badejo, 2008: 30). The pan-African vision was also grafted onto the power and strategic interests of Ethiopia that may have seen the OAU as a vehicle to legitimate its newly acquired territories as well as to prevent a possible invasion from Italy (Ibid). A united Africa never came; instead, the OAU slowly lost its legitimacy over a period of 30 years as it was increasingly seen as an 'elite club of dictators' and was accused of 'bureaucratic paralysis' (Engel and Fomes Porto, 2010: 1; original emphasis). With the end of the Cold War, African leaders began to reassess the status of the OAU that eventually led to the creation of the African Union (AU) in 2002. The norm of non-interference was replaced with non-indifference (Mwanasali, 2008: 41) along with an emphasis on economic development and democracy promotion. These and other principles are reflected in the AU Constitutive Act and are supported by the Assembly, the Executive Council of Ministers, and the Commission. Other institutional bodies have also emerged under the AU's new architecture, including a pan-African Parliament, a Political Security Council (PSC), the African Court of Human and People's Rights, an African Central Bank, the African Monetary Fund, and the New Partnership for Africa's Development (NEPAD). The AU also emphasizes the importance of cooperation and coordination with its Regional Economic Communities (RECs), which include CEN-SAD, ECCAS, COMESA, ECOWAS, IGAD, SADC and UMA. The membership of the AU currently includes 54 African nations.

The vulnerability of the African continent to natural disasters has been a continual source of economic and social loss. Some examples include: the harsh droughts and associated famines in the early 1970s and 1980s in the Horn of Africa and Ghana, which prompted the OAU to develop an emergency Priority Programme for Economic Recovery (APPER); the 2000 flood in Mozambique that caused an equivalent economic loss of 12 per cent of national GDP; the 2002 famine in Zambia and Zimbabwe producing a loss of approximately 9 per cent of national GDPs (AU, 2004: 5); and the 2011 drought and famine in Somalia, Ethiopia and Kenya. While the economic interdependencies of some African countries may not be equivalent to the US or Europe, the impact of globalization has nevertheless had a significant impact producing unanticipated

backlashes to social and economic vulnerabilities. A good example of this is the increase in the value of pastoral lands as the price for beef has increased over the years. This has depleted resources and created larger costs for communities when large floods and droughts occur (Rotberg, 2003: 11).[9] Despite the repeating nature of many of these natural disasters and the impact they have on national economies, little regional efforts have been coordinated to mitigate future disasters. Nonetheless, the OAU was not entirely absent from this area. As a result of the critical economic shocks experienced from prolonged droughts in the African continent, the OAU and the UN established a Special Emergency Assistance Fund for Drought and Famine in Africa (SEAF) in 1985 (UN, 1989: 501) which is still in function today (AU, 2011b). Pan-African cooperation on DRM otherwise remained dormant until 2003.

Emerging from the AU's New Partnership for Africa's Development (NEPAD), a series of workshops, meetings and conferences on DRM were held in 2003 and 2004. These initiatives produced the Disaster Risk Reduction (DRR) Strategy that was adopted at the African Ministerial Conference on Environment (AMCEN) in June 2004 and passed through the AU's 3rd Ordinary Session in the following month (AU, 2004: 3). The strategy prioritizes three focal points. First, it aims to enhance and facilitate cooperation with sub-regional organizations within the AU, such as ECOWAS, SADC, or IGAD. In this sense, the document is designed as a master copy on which other regional organizations ought to base their own 'unique' DRM policies. Second, the strategy aims to change current DRM norms by transforming 'the basic mind-set and practices of national authorities; the disaster management community; the public and development partners' (Ibid: 4). Third, the strategy tentatively aims to link political conflict resolution with disaster relief through regular communications with the DRM programme and the AU Commission on Peace and Security.

The strategy is based on a baseline study conducted in 2003 according to the UNISDR framework. It identifies a number of DRM issues that ought to be prioritized, such as increased public awareness, enhanced knowledge management, and political commitment. An Africa Working group on DRR was then formed in 2004 to facilitate the strategy's primary goals. To this end, a 2006–2010 programme of action for the implementation of the strategy, and a recast programme of action for the period 2006–2015 were created. These frameworks are complemented by related agreements that link into DRM, such as the Humanitarian Framework for Africa, the legally binding Kampala Convention on the Protection and Assistance of Internally Displaced Persons (IDPs), and

the Africa Monitoring of the Environment for Sustainable Development (AMESD) (see Ferris and Petz, 2013: 37–39).

Both of these programmes provide specific measures to implement the strategy. The latter also emphasizes the importance of the UNISDR's Africa Platform for Disaster Risk Reduction as the 'primary regional mechanism to support the implementation of disaster risk reduction strategies and programmes at regional, sub-regional and national levels' (AU, 2009: 5). The role of the sub-regional level as a facilitator of the strategy's objectives to its member states is also specified in the recast programme. In addition to these initiatives, ministerial conferences on DRR have been held in 2006 and 2010, a proposal for an African Centre of Excellence for Capacity Development has been tabled (Ibid: 7) and an official request to perform a feasibility study on an 'African owned Pan-African Disaster Risk Pool' has been made. In a similar approach to a recent EU Commission proposal (Commission, 2010b), this risk pool would aid African governments with contingent funding to respond to food insecurity and droughts by providing member states with immediate access to funds in the event of a crisis (AU, 2011a, 2010a: VIII). An African Risk Capacity Secretariat has been established as a result of these proposals. The Secretariat not only aims to develop a legal agreement on pooled risk insurance but to also act as the main facilitator of funds to future natural disasters (ARC, 2013). Unlike other regions, such as the EU or ASEAN, the AU's DRM anticipated capacity has developed at a fast pace in the late 2000s. The AU has the potential to play a significant role as a leader for sub-regional organizations in providing a blueprint of DRM cooperation providing that these are adjusted to local situations.

The AU has a total value of 0.65, which correlated to an advanced level of anticipated cooperation. Until 2009 the AU exhibited a nascent level of regional DRM cooperation. Cooperation was limited to official acknowledgements of the need to cooperate (0.2), as well as information sharing initiatives (0.2) (see UN, 1985; AU, 2004). This was later changed with the encouragement of funding for emergency response, preparedness and recovery activities (0.15) and the introduction of 'harmonizing DRR policies and strategies at regional and national levels' (AU, 2009, 12–13) (0.1).[10]

## Association of Southeast Asian Nations

In 1967, the spectre of communism was hovering over North Asia, the economic power of China was growing, and the prospect of Indonesia as a rising hegemon in Southeast Asia seemed real. Against this backdrop

Indonesia, Malaysia, the Philippines, Singapore and Thailand agreed to cooperate together to stimulate their economies and provide security against perceived threats from both inside and outside the nascent community. This agreement was solidified in the Bangkok Declaration establishing ASEAN. Brunei Darussalam, Vietnam, Lao People's Democratic Republic (PDR), Myanmar, and Cambodia would eventually join this association in the period 1984–1999.

The Bangkok Declaration (ASEAN, 1967), and a series of other declarations and treaties that followed, placed a strong emphasis on the '[m]utual respect for the independence, sovereignty, equality, territorial integrity, and national identity of all nations' and the 'right of every State to lead its national existence free from external interference, subversion or coercion' (ASEAN, 1976b: (1)). These founding principles reflect the so-called ASEAN way (see Haacke, 2003) that not only underlines the importance of non-interference but also encourages informal dialogue. This may be one reason why the 'formal' structure of ASEAN remains limited. According to a UN regional survey conducted in 2008, ASEAN has a permanent staff of approximately 600 with 30 dedicated to security and defence issues (UNU-CRIS, 2008: 27–34) and reflects an eclectic set of political systems ranging from partial democracies to military dictatorships as well as an Islamic monarchy.

The Disaster Risk Index, based on figures collected in the period 1980–2000, rates Southeast Asia as one of the most at-risk regions in the world (Peduzzi et al., 2009: supplement).[11] Given the geographical and meteorological instability of the region, it is not surprising that attention to natural disasters was first mentioned in the Declaration of ASEAN Concord: 'Natural disasters and other major calamities can retard the pace of development of member states. They shall extend, within their capabilities, assistance for relief of member states in distress' (ASEAN, 1976b: §4). Only four months after the signing of the Concord, the ASEAN Declaration on Mutual Assistance on Natural Disasters was signed. This emphasized the need to increase communication, training, and relief assistance, and to disseminate assets and designate national government agencies (ASEAN, 1976a: §I–III), although it was conditional upon the 'respective capabilities' of member countries (ASEAN, 1976a: preamble) that were particularly limited.[12]

Gradual developments, nonetheless, emerged. A committee entitled the 'Experts for the Establishment of ASEAN Combined Operation against Natural Disasters [Sic]' (ASEAN, 2004, 2011a) was established in 1971 through the ASEAN Committee on Social Development.[13] This committee then evolved into the ASEAN Experts' Group on Disaster

Management (AEGDM) in 1993. A proposal for a regional programme on disaster management was then raised and mooted in the AEGDM in 1996. Despite this setback, a working group was formed with close assistance from the Asian Disaster Preparedness Centre (ADPC), the European Commission Humanitarian Aid Office (ECHO), national emergency agencies, and the Mekong River Commission. The outcome of the working group was a draft framework that developed into the ASEAN Regional Programme on Disaster Management (ARPDM), endorsed by the ASEAN standing committee in 2003.[14] This 79-page programme outlines five principal objectives (out of 29) to be carried out in the period 2004–2010: the establishment of a regional disaster management framework; capacity building; sharing information and resources; promoting collaboration and strengthening partnerships; and public education, awareness and advocacy (ASEAN, 2004: 10). The first objective was fulfilled in 2005 when a legally binding ASEAN Agreement on Disaster Management and Emergency Response (AADMER) was signed and later ratified in 2009. The document requires member states to establish a 'conference of the parties', an ASEAN disaster management and emergency fund, an ASEAN coordinating centre for humanitarian assistance (AHA centre) to coordinate and facilitate cooperation and response to disasters, and national focal points to implement the agreement in each member state and provide a contact point for the AHA centre (ASEAN, 2005a: Art. 20). The agreement also provides for the participation of an annual simulation exercise, increased joint scientific research, and the provision of training, education and public awareness. Additionally, so-called standby arrangements have also been agreed upon, albeit on a voluntary basis, whereby national assets and capabilities are registered on a common database that is accessible to national disaster management authorities. The agreement also aims to establish an ASEAN emergency rapid assessment team for response to disasters. The AHA centre, the secretariat and the conference of the parties and the national focal points are given the mandate to see that all of these aims are implemented, which includes periodic reviews.[15] Three years after AADMER was agreed, a detailed document on Standard Operating Procedures was published in 2008 (ASEAN, 2009) that provides clarification of procedures and some preliminary standardization measures in terms of national and regional DRM cooperation. A Disaster Monitoring and Response System (DMRS) has also been established within the AHA centre, which is designed to collate hazard data from ASEAN member states (Ferris and Petz, 2013: 73).

The AADMER agreement has not steered away from the original 1976 declaration. What has changed, however, is the development of its institutional design. Even though there remains a continual insistence on non-interference and the upholding of the ASEAN way, the latest DRM agreement expresses a greater need to cooperate more closely on disaster relief and response. Indeed, this tension only increases with the goal of establishing supranational assets (an ASEAN emergency rapid assessment team and the AHA centre). The level of obligation has also increased as AADMER legally binds its signatories to fulfil the stated obligations. Monitoring and evaluation are also provided for through the annual ACDM meetings where evaluation reports are requested (ASEAN, 2004: 15). However, such monitoring is weak; the fulfilment of the aims of the agreement remains in the hands of the member states that are not subject to any direct or coercive measures.

Seven major documents on DRM in ASEAN can be identified over its 36-year history. Using these as the main sources for establishing values on the level of cooperation, each document was graded according to the five qualitative anchors as noted in the previous section.[16] The first four documents – such as the 1976 Declaration on Mutual Assistance on Natural Disasters and the 2003 ASEAN Concord II – are formalized at the executive level, acknowledge the importance of collective cooperation and recommend some preliminary knowledge-sharing initiatives and operational practices (ASEAN, 1976b: Art. I; ASEAN, 2004). However, there is a general lack of specific measures for operational capacity, standardization or the pooling of national assets. ASEAN crossed the threshold in 2005 with the publication of AADMER (ASEAN, 2005a) and Standard Operating Procedures (ASEAN, 2009). Here, not only was an operational capacity developed (0.2) but official acknowledgement (0.2), knowledge sharing (0.2) and standardization procedures were also put in place (0.15), as well as the establishment of emergency stockpiles of emergency response equipment (0.15). The accumulated value for ASEAN DRM after 2005 is thus highly advanced with a value of 0.90.

## Economic Cooperation Organization

Through trilateral cooperation between Iran, Pakistan, and Turkey, the Regional Cooperation for Development (RCD) emerged in 1964 in order to strengthen economic ties. In 1985 this organization was given a new lease of life as the Economic Cooperation Organization (ECO). This development also ushered in seven more members in 1992: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and

Uzbekistan. The founding Treaty of Izmir, originally signed through the RCD in 1977, has gone through two main revisions in 1991 and again in 1996. According to the current treaty, its main objectives are to promote sustainable economic development, cooperate in social, cultural, technical and scientific fields, promote integration of the public and private sectors, increase cooperation on transport and communication infrastructures, develop cooperation on drug abuse and control, facilitate cooperation on environmental protection, and increase cultural ties among its member states (ECO, 1996: Art. II(a–n)). Based on these goals, ECO has developed its capacities by creating educational and scientific institutes and an ECO Trade and Development Bank. More recently, a programme for food security and seed supply has been set up to support regional agriculture; and in the area of health, ECO is currently working on an ECO Blood Safety Network and Drug Regulatory Network (Maroofi, 2011).

The South-Central Asian region has not been immune to natural calamities. The 1947 earthquake in Ashgabat has been listed as one of the deadliest earthquakes recorded with a death toll of 110,000 people (USGS, 2011). A series of other earthquakes followed this tragedy such as Uzbekistan in 1966, Tajikistan in 1989, Kyrgyzstan in 1992, Azerbaijan in 2000, Iran in 2003, and Pakistan in 2005. Other natural disasters that have pervaded the region include the 1970 Bhola cyclone in former East Pakistan and the flash floods in Turkey in 2009, causing an estimated economic loss of USD 70–80 million (Reuters, 2009). Despite the terrific economic and social costs these and other disasters have had on the region – which tends to be exacerbated by the low level of development in some of these countries – little regional cooperation has emerged until recently.

ECO held its first annual conference on DRM in 2007 which also coincided with the signing of a Memorandum of Understanding (MoU) on DRM cooperation with the UNISDR. This document addresses areas of cooperation, including enhancing local capacities (ECO, 2007: 2.1), promoting inter-regional, regional and sub-regional cooperation (Ibid: 2.3), and the exchange of information (Ibid: 3.2). Although the conferences are not at the ministerial level, the participants do produce a list of recommendations for submission to the ECO ministerial conferences by the ECO secretariat. Considering the short time within which this policy space has emerged, the recommendations are fairly robust. Not only is attention placed on the exchange of knowledge but also on proposals for a Regional Trust Fund for Disaster Risk Management, regional relief storage, databanks, DRM networks, and training (ECO, 2008a). A number of declarations have also been issued at the ministerial level as a result of the annual ECO ministerial conferences. These declarations

demonstrate an awareness of the cost of natural disasters and specify the importance of increasing cooperation on emergency management.

The 2006 Baku Declaration endorsed the Regional Centre for Risk Management of Natural Disasters (ECO-RCRM) with the aim of enhancing DRM capacities in the member states of ECO. The origins of the centre began with a proposal to ECO in 2004 from the Meteorological Organization of the Islamic Republic of Iran for establishing a regional centre for risk management (ECO, 2008b). This proposal then materialized in the first ECO meeting of the heads of meteorological organizations, whose participants prepared and agreed to a draft MoU on the establishment of the ECO-RCRM in 2007. A working group emerged from this meeting which established the statutes of the centre. It was officially established in the same year at the National Centre of Climatology in Mashad, Iran. The main functions of ECO-RCRM include disaster and risk assessment, drought monitoring and seasonal predictions, workshops, and training. Presently, this centre is only affiliated with ECO, with the goal of incorporating it into a specialized agency at a later date (ECO, 2010b).[17]

Despite a long history of devastating natural disasters, the ECO region has not cooperated on DRM until recently. Since 2007, however, cooperation has developed steadily to a point where an operational arm of ECO DRM exists. This centre does not yet facilitate member states' responses to disasters but does provide a focal point of disaster relief initiatives, information gathering and knowledge sharing, which is complemented by the ECO conferences on Disaster Risk Reduction (DRR) and meetings between the heads of national meteorological organizations. Cooperation on DRM through ECO consequently remains at a nascent level. Official declarations on the importance of cooperating on DRM (0.20), sharing information (0.10) and the establishment of ECO-RCRM (0.10) define the milestones of cooperation for ECO. The cumulative value of these initiatives is equal to 0.40. While there have been proposals for pooling assets and other more advanced forms of cooperation, they are not included because they have not been officially agreed upon by ECO officials.[18]

## European Union

The successful European Coal and Steel Community (ECSC) in 1951 and the failed European Defence Community (EDC) in 1954 were directed towards providing political and financial stability for a safer Europe. The continent would have to wait another 20 years before cooperation on the protection of its citizens would be first mentioned, and another decade

before any legal framework would be established. A little over a decade after the Declaration of ASEAN Concord and in the same year as the LAS agreement on relief operations, the European Council produced a resolution in 1987 that encouraged cooperation among member states in the field of civil protection with an emphasis on the exchange of information, simulation exercises, and the establishment of 'liaison officers' to transmit information from the Commission to member states.[19] Regular meetings were also proposed to monitor compliance of the agreement (Council, 1987). This declaration was followed by a series of Council resolutions and decisions as well as Commission communications that were framed around the Maastricht Treaty (Ekengren, 2008: 48; see also Council, 1992: Art. 103(a)). This burgeoning cooperation led to the first legal text establishing a community action programme in the field of civil protection in 1997 (Council, 1997). Even though this agreement was not designed to harmonize any laws or regulation of member states (Ibid: Art. 2, §3), it does provide for specific measures for 'supporting' member states' civil protection frameworks by organizing training, the exchange of experts, simulation exercises, and improving public information and education. This two-year programme was then updated in 1999 to a five-year action programme, providing a backdrop for the creation of a 'Community Mechanism to facilitate reinforced cooperation in civil protection assistance interventions' (Council, 1999, 2001a).[20]

The community mechanism sets out a number of 'tools' to facilitate cooperation in the event of a transboundary disaster affecting member states inside the EU or outside the EU. The tools include a training programme, a Monitoring and Information Centre (MIC), a Common Emergency Communication and Information System (CECIS), and the establishment of assessment and coordination teams (Council, 2001a: Art. 1(3)). Member states are also required to notify the EU on what intervention teams could be made available in advance of a disaster (Ibid: Art. 3(a)).[21] Such requirements have increased with the recast of the mechanism in 2007 where, inter alia, a module system was introduced that requires the listing of 17 specialized teams and assets from member states, such as 'aerial forest fire fighting module using helicopters', 'heavy urban search and rescue' or an 'advanced medical post' (Commission, 2010a). It is worth pointing out that the requirement to list a set of DRM competencies before a crisis occurs – and made available to all member states through the CECIS – places larger expectations on those member states that list their DRM competencies at the community level. In other words, these agreements provide conditions that make it harder for member states to say no, thus tampering with

national sovereignty in exchange for tacitly enforced solidarity. As part of the evolution to pre-committed capacity, the MIC was updated and renamed in May 2013 as the Emergency Response Centre that aims to map available assets from member states that can be incorporated in 'pre-planned response' efforts (ERC, 2013).

The Commission also has a number of specialized DRM cooperative endeavours within many Directorates General, such as DG SANCO and DG RELEX. A Commission official within the Secretariat-General noted that there are as many as 18 to 19 DGs with a crisis response unit (Personal Correspondence, 2008, Commission; see also Missiroli, 2006: 433). Many DGs also host so-called Rapid Alert Systems (RAS) that allow member states to rapidly share information with each other and the Commission when critical emergencies, such as biological and chemical attacks and accidents, nuclear emergencies or disruptions, in critical infrastructure occur including transport or energy networks. The various RAS are then coordinated through a central node in the Commission called ARGUS that is located in the Secretariat-General of the Commission.[22] The Humanitarian Aid Department (ECHO), where the MIC has been relocated to since 2010, within the Commission also holds a specific mandate to provide assistance to countries outside of the EU who have suffered from a major crisis. It is involved in promoting disaster prevention measures through technical assistance, training and public awareness (Commission, 2011a). The EU's capacity in DRM was also enhanced in 2007 with the adoption of a civil protection financial instrument that provides for 189.8 million euros to support the mechanism in the period 2007–2013 (Council, 2007a). This instrument complements the EU solidarity fund established in 2002 which has provided relief aid to 47 disasters in 22 member states with a total payment of around 2.4 million euros (Commission, 2012c).

In addition to the community mechanism, the Council established Emergency and Crisis Coordination Arrangements (CCA) in 2005. These arrangements allow for effective decision-making in the event of a large political crisis requiring political response at the EU level, such as the ash cloud caused by the eruption of the Eyjafjallajökull Volcano in 2010. Since June 2013, the CCA has been reformed into the EU Integrated Political Crisis Response arrangements (IPCR). The IPCR is led by the EU Presidency and supported by the General Secretariat of the Council (GCS), the Commission, and the European External Action Service (EEAS). Member state ambassadors (Coreper II), the Council Secretariat, and the Crisis Steering Group (an ad hoc grouping of relevant ambassadors and crisis managers) also provide support and advice to the IPCR (Larsson,

2009: 134). An Integrated Situational Awareness and Analysis (ISAA) capability and the IPCR Web Platform form the main operational arm of the IPCR. The ISAA provides an overview of an unfolding crisis, issues early warning alerts and conducts situation monitoring through open-source analyses and information received from relevant Directorates General in the Commission. The Web Platform provides the possibility for information sharing before and during a crisis (Council, 2013). The IPCR mandate is principally directed towards political issues and limited to gathering and sending the 'right' information at the 'right' time (Personal Correspondence, 2008, Council). It is a platform for politically strategic decision-making and intra-institutional coordination.[23]

The Treaty of Lisbon has also sharpened the EU's competencies in the field of civil protection (Council, 2007d: Art. 2(e) and Art. 176(c)).[24] First, it introduces qualified majority voting, which means that a more efficient mode of decision-making on DRM is now possible. Second, the Treaty established the Solidarity Clause that increases the obligation of member states to cooperate on DRM: '[t]he Union shall mobilise all the instruments at its disposal, including the military resources made available by the Member States, to … assist a Member State in its territory, at the request of its political authorities, in the event of a natural or man-made disaster' (Council, 2007d: Art. 188(r); Council, 2008: Art. 222). Through a process stretching throughout a five-year period the establishment of this clause introduces a highly specific and legally binding agreement at the regional level that makes a cautious step over the traditional safety grounds of intergovernmental cooperation.[25] Indeed, as paragraph 2 clearly states, member states are now obliged to assist 'at the request of its political authorities', albeit, with little suggestions over how or what this assistance would look like.[26] The clause also opens up a number of critical questions such as: 'what type of threats', 'what is the scope of the clause', or 'what are the legal implications' (Myrdal and Rhinard, 2010: 8)? These and other questions may act as a catalyst in creating more specific regional capacities for DRM in the future and certainly marks, at least on paper, the beginning of a supranational capacity.

The EU has certainly developed from its original declaration in 1987 to a point where supranational and national capacities are beginning to emerge in the area of prevention, preparedness, response and recovery. Council resolutions on DRM cooperation in the late 1980s and early 1990s contain references to the importance of cooperation (0.2) and information sharing initiatives (0.2), yet do not include references to operational capacity or standardization procedures. This period of nascent cooperation is represented by a value of 0.40. However, the threshold into the set of

regional DRM cooperation was soon passed in 1994, when a Council resolution issued preliminary operational measures in the form of a 24-hour standby service run by the Commission and supported by the Commission initiative to maintain an operational manual listing, inter alia, a register of national resources that can be used in times of crises (Council, 1994). This was later developed into the (recast) community mechanism (Council, 2001a, 2007b). These and other documents produced in the last decade focused on the full disaster management cycle (0.2), promoted information sharing through simulation exercises and exchanges (0.2), established an operational centre (0.2), standardized procedures (0.2) and a list of national resources to use, as well as preliminary pooling of resources such as specialized resources and teams (0.1). A value of 0.9 is consequently established reflecting highly advanced cooperation.[27]

## Caribbean Community

Volcano eruptions, earthquakes, hurricanes and floods reflect some of the multi-dimensional risks that challenge the economic and social stability of the Caribbean region. In an effort to create a regional capacity in the area of prevention and response against the detrimental effects of these and other crises, the leaders of the Caribbean countries first met in the aftermath of two deadly hurricanes in 1979 (Jones, Bisek and Ornstein, 2001: 32). From these discussions, and with the support of the United Nations Disaster Relief Organization (UNDRO), a Pan Caribbean Disaster Preparedness and Prevention Project (PCDPPP) was established in the period 1981–1991 to increase DRM coordination between Caribbean countries (CDB, 1998: §1.08).[28] This project was then succeeded by the Caribbean Disaster Emergency Response Agency (CDERA) in 1991, 18 years after the signing of the Chaguaramas Treaty establishing the Caribbean Community.[29]

Emerging out of the 1990 Kingston Declaration, CDERA, inter alia, facilitates member state requests for assistance in the event of a major disaster, encourages coordination between emergency management agencies, and cooperates with other relevant actors and donors (CARICOM, 1990: §13; CARICOM, 1991: Art. 4). Unlike its predecessor, CDERA has been proactive in developing training initiatives and enhancing contact between various sectors within the CARICOM community such as national emergency management agencies and telecommunication engineers (Bellers and McKemey, 2000: 13; see Aguaconsult, 2009: 33).

CDERA's focus on response and lack of attention to prevention and resilience was a driving factor for the creation of a new agency in 2009

(CARICOM, 2010). The agreement establishing the Caribbean Disaster Emergency Management Agency (CDEMA) thus aims to carry on the objectives of CDERA, promote a 'culture of disaster loss reduction' and to implement policies at the regional and local levels in the area of preparedness, preparation, response and recovery (CARICOM, 2010: 9). Like the EU's Emergency Response Centre and ASEAN's HFA centre, CDEMA is also tasked with facilitating assistance from member states and coordinating relevant equipment and supplies both within and outside the region (Ferris and Petz, 2013: 54–56). The Caribbean Disaster Relief Unit (CDRU) is the main operational arm of CDEMA which can be activated in the event of a major disaster. It provides logistical support for the transport of relief supplies (CDEMA, 2013).

CDEMA is supported by the 2001 Strategy and Results Framework for Comprehensive Disaster Management (CDM) that was recast in 2006. CDM includes an all-hazards approach, with a focus on prevention, mitigation, preparedness and response. It also aims to include the private sector, civil society and the local community level in DRM (CARICOM, 2001: 16). In order to implement the CDM mandate a Comprehensive Disaster Management Coordination and Harmonization Council (CDMCHC) was created in 2007.

During the period between the creation of CDERA in 1991 and CDEMA in 2009, a number of other relevant agreements were made that touch on regional DRM. First, the Caribbean Community Climate Change Centre (CCCCC) was created in 2005 to coordinate CARICOM's activity on climate change. Ongoing projects from the centre include disaster risk-related initiatives – such as the regional framework for achieving development resilience to climate change – that provide an additional layer of awareness advocacy by connecting climate change to natural disasters (CCCCC, 2012). Second, in 2006, a Treaty on Security Assistance among CARICOM Member States was signed establishing a Security Assistance Mechanism. The first objective of this mechanism is the 'efficient and timely response to and management of natural and man-made disaster in order to reduce and eliminate the harmful consequences thereof' (CARICOM, 2006: Art. 3(a)). This is coordinated by a joint strategic coordination and planning committee comprised on the coordinator of the Regional Security System (RSS) and military officials (CARICOM, 2006: Art. 5(1)). The planning committee organizes and sends appropriate personnel and assets – such as transport vessels – to a requesting country within CARICOM, such as search and rescue missions. Third, the 2007–2012 enhanced strategy and framework on DRM was presented in 2007 as an update of the 2001 document introducing CDM. This document

differs in its ambition in terms of more precise goals such as creating a regional disaster risk reduction network and strengthening national disaster management offices (CARICOM, 2007: Art. 5.5).

Regional cooperation in the Caribbean began, unlike most other regions, with a high level of institutional design. The 1991 CDEMA agreement, for example, notes that participating countries ought to 'identify, maintain in a state of readiness and make available immediately on request by the Coordinator relevant material and human resources in the event of disaster' (CARICOM, 1991: Art. 13(s)). Not only was a functioning agency established to coordinate disaster prevention and response, but member states are also obligated to provide assistance if requested. If these obligations are 'persistently violated' a member state can be suspended from the Council (Ibid: Art. 29). With the exception of a slight increase on efforts for standardization, CDERA reflects a similar and impressive level of cooperation in DRM that tentatively stretches beyond intergovernmental cooperation. The overall, cumulative value for DRM cooperation through CARICOM is 0.90.[30] Emerging out of the Pan-Caribbean Disaster Emergency Response Agency, CDERA was established at the executive level, acknowledging the need for cooperation (0.20); it emphasizes information sharing (0.20); it has a clear operational component (0.20); it conducts simulation exercises and has standardization procedures (0.15) (CARICOM, 2007); and it provides provisional asset-pooling initiatives (0.15) (CARICOM, 1991: Art. 12).

## Common Southern Market

Orchestrated by Simón Bolívar, the Congress of Panama of 1826 aimed to integrate South America into a regional whole with the purpose of preventing Spanish re-colonization and resolving internal disputes over territory (Mace, 1988: 405). Bolívar's dream was to 'convene there [Isthmus of Panama] an august assembly of representatives of republics, kingdoms, and empires to deliberate upon the high interests of peace and war with the nations of the other three-quarters of the globe' (Bolivar, 1951, cited in Thomas and Thomas, 1963: 5). These endeavours, as well as 50 others from the period 1820–1870, resulted in failures despite small glimmers of hope, such as the Republic of Great Colombia from 1822–1830 and the Peruvian-Bolivian Confederation from 1835–1839 (Ibid: 405–406). The tint of a colonial past and the myth of regional integration have thus set the scene for contemporary regional integration projects since the end of the Second World War. Many of these attempts, such as the Latin American Free Trade Association in 1951, its

reformation into the Latin American Integration Association in 1980, the Latin American Economic System in 1975, the Rio Group in 1986 and the Latin American parliament in 1987, were all overshadowed by *Mercado Común del Sur* (Mercosur) or the Southern Common Market. In an attempt to create a more cohesive economic agreement that would balance the North American Free Trade Agreement (NAFTA) (Baldwin, 1997: 8), Argentina, Brazil, Paraguay and Uruguay signed the Treaty of Asunción in 1991. This has been considered the most successful integration scheme in the region (Malamud, 2005: 422). More recently, Mercosur has joined forces with the Andean Community of Nations to form a Union of South American Nations (UNASUR) in 2008 as well as the Community of Latin American and Caribbean States in 2010. The success of Mercosur, however, has been more in images and words than in action and practice. While small advances may have been made, the member states have not yet reached the level of customs union or a free trade area (Sbragia, 2010). The political centre is also meagre due to a small administrational budget, the lack of effective enforcement mechanisms and the general rejection of supranationality (Ibid: 272).

In comparison to South and Southeast Asia, South America is not as prone to major natural disasters. Disasters, nevertheless, can occur with significant transboundary effects such as the 1987 earthquake in Ecuador. The numbers are not insignificant either: from the period 1970–1999, approximately 32 disasters occurred each year in the region, which incurred 75,000 deaths per year and an annual economic loss between USD 700 million to 3.3 billion (Charvériat, 2000: 9; Simonelli and Duran, 2006). Perhaps this is why, in November 2008, the first meeting on DRM was held under Mercosur's Common Market Group, which became thereafter institutionalized as the Special Meeting on Disaster Risk Reduction Socio-Natural, Civil Defence, Civil Protection and Humanitarian Assistance MERCOSUR (REHU). According to this founding document, member states aim to enhance coordination and cooperation between member states' risk management systems (Mercosur, 2009: Art. 2) through regular meetings by competent authorities from the member states (Art. 1). The agreement also makes clear that it is not legally binding on the member states (Art. 4). Although Latin America does not lack regional initiatives on DRM – such as the Andean Committee for Disaster Prevention and Attention (CAPRADE) and the OAS Inter-American team of consultants on natural disaster counteraction (OAS, 2011d) – Mercosur remains one of the less developed in terms of its institutional design and degree of institutionalization on DRM. Although the REHU was only established in 2009, it nevertheless has

given very little attention to the protection of its citizens from natural disasters.

As Mercosur has only recently established the REHU, it remains at a nascent level of DRM cooperation. Its full value is set at 0.35 and is based on the official acknowledgement of the need to cooperate on regional DRM (0.20) and institutionalized regional cooperation through the REHU (0.15).

## League of Arab States

For different reasons both the occupied and occupiers sought regional stability in the Middle East after the Second World War. With strong backing from Britain, a sense of security was achieved through the Pact of the League of Arab States, signed by Egypt, Iraq, Trans-Jordan, Lebanon, Saudi Arabia, Syria and Yemen in 1945. This pact was soon complemented by the Treaty for Joint Defence and Economic Cooperation, signed in 1950. Over a period of almost 50 years this original group, united by a common language, history, culture and religion, would eventually include a total of 22 members as the colonial shackles rusted away.[31] The general trajectory of the organization has ostensibly been guided by an unwavering value of national sovereignty and fluctuating Arab solidarity culminating in a general decline in collective political and security cooperation (Murden, 2009: 121–130). It would seem that geopolitical and economic concerns have outweighed any focus on citizen protection for the first four decades of the Arab League.

Cooperation on DRM emerged in the 1990s, albeit, at a fairly slow pace despite a number of high-profile disasters that affected the region. In the period 1980–2008, natural disasters in the region affected approximately 37 million Arab people and incurred USD 20 billion in economic damages (LAS, 2011: 6). Recent examples include the 2003 earthquake in Algeria, the 2007 cyclone in Oman, the 2009 floods in Morocco, and the 2007–2010 droughts in Jordan and Syria. Except for the Arab Cooperation Agreement in organization and facilitation of relief operations, approved in 1987, few efforts were made to mitigate and respond to these and other disasters (LAS, 1987). This state of affairs has recently changed.

Within a seven-year period, from 2004–2011, LAS established statutes for an Arab Centre for Earthquakes and Other Natural Disasters Risks (El Mallah, 2011a); it produced the Arab Ministerial Declaration on Climate Change (LAS, 2007: §19) and a draft 'Arab Protocol on cooperation for speedy and immediate response…in cases of disasters, crisis and emergencies'; it signed a Memorandum of Understanding (MoU) with the

UNISDR to implement Hyogo Framework Programme for Action (HFA) goals in the region; and it established an Arab Coordination Mechanism between Arab countries and Arab agencies in charge of disasters and emergencies (El Mallah, 2011a).[32] With the aid of the UNISDR these initiatives were followed by the establishment of a centre for disaster risk reduction training and research in 2009 (LAS, 2011: 8). In the same year, the Arab League compiled a report on member countries' capacity on DRM with the support of the UN Secretariat, the Islamic Development Bank and other UN agencies (Turki Bin Nasser Bin Abdulaziz, 2009: §4). The outcome of this report depicted a general lack of capacity in many of the member countries combined with a growing realization of the importance of disaster prevention and response, and it allegedly provided the impetus to prepare an Arab Strategy for Disaster Risk Reduction (DRR) that was released in 2011 (Ibid: §5). Approved by the Council of Arab Ministers responsible for the Environment in December 2010, this strategy presents five key priorities: (1) the strengthening of cooperation across different sectors on disaster reduction, such as civil society; (2) the development of DRM capacities in identifying, assessing and monitoring risks; (3) promoting training, information exchange, standardization and public education; (4) improving the links between the sub-national and national levels of DRM; and (5) including emergency response, preparedness and recovery (LAS, 2011: 15–16). The fulfilment of these initiatives is monitored by the LAS, which requests situation reports from the member states (Ibid: 20).[33]

Despite its long history as an organization and short history in the field of DRM, the Arab League has taken significant steps in producing a regional response to regional disasters. The framework agreement demonstrates an emerging design that includes attention to standardizing DRM information according to global standards, as well as attention to preparedness, prevention, response and recovery (LAS, 2011: 5, 17; see IASC, 2011). Furthermore, the establishment of a research centre for disaster risk reduction depicts the resolve of the organization to establish an information base from which an efficient regional DRM regime can emerge.

As LAS has a relatively short history in the area of DRM cooperation, only two major documents are used to assess the values of cooperation. The first period of nascent cooperation is defined by the Arab Cooperation Agreement Regulating and Facilitating Relief Operations (LAS, 1987) that not only acknowledged the need for cooperation (0.20) and recommends preliminary knowledge-sharing initiatives (0.10), but also established an Arab Supreme Relief Committee to coordinate relief action between Arab States (0.15). Its lack of attention to the full

disaster management cycle, however, means that this agreement does not cross the threshold in the set of regional DRM cooperation. The 2011 Strategy on DRR effectively passed the threshold by including prevention, preparedness, response and recovery aspects of DRM and an operational unit (0.20). It officially recognizes the importance of cooperation (0.20), and it promotes knowledge-sharing practices (0.20) and imposes standardization measures on operational activity (0.20). A total value of 0.80 consequently defines LAS current level of cooperation as 'advanced' according to official agreements.[34]

## Organization of American States

The Monroe Doctrine and the newly independent states of South America clearly signalled the political will of the Americas against any further European or foreign interference in the early 19th century. This may have encouraged self-preservation and 'continental solidarity' that would lie out the foundations for an American community (Thomas and Thomas, 1963: 4–5). Such sentiments were clearly expressed in South America, but the resilience of the US to participate in these endeavours, such as the Congress of Panama, stifled any dreams of Pan-American unity. Nevertheless, Hispanic American conferences and treaties were periodically held throughout the 19th and early 20th centuries that upheld organizational characteristics and values that can be seen in the OAS. These included, although not always honoured, non-interference, peace and conflict mediation, dispute resolution, and even the imposition of sanctions (Ibid: 10). At the time of the end of the Second World War, there was growing frustration over the lack of South American representation on the newly established UN Security Council, fear of an aggressive Russia, and the need for economic support (Ibid: 31). These factors provided a powerful mix that saw the creation of an Inter-American Treaty of Reciprocal Assistance (Treaty of Rio de Janeiro) signed in 1947.[35]

The OAS has 36 members comprising North, Central, and South American countries.[36] Its organizational structure is principally made up of annual meetings of the General Assembly (held since 1971) that acts as the highest decision-making body. The Permanent Council consists of member state representatives who meet regularly to discuss a range of issues, including administration, the OAS budget and inter-organizational cooperation.[37] Other central institutional bodies include the Inter-American Council for Integral Development (CIDI); the Inter-American Juridical Committee (IAJC); the Inter-American Commission on Human Rights; the General Secretariat; and Inter-American committees and

commissions (OAS, 2011a). Its main activities centre around democracy promotion, social and economic development, 'multi-dimensional security', tourism, and culture. The principal OAS institutional body working on DRM issues is the Risk Management and Adaptation to Climate Change department (RISK-MACC). This body is under the auspices of the Executive Secretariat for Integral Development and the General Secretariat. Cooperation on DRM through these organs has become increasingly active in the last two decades.

In 1991, the OAS formed an agreement on the Inter-American Convention to Facilitate Disaster Assistance that held similar provisions to ASEAN's AADMER or CARICOM's CDERA, albeit with no regional operational capacity. That is, it provided clear specifications for the facilitation of disaster responses between states. The agreement has, however, remained dormant as it requires the signatures and ratification of all 35 member states. Presently, only four have signed and five have ratified the agreement.[38] A more successful proposal arose in the first Summit of the Americas in 1994, which produced the Miami Plan of Action where cooperation with the Argentinean White Helmets Initiative (WHI) – a peacekeeping force focused on response and mitigation of humanitarian and natural disasters – was recommended. This plan of action encourages, albeit on a voluntary basis, national selection and training of volunteer corps that can assist in the event of national and regional disasters (SOA, 1994: Art. 111(20)). The following year also saw a significant cooperation agreement passed: the OAS Inter-American Emergency Aid Fund (FONDEM). This is designed to aid any member state in the event of a natural disaster through technical, social, humanitarian, material and financial support (OAS, 1995a: Art. III). Funds are sourced from voluntary contributions or unused appropriations from the previous biennia (Ibid: Art. IV). The Secretary General is then able to use these funds to grant emergency aid up to USD 25,000 per case. Recent examples include the granting of a total of USD 176,700 of emergency funds to Belize, Costa Rica, Haiti, Saint Vincent and the Grenadines and Saint Lucia in 2010, as well as satellite telephones to Chile after the earthquake in February (OAS, 2010a: 22). The Secretary General holds the general mandate for receiving and distributing requests as well as facilitating resources and emergency plans with other international organizations such as the United Nations Emergency Fund, the World Food Programme, the Pan American Health Organization and the League of Red Cross Societies (OAS, 1995a: Art. VII–VIII).[39]

The Inter-American Committee for Natural Disaster Reduction (IACNDR) was created in 1999 as the principal body in the OAS to

lead cooperation on DRM. The main task of the IACNDR is to provide the Permanent Council with advice and recommendations (OAS, 1999: Art. 4). Interestingly, the members of this committee include representatives from the IDB, PAHO, the Pan-American Institute of Geography and History (PAIGH), the Inter-American Institute for Cooperation on Agriculture (IICA) and the Executive Secretary of the Inter-American Council for Integral Development (CIDI). This inter-organizational complexity is also reflected in creation of an Inter-American Network for Disaster Mitigation through the RISK-MACC department. This network is designed to improve inter-institutional cooperation on DRM, analyse issues surrounding prevention and mitigation, and coordinate and implement the Inter-American Strategic Plan for Policy on Vulnerability Reduction, Risk Management and Disaster Response (IASP). This document, in turn, aims to reduce the loss of life and property, improve emergency preparedness and response, improve financial protection from natural disasters, and increase the resilience of critical economic and social infrastructures (OAS, 2003b, 2003c). In the same year, the Declaration on Security in the Americas noted the importance of natural disasters in its widened security vision (OAS, 2003a).[40]

Attention to increasing coordination amongst the numerous institutional bodies that deal with DRM was the principal focus of the OAS 2005 declaration on Natural Disaster Reduction and Risk Management. In a similar vein to the EU's ARGUS system, the General Assembly agreed to review the FONDEM and the IACNDR for the purpose of creating a 'single permanent inter-American committee to address natural and other disasters' (OAS, 2005b; Art.4(b); 2007a: 109). The following year witnessed the first inter-American ministerial conference on sustainable management of which DRM was raised as a significant issue. The outcome of this conference was the creation of an Inter-American Program for Sustainable Development for the period 2006–2009, with a particular focus on strengthening national DRM capacities (OAS, 2006b: §3.3). More recently, the OAS has created a forum where other regional organizations working on DRM can coordinate their efforts and discuss best practices. Members of this forum include CDEMA, REHU, the Andean Community's *Comité Andino para la Prevención y Atención de Desastres* (CAPRADE) and the Central American Integration System's *Centro de Coordinación para la Prevención de los Desastres Naturales en América Central* (CEPREDENAC) (OAS, 2010b). A working group comprising the Permanent Council and the Permanent Executive Committee of the Inter-American Council for Integral Development (CEPCIDI) has also

convened to discuss and prepare a plan of action for an increased coordination role of the OAS in DRM (Ibid).

In terms of operational capacity, Argentina's White Helmets Initiative (WHI) and the Simón Bolívar Humanitarian Task Force have continued their close cooperation with the OAS (1995b, 2008b). The OAS has increasingly used the WHI and the Regional Humanitarian Volunteer Corps Network as the primary vehicles for the OAS to remain active in responses to natural disasters (see OAS, 2008a, 2008b). The reciprocal relationship that the OAS shares with the WHI also promotes other member states to become more involved through various OAS declarations encouraging, for example, member states to set up focal points or contribute to WHI funds (Ibid: Art. 4, 6). The OAS permanent missions to member states are also called on to 'play an active role in the provision of technical expertise in disaster coordination' (OAS, 2002: Art. 5(c)). Given the critical role of first-time response to natural disasters, these missions should not to be underestimated in their capacity to provide assistance.

The OAS cooperation on DRM was already at an advanced state in the mid-1990s, where it not only acknowledged the need for cooperation (0.2), but also provided preliminary information sharing (0.1), operational capacity through the White Helmets Initiative (0.15) and preliminary asset pooling (OAS, 1991). However, unlike many other regional organizations examined in this book, the OAS has not dramatically increased from sitting just over the threshold of the set of regional DRM cooperation. This is possibly due to its dependence on inter-regional DRM cooperation, such as its reliance on the WHI, instead of forming a central operational hub within the OAS secretariat. Indeed, it is only because greater attention has been directed toward standardization procedures recently (see OAS, 2011b, 2011c, 2012) that its cumulative value has increased to 0.75.[41]

## Pacific Islands Forum

Emerging from a general dissatisfaction with the current regional structure under the South Pacific Commission (formed in 1947), the Cook Islands, Niue, the Federated States of Micronesia, Palau, the Marshall Islands, New Zealand and Australia agreed to establish the South Pacific Forum (SPF) in 1971 (Urwin, 2005: 13) that became the Pacific Islands Forum (PIF) in 2000. Reflecting similarities to the ASEAN way, the PIF is guided by the 'Pacific way' that places emphasis on non-interference, consensus and the respect for sovereignty. Based on these values – which are also infused with a colonial *zeitgeist* – it is not hard to understand

the general aversion by many Pacific Islands to cooperate at the regional level (Koloamatangi, 2005: 189). Integration has nevertheless progressed, albeit with a principal focus on the regional economy. Little attention has been placed on DRM in spite of the pressing economic and social vulnerabilities of small island states that are threatened by increasing sea levels, flooding and hurricanes.

Regional activity on DRM can be traced back to 1975, when the SPF established a regional natural disaster relief fund (PIF, 1975). However, regional attention to this issue seems to have remained dormant until the leaders of the Forum issued a vision statement through the fourth Pacific Regional Disaster Meeting in Madang in 1995, acknowledging the need to reduce vulnerability to natural disasters (Bettencourt et al., 2006: iv). This was followed by the Aitutaki Declaration on Regional Security Cooperation, signed in 1997. Similarly, this document recognizes the region's vulnerability to natural disasters, noting that members of the Regional Security Commission would convene in the event of an emergency (PIF, 1997: Art. 2, 13).[42] The capabilities of the PIF member states have, nevertheless, remained particularly limited; DRM efforts were 'under-resourced and operated outside mainstream government processes' (Bettencourt et al., 2006: iv). Since the early 2000s, the Forum has passed on its mandate to 'coordinate disaster management capacity building' to the South Pacific Applied Geoscience Commission (SOPAC), which has now become a division of the Secretariat of the Pacific Community (SPC) (Pratt, 2005: 7).

Under the guidance of SOPAC, concrete measures on DRM have developed, culminating in the release of the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2006–2015. Also known as the Madang Framework, this Action Plan closely follows the guidelines set out in the 2005 UN Hyogo Framework Programme for Action (HFA).[43] This includes recognizing the need for training at the local, national and regional level, increasing coordination between stakeholders and NGOs, and creating good practices (PIF, 2005).[44] In addition to this framework, the PIF Economic Ministers meetings have periodically assessed the issue and importance of the costs of natural disasters with the support of SOPAC (PIF, 2003, 2009a, 2009b).

The Madang framework agreement shows clear signs of ascending cooperation on DRM that aims to, inter alia, 'mainstream' DRM into member states emergency planning policies (18(a)), promote 'best practices' to be adopted by member states (38(c)), establish regional early warning systems (45(a)), and harmonize them with 'global networks' (45(c)) (PIF, 2005). These and other expected capacities are mirrored by

a low level of institutionalization where procedures for implementation and degree of obligation are severely limited.

The Regional Disaster Relief Fund (PIF, 1975, 2009b) and the Aitutaki Declaration both acknowledge the importance of cooperating on DRM (0.20) and the former also provides for preliminary operational capacity in the form of relief funding (0.15). This nascent level of cooperation continued until the Madang Framework was finalized in 2005. This marks the point when PIF crosses the threshold of the set of regional DRM cooperation. Here, an operational capacity in terms of funding is mentioned (0.15) as well as preliminary standardization measures such as regional design of 'best practices' on DRM to be disseminated to all member states (PIF, 2005: 38(c)). The cumulative total for PIF DRM is 0.65, reflecting advanced regional DRM cooperation.[45]

## Southern African Development Community

In 1980, the Southern African frontline states (Angola, Botswana, Mozambique, Tanzania and Zimbabwe) decided to integrate their economies through the establishment of the Southern African Development Coordination Conference (SADCC). The main aim of SADCC was to reduce economic dependence on South Africa, protect against apartheid instability and coordinate foreign aid (Hwang, 2007: 67). As animosity gave way to amity at the end of the Cold War, SADCC became the Southern African Development Community (SADC) through the Windhoek Treaty in 1992, which included South Africa as a full member two years later in 1994. Although the principal focus was on economic coordination, the expanding organization soon headed into deeper waters by cooperating on security issues. This led to the creation of a SADC strategic indicative plan on politics, defence and security cooperation in 2004.

The low level of development combined with a vulnerable hydrological environment in many southern African countries means that regular droughts and floods can easily create food scarcity and health risks. It is understandable that within such a context the first SADC summit recommended development and collective cooperation in food security (Costea and Felicio, 2005: 18).[46] This awareness gradually grew into a number of initiatives, programmes and agreements, such as the 1997 Food Security Strategy Framework (SADC, 2002: §1.3.2), the 1999 Regional Drought Management Strategy, the 1999 Regional Vulnerability Assessment Committee (RVAC) and the 2004 Strategy for Floods and Drought. Cooperation on these particular issues was complemented by building cooperation on DRM, which first began through the ad hoc

meeting on DRM in 1997 (Borton et al., 2001: 6) that was later institutionalized as the Disaster Management Steering Committee in 2000. In 1999, the SADC Protocol on Health was also signed, which mentioned the importance of disaster management by emphasizing the need for increased coordination, collaboration and the development of a mechanism for assistance (SADC, 1999: Art. 25). This need was reverberated in the protocol on politics, defence and security cooperation signed in 2001, which noted the need to 'enhance regional capacity in respect of disaster management and coordination of international humanitarian assistance' (SADC, 2001b: Art. 2).

Significantly, the SADC multi-sectoral Disaster Management Strategy was also agreed upon in 2001. This document sets out an ambitious number of goals, such as risk mapping, early warning, public education and contingency planning (Borton et al., 2001: 40). This strategy was later revised in 2006 as the SADC Disaster Risk Reduction (DRR) Strategic Plan 2006–2010, which placed more emphasis on preparation and prevention than just response.[47] Other initiatives from the agreement include a SADC Disaster Risk Reduction Unit (DRRU) that, with the support of the SADC DRR Technical Committee, aims to coordinate DRM activities (SADC, 2011), and a proposed Disaster Management Trust Fund (SDMTF) (UNISDR, 2009a: 19).

The institutional design features of SADC DRM cooperation boasts a number of initiatives that are mostly developed in the area of information management with some emerging operational capacities. The institutionalization of DRM cooperation is comparatively low; little obligation and few procedures for implementation are apparent. This general pattern is reflected in the lack of cooperation by member states in the 2001 DRM framework, which motivated a second revised attempt in 2006 (SADC, 2006). Indeed, the lack of motivation is also reflected in the creation of the original 2001 framework that was outsourced to the UNDP (2001) instead of regional deliberation.

Until 1999 the SADC region had no formal cooperation on DRM. However, in a matter of only two years it went from no cooperation to passing the threshold of advanced regional DRM cooperation. That is, from preliminary information sharing initiatives (0.10) and the official acknowledgement of the need to cooperate (0.2), to the creation of operational capacities (0.15) under the SADC Disaster Management Strategy (SADC, 2001a). This strategy was then recast in 2006 with the formation of a Regional Disaster Management Unit to perform operational activities (0.2) and the introduction of standardization measures in terms of disseminating common standard terminology (0.1) (SADC,

2006: Ob. 3(c); Ob. 5). The cumulative total for SADC DRM cooperation is 0.70, indicating that it is well over the threshold of regional DRM cooperation.[48]

## Summary: the global rise of regional disaster risk management

This chapter clearly highlights the global aspect of regional DRM cooperation that slowly emerged from the 1970s, and which has since proliferated from the late 1990s. Unlike some comparative regional studies that implicitly or explicitly elevate the EU as a model for other regions to emulate, this review finds that the earliest known regional agreements emerged in Southeast Asia, the Caribbean and the Pacific in the early 1970s. The genesis of regional DRM cooperation in the South should at least give the West pause to think and reflect on the evolution of other regional organizations' DRM profiles. As southern regions typically have a medium-to-low level of development, and are geographically situated in high-risk areas from natural disasters, it is not surprising that regional cooperation on mitigating and responding to natural disasters quickly found their way on to regional agendas. What is surprising is the standardized and dramatic expansion of DRM cooperation over the last 15 years.

Notwithstanding the early efforts from the South, regional DRM cooperation generally held a low level of activity from the 1970s to the late 1990s. This first and distinct period of regional DRM cooperation was chiefly defined by declarations that acknowledged the need to cooperate in order to reduce the risks involved with future natural disasters. This can be seen in agreements produced by the European Economic Community (EEC), the Organization for African Union (OAU) and LAS in the 1980s and early 1990s. These organizations placed little obligation on their member states and were imprecise in terms of how cooperation ought to be carried out. This nascent level of cooperation characterized most regional organizations that had officially acknowledged the importance of DRM cooperation. This general pattern of regional DRM cooperation changed significantly near the end of the 20th century. In the period 1997–2008, at least 17 regional organizations created specific strategies or framework agreements, ten of which were produced within a five-year period from 2001 to 2006. Many of these agreements include precise statements on how cooperation ought to develop as well as the provision for operational capacities, such as the establishment of disaster monitoring and research institutes. An increasing number of

regional organizations are also either developing or have developed pre-committed capacities to cope with future disasters, such as creating a list of available national assets that can be used in the event of a major disaster or pre-defined modules for specific events.

These highly impressive goals express *anticipated* regional capacities to increase the resilience of states. They reflect the desired role of regional organizations as expressed through the collective will of its member states. If these words are matched with deeds, then the global rise of regional DRM may express an important development in the traditional role of the state – in having a monopoly on its capacity to protect its citizens – and the traditional role of (most) regional organizations that conform to the political norm of non-interference. The regional agreements reviewed in this chapter point towards a sharing of the state's responsibility to protect with regional organizations.

Figure 2.1 illustrates anticipated regional DRM cooperation in the ten cases reviewed in this chapter. That is, expected activity as reflected in the joint goals made by regional organizations. The cases are arranged according to the qualitative anchors and their translation into a quantitative scale between 0 and 1. The general pattern depicts a majority of regional organizations as having high expectations or advanced levels of DRM cooperation. Only Mercosur and ECO remain on the nascent spectrum of regional DRM cooperation. It bears to keep in mind that a majority of the regional organizations that shifted from a nascent to an advanced level did so in the last two decades. Before this period, the anticipated cooperation of regional organizations in DRM tended to match their regional capacities, as well as the norm of non-interference and national sovereignty. A clear and swift shift to a more advanced level of cooperation, at least according to regional goals and aspirations, is thus somewhat surprising particularly in those regions that continue to have limited capabilities and display strong sentiments of non-interference. Furthermore, most regional DRM agreements include *similar* goals and aims, such as the harmonization of DRM practices, increasing public awareness, and the provision of specialized training, in spite of their *different* threat environments and cultural and political precepts. This suggests that other cultural factors, such as the diffusion of a standardized 'model' on regional DRM, may be conditioning the way in which regional organizations operate. On the surface, increased regional aspirations or expectations may seem highly positive for increasing the resilience of communities from natural hazards; yet, the content and design of these aspirations question the perceived role of regional DRM. The following chapters take a closer look into the

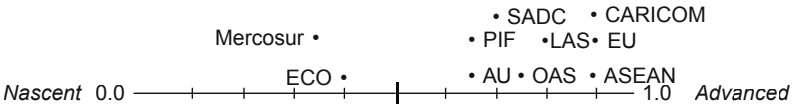


*Figure 2.1* Regional DRM cooperation

creation, design and type of agreements, how they have been created, by whom and what this entails for the role of regional organizations for providing effective resilience to its member states.

# 3
# The Rational Role of Regional DRM Cooperation

Natural disasters have become a heightened global security issue in the last decade. Not only have the number of major incidents increased over the last 30 years, but a majority of them have also occurred in developing countries (Perry, 2009: 61) that are highly vulnerable to disruptions to critical infrastructures. The adverse effects from global warming (Stern, 2006: 77–8; Field et al., 2012) combined with local, regional and global interdependencies means that when a natural disaster strikes it is more likely to produce escalating affects, such as the 2011 earthquake in Japan. General economic costs are also likely to increase. Global estimated damages caused by natural disasters rose from approximately USD 195 billion in the 1970s to USD 896.1 billion in the 2000s (EM-DAT, 2011b). Responding to this globalized 'new normal' (UNISDR, 2010a) reflects a new security agenda that has spread across the globe, infiltrating at least 26 regional organizations and a majority of states.

This narrative reflects a functional explanation for why states cooperate through regional organizations. It invokes a common-sense premise based on the perceived function of an organization. Regional DRM cooperation exists because it serves a functional purpose to protect the state and its citizens from the negative effects caused by natural hazards. Indeed, the general increase in economic damages caused by the rising number of disasters is often referred to by states as the main reason to cooperate on regional DRM (see ASEAN, 2005a; OAS, 2005c; PIF, 2005: Art. 1; Council, 2007b: (3); AU, 2010b). The role of regional organizations in DRM is to thus increase the resilience of its community by creating a regional tool to solve regional problems.

This chapter explores four explanations for why states cooperate on DRM through regional organizations. Informed through neoliberal institutional theory, these conditions include interdependence,

asymmetrical risk, threat expectations and intra-regional power. It is assumed that when these conditions are present to a significant degree the benefits of cooperation will outweigh the perceived costs of non-cooperation.[2] Three main findings are produced from measuring and testing these explanatory conditions against the level of DRM cooperation (described in Chapter 2). First, a combination of interdependence and asymmetrical risk provides an explanation for why states are motivated to cooperate on DRM. Second, the existence of a small number of states that combine to produce 'regional risk coalitions' can improve the accuracy of the sufficient explanation. Third, it is shown that the diffusion of information by the international community can help to explain the 'apparent' lack of economic motives that characterize a majority of regional organizations. Taken together these findings reinforce the functional role of regional organizations as committed disaster managers that aim to increase the resiliency of their member states and their communities to the effects of natural hazards.

The following analysis is divided into three main sections. First, each explanatory condition is measured, compared and tested against 'nascent' and 'advanced' levels of regional DRM cooperation. Second, the extent to which these conditions combine to produce a more robust explanation for regional DRM is assessed. Third, the apparent lack of economic motives is explained by the intervention of the international community. Like the previous chapter, the method used to compare and assess the various causal conditions against DRM is based on Charles Ragin's fuzzy-set Qualitative Comparative Analysis (fsQCA), which is a case-orientated method that respects the diversity and complexity of each case while maintaining a holistic approach with the aim of comparison and formulating generalizations. In an effort to avoid clouding the pages with technical references associated with this method, it is recommended that interested readers consult the endnotes throughout this chapter.

## Interdependencies

A tropical depression forming off the west coast of Africa quickly gathered momentum as it travelled across the Atlantic, soon turning into a force-5 hurricane that wreaked havoc in the Caribbean and the US in September 2004. Estimated losses in the US amounted to roughly USD 14.2 billion and USD 3 billion in the Caribbean Sea region. One of the worst hit countries was Grenada. Up to 80 per cent of the population was without power, 14,000 homes were damaged or destroyed, and 90 per cent of the nutmeg trees were demolished (Stewart, 2005; UNDP,

2012). Offshore oil industries in the Gulf of Mexico were also affected by Hurricane Ivan. A total of 12 pipelines and 6 drilling platforms were damaged, and seven platforms were destroyed. This disrupted refining operations and the daily production of 475,000 barrels of oil and 1.8 billion cubic feet of natural gas for a month (Stewart, 2005). The destruction and damage of the oil platforms clearly produced important consequences for the region's economy and revenue earnings. And as the second-largest exporter of nutmeg in the world, the destruction of almost the entire nutmeg plantation clearly produced knock-on effects for the Grenadian and Caribbean economy. Regrettably, Ivan is only one example of the tremendous force and destruction hurricanes have for the Caribbean region. As this region becomes more interdependent the functional need to provide a regional response to a regional problem will become greater.

Interdependence is often considered the key explanatory condition for collective cooperation. It is defined as 'mutual sensitivity': the 'extent to which change in one state affects change in others' (Keohane and Nye, 1973: 160).[3] Natural disasters can produce significant damage to the macroeconomic performance of a state (see Charvériat, 2000; Bergholt and Lujala, 2012). This can include temporary market destabilization and falls in share prices and long-term losses in production capacities, such as critical damage to irrigation systems, electricity production, crops, transportation routes, industrial complexes and even educational infrastructure (Charvériat, 2000: 13). When these states share a high degree of intra-regional trade, neighbouring countries can also be heavily affected, as general exports and imports decrease as a result of major disasters (Gassebner, Keck and Teh, 2010), and high trade intensity between countries produce transboundary effects. Furthermore, the societal shock of a natural disaster tends to affect consumption patterns (Lian, Santos and Haimes, 2007) that can also cut across national borders. It is thus posited that when there is a high level of economic interdependence within a region, the likelihood of regional cooperation on DRM will increase in order to reduce the potential costs from natural disasters. This functional argument is well summed up in Keohane's supposition that 'insurance regimes' will emerge under conditions of interdependence to insure against 'catastrophic events' (1989: 123).

The symmetric trade introversion (STI) index is used to assess the degree of economic interdependence in a regional organization. The index shows the relative intra-regional trade intensity within a regional organization. According to the numbers displayed in Table 3.1, the

*Table 3.1* Regional STI Index and DRM, 1970–2009

| | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | **STI** | **DRM** | **fv STI** | **DRM** | **fv STI** | **DRM** | **fv STI** | **DRM** |
| ASEAN | 0.88 | 0.30 | 0.85 | 0.30 | 0.80 | 0.30 | 0.87 | 0.90 |
| AU | 0.06 | 0.00 | 0.11 | 0.30 | 0.87 | 0.30 | 0.92 | 0.65 |
| CARICOM | 0.95 | 0.00 | 0.94 | 0.00 | 0.97 | 0.70 | 0.97 | 0.90 |
| ECO | 0.02 | 0.00 | 0.91 | 0.00 | 0.77 | 0.00 | 0.66 | 0.40 |
| EU | 0.66 | 0.00 | 0.61 | 0.40 | 0.87 | 0.65 | 0.89 | 0.90 |
| LAS | 0.16 | 0.00 | 0.16 | 0.45 | 0.73 | 0.45 | 0.66 | 0.80 |
| Mercosur | 0.82 | 0.00 | 0.86 | 0.00 | 0.95 | 0.00 | 0.95 | 0.35 |
| OAS | 0.83 | 0.00 | 0.77 | 0.00 | 0.86 | 0.55 | 0.88 | 0.75 |
| PIF | 0.87 | 0.35 | 0.88 | 0.35 | 0.91 | 0.35 | 0.91 | 0.65 |
| SADC | 0.65 | 0.00 | 0.22 | 0.00 | 0.93 | 0.30 | 0.96 | 0.70 |

*Source*: UNU-CRIS RIKS (2011).[4]

higher the value, the greater the level of interdependence.[5] More specifically, when a regional organization has a value higher than 0.50 its internal trade bias, as an indicator of interdependence, becomes a significant factor for encouraging regional DRM cooperation.[6] This, in turn, increases the likelihood that its member states will form 'insurance regimes' to limit the liability incurred through natural disasters. The STI values have been modified to a value system between 0 and 1 to allow for a comparison between the levels of interdependence and DRM cooperation. For a more detailed description on how the original STI values were translated see Appendix A3.

Taken over a 40-year period, the values in Table 3.1 demonstrate a general trend of economic interdependence before and after the establishment of regional DRM cooperation (see Best, 1997; De Lombaerde and Langenhove, 2005).[7] That is, all regional organizations share a strong intra-regional trade bias. This means that even though over half of the cases examined in this study have less than 15 per cent intra-regional trade share, they all have a strong regional trade bias.[8] Perhaps the most important observation is the particular increase in intra-regional trade intensity during the 1990s in a majority of regional organizations. Only ASEAN and ECO dropped slightly during this period, yet retain a high level of interdependence. This increase may be due to the adoption of new treaties, internal restructuring and the formalization of economic partnerships that came with the latest 'wave' of regionalism (Mansfield and Milner, 1999).[9] The drop in ASEAN interdependence is most likely due to the Asian financial crisis. ECO, on the other hand, is highly idiosyncratic, with an external trade bias in the 1970s and a high internal trade bias in the 1980s (when ECO was formed) that has increasingly depreciated. That is, since its creation, the intensity of trade

within ECO has been outmatched by external trade activity. ECO is clearly the weakest trade block out of the ten cases according to the STI indicator.

A comparison between the interdependence condition (STI) and the level of DRM cooperation reveals that interdependence is a trivial necessary condition for the emergence of regional DRM in the period 1970–2000.[10] In the last decade, however, the growth in interdependence provides a strong correlation with the level of DRM cooperation as a sufficient condition. The interdependence condition is necessary in the period 1970–2000 because the STI values (interdependence) are predominantly higher than the outcome condition; that is, it is always present when the outcome occurs. It is trivial because the distance between the STI value and the outcome condition is particularly large. This means that the *coverage*, or the extent to which the explanatory condition explains the outcome, is low.[11] Indeed, a majority of cases in the period 1970–2000 run against the expectation that if interdependence is high, then the level of regional DRM cooperation will also be high. This is most clearly represented in the 1970s when a minority of regional organizations cooperate on DRM, yet a majority have a strong bias toward intra-regional trade.

The 2000s are a more convincing time period, where a majority of regional organizations provide values that are more in than out of the sets of DRM cooperation and interdependence. In comparison to the 1970s, which have a consistency rate of 100 per cent and a coverage of 11 per cent, the value comparison of this period provides a consistency rate of 88 per cent and a coverage of 82 per cent. Consistency is defined as 'the *degree* to which the empirical evidence is consistent with the set theoretic relation in question' (Ragin, 2009: 108, original emphasis).[12] The high consistency and coverage rates mean that interdependence can moderately explain why regional DRM cooperation generally increased to an advanced level in the 2000 period, but it provides an unsatisfactory explanation for the previous three decades of DRM cooperation.

Put simply, interdependence does not convincingly explain why states began to cooperate on regional DRM (a nascent level) during the period 1970s–1990s. However, the general increase in interdependence during the 1990s, and the generally high levels of interdependence in the last 10–15 years, does provide a more convincing explanation. Notwithstanding the importance of interdependence, some outliners remain. Interdependence is a weak sufficient condition for explaining regional DRM cooperation in LAS, while cooperation on DRM in Mercosur and ECO has remained low (nascent) despite exhibiting high levels of interdependence. This means that interdependence cannot individually account for state motivations for cooperating on DRM. A configurational analysis that combines the interdependence causal condition

with an additional condition on asymmetrical risk is thus addressed in order to locate a more comprehensive and conclusive explanation.

## Asymmetrical risk

When the estimated economic damages caused by natural disasters are consistently asymmetrical, it is hypothesized that states will be more likely to cooperate on regional DRM. That is, 'insurance regimes' will emerge when a high amount of diversity – in terms of economic effects from natural disasters – is present within a region (Keohane, 1989: 123, see Snidal, 1985: 929). This idea is based on a competitive logic whereby state action is driven by an attempt to increase its gains relative to another. Translated into DRM, this means that in order to prevent one state gaining relative to another – by not being exposed to a natural disaster – all states will invest in a common insurance scheme. This scheme helps to mitigate the effects of a disaster if the costs of disasters are asymmetrical for all member states (Jervis, cited in Keohane, 1989: 130).

Asymmetrical risk is measured by the coefficient of variation (CV) of estimated economic costs.[13] This reveals the variation of the economic impact from natural disasters between member states of a regional organization. Table 3.2 displays the asymmetrical risk values that range between 0 and 1; the higher the values, the higher the variation. More precisely, a value of 0.50 marks the point where there is an equal amount of symmetrical and asymmetrical risk, as the value increases from the value so, too, does the level of asymmetry. Conversely, a value of less than 0.50 means that the estimated economic damages across member

*Table 3.2* Asymmetrical risk and DRM, 1970–2009

| | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | **AYS** | **DRM** | **AYS** | **DRM** | **AYS** | **DRM** | **AYS** | **DRM** |
| ASEAN | 0.55 | 0.30 | 0.57 | 0.30 | 0.65 | 0.30 | 0.58 | 0.90 |
| AU | 0.85 | 0.00 | 0.95 | 0.30 | 0.89 | 0.30 | 0.95 | 0.65 |
| CARICOM | 0.75 | 0.00 | 0.69 | 0.00 | 0.64 | 0.70 | 0.63 | 0.90 |
| ECO | 0.62 | 0.00 | 0.56 | 0.00 | 0.71 | 0.00 | 0.72 | 0.40 |
| EU | 0.72 | 0.00 | 0.76 | 0.40 | 0.54 | 0.65 | 0.69 | 0.90 |
| LAS | 0.76 | 0.00 | 0.85 | 0.45 | 0.71 | 0.45 | 0.79 | 0.80 |
| Mercosur | 0.69 | 0.00 | 0.53 | 0.00 | 0.57 | 0.00 | 0.55 | 0.35 |
| OAS | 0.88 | 0.00 | 0.86 | 0.00 | 0.96 | 0.55 | 0.97 | 0.75 |
| PIF | 0.92 | 0.35 | 0.90 | 0.35 | 0.89 | 0.35 | 0.90 | 0.65 |
| SADC | 0.86 | 0.00 | 0.85 | 0.00 | 0.62 | 0.30 | 0.67 | 0.70 |

*Source:* Table 3.3.

states will be more symmetrical than asymmetrical. For a more detailed description of these values consult Appendix A4.

The general trend for all regional organizations is that they share asymmetrical risk. This is particularly the case for regional organizations that have a high number of member states, such as the AU and the OAS. It is also interesting to note that the principal reason for the high asymmetries in most regional organizations is often due to one or two countries that take up a majority of the estimated costs in a region. In the last two decades, for example, Argentina and Brazil account for 96 per cent in Mercosur; Iran, Pakistan and Turkey account for 95 per cent of estimated economic damages for ECO; Australia accounts for 90 per cent in the PIF; the US accounts for 86 per cent in the OAS; South Yemen, Algeria, Oman and Egypt account for 63 per cent in LAS; the Philippines and Indonesia account for 63 per cent in ASEAN; the Bahamas, Jamaica, and St Kitts and Nevis account for 62 per cent in CARICOM; South Africa and Mozambique account for 58 per cent in SADC; Algeria and Egypt account for 56 per cent in the AU; and Italy, France and Germany account for 55 per cent in the EU.

It is also worth pointing out that many of the most affected countries tend to be highly active in instigating regional DRM. This phenomenon correlates with the theoretical assumption that insurance regimes will emerge with high asymmetries, where a country will attempt to share risk in order to reduce economic costs (Keohane, 1989: 123). For example, Italy takes up an astounding 44 per cent of the total economic costs from natural disasters in the EU over the last 40 years. It is also Italy that has been the main protagonist in creating the EU community mechanism on civil protection (Wendling, 2010) and has also been one of the most proactive members to cooperate on civil protection training and operations (Hollis, 2010a: 58, 75). ECO also offers a similar example, where Iran has taken a leading role in creating the Regional Centre for Risk Management (ECO, 2008c).

A comparison of the asymmetrical risk condition (AYS) and the outcome condition (DRM) reveal that asymmetries are a strong necessary condition for explaining regional DRM cooperation. However, as the distance between AYS and DRM are generally large, this explanatory condition is trivial.[14] This distance becomes less in the 1990s and the 2000s, which means that the coverage of asymmetrical risk can more accurately explain DRM cooperation.[15] However, this is due to an increase in the outcome rather than the causal condition. The results from the final two decades under investigation also disqualify asymmetrical risk as a fully necessary condition. EU and ASEAN, for example, have higher DRM values than ASY values. Furthermore, as asymmetries have not dramatically increased or decreased over the last 40 years their

triviality questions their correlational strength to regional DRM. Keeping this in mind, asymmetrical risk can still have an important explanatory power in a configurational explanation.

## Expectations

In 1736, Benjamin Franklin convinced the city of Philadelphia to establish a volunteer fire department. His method of persuasion rested on a cost-benefit logic, which is famously captured in his idiom: 'an Ounce of Prevention is worth a Pound of Cure' (Franklin, cited in Kiel, 2011: 791). This judicious argument has been repetitively used by individuals and states – and more recently regional organizations – to advocate cooperation on DRM. The Caribbean Community's Strategy and Results Framework for Comprehensive Disaster Management, for example, argues that Franklin's 'old adage … surely applies to natural and technological hazards. Available information supports a high benefit to cost ratio for measures to mitigate or prevent damage' (CARICOM, 2001: 6). Applying this cost-benefit calculation is also popular among scholars who wish to quantify the amount of vulnerability a particular state may have (Briguglio, 1995; Charvériat, 2000; Benson and Clay, 2004; Mechler, 2004).

This sub-section tests this logic by analysing the extent to which states are motivated to cooperate on regional DRM based on the expectations of future costs from disasters. 'Expectations' is thus a condition designed to portray the economic costs of major natural disasters in the region. It is assumed that when expectations increase, the level of cooperation on DRM ought to follow. This is expressed in the following hypothesis: when the expected costs of future natural disasters are high, DRM cooperation will be highly developed.[16]

*Table 3.3* Expectations and DRM, 1970–2009

| | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | **EXP** | **DRM** | **EXP** | **DRM** | **EXP** | **DRM** | **EXP** | **DRM** |
| ASEAN | 0.99 | 0.30 | 0.19 | 0.30 | 0.43 | 0.30 | 0.20 | 0.90 |
| AU | 0.25 | 0.00 | 0.73 | 0.30 | 0.08 | 0.30 | 0.12 | 0.65 |
| CARICOM | 0.27 | 0.00 | 1.00 | 0.00 | 0.98 | 0.70 | 1.00 | 0.90 |
| ECO | 0.94 | 0.00 | 0.33 | 0.00 | 1.00 | 0.00 | 0.12 | 0.40 |
| EU | 0.12 | 0.00 | 0.14 | 0.40 | 0.11 | 0.65 | 0.08 | 0.90 |
| LAS | 0.34 | 0.00 | 0.94 | 0.45 | 0.13 | 0.45 | 0.10 | 0.80 |
| Mercosur | 0.87 | 0.00 | 0.89 | 0.00 | 0.07 | 0.00 | 0.08 | 0.35 |
| OAS | 0.34 | 0.00 | 0.17 | 0.00 | 0.22 | 0.55 | 0.16 | 0.75 |
| PIF | 0.96 | 0.35 | 0.91 | 0.35 | 0.22 | 0.35 | 0.10 | 0.65 |
| SADC | 0.16 | 0.00 | 1.00 | 0.00 | 0.07 | 0.30 | 0.07 | 0.70 |

*Source:* EM-DAT (2011b); Officer and Williamson (2011); UNU-CRIS RIKS (2011).[17]

The estimated costs from natural disasters in each region have been collated for the period 1970–2010 in order to measure the level of expectations from the moment a regional organization decides to cooperate up to more advanced stages of cooperation.[18] This is illustrated in Table 3.3, which reflects the percentage of regional GDP lost due to natural disasters that have been scaled between 0 and 1. A value of 0.5 is equivalent to an average loss of 0.5 per cent of regional GDP over a decade and a value of 1.0 is equivalent to over 1 per cent of GDP lost from natural disasters. For a more detailed description on these values see Appendix A5.

As the main source of data assesses direct economic impact, the average loss as a percentage of regional GDP is measured for each decade. Thus, applying the average takes into account two indirect effects on regional economic performance. First, it takes into account the frequency of large disasters; the more disasters that affect a regional organization's economy within a ten-year period, the higher the overall figure. This is in line with the general empirical finding that the higher the frequency of disasters, the higher the long-term effect disasters have on economic performance (Benson and Clay, 2004: 61). The other way in which the average figure will be high is if there is an extreme disaster that takes out a larger percentage of regional GDP in a particular year. Again, it has been shown that the larger the economic impact of a disaster, the longer it will take for economic recovery (Mechler, 2004: 36).

The most surprising result from Table 3.3 depicts a general decrease in expected costs for a majority of the regional organizations. This is surprising because the overall recorded economic damages caused by natural disasters and the number of natural disasters over the last century have generally increased (EM-DAT, 2011a). CARICOM is the only exception to this pattern, which has experienced an increase in economic costs from major disasters over the entire 40-year period. The high costs are particularly apparent in the period 1980–1999, when economic costs to the Caribbean region exceeded 1 per cent of regional GDP eight times, with a peak of 20.5 per cent in 1988. The main natural disaster affecting the region and accounting for these high damages is hurricanes. A series of large hurricanes – Joan, Gilbert and Debby – are presumably responsible for the peak in 1988. Other peaks, such as the loss of 2.29 per cent of regional GDP in 1998 can be attributed to Hurricane Mitch and the loss of 9.72 per cent of regional GDP in 2004 can be attributed to Hurricane Ivan. An example of the type of damages incurred from Hurricane Ivan include the destruction of 95 per cent of homes and other buildings in the Cayman Islands, major power outages in Grenada, and damaged fishing and farm infrastructure in Cuba (Stewart, 2005).

Other regional organizations have fared comparatively well, as damages have rarely exceeded 0.4 per cent of regional GDP. Major peaks near or above 1 per cent of GDP occurred principally in the period 1970–1990. Here, the EU peaks in the 1970s and 1980s may be explained by the two major earthquakes that struck Italy in 1976 and 1980.[19] The 1970s peak in the PIF is mostly due to the 1974 and 1978 storms in Australia, and the peak in the 1980s is primarily due to 1981 floods and droughts in Australia. The main natural disaster affecting the ECO region and accounting for the major peaks in the 1970s and the 1990s is floods in Pakistan and Iran, as well as the 1978 earthquake in Iran. Lastly, the peak in the 1980s in the SADC may be attributed to the 1982 droughts in Botswana, Namibia, Zimbabwe and South Africa (EM-DAT, 2011b; PreventionWeb, 2012b).[20]

When compared against the level of cooperation on regional DRM, the expectations condition largely fails to explain state motivation. Its explanatory value generally decreases over time. The correspondence between expectations and DRM in the period 1970–1979 is moderately good, whereby six out of ten cases provide a close match between the level of DRM cooperation and expected levels of expectations. That is, the EU, CARICOM, SADC, LAS, the AU and the OAS have a low level of expectations and low or non-existing levels of DRM cooperation. While expectations are a fully necessary condition for this period (100 per cent consistency rate), they have a trivial coverage of 12 per cent. Put differently, four cases – ASEAN, PIF, Mercosur and ECO – have very high levels of expectations but exhibit low or non-existing levels of DRM cooperation. In the following three decades, the expectations condition generally decreases as cooperation in DRM increases. This means that the expectations condition turns from a trivial necessary condition in the 1970s to a trivial sufficient condition in the 2000s. Indeed, the triviality – understood as large distances between the explanatory and outcome condition – is a common feature throughout the entire period of investigation. Six cases in the 1980s depict very high levels of expectations and low levels of DRM cooperation. CARICOM, PICAB (Mercosur's predecessor), and SADCC have EXP values between 0.89 and 1.00 and no DRM cooperation. While there were relatively less inconsistencies in the 1990s, in the 2000s a majority of cases depict high levels of DRM cooperation and low levels of expectations. The main finding is that expectations are not a fully necessary or fully sufficient condition to independently explain the outcome. However, this does not disqualify from playing a role in a configurational explanation which is explored in the third section of this chapter.

## Intra-regional power disparity

If the relationship between power and interdependence is an important determinant for international cooperation (Keohane, 1989: 105), it follows that the power inequalities nested within a regional organization will also have an effect on the outcome. This idea was popularized by Walter Mattli, who talks of 'regional paymasters' who provide the capacity and leadership for regional policy implementation (1999). By incorporating this notion into regional DRM cooperation, it is posited that when a powerful country within a regional organization has a high incentive to cooperate on DRM, cooperation will be more likely (see Stone, 2009: 33). This also means that when there is no regional paymaster or when there is a regional paymaster that has a low incentive to cooperate on regional DRM, the likelihood of cooperation is low.[21]

The empirical indicator used for assessing the asymmetry of intra-regional power is based on the multiplication between the percentage share of a member state's GDP (power) and the percentage share of economic damages caused by natural disasters (incentive). By multiplying these percentages together, a final score is given that reflects the extent to which both power and a high incentive base are located within a minority of countries. The higher the IPD value, the more power is concentrated in one country. The raw IPD figures have been converted to a value system between 0 and 1 and displayed in Table 3.4. For a more detailed discussion on the IPD values see Appendix A6.

The percentage of GDP is taken from the World Bank's online database, which lists all country-specific GDP data from 1970 to 2008. Using GDP as an indicator for power is particularly useful as this not only provides an indicator of material-based power but also provides some indication as to the possible material capacity a regional organization will have in DRM cooperation. In order to match this power against country-specific motivation for cooperating on DRM, the percentage of economic damage caused by natural disasters is sourced from the EM-DAT database. The average cost from disasters for each decade was then calculated to provide recognizable trends.

The IPD values represented in Table 3.4 emphasize three regional organizations that clearly have a regional paymaster: the OAS, PIF and Mercosur. As briefly discussed above, the US is the major power holder in the OAS. Australia is the main power holder in the PIF which accounts for approximately 86 per cent of regional GDP and 91.9 per cent of estimated economic damages in the period 2000–2008. In

*Table 3.4* Intra-regional power disparities (IPD) and DRM, 2000–2009

| | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | **IPD** | **DRM** | **IPD** | **DRM** | **IPD** | **DRM** | **IPD** | **DRM** |
| ASEAN | 0.42 | 0.30 | 0.36 | 0.30 | 0.44 | 0.30 | 0.32 | 0.90 |
| AU | 0.05 | 0.00 | 0.17 | 0.30 | 0.12 | 0.30 | 0.12 | 0.65 |
| CARICOM | 0.07 | 0.00 | 0.14 | 0.00 | 0.11 | 0.70 | 0.16 | 0.90 |
| ECO | 0.23 | 0.00 | 0.75 | 0.00 | 0.60 | 0.00 | 0.23 | 0.40 |
| EU | 0.36 | 0.00 | 0.24 | 0.40 | 0.19 | 0.65 | 0.18 | 0.90 |
| LAS | 0.08 | 0.00 | 0.11 | 0.45 | 0.08 | 0.45 | 0.08 | 0.80 |
| Mercosur | 0.90 | 0.00 | 0.78 | 0.00 | 0.62 | 0.00 | 0.85 | 0.35 |
| OAS | 0.81 | 0.00 | 0.78 | 0.00 | 0.88 | 0.55 | 0.91 | 0.75 |
| PIF | 0.96 | 0.35 | 0.94 | 0.35 | 0.94 | 0.35 | 0.95 | 0.65 |
| SADC | 0.04 | 0.00 | 0.28 | 0.00 | 0.53 | 0.30 | 0.52 | 0.70 |

*Source:* EM-DAT (2011a), World Bank (2012).

Mercosur, Brazil takes up the lion's share of 79 per cent of regional GDP and 64.6 per cent of economic damages. In the middle are the EU, ECO, ASEAN and SADC, which either contain rising paymasters or small coalitions of powerful states. South Africa, for example, appears to be a rising paymaster in SADC as it holds 39 per cent of economic damages and accounts for 64.9 per cent of regional GDP. At the other end of the extreme are LAS, the AU and CARICOM which hold fairly low scores over the entire 40-year period. However, even if the scores are low these cases also exhibit a single country that holds the most incentives for cooperation: Algeria in the AU and LAS, and Jamaica in CARICOM.

When compared to the level of regional cooperation, the general findings show that intra-regional power disparity is not a fully necessary or sufficient condition for the emergence of regional DRM cooperation. The full period of investigation, from 1970 to 2009, reveals a high number of inconsistencies between the explanatory and outcome condition. This is most apparent in the 1990s and 2000s when LAS, for example, had a low power disparity yet a high level of cooperation, and Mercosur had a high level of power disparity yet a low level of DRM cooperation. A higher percentage of cases tend to confirm the hypothesis in the 1970s and 1980s. Here, LAS, the AU, ECO and ASEAN, for example, have a low or non-existing level of DRM cooperation which also matches a low level of power disparity. Yet, a number of outliers in this period reduce its explanatory power, such as the high level of power disparity of the OAS, Mercosur and PIF. As intra-regional power disparity is generally below accepted levels of consistency and coverage, it is neither a

fully sufficient nor fully necessary condition.[22] This does not, however, disqualify it from being a part of a configurational explanation, which is turned to in the following section.

As the concept of regional paymasters provides a fairly limited explanation, its scope conditions can be widened to include the possibility of a small 'risk coalition' of states that hold a majority of incentives and economic power. Out of the ten cases, the membership characteristics of ASEAN (Indonesia, the Philippines and Thailand), the EU (Germany, France, the UK and Italy) and ECO (Pakistan, Turkey and Iran) reflect these conditions. The EU insurance coalition, for example, accounts for approximately 72.9 per cent of estimated damages and 63.3 per cent of regional GDP in the period 2000–2008; the ASEAN coalition accounts for 59.7 per cent of economic damage and 64 per cent of regional GDP; and the coalition combines to produce a total of 76.4 per cent of estimated costs and 63.1 per cent of regional GDP.

Table 3.5 illustrates the change in IPD when the values of the coalition members are combined. For more detailed discussion on the conversion from the raw figures to a scale between 0 and 1 see Appendix A6. Surprisingly, extending the scope of the IPD condition does not bring further clarity to understanding regional DRM cooperation: at least, when the IPD condition is considered independently from the other causal conditions assessed in this chapter. One can observe that coalitions are highly present when regional DRM cooperation is at a nascent level and at advanced levels over the 40-year period of investigation. It is thus understood as a trivial explanatory condition. Yet, while this condition may not provide increased accuracy in explaining regional DRM, the idea of risk coalitions does provide a useful insight into the (potential) countries that can take a lead in organizing greater DRM cooperation at the regional level. Furthermore, these coalitions prove useful when examining the possibility of a combination of the causal conditions, which we now turn to.

*Table 3.5* Regional risk coalitions (RC) and DRM, 2000–2009

| | **1970–1979** | | **1980–1989** | | **1990–1999** | | **2000–2009** | |
|---|---|---|---|---|---|---|---|---|
| | **IPD-RC** | **DRM** | **IPD-RC** | **DRM** | **IPD-RC** | **DRM** | **IPD-RC** | **DRM** |
| ASEAN | 0.94 | 0.30 | 0.93 | 0.30 | 0.86 | 0.30 | 0.67 | 0.90 |
| ECO | 0.97 | 0.00 | 0.97 | 0.00 | 0.96 | 0.00 | 0.93 | 0.40 |
| EU | 0.96 | 0.00 | 0.92 | 0.40 | 0.79 | 0.65 | 0.76 | 0.90 |

*Source:* EM-DAT (2011b), World Bank (2012), Ragin, Drass and Davey (2006).

## A configurational analysis

The previous review of interdependence, asymmetrical risk, expectations and intra-regional power disparity reveals a fairly disappointing result: when tested individually and over time, the explanatory conditions do not provide any robust correlation with the level of regional DRM. This section analyses the extent to which they can combine to produce a more accurate explanation. It begins by examining whether a combination of the conditions help to explain a *nascent* level of regional DRM cooperation. As we have seen in Chapter 2, a nascent level is defined by the extent to which each regional organization officially declares the need to cooperate and instigates knowledge sharing and information exchanges on DRM activities. It is recognized as having a value less than 0.5 which corresponds to a low membership in the set of DRM cooperation. It is expected that a weak combination of interdependence and asymmetrical risk can explain a nascent level of DRM cooperation. The *advanced* level of regional DRM cooperation is then examined, which is defined by established operational capacities, transboundary standardization of procedures and the pooling of assets. It is recognized as having a value more than 0.5 which corresponds to a high membership in the set of DRM cooperation. The more developed cooperation becomes, the higher the relative costs and benefits are to each member state. One would thus expect a fairly close match between the values of the causal and outcome conditions. Indeed, the outcome reveals that a high membership in the set of interdependence and asymmetrical risk is consistent for providing a sufficient explanation for the development of regional DRM.

### Nascent regional DRM

A configurational analysis on the nascent level of DRM produces a fairly strong explanation for the *emergence* of regional DRM cooperation and a poor explanation for its *development*. This is primarily revealed in the high values of the causal conditions. Instead of observing the expected result – a close correlation between the level of the DRM and the causal conditions – one finds that independence, asymmetrical risk and intra-regional power disparity are consistently high.[23] This accordingly helps to explain the emergence of regional DRM in all cases. However, this also means that (1) while it can explain much, it has little accuracy and (2) it does not explain why a majority of regional organizations retained low levels of cooperation despite the existence of high independencies, asymmetrical risk and intra-regional power disparity.

Table 3.6 displays a comparison of the four explanatory conditions according to the level of DRM. The values are taken from the average value of the preceding five-year period before the establishment of regional DRM cooperation. The purpose of this is to provide for a more general figure that would presumably have had the most direct relevance for the member states of a regional organization. A period of five years also reduces possible biases from an idiosyncratic year that could potentially misconstrue the results. The outcome condition (DRM) is constructed by a total of five different categories of cooperation that are based on an ascending cost-benefit calculation (see Chapter 2). The DRM values in the far-right column represent the level of cooperation from the moment each regional organization began to cooperate on DRM. Also note that regional risk coalitions (IPD-RC) are also placed in the column immediately to the right of the IPD condition.[24]

The general findings from Table 3.6 reveal that a majority of the conditions are present when regional DRM cooperation emerges; however, there is little consistency or coverage throughout the cases. Asymmetrical risk is the only necessary condition for regional DRM cooperation as all of the values are higher than the outcome condition. However, as the coverage is low, its power of explanation is limited because it can explain much but with little specificity. That is, the level of asymmetrical risk is generally too high to accurately explain the development of regional DRM.

When systematically compared one finds that a combination of IPD-P and expectations provides a possible explanation for the nascent level of DRM cooperation. One would expect that if expectations are low or if a regional organization has weak regional paymasters, cooperation on DRM will also be low. In other words, even if a regional organization has a high level of expectations, cooperation will not develop to a high degree if there is not a sufficient power-based structure to support and advocate regional cooperation. This is the case for eight of the ten regional organizations. The two outliers are PIF and ASEAN. As expectations are particularly high, it is not surprising that cooperation began to develop in the 1970s in Southeast Asia and the Pacific. However, it is more difficult to explain why these organizations did not develop cooperation to a greater extent when high levels of power asymmetries can be seen in both regions.

Interdependence also displays values that are too high to accurately explain the development of regional DRM. If combined, asymmetrical risk and interdependencies do, however, provide a necessary configurational explanation, albeit an explanation that remains somewhat trivial. While this combination may explain the emergence of regional DRM, it

*Table 3.6* Nascent regional disaster management cooperation

| | | | | | IPD† | | |
|---|---|---|---|---|---|---|---|
| | **Year** | **STI** | **EXP** | **ASY** | **IPD-P** | **IPD-RC** | **DRM** |
| ASEAN | 1971–1976 | 0.89 | 0.97 | 0.60 | 0.51 | 0.95 | 0.30 |
| AU | 1980–1985 | 0.02 | 0.97 | 0.98 | 0.17 | 0.71 | 0.30 |
| CARICOM | 1985–1990 | 0.96 | 1.00 | 0.70 | 0.17 | 0.57 | 0.45 |
| ECO | 2001–2006 | 0.60 | 0.16 | 0.74 | 0.32 | 0.96 | 0.45 |
| EU | 1982–1987 | 0.73 | 0.07 | 0.55 | 0.22 | 0.87 | 0.25 |
| LAS | 1982–1987 | 0.23 | 0.80 | 0.92 | 0.04 | 0.06 | 0.45 |
| Mercosur | 2004–2009‡ | 0.95 | 0.10 | 0.68 | 0.95 | ... | 0.25 |
| OAS | 1986–1991 | 0.79 | 0.10 | 0.94 | 0.84 | ... | 0.10 |
| PIF | 1970–1975 | 0.86 | 0.98 | 0.91 | 0.96 | ... | 0.35 |
| SADC | 1994–1999 | 0.93 | 0.07 | 0.74 | 0.67 | ... | 0.30 |

*Note*: (†) Regional paymaster (IPD-P); regional risk coalition (IPD-RC); (‡) The available values for STI, EXP and ASY are from the period 1970–2008; (...) not applicable.

*Source:* EM-DAT (2011b), UNU-CRIS RIKS (2011), World Bank (2012), Ragin, Drass and Davey (2006)

begs the question: why would a regional organization with high levels of interdependence, high expectations and high levels of asymmetrical risk choose to maintain a low level of regional DRM cooperation?

A further unexpected result is that power symmetries tend to explain more than power asymmetries. The independent hypothesis on intra-regional power disparity posits that the more material-related power is concentrated in a member state, the more likely cooperation will eventuate. However, this is only possible if the same state also has a large incentive to cooperate based on their regional share of economic damages caused by natural disasters. As the empirics show this is clearly not the case. However, adding a small coalition of high-risk countries with the available capacity (IPD-RC) can provide the appropriate conditions for DRM cooperation. Indeed, it is fairly easy to locate a small number of countries that share a majority of power and economic damages from natural disasters. These coalitions include: France, Germany, the UK and Italy (EU); Pakistan, Iran and Turkey (ECO); Algeria, Zimbabwe, Nigeria and Madagascar (AU); Indonesia, the Philippines and Thailand (ASEAN); Jamaica, St Lucia and Barbados (CARICOM); and Algeria, Tunisia and Saudi Arabia (LAS). To be sure, these possible coalitions are not understood as permanent coalitions (as surmised in the previous section), but rather reflect a small group of countries that could form a coalition in the time immediately preceding the establishment of regional DRM. If regional paymasters and coalitions are combined as a single condition,

it can explain nine out of ten cases. The only and major exception to this is LAS, which means that the explanatory condition cannot be claimed as a fully necessary condition for regional DRM cooperation. Indeed, even if LAS were not included, the coverage would still be too high for intra-regional power disparity to independently and convincingly explain the outcome.[25]

**Advanced regional DRM**

This section analyses the extent to which a combination of the explanatory conditions can explain why states developed DRM cooperation to an advanced level. That is, when a regional organization is more in than out of the set of regional DRM cooperation (≥ 0.5). The outcome reveals that a combination of interdependence, asymmetrical risk and high power disparities provides a necessary combination of sufficient conditions for the outcome. This means that the expectations condition does not provide an increased degree of clarity for explaining what motivates states to cooperate on regional DRM – an important issue that is addressed in the penultimate section of this chapter.

Table 3.7 illustrates the existing values of the explanatory conditions when each regional organization passed the threshold from nascent to an advanced form of cooperation. The conditions are based on the five years prior to the establishment of an advanced form of regional DRM cooperation in order to reduce statistical biases and inconsistencies. It is also assumed that the immediate time period leading up to the establishment of advanced DRM would be the most important for decision-makers.

A systematic comparison reveals that interdependence and asymmetrical risk are necessary parts of a sufficient condition for regional DRM. That is, there is a strong correlation between high levels of interdependence or asymmetrical risk and advanced regional DRM cooperation.[27] However, neither expectations nor the inclusion of regional paymasters provides a convincing explanation for why states cooperate on DRM. The generally low values of the expectations condition means that states are unlikely to cooperate on regional DRM based on previous economic costs to the region. Indeed, as the general level of expectations – measured as a percentage loss of regional GDP over time – has decreased over the last 40 years, this condition has become less important. CARICOM is the only outlier, which can be explained by its particular geographical position that is regularly affected by hurricanes. The extreme economic damages that these produce, and the increase in their frequency due to global warming, provide an independent explanation for CARICOM.

*Table 3.7* Advanced regional disaster management cooperation

| | | | | | IPD† | | |
|---|---|---|---|---|---|---|---|
| | **Year (+5)** | **STI** | **EXP** | **ASY** | **IPD-P** | **IPD-RC** | **DRM** |
| ASEAN | 2000–2005 | 0.87 | 0.18 | 0.71 | 0.40 | 0.78 | 0.55 |
| AU | 2004–2009 | 0.91 | 0.06 | 0.82 | 0.11 | 0.63 | 0.65 |
| CARICOM | 1986–1991 | 0.96 | 1.00 | 0.70 | 0.15 | 0.59 | 0.70 |
| EU | 1989–1994 | 0.85 | 0.11 | 0.57 | 0.21 | 0.84 | 0.65 |
| LAS | 2006–2011 | 0.66 | 0.12 | 0.85 | 0.06 | 0.27 | 0.80 |
| OAS | 1989–1994 | 0.83 | 0.30 | 0.98 | 0.92 | ... | 0.55 |
| PIF | 2000–2005 | 0.91 | 0.12 | 0.95 | 0.93 | ... | 0.65 |
| SADC | 1996–2001 | 0.95 | 0.10 | 0.68 | 0.49 | ... | 0.55 |

*Note*: (†) Regional paymaster (IPD-P); regional risk coalition (IPD-RC); (...) not applicable

*Source*: EM-DAT (2011b), UNU-CRIS RIKS (2011), World Bank (2012), Ragin, Drass and Davey (2006)[26]

Regional risk coalitions can also be drawn from a number of the regional organizations, which provides for a more accurate explanation. A regional risk coalition is defined as when a minority of countries make up a majority of the estimated economic costs (incentive structure) and the regional share of GDP (power). Here one can identify the following coalitions: Germany, France, the UK and Italy (EU); the Philippines and Thailand (ASEAN); Jamaica, St Lucia and Barbados (CARICOM); Algeria, Sudan, Oman and Saudi Arabia (LAS); and Sudan, South Africa, Algeria and Madagascar (AU). The result produced from this adjustment reveals that intra-regional power disparities are not a necessary condition for DRM, but it does function as a part of a combination for a sufficient condition. Indeed, adding this condition together with interdependence and asymmetrical risk provides the most accurate combination of sufficient conditions. That is, the combination has a high coverage and consistency rate.[28] However, a majority of the cases can also be explained without the IPD condition with little reduction to coverage or consistency.[29] The inclusion of intra-regional power disparities is thus useful for increasing the accuracy of the causal configuration and suggests that intra-regional power disparities are more important for developing regional DRM towards an advanced level rather than contributing to its emergence. Yet, intra-regional power disparities are not a necessary part of the combination of interdependence and asymmetrical risk for explaining DRM.

In summary, we find that there are two causal pathways for explaining the development of regional DRM of an advanced stage. The first, which is the most parsimonious, albeit less accurate, is a combination of

interdependence and asymmetrical risk as necessary parts of a sufficient condition for the outcome. The second, which is less parsimonious but more accurate, is the combination of interdependence, asymmetrical risk and intra-regional power disparities (that includes regional paymasters and regional risk coalitions). Finally, the level of expectations fails to explain cooperation. If both the nascent and the advanced analyses on DRM cooperation are considered, then the interdependence and the asymmetrical risk explanatory conditions prove to be the most consistent over the entire 40-year period. However, as these two conditions are below acceptable consistency and coverage levels for the analysis on the nascent level of cooperation, it is also important to take the growth or decline of these explanatory conditions into particular consideration.

## Time and causal conditions

This section assesses the extent to which the explanatory conditions increased or decreased over the period of investigation. This exercise helps to confirm whether the combination of interdependence, asymmetrical risk and intra-regional power disparity are sufficient conditions for regional DRM cooperation. If, for example, the level of these explanatory conditions does not increase or decrease over time, their power of explanation is significantly reduced as the conditions ought to be able to explain the full emergence and development of DRM cooperation. The added value of this sub-section thus highlights the extent to which each case can be explained by the conditions over time.

Table 3.8 illustrates the change in the explanatory conditions over time. If the combination of interdependence, asymmetrical risk and intra-regional power disparity are sufficient conditions for the development of regional DRM, it is presumed that these conditions would have had to increase from a nascent level of DRM cooperation. In order to test this assumption, the percentage difference of the conditions between nascent and advanced forms of cooperation has been calculated. The percentage difference is derived from the values in Tables 3.6 and 3.7.[30] Mercosur and ECO are not included, as they have not yet reached an advanced stage of regional DRM cooperation. The total mean percentage of all cases is displayed in the lower row of Table 3.8.

The findings reveal that interdependence is the most robust condition for explaining regional DRM in conjunction with asymmetrical risk. All cases either remain or cross over the threshold of high membership in the set of interdependence, which produces a percentage increase of 583 per cent between nascent and advanced levels of DRM cooperation.

Put differently, interdependence becomes more important over time for explaining DRM cooperation in conjunction with asymmetrical risk. The latter condition remains a necessary part of a sufficient condition for the outcome; however, it is generally weaker or has a lower coverage for explaining the outcome. There is no strong correlation with the rise of DRM and asymmetrical risk.[31]

Intra-regional power disparities do not fair particularly well. Despite expectations, in most cases power becomes more diffuse over time, while still retaining a fairly high level of power disparity. This means that although there is an average of 37.6 per cent increase in all cases, most regional organizations have retained similar levels of power disparity regardless of whether the regional organizations have a nascent or advanced level of DRM. To be sure, this does not disqualify intra-regional power disparities as an explanatory condition, but it does alter the causal recipe. Based on the systematic exploration of various combinations of conditions and their change over time, it would appear that interdependence is the key condition that pushes states to begin and/or advance cooperation on DRM when the regional organizations exhibit a high degree of asymmetrical risk and power disparities. Expectations remain, however, unresolved, which we now turn to.

## Apparent knowledge and transaction costs

The simultaneous decrease in the relative estimated economic costs (as a percentage of regional GDP) to regional organizations and the increase in regional DRM cooperation is the most surprising result in this chapter. Why did states not cooperate through established regional organizations, such as PIF or LAS, when there was greater functional demand? PIF, for example, lost an average of 1 per cent of its regional GDP during the 1970s compared to 0.13 per cent in the 2000s, and LAS lost an average of 0.39 per cent of its regional GDP during the 1970s compared to 0.16 per cent in the 2000s. Yet, PIF only began to cooperate on DRM in 2005 and LAS in 2008 when the economic costs from natural disasters were at their lowest point in 40 years. Why did states choose not to cooperate through regional organizations when the perceived benefits were high, and what caused them to decide to cooperate when the perceived benefits were low?

This apparent lack of expectations can be explained by the intervention of external actors in regional organizations. Intervention can include (1) the sharing and exchange of information and apparent knowledge and (2) the provision of technical assistance and financial

*Table 3.8* Increase in the explanatory values from nascent to advanced levels of regional DRM cooperation

| | STI | | | ASY | | | IDP (P+RC) | | |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **A** | **%** | **N** | **A** | **%** | **N** | **A** | **%** |
| ASEAN | 0.89 | 0.87 | –2.3 | 0.60 | 0.71 | 18.3 | 0.95 | 0.78 | –56.9 |
| AU | 0.02 | 0.91 | 4,450.0 | 0.98 | 0.82 | –16.3 | 0.71 | 0.63 | –35.3 |
| CARICOM | 0.96 | 0.96 | 0.0 | 0.70 | 0.70 | 0.0 | 0.57 | 0.59 | –11.8 |
| EU | 0.73 | 0.85 | 16.4 | 0.55 | 0.57 | 3.6 | 0.87 | 0.84 | –4.6 |
| LAS | 0.23 | 0.66 | 187.0 | 0.92 | 0.85 | –7.6 | 0.06 | 0.27 | 50.0 |
| OAS | 0.79 | 0.83 | 5.0 | 0.94 | 0.98 | 4.3 | 0.84 | 0.92 | 9.5 |
| PIF | 0.86 | 0.91 | 5.8 | 0.91 | 0.95 | 4.4 | 0.96 | 0.93 | –3.1 |
| SADC | 0.93 | 0.95 | 2.2 | 0.74 | 0.68 | –8.1 | 0.67 | 0.49 | –26.9 |
| | | | *583.0* | | | *–0.2* | | | *37.6* |

*Note*: Nascent level of DRM cooperation (N); Advanced level of DRM cooperation (A); Percentage change between N and A (%), rounded to third decimal place; Paymaster (P); Regional risk coalition (RC)

*Source*: Tables 3.6 and 3.7

*Table 3.9* Instances of outside intervention in regional DRM cooperation

| | **Advanced DRM** | **Intervention** |
|---|---|---|
| ASEAN | 2003 | 1 |
| AU | 2009 | 1 |
| CARICOM | 1991 | 1 |
| EU | 1994 | 0 |
| LAS | 2011 | 1 |
| OAS | 1994 | 0 |
| PIF | 2005 | 1 |
| SADC | 2001 | 1 |

aid. The former is understood to expand the original scope of the expectations condition to include the spread of 'incomplete information'. The latter is understood as an intervening variable that reduces the transactions costs of regional organizations which, in turn, increases the likelihood of cooperation.

Table 3.9 illustrates instances of explicit outside intervention in regional DRM cooperation from other states or organizations. As shown in the following pages this can include, for example, technical assistance in drafting regional DRM frameworks by the UNDP or the promotion of DRM by the Red Cross and the World Bank. External intervention has also had the effect of spreading information across most regional organizations in the world (see Chapter 5). As the main aim of this section is to reveal the importance external intervention has for motivating states to

increase regional DRM cooperation from a nascent to an advanced level, the dates when each regional organization passed the threshold of being more in than out of the set of advanced cooperation is displayed in the table. It is worth noting that a fairly strong pattern emerges whereby a majority of regional organizations began to cooperate at advanced level after the end of the 20th century. The two outliers are the EU and OAS, which can be explained by their independent capacity and relative development status.

**The spread of apparent knowledge**

The lack of regional-based expectations can be explained by an increase in apparent knowledge over time in regional organizations. By apparent knowledge I mean knowledge that is acquired and legitimated through a collective belief system, which places emphasis on the importance of the type of knowledge that is believed regardless of its truth qualities. This means that the 'consistency of the utility function' of states must be relaxed to allow for incomplete or incorrect information (Simon, 1995: 49).

As shown in Chapters 4 and 5, the emerging international DRM community provides an important means for the transference of ideas and information. This community has increasingly become more professionalized over the 1990s and into the 21st century, which correlates with the development of regional DRM. While testing this hypothesis is beyond the limits of this chapter, it is nevertheless plausible to consider a strong connection between the transference and spread of information by the international community to regional organizations and their member states. The spread of information is important for regional organizations because an increase in knowledge can reduce the uncertainty of future risk through collaboration; it can provide the needed rationale for the development of DRM cooperation.[32] As seen in Chapter 5, this appears to be the case for most regional organizations that often validate their reasons for cooperation based on the increasing number of natural disasters and its associated costs to a region. It is thus not surprising that states have increased cooperative endeavours on DRM as information on increasing risks has become more widespread over the last 10–15 years. This information is furthermore supported by scientific and (re)insurance publications on the global increase of weather-related disasters, which increases financial risk.

On the surface, transferring and transforming this information into regional-based rationale does not seem problematic. However, a closer reading of the estimated economic damages from natural disasters over

a 40-year period, as a percentage of regional GDP (and adjusted for inflation), reveals a significantly different picture: the costs in all cases except for CARICOM have not substantially increased. This underlines the importance of apparent knowledge in shaping the incentive structure of states. The scope of the expectations condition is thus stretched to realistically include imperfect and incomplete information. When this is done, the increasing systemic and global advocacy on DRM since the end of the 20th century, and the general acceptance of apparent knowledge by regional organizations in a period of intense global advocacy on DRM, explains why states developed regional cooperation on DRM. It would seem that a safer and more secure world may be forming though incomplete information that has increased the perceived cost-benefit ratio to a point that has made the transaction costs of cooperating on regional DRM worth the anticipated benefits.

The spread of apparent knowledge through global DRM advocacy and the transference of this knowledge by regional organizations does not independently explain what motivates states to cooperate on DRM. While it explains many cases, it does not convincingly explain CARICOM, the EU and the OAS as regional organizations that cooperated at a much earlier stage when global DRM advocacy was more ad hoc. The importance of apparent knowledge is thus understood to contribute to a more accurate explanation in conjunction with increasing levels of interdependence and the presence of asymmetrical risk. To be sure, this finding is necessarily limited to a broad structural account of what motivates states. It does not provide a detailed account of the agency involved in promoting DRM-related knowledge. Instead, it is left open to others to investigate the processes through which the information was transferred and transformed, either through acts of persuasion, deliberation or conditionality.

**Transaction costs**

The intervention of external actors in regional organizations not only involves the promotion of apparent knowledge but is often connected to the provision of technical assistance and financial aid. These two additional explanatory factors combine to reduce transaction costs and thus change the preference structure of states to cooperate on regional DRM. The usual cost-benefit argument for cooperating in international organizations is that the organizations will reduce the transaction costs: the 'economies of scale represented by acting multilaterally can create an enormous savings in the costs of individual … procedures needed to maintain the agreements' (DeSombre, 2009: 154). In a slight twist to this

argument it would appear that many regional organizations – particularly those that consist of a majority of developing countries – rely on international organizations or other states to cover the costs of not only creating regional agreements but also implementing the goals thence created. Indeed, this is the case for a majority of the regional cases examined in this book, with the exception of the most economically developed regions: the EU and OAS. This can be seen in Table 3.9, which illustrates which regional organizations received external assistance when and after their DRM capacity developed into an advanced stage.

One of the most important developments for external support for regional DRM was the creation of the UNISDR in 1999. Building on the previous International Decade for Natural Disaster Reduction (IDNDR), the UNISDR was tasked to advocate a 'culture of prevention' through an array of mechanisms. In particular, it aims to 'build [and] strengthen regional/sub-regional, national and international approaches, and collaborative organizational arrangements that can increase hazard, risk and disaster prevention capabilities and activities' (UNISDR, n.d.). This also coincides with an emphasis on regional-based DRM promotion by other UN agencies and the international community, such as the UN Regional Coordination Mechanism (RCM), UNISDR regional offices, the UNHCR, UNDP, the Red Cross, NGOs and the World Bank. As noted above, the beginning of these more formalized and widespread advocacy programmes tends to correlate with the rise of advanced levels in a majority of regional organizations. A closer look at the particular cases tends to qualify this correlation and describes the type of support each organization has received.

ASEAN cooperation on DRM has been strongly supported by a number of NGOs and the UN family since 2000. The UNHCR, for example, has worked with the ASEAN Committee on Disaster Management (ACDM) in conducting emergency management training programmes in the region, has provided important funding for contingency planning and emergency response, and has supported the ACDM focal points in the member states (ESCAP, 2008: 56). This has apparently helped to provide the foundations for some of the main DRM activities of ASEAN in the last decade. In a report produced by the UN Economic and Social Commission for Asia and the Pacific (ESCAP), it was noted that:

> UNHCR's support to ACDM has ... resulted in the signing of the ASEAN Agreement on Disaster Management and Emergency Response, the establishment of an interim ASEAN Coordinating Centre for Humanitarian Assistance on disaster management, the development

> of standard operating procedures, and a number of training exercises for disaster response which have seen several ASEAN countries contributing disaster response teams and learning to work together. (ESCAP, 2008: 56)

Of course, the UNHCR cannot be solely accredited as the main benefactor of ASEAN's DRM cooperation. Rather, it is one instrument used by the international community to reduce the costs of cooperation. Technical or financial assistance and institutionalized meetings are also conducted, for instance, through the ESCAP, UN-ASEAN high-level summits, the Asia-Pacific Regional Coordination Mechanism's (RCM) thematic working group on environment and disaster risk management, the Asian Disaster Preparedness Centre, the Red Cross and the Typhoon Committee (ESCAP, 2008). Further evidence for ASEAN's intricate connection with the international community is seen in their official connection to the Hyogo Framework Programme for Action (HFA). Indeed, it proudly makes the claim to be the very first regional organization to have produced the world's first HFA-related legally binding document. The HFA is the outcome document from the UN-sponsored world conference on disaster reduction in 2005.

The major agreement on DRM that pushed PIF over the threshold of being more in than out of the set of advanced cooperation is the Pacific Disaster Risk Reduction and Disaster Management Framework for Action, signed in 2005. The principal driver of this agreement was not PIF but the South Pacific Applied Geoscience Commission (SOPAC). In the period preceding the first world conference on DRR in 1994, the Pacific Leaders 'empowered' SOPAC with the 'mandate to coordinate disaster management capacity building working in partnership with the regional disaster managers, international and regional organizations, the donor community and national stakeholders' (Pratt, 2005: 7). In planning for the second world conference on Disaster Reduction in 2003 and 2004, and in an effort to implement the Yokohama Strategy from 1994, SOPAC took the lead in designing the PIF's framework for action. According to the director of SOPAC, this framework 'has placed the region at the forefront of the global response to the implementation of the HFA and provided a template that other regions may wish to follow' (Ibid). This document was, of course, not achieved single-handedly but together with SOPAC's donors and the international community.[33] A representative sample of the organizations that were present when the draft framework was completed included the World Meteorological Organization, UNEP, UNDP, UNICEF,

UNOCHA, World Bank, the Asia Foundation, the Pacific Disaster Centre, the International Federation of Red Cross and Red Crescent Societies, and Caritas. The PIF clearly have benefited from external support in terms of the transfer of information and knowledge.

The formation of regional agreements that pushed DRM cooperation into an advanced stage in the AU, SADC and LAS share a similar story to ASEAN and PIF. The principal AU DRM agreements are 'joint initiatives' with the AU, UNISDR, UNDP, UNEP, the African Development Bank and the AU's New Partnership for Africa's Development (NEPAD) (AU, 2009: 3). The SADC draft-regional multi-sectoral disaster management strategy was sponsored by the UNDP and drafted by a Zimbabwean NGO (Southern Alliance for Indigenous Resources), a UNDP consultant, a private consultancy firm (International Resources Group) and two national DRM-based practitioners from Zimbabwe and Namibia. The UNDP project description for SADC DRM notes that its objective is to

> prepare a regional project document for recourse mobilisation on behalf of SADC for the implementation of the approved SADC Multi-Sectoral Disaster Management Strategy based on the framework for cooperation between the SADC Secretariat and the Emergency Response Division (ERD) of UNDP. (UNDP, 2001)

The formation of a DRM framework agreement in LAS was also heavily supported by the international community. The main actors involved in drawing up the framework agreement with LAS included the UNISDR, the UN secretariat, specialized agencies, Arab technical organizations, the International Federation for Red Cross and Red Crescent Societies, and the World Bank Global Facility for Disaster Reduction and Recovery (GFDRR). Interestingly, a preliminary passage to the agreement shares the responsibility of implementing the agreement with the international community:

> All stakeholders will have a key role to play in the development and implementation of the Strategy, including the League of Arab States, national authorities, the United Nations system including its specialized agencies and the regional social and economic commissions, regional organizations, regional centres of excellence for disaster risk reduction, civil society organizations including Red Cross and Red Crescent societies, the private sector, international development partners and the media. (LAS, 2011: 5)

As a further example of how this agreement was not created in isolation is its explicit reference to existing regional cooperation on DRM in other areas of the world, citing regional DRM agreements in the AU, APEC, ASEAN, the EU-PPRD and the OIC. As this is the most recent agreement reviewed in this book the particular and explicit linkage of DRM with the international community may be a sign of an increase in information and knowledge sharing that is achieved through bilateral, multilateral, transnational and inter-regional exchanges on DRM.

In most cases, regional cooperation on DRM reached an advanced stage in the period proceeding the year 2000, which coincides with the systematic and increasing global outreach of the UNISDR and other international organizations in advocating DRM. This external support has clearly aided regional organizations in creating DRM agreements by reducing their transaction costs. This has come in the form of NGOs, international organizations and private companies. However, if this is the case, then what can explain earlier advanced cooperation in CARICOM, the EU and OAS, and the apparent lack of external intervention in the latter two regional organizations?

The case of CARICOM can be explained by its particular history and vulnerability to natural disasters. A combination of low development countries and a high-risk environment increases the vulnerability of the region. This was recognized as, and presumably the reason for, the UN Disaster Relief Organization (UNDRO) focus on creating a more resilient community in the region from the late 1970s. In 1981, the UNDRO finalized a plan to create a Pan-Caribbean Disaster Preparedness and Prevention Project (PCDPPP). Backed by the UNDRO, the aim of the PCDPPP was to assist Caribbean states to respond to natural disasters in the region. The administrative responsibilities of this project were subsequently transferred to CARICOM in 1983 (UN, 1983: 533). However, the UNDRO continued to support the project by sending experts on emergency telecommunications, organizing seminars, workshops, training programmes, and simulations, and supporting disaster management plans. CARICOM has, since the early 1990s, received continual support from a wide range of states and international and regional organizations. These include, for example, the OAS, EU, the World Bank, Canada, Japan, USA and the UNISDR (Kirton, 2013: 16–18).

The EU and the OAS are the main outliers to the intervening variable of external support. Of course, in a transnational and interdependent world, these organizations, like all others, are not immune to receiving and learning from other organizations through various exchanges (Hollis, 2014a). Indeed, it is not entirely coincidental that

both of these organizations produced advanced DRM-related documents in the same year as the first world conference on disaster reduction in Yokohama. Indeed, the EU document explicitly references Yokohama (Council, 1994) and the OAS document connects its increased cooperative involvement with the UN (SOA, 1994). However, what sets these two organizations apart is the much more limited direct involvement from other international organizations external to the particular region. Instead of receiving assistance they have been increasingly supporting other regions, such as their support to CARICOM and LAS, in promoting DRM cooperation. This is at least partly explained by the development status of these regions. EU and the OAS consist of many highly developed countries and have considerable regional budgets compared to others that either have only small administrative budgets (for a review of regional budgets see UNU-CRIS, 2008). This means that the cost of cooperation and implementation is more easily achieved than for other regional organizations that are reliant upon donor support.

The above passages illustrate that a majority of the agreements were created with the assistance of UN agencies and the international community. This has often been in reaction to, or anticipation of, the 2005 HFA. External intervention is consequently understood here as an important addition to the general explanation forged out of section two: that states are motivated to cooperate on regional DRM when interdependencies are present and increase over a short time frame and when asymmetrical risk is present. External intervention has the effect of increasing the scope of the expectations condition by relaxing the utility function of the state to allow for incomplete information. Indeed, a strong correlation can be made between the reorganization of UN advocacy on DRM at the end of the 1990s and the rise of advanced regional cooperation in the following years, which converge around the HFA. It was also shown that external intervention not only spread apparent knowledge, but it has also actively assisted and supported many regional organizations in drafting their agreements on DRM. This is understood as an intervening variable that has had the effect of reducing the transactions costs of states to cooperate on DRM. Taken as a whole, a rational explanation for why states cooperate on DRM is based on a configuration of intra-regional trade interdependence, asymmetrical risk, (adjusted) expectations, (adjusted) intra-regional power disparity and external financial/technical assistance. This explanation is hardly parsimonious, but it is fairly accurate in describing the complex environment that structures and induces state preferences to cooperate on regional DRM.

## Summary

This chapter presents a rational explanation for why states cooperate on regional DRM and thereby reinforces the functional role of regional organizations as disaster managers. Four dominant explanations were first systemically tested as independent and interdependent causal conditions. None of the conditions could independently or accurately explain what motivates states to cooperate on regional DRM alone. However, a combination of interdependence and asymmetrical risk could explain state motives. Out of these two conditions, interdependence clearly holds a higher degree of explanatory power. This is best seen in its specific growth across almost all regional organizations during the 1990s, which correlates with the general increase in regional DRM development in the following decade. Put differently, when member states of a regional organization begin to experience greater increases in intra-regional trade – which is matched by a high level of disparity of risk within a region – states will be generally inclined to develop, or begin cooperating on, existing DRM at the regional level. While this combination is sufficient, it also borders on triviality: It can explain much but with only some accuracy.

Two additional explanations based on expectations and intra-regional power disparities were also tested. Surprisingly, neither of these conditions could independently or configurationally provide added value to the existing solution. Yet, it is exactly when these ambiguities arise that a more detailed and richer account of a social phenomenon can be extracted by expanding or contracting the scope conditions of a particular theoretical standpoint. For the case of intra-regional power disparities, the concept of 'regional risk coalitions' was introduced which expanded the original idea of regional paymasters to include a small group of states that hold a majority of material power and risk-based incentives to cooperate. This adjustment produced an increase in the accuracy of the interdependence and asymmetrical risk solution. Thus, two causal pathways can be surmised for explaining state motivation. The first is more parsimonious as it includes only two conditions – interdependence and asymmetrical risk. However, in explaining much (coverage), it becomes less accurate (consistency). The second is less parsimonious as it includes three conditions – interdependence, asymmetrical risk and intra-regional power disparities – although it can explain relatively more (coverage) while also being more accurate (consistency).

The expectations condition also presents an unanticipated result. Instead of discovering a general increase in the costs of natural disasters

to regional organizations (as a percentage of GDP), one finds that in most cases there has been only a moderate increase between 0 and 4 per cent. By drawing attention to information exchanges between and among regional organizations and the international community, a correlation was made between the increase in information sharing and an increase in regional DRM cooperation. Importantly, this information is *incomplete*, which stresses the importance of a collective learning process based on the idea that an increase in weather-related disasters worldwide leads to an increase in the financial costs those disasters bring to societies. This external intervention by international organizations and states has not only provided the means for spreading this incomplete information, but has also provided room for technical and financial assistance that has helped to remove existing transaction costs of regional organizations. This intervening variable is considered an important aspect that adds complexity and accuracy to an explanation for what motivates states to cooperate on DRM.

This somewhat technical description of the results can be interpreted in the following manner: the emergence of regional DRM from the 1970s through to the late 1990s generally exhibited a low level of cooperation that revolved around broad declarations of intent and information sharing between member states of a regional organization. This low level of cooperation is explained in part through a combination of intra-regional trade interdependence and asymmetrical risk. The 1990s saw a significant increase in intra-regional trade interdependence which anticipates the increase in regional DRM cooperation in the following decade. This is perhaps the most dynamic causal condition that can explain advanced cooperation in the 21st century. However, it cannot explain it independently. Instead, one finds that a combination of asymmetrical risk and intra-regional power disparities provide a more accurate explanation. Added to these structural conditions is the importance of external interventions by the international community. This explains the spread of apparent knowledge that forms the preference structure of states and how assistance has helped to reduce regional transaction costs.

The overall answer to why states cooperate on regional DRM is perhaps best represented on a scale between parsimony and complexity. On the parsimony side, the underlying conditions that must be in place for regional cooperation to occur are asymmetrical risk and interdependence. However, this combination of conditions is a somewhat trivial explanation. This triviality is reduced if the importance of state expectations is added to the causal formula; that is, expectations informed through incomplete information. Moving towards increasing causal complexity,

adding the intervening variable of technical and financial assistance to reduce transaction costs provides an additional layer of description. Finally, intra-regional power disparities can increase the overall accuracy of the complex formula, although this is not necessary.

States are motivated by a rational concern to decrease financial costs in the future. However, this can only be achieved if there is a favourable cost-benefit ratio. This ratio is improved when the apparent knowledge that the costs of disasters are increasing is spread, when intra-regional trade interdependence increases, and when there are consistently high asymmetrical risks. However, even when these conditions are present the capacity of regional organizations – which often have small budgets – to create advanced forms of cooperation will be limited without the assistance from the international community. Regional DRM is thus by necessity a truly global phenomenon.

# 4
# The Standardization of DRM

This chapter argues that states have largely adopted a standardized global model on how cooperation on regional DRM ought to be organized. It is posited that just like the state (Meyer et al., [1997] 2009), the environment (Hironaka, 2002) and education (Meyer and Ramirez, [2000] 2009), DRM is considered a global model that states emulate.[1] As these global models are informed by world culture, which is 'highly rationalized and universalistic' (Meyer et al., [1997] 2009: 181), the individual, state, or regional organization also becomes a rational and responsible actor.[2] When states organize themselves according to this global culture it is expected that high similarities in state activity will be apparent. The global standardization of regional DRM described in this chapter suggests that states are indeed motivated by a globalized DRM norm that provides an appropriate model for state activity on regional DRM. Global supply trumps local demand, which questions the extent to which the provision of protection is mere pretence rather than a rational concern. The role of regional organizations is thus understood here as more of a conduit for global norms rather than an independent actor motivated through local demand.

Another connection made in this chapter is the link between the emulation of a global DRM model and the activity of the UN International Strategy for Disaster Reduction (UNISDR). The UNISDR, in collaboration with other UN agencies and the international community, has been a crucial advocate of the global normative structure (Chapter 5).[3] For example, the highly similar terminology used in regional DRM agreements can be traced back to a single publication by the United Nations Development Programme (UNDP), and the structure of many DRM programmes can be traced back to the UN's Hyogo Framework Programme for Action (HFA).

While the standardized features of a global DRM model tend to reflect a majority of activity in regional organizations, variation nevertheless occurs. This is not explained by recourse to agency and local decision-making but by the capacity of a regional organization. The extent to which an association of states are more likely to follow global standards or act according to its own 'interests' are conditioned by its own socio-economic capacity. Put differently, the tension between the 'underlying self' and 'enacted agency' provide instances of variation within a highly standardized system of norms (Meyer and Jepperson, [2000] 2009: 123).

The following chapter is divided between an analysis on the content, concepts and values represented in the DRM programmes.[4] First, the content of the agreements establishing cooperation on DRM show similarities in terms of motives, aspirations and references to global sources to legitimate local action. Each of these categories captures a fundamental aspect of the content of regional DRM agreements. 'Motivation' entails a comparison of the reasons given in the agreements for cooperation. 'Aspirations' entails a comparison of the goals and aims of regional DRM framework agreements and 'external legitimation' reflects the extent to which regional organizations make associations to similar organizations in an effort to increase its own legitimacy. Second, concepts in regional DRM agreements refer to the type of language used. If world scripts rely on language as their fundamental mode of exchange (see Berger and Luckmann, 1967: 22), it is expected that DRM concepts and their definitions will be similar. By defining key concepts of DRM similarly, the global social order of DRM becomes more concrete and more habitualized. Key definitions used in DRM discourse, such as 'disaster', 'response', and 'early warning' are accordingly compared and their similarities exposed. Third, the values that define the referent points of protection in regional DRM programmes offer a further example of a standardized global DRM model that contains highly similar references to women's rights, as well as the protection of life, property, the economy and the environment. A reflection on the perception of disasters over time is also included in this section, which serves to emphasize how today's disaster-based values are highly contingent.

## Content

A number of standardized themes stand out in the content of regional DRM programmes. This includes the motives for cooperation and the way in which the goals of DRM agreements are structured. A review of official DRM agreements and programmes, as well as speeches made by

regional practitioners, reveals that a majority of regional organizations maintain highly standardized motives for cooperating on DRM which is based on a rationalized and 'common situation'. The argument goes that if DRM is a global model, then it must also reflect signs of habitualized action under a 'relevant' and 'common situation' (Berger and Luckmann, 1967: 57). Reformulating this idea, John Meyer and Brian Rowan note that as such action becomes institutionalized over time, it is important that an explanation that legitimates ongoing social action is 'consistent and comprehensive to…carry conviction' ([1977] 2009: 97; Berger and Luckmann, 1967: 61). According to this proposition, it would be expected that a common situation is also reflected in regional DRM agreements. This is the case for a majority of regional organizations that base their reasons for cooperation on the increasing number of disasters and their associated economic and social costs.

The ASEAN Agreement on Disaster Management and Emergency Response (AADMER), for example, notes a concern with the 'increasing frequency and scale of disasters in the ASEAN region and their damaging impacts' (ASEAN, 2005a). The European Council Decision establishing a Community Civil Protection Mechanism notes that recent 'years have witnessed a significant increase in the occurrence and severity of natural and man-made disasters' (Council, 2007a: §3). The PIF Framework for Action notes that there 'is ongoing and increasing vulnerability of Pacific Island nations and communities to the impacts of disasters' (PIF, 2005: Art. 1). A report on CARICOM's DRM capacity begins with the reflection:

> Globally, the cost of disasters has increased seven-fold since the 1960s…In the near to mid-term, the vulnerability of societies around the world and the cost of disaster-related damage will increase…. The socio-economic consequences of extreme climatic events in the Caribbean can be devastating. (CDEMA, 2011: IV)

Commenting on disasters in Africa at the third session on the global platform for disaster risk reduction, the AU Commissioner for Rural Economy and Agriculture, Tumusiime Rhoda Peace, noted that disasters 'are increasing in frequency and severity' (Tumusiime, 2011: 2). At the same event, the chief for OAS Risk Management and Adaption to Climate Change (RISK-MACC) remarked that the 'decade of 2001–2010 was marked in the Americas by devastating disasters – there were almost 200 more disasters than in the previous decade, affecting more than twice the number of people, with a doubling of the costs' (González, 2011: 2).

Similarly, Shahira Wahbi, the LAS Chief of Sustainable Development and International Cooperation, emphasized increasing desertification of the Arab region, which will result in dire consequences for the future (2013).

The examples demonstrate a similar rationalized motivation for regional DRM cooperation based on a 'common situation'. Most are in agreement that natural disasters are on the rise and that this increases social and economic risk. On the surface, there is nothing odd about claiming the increase in the number and severity of disasters to motivate reasons for cooperating on regional DRM. Indeed, there has been a general increase in climate-related disasters over the last 30 years, although seismic disasters have remained fairly steady (see MunichRE, 2013). However, even if the general numbers of, and costs from, disasters are increasing globally the specific regional-based economic costs (as a percentage of regional GDP) have decreased in almost all regions over the last 40 years (Table 4.1). Only CARICOM's threat environment seems to justify the stated motives for cooperation. Furthermore, the number of deaths caused by natural disasters has continually decreased during this period, which questions the extent to which social risk has actually increased over time (EM-DAT, 2011a).

The apparent similarity in the regional organizations' motivations, and the questionable statistics backing up the motivation for cooperation, suggests that states are less motivated by expectations from previous economic damages (caused by disasters) and more by the global normative structure that expresses the most appropriate rationale for legitimating regional DRM cooperation. This 'common situation' – sourced from a real and rational concern – is thus necessarily idealized in order to be coherent and comprehensive, and thus 'travel' more easily. Hence, the original motivation remains concerned with 'brute facts' and functional cooperation, but the necessary conditions for the diffusion of such motivations risk transcending the functional realm where ideas trump facts. The motives of states are not rational but rationalized.[6] Legitimacy of action may be achieved through a common story, yet not without a subtle cost to functional cooperation.

The highly standardized aspirations prevalent in regional DRM agreements also tend to confirm this process of rationalization and points to the importance of the UN as an external actor that supports and advocates the DRM model globally. A majority of regional organizations that produce official agreements on DRM have structured their aims and goals in remarkably similar ways. In particular, the DRM goals are

*Table 4.1* Estimated economic damages caused by natural disasters as a percentage of regional GDP: 1970–2007*

| | 1970–1979 | 2000–2007 | Percentage change |
|---|---|---|---|
| EU | 0.16 | 0.09 | –43.75 |
| ASEAN | 1.27 | 0.27 | –78.74 |
| PIF | 1.01 | 0.13 | –87.13 |
| CARICOM | 0.33 | 1.73 | 424.24 |
| Mercosur | 0.82 | 0.09 | –89.02 |
| SADC | 0.22 | 0.08 | –63.64 |
| LAS | 0.39 | 0.13 | –66.67 |
| AU | 0.32 | 0.16 | –50.00 |
| OAS | 0.39 | 0.22 | –43.59 |
| ECO | 0.96 | 0.16 | –83.33 |

*Note*: * Adjusted for inflation

*Source*: EM-DAT (2011b).[5]

standardized under five themes: (1) strengthening disaster risk reduction in national and local areas, (2) assessing disaster risks and enhancing early warning, (3) building a culture of protection through education and knowledge sharing, (4) reducing underlying risk and (5) strengthening preparedness and effective response. The AU (2009), SADC (2006), CARICOM (2005), PIF (2005) and LAS (2011), for example, have inserted these goals into their framework agreements. The source of these aims can be found in the UN's HFA priorities for action 2005–2015 (UNISDR, 2005: 13–20). The HFA list of priorities, aims and general time frames of the regional agreements are a near-perfect match. Indeed, some organizations such as LAS (2011) and SADC (2006) have even copied parts or all of the HFA priorities for action verbatim. The EU, OAS, Mercosur and ASEAN agreements, on the other hand, do not match to the HFA goals as closely but, nevertheless, provide a familiar resemblance and supply direct references to the HFA in their preambles.

Another common trait found in DRM programmes is a tendency to associate with similar institutions and list previous activity on DRM cooperation in order to legitimize their activity. This can be divided between internal and external sources of legitimization. Internally, they are able to build on an historical base that legitimates current activity by demonstrating continual progress. Externally, regional organizations are able to demonstrate their activity to a 'disinterested other'.[7] That is, as a disinterested 'teacher of norms' (Finnemore, 1993), who teaches and spreads the global model to interested actors (see Chapter 6).

While the UN is mentioned by all regional organizations, other International Governmental Organizations (IGOs) and International Non-Governmental Organizations (INGOs) are also listed such as SOPAC by the PIF (2005: §60), the Red Cross and Red Crescent Societies by LAS (2011: 5) and a host of other organizations by ASEAN (2004: 15). Interestingly, LAS is the only organization under review that explicitly notes and takes into consideration existing regional strategies on DRM, citing the AU, APEC, ASEAN, the Euro-Mediterranean Programme for Prevention, Preparedness and Response to Disasters (PPRD) and the Organization of Islamic Conference (OIC) (Ibid). Considering LAS holds the most recent DRM agreement examined in this study (2011), its citing of other regional DRM cooperation could indicate the growing importance of inter-regional dialogue and the heightened awareness of regional organizations. These external references also indicate that the UN is a major contributor of a DRM model and the importance of citing external actors for legitimizing national or regional activity.

## Concepts

If regional organizations enact a global DRM model, the type of language used ought to convey a family resemblance that is indicative of a rationalized world culture:

> language provides the fundamental superimposition of logic on the objectivated social world. The edifice of legitimations is built upon language and uses language as its principal instrumentality. (Berger and Luckmann, 1967: 64)

Out of the ten regional organizations under review, eight have published a framework agreement and four provide definitions of key terms on DRM.[8] The terms are 'disaster', 'response', 'preparedness', 'early warning', 'disaster risk management' and 'disaster risk reduction'.

When compared, the terminology is surprisingly consistent. The terms are either identical or closely resemble the definitions in other regional organizations. For example, the term 'early warning' is defined by the UNISDR as '[t]he provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response' (UNISDR, 2004b). This is copied verbatim in the ASEAN Agreement on Disaster Management and Emergency Response (2005) and has clearly influenced the EU's definition: 'the timely and effective provision of

information that allows action to be taken to avoid or reduce risks and ensure preparedness for an effective response' (Council, 2007a).

Similarly, the UNISDR definition of 'disaster' is defined as '[a] serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources' (UNISDR, 2004b). This is also copied by ASEAN (2005a) and carries clear similarities with SADC's definition: the '[d]isruption of functioning of society, causing widespread human, material, environmental losses exceeding the ability of the affected society to cope using its own resources' (SADC, 2001a). The European Union also shows signs of aligning to this and other standardized definitions with the terms 'preparedness' and 'response' (Council, 2007a). In most places, the words are merely rearranged, providing the same meaning but with a cosmetic flare of originality. However, other terms are distinctively different, such as the preference for using the term civil protection instead of the more standard term, 'disaster risk management' or 'disaster risk reduction'.

CARICOM and ASEAN tend to explicate the DRM model more stringently than the EU as many of the terms they use appear to be exact copies of other regional DRM framework agreements. In particular, CARICOM and ASEAN use the UN's preferable term of DRR to describe their disaster relief activities, which tends to be a general trend in a number of other regional organizations, such as the PIF (2005), SADC (2006) and ECO (2009). It is also interesting to note that the DRM terms used by regional organizations share a higher diversity prior to 2004. The 2001 SADC framework agreement, for example, has a comprehensive list of terms that are at odds with other regional agreements that were published after 2005 (see SADC, 2001a). This is also true for CARICOM's dissimilar definition of 'disaster' taken from its 1991 agreement establishing CDERA (CARICOM, 1991). However, these regional organizations have, since 2005, revised versions of their original framework agreements that are now in line with standard definitions of key terms, representing a significant convergence towards a single source.

What changed the basic definitions for regional DRM cooperation? For the case of SADC, there is a clear connection between dropping local DRM definitions and adopting global ones. When assisting SADC to formulate their regional DRM agreement, the United Nations Development Programme (UNDP) came to the conclusion that differences in DRM terms used by national authorities was an important coordination problem; the solution offered by the UNDP was to adopt the United Nation's definitions on disaster management (SADC, 2001a: §3.2.1, 3.5). This is not a

unique example, as the UN DRM terminology seems to have had a wider impact on other regional organizations and states.

In 2004, the UN DRM definitions were published in 'Living with Risk: A Global Review of Disaster Risk Reduction Initiatives' (UNISDR, 2004a). A year later, the UN sponsored the second world conference on disaster risk reduction that was held in Japan. The HFA was developed through this conference by the international community, who instructed the UNISDR to, inter alia, 'update and widely disseminate international standard terminology related to disaster risk reduction, at least in all official United Nations languages, for use in programme and institutions development, operations, research, training curricula and public information programmes' (UNISDR, 2005: 9). A booklet and online catalogue thus emerged with a detailed list of basic terms as well as 'emerging new concepts' that are of a 'growing professional relevance' (Ibid). Comments are also supplied beneath each definition that either expand on the original concept or instruct how the definition ought to be understood and applied. For example, the comments for 'Disaster risk reduction plan' notes that these plans should be guided by the HFA and, inter alia, should specify the 'time frame and responsibilities for implementation and the sources of funding … linkages to climate change adaption plans should also be made where possible' (UNISDR, 2009g: 11). This definition is also classed as a 'new professional concept' that is part of the updated booklet on terminology that was originally published in 2004.

The introduction of these terms subtly changes the nature of the DRM model and, through this, the very way practitioners talk about, and act out, DRM cooperation. To be clear, these terms were not written by any individual but represent the organic growth of concepts that are implicitly agreed upon by a majority of practitioners that is then institutionalized (objectified) through the UN mouthpiece. In line with this, the *UNISDR Terminology on DRR* booklet recommends comments and suggestions for future revisions (UNISDR, 2009g: 1). Thus, the promotion of a standardized set of terms and concepts – or 'textbook' for the students of world culture – not only reinforces a particular way of doing DRM but also actively encourages a specific set of values that legitimize a global concept of DRM cooperation and reinforces the core traits of world culture.

## Values

The values embedded within DRM agreements are highly standardized, which not only support and legitimize DRM activity but also reflect

the referent points of protection, namely life, property, the economy and the environment. These referent points are often presented in the definitions of a disaster or are mixed into an introductory paragraph on how the increasing numbers of disasters are affecting the critical structures of society.[9] One slight exception to this is the OAS that places less emphasis on the environment as a referent point of protection. Instead, the environment, or 'natural resource base', tends to be more closely aligned to economic development. However, this is changing. While still fairly absent in official texts, an 'official statement' delivered by an OAS risk management authority to the third and fourth sessions of the global platform for DRR makes a clear connection between climate change and DRR as a key challenge to the Americas (González, 2011; see Tross, 2013). The raison d'être of regional DRM cooperation is also in line with the UNISDR definition of disaster that places emphasis on 'human, material, economic or environmental losses' (UNISDR, 2009g: 9).

Another standardized value that is becoming a part of the modern global discourse on DRM is women's rights. This can be seen in a number of regional organizations that have inserted statements on the protection or the empowerment of women. Comparable gender references are made by the AU (2004: 1/8), PIF (2005: v), SADC (2006: 2.2), CARICOM (2007: vi), the OAS (2007b: preamble), ECO (2008a: 12), LAS (2011: 3.3.2) and Mercosur (Brugnoni, 2013). While ASEAN does not have an explicit reference to women's rights in its 2005 framework agreement, it has more recently set up an ASEAN Commission on the Promotion and Protection of the Rights of Women and Children (ACWC), which contains specific measures for 'women in natural disasters' (ASEAN, 2011b). EU legislation on civil protection and gender issues contains few explicit references to women's rights in connection to natural disasters. This does not mean, however, that the EU neglects women's rights, as this is a fundamental aspect of the values it upholds in a number of official treaties, legislation (Council, 1992, 2007b; see García, 1998) and through the European Court (Cichowski, 2005). Attention to women's rights in connection to natural disasters can also be seen in the Commission's financing of various projects (UNISDR, 2008) and is also embedded in documents on the EU's response capacity to natural and man-made disasters (see European Parliament, 2010). Additionally, the EU is particularly active in supporting women's rights abroad (Candeloro, 2010; Georgieva, 2010d), such as its strong commitment to implementing the UN Security Council Resolution 1325 on women, peace and security through ECHO, the largely external policy space of the EU for emergency management

(UN, 2010).[10] The EU is also committed to the HFA priorities for action that include the aim that a 'gender perspective should be integrated into all disaster risk management policies' (UNISDR, 2005: 4).

As the empowerment of women is a prioritized value in world society (see Berkovitch and Bradley, 1999; Berkovitch, 2003), the explicit or implicit inclusion of gender references in DRM activity from the ten regional organizations under review provide a fairly strong link between the importance global norms have on the construction of regional DRM. As there is also a full homogeneity across all ten regional organizations in terms of the general referent points of protection that form the foundational basis of DRM cooperation, the argument that states are influenced by a global normative structure on DRM is further strengthened. It should be kept in mind that these common values are not fully static but have and continue to evolve over time. Perceptions of what disasters have changed considerably over the last 250 years.

**Contingent values**

The earth shook, fires roared, buildings crumbled and countless people lost their lives in the days that followed the Lisbon earthquake in 1755. Commenting on this dramatic event, Jean-Jacques Rousseau embraced the language of reason rather than religion to explain why disaster struck the city of Portugal. It was individuals, not God, who were responsible for the catastrophe. Rousseau argued that if appropriate prevention strategies were in place, such as efficient building standards, the environment could have been controlled (Rousseau, [1756] 1967).

While Rousseau, and others such as Voltaire ([1756] 2003) and Immanuel Kant (1756), invoked Enlightenment principles, others in Europe had not yet dislodged the idea that natural disasters were a result of God's retribution. Inquisitors searched the streets of Lisbon to find heuristics, the University of Coimbra agreed to an *auto-da-fé* to prevent future earthquakes, and Calvinist Denmark refused to provide aid viewing the catastrophic events as God's retribution for the inhabitants' sins (Hutchinson, 2000: 5).[11] Indeed, in the period 1693–1783 it is estimated that 100 European cities were destroyed by earthquakes, causing approximately 130,000 deaths. Little relief was provided based on the belief that it was God's plan (Hutchinson, 2000: 5). This belief in a divine being as the cause of natural catastrophes is also expressed in the original 16th century meaning of the word disaster, or *disastro*, which means 'ill-starred' or the unfortunate position of the planet and zodiac on society (Harper, 2011). This is indicative of an era when people held largely different perceptions on the value of human life.[12]

Rousseau famously questioned these deep-seated societal beliefs in the spirit of emerging Western principles of tolerance and reason. Instead of blaming God, Rousseau blames the critical infrastructure of Lisbon: 'nature never assembled there twenty thousand houses of six or seven stories high; and that, if the inhabitants of that great city had been more equally dispersed, and more lightly lodged, the damage would have been much less, and perhaps none at all' (1756, cited in Hyland, Gomez and Greensides, 2003: 76–77). Whether it is the questioning of fundamental beliefs during the Enlightenment period or venturing astrological hypotheses, this example draws attention to the importance of the contextual environment and how society interprets and understands disasters as well as highlighting the particular values society upholds as sacred. Mystical explanations for earthquakes are no longer referred to as 'hidden thunders, belched from the underground' (Voltaire, 1756, cited in Hyland, Gomez and Greensides, 2003: 80) or the alignment of planets; rather, a scientific explanation is espoused based on the friction between, or movement of, tectonic plates. The introduction of scientific laws and the celebration of reason that began in the Enlightenment period have thus developed into an entirely different conception of the meaning of disasters as well as the object of protection (see Chapter 5 on the 'scientization' of DRM).

This historical interlude provides a useful illustration of the ideational fissures that were changing normal conceptions on the way in which people understood and reacted to natural disasters. This inherent sociological nature of natural disasters means that different perceptions and meanings are attached to natural disasters throughout history. It is a contingent rather than a static social phenomenon. Thus, one ought to bear in mind that the referent points of protection discussed above are contingent on the current global context where the value of life, property, the economy and the environment are semi-permanent fixtures that may or may not be prioritized in the future. The contingent nature of these standardized values is an important point that is often forgotten when analysing world cultural scripts that tend to be artificially suspended in an ahistorical context.

## Variation

The above description on the content, concepts and values of regional DRM clearly demonstrate a highly standardized and global policy field. The language used, goals espoused and values promoted all reflect a homogenized system or global model. However, there are also inconsistencies

and variation within this standardized field. In particular, the EU and the OAS exhibit more variation in their DRM programmes compared to the AU, SADC or LAS. For example, the standardized aspirations vis-à-vis the UN's Hyogo Framework Programme do not conform exactly to the DRM framework agreements of the EU, OAS, Mercosur and ASEAN. Furthermore, the terminology used by the EU contains a higher amount of variation compared to the majority of other regional organizations.

The main reason that can account for this variation is based on the capacity of each regional organization. If adopting the global DRM model affords states with increased legitimacy (as an additional feature of the modern state), developing regions will be more likely to follow the model more stringently than developed regions. After all, developed states are already well perceived as being part of a global community of norms, while developing states may be more inclined to follow a global model. Indeed, if the global DRM model is diffused primarily via international organizations, such as the UN and its various agencies (Finnemore, 1993), then it would be expected that relational diffusion would be more intense in developing countries that may be lacking basic DRM systems (see Chapter 5). This also means that 'categorical rules' do not 'conflict with the logic of efficiency' (Meyer and Rowan, [1977] 2009: 103). That is, if there are few technical DRM activities that would come into conflict with generalized rules, there would be less variation in adopting the DRM model. Conversely, if there are existing technical activities, then it may be more difficult to reconcile the conflict between the 'underlying self' and 'enacted agency' (Meyer and Jepperson, [2000] 2009: 123). That is, the tensions between the state as an entity that aims to enhance the socio-economic well-being of its citizens on the one hand, and conforming to global standards on the other.

Figure 4.1 depicts ten regional organizations according to their average Human Development Index (HDI) that is divided according to the general cut-off points between low and very high development.[13] Based on a country's average level of health, knowledge and income, the HDI provides a general indication of a country's relative development status. The HDI values of the ten regional organizations largely conform with the argument presented above. That is, 'very high' developed regional organizations – the EU and the OAS – tend to exhibit more variation than less developed regions (the outlier, PIF, can be explained by the membership of Australia and New Zealand, which increases PIF's average HDI value). At the other end of the scale are CARICOM, AU and SADC that exhibit a high degree of standardization. It should be noted that CARICOM has shown considerable variation before 2005. As described in Chapter 2, it

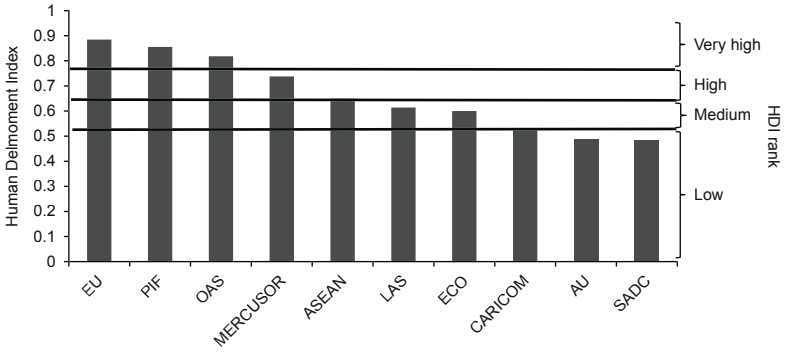


*Figure 4.1* Average regional HDI values, 2000–2007
*Source*: UNU-CRIS RIKS (2011).

created a DRM programme already in 1991 – roughly a decade before a majority of other regional organizations produced similar forms of cooperation – that expressed different content and concepts (see CARICOM, 1991). CARICOM was most likely first motivated more by its own 'underlying self' (as an association of states that aim to maximize its socio-economic profile) than 'enacted agency' (conforming to global norms). This early innovation in regional DRM is explained by the particular severity of economic damages produced by natural disasters compared to the other regional organizations (see Table 4.1). However, as the global mode on DRM has become increasingly diffused and reinforced, CARICOM has come in line with the global standardized model on DRM (see CARICOM, 2005) along with Mercosur, ASEAN, SADC and ECO.

An additional explanation for variation is the roles played by regional and international organizations. The EU, for example, can be explained by its role as an 'enactor' and a 'carrier' of the global DRM model, whereby it actively promotes the model to other states, organizations and institutions (see Buhari-Gulmez, 2010: 266). An analysis on the various roles of regional organizations vis-à-vis the international community is an important feature that explains how the global model on DRM can be diffused, which is explained in greater depth in Chapter 6.

## Summary

A majority of regional organizations have established particular forms of cooperation in preventing, preparing and responding to natural disasters since the beginning of the 21st century (Chapter 2). This chapter describes

the global standardization of these regional DRM programmes. A review of the various regional framework agreements on DRM reveal that the goals and aspirations, terminology and language, and referent points of protection are remarkably similar, if not identical, in regions as diverse as the AU and the PIF. All regional organizations express a common motivation for cooperating on regional DRM that transcends its functional roots; all regional organizations refer to external agencies in order to legitimize DRM cooperation; a majority of regional organizations use the same DRM terminology (derived from a common source); and the reference points of protection that establish the fundamental reason for DRM cooperation are identical across all ten regional organizations. These features provide substantial evidence for the claim that there is indeed a standardized 'set of cultural rules' elucidated in regional DRM agreements that 'give generalized meaning to social activity and regulate it in a patterned way' (Meyer, Boli and Thomas, [1987] 2009: 85). Formed from an external structure rather than local demand, this global DRM model conditions the way in which states cooperate on DRM through regional organizations. While there is some variation – particularly with the case of the EU – this can be generally explained by the extent to which the 'underlying self' or 'enacted agency' dominates an association of states, which is affected by the capacity of each regional organization.

The UNISDR is identified as the main source of a global DRM model that dictates the appropriate rationalized behaviour for regional DRM cooperation. The booklets on DRM terminology and the establishment of the HFA stand out as particular referent points for standardized behaviour. This chapter also introduces the idea of rationalized DRM that is produced through the emulation and acceptance of a 'common category'; that is, the supposed increase in economic damages caused from natural disasters as the primary motivator for cooperating on regional DRM. However, as the actual costs (adjusted for inflation) per region have not increased significantly, it would appear that a concern for a global strategy for resilience via regional organizations is a rationalized norm. This means that while there is nevertheless a potential role for regional organizations to improve the resilience of its member states, the implementation of its goals are secondary to enacting them through words rather than deeds. The following chapter elaborates on the UN and the international community's contribution to the diffusion and reinforcement of the global DRM model in order to better understand this global standardization and why it has been so influential on regional cooperation.

# 5
# International Organizations and Norm Diffusion

This chapter describes how and why regional DRM cooperation has become highly standardized across the globe through the diffusion practices of international organizations and reflects on the consequences this has for the perceived role of regional organizations as disaster managers. If norms are 'collective expectations about proper behaviour for a given identity' (Jepperson, Wendt and Katzenstein, 1996: 54), then the diffusion of norms is when these collective forms of appropriate behaviour are 'communicated through certain channels over time among the members of a social system' (Rogers, 1983, cited in Strang and Meyer, [1993] 2009: 136–137). One of the most important entities that drive this process for regional DRM is the United Nations Office for Disaster Risk Reduction (UNISDR). Acting under various titles this agency has organically evolved over the last half century into a leading global advocate that advances a particular form of DRM known as Disaster Risk Reduction (DRR).[1] Of course, the UNISDR does not stand alone but is mutually supported by a league of other international organizations that have increasingly targeted regional organizations as a medium to influence state-based DRM capacities and establish a common global model within regional organizations.

The first part of this chapter adopts a holistic approach on norm diffusion by quantitatively examining and locating *what* entities are diffusing the global DRM model. In particular, it surveys the historical growth and geographical distribution of international organizations over the last century. It reveals that the creation of international organizations involved with DRM first emerged in Europe and the US around the beginning of the 20th century and proliferated globally during the late 1970s and 1980s. The figures also suggest a strong correlation between this global proliferation of organizations and the global rise of regional DRM in the late 1990s and 2000s.

The second part of this chapter takes a more fine-tuned approach by examining *how* the global DRM model is diffused via relational and cultural links. The former is defined by intersubjective exchange between organizations. Here, diffusion takes place through inter-organizational coordination, which becomes particularly apparent when DRM-related organizations exchange ideas through institutionalized 'arenas of diffusion', such as global platforms and world conferences. The relational mechanisms used by international organizations to diffuse the DRM model include the promotion and coordination of education and training initiatives as well as simplified agenda setting at world conferences. Cultural diffusion is concerned with how an individual or organization is connected to a global model through a common social category that provides the foundations for diffusion (Strang and Meyer, [1993] 2009: 139). For example, the common social categories of science (in the form of climate change) have been increasingly connected to global DRM, which has had the effect of increasing the legitimacy of the DRM model that, in turn, assists in greater diffusion.

## The global expansion of DRM

The diffusion and reification of global models is often achieved through organizational networks and the interaction between international and non-governmental organizations such as the Red Cross, the UN, and the International Court of the Environment (Meyer and Rowan, [1977] 2009: 95). Acting under the assumption that international organizations are the main, albeit not the only, carriers of global models, the following pages first make the case that a correlation between the rise of DRM-related networks and the emergence of regional DRM exists. Second, it identifies when DRM became a global phenomenon and locates the original geographical source of transnational advocacy on DRM within Europe. Third, it identifies the most prolific organizations that propagate the global DRM model, which include the UNISDR, the EU and the International Federation of Red Cross and Red Crescent Societies.

### The growth of DRM organizations

As we observed in Chapter 2, cooperation on regional DRM began slowly since the mid-1970s. However, since the late 1990s the number of regional DRM programmes and the level of cooperation on DRM rose dramatically. If international organizations are the main carriers of a global DRM model (Meyer and Rowan, [1977] 2009: 95), it would be expected, at a minimum, that a league of international organizations existed prior to the emergence of regional DRM. A preliminary indication

of this assumption is displayed in Figure 5.1, which depicts the growth of DRM-related international organizations over the last century.

According to the Yearbook of International Organizations (YIO) the number of organizations operating in the field of emergency and disaster relief has grown significantly in the last half century. Based on the keywords 'emergency' and 'disaster' the YIO database identified a total of 429 organizations.[2] Between the creation of the International Committee of the Red Cross in 1863 and the Emergency Economic Committee for Europe in 1945, a total of 15 organizations emerged.[3] By 1967, the number of organizations expanded to 50, doubled within a decade, and continued to climb towards 200 at the end of the Cold War, and then 300 at the turn of the century. For a period of approximately two decades, between 1978 and 2000, at least five new organizations emerged each year. The most intense period of organizational growth was between 1988 and 1994, when 87 organizations were established within six years. After 1994, the number of new DRM organizations has slowly declined, which means that the expansion of DRM organizations has since plateaued.

The existence and spread of these organizations provide an important medium through which the DRM model can be diffused. Indeed, a strong correlation can be made between the rise of DRM organizations and regional DRM cooperation. The stark increase in disaster and emergency relief organizations, beginning in the mid-1970s, correlates with the nascent level of regional cooperation on DRM that was identified in Chapter 2. The intense period of DRM organizational growth in the 1990s also precedes the surge of more advanced regional DRM cooperation in the 2000s. This finding also aligns with world society's claim that when the quantity of networks that adopt and transmit a global model increase, then the number of rationalized myths will also increase (Meyer and Rowan, [1977] 2009: 95; see Boli and Thomas, 1999).

**Geographical representation of DRM organizations**

The geographical origins of DRM-related international organizations are predominantly European and North American as roughly 75 per cent of the total number of organizations has a transatlantic genesis. Figure 5.2 displays the percentage of DRM organizations that have emerged in the last century according to their geographical origins. The data was sourced from the YIO, where a standard search was entered into the database for all organizations that use the keyword term 'emergency' or 'disaster'. Out of approximately 429 organizations, 244 provide their date and place of origin. These organizations are then grouped according to major world regions.

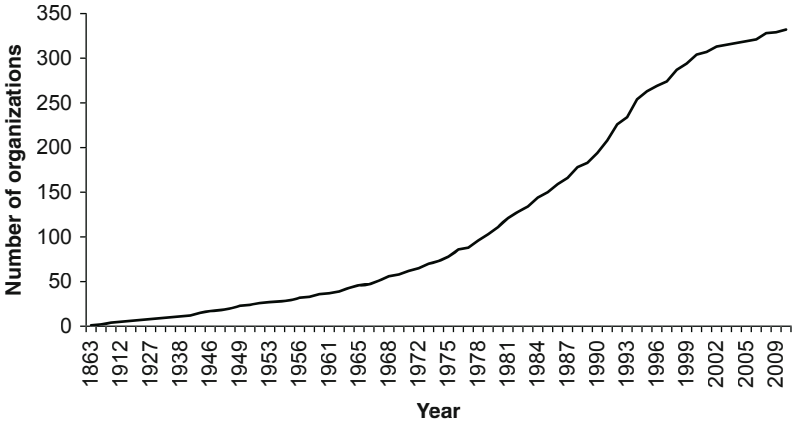


*Figure 5.1* Growth of IGOs and INGOs in the field of emergency and disaster relief and the emergence of advanced regional DRM: 1863–2009
*Source*: YIO (2010).

The geographical-based quantity of DRM organizations is clearly dominated by Europe (predominantly in Belgium, France, Switzerland, Italy and the UK) and the US, which together provide the geographical hub of global DRM. According to world society theory, this division is not surprising as the world script is essentially a Western-based script (Meyer and Jepperson, [2000] 2009: 115; see Buhari-Gulmez, 2010: 258–259). Thus, while DRM may be global, it is decidedly transatlantic.

Europe is also the location of some of the first international organizations related to DRM. Most notably, the establishment of the Red Cross in 1863 reflected an institutionalized form of a 'humanitarian sensibility' that had been gaining ground over the previous century (Haskell, 1985a, 1985b). The prestige and number of Red Cross societies quickly increased throughout Europe in the late 19th century and began to extend beyond its borders. By 1900, Red Cross societies could be found in the US and other countries in the Western hemisphere (Ibid: 8). The Red Cross was not, however, the only relief organization that emerged at this time. A series of horse ambulance services was established in the US from 1869, Sir John Furley formed the St John Ambulance Association in 1877, Baron Friedrich von Esmarch established the *Sameriterverein* in 1882 and the Royal Life Saving Society was established in 1891 (Hutchinson, 1997: 158). Another important pre-World War II development worthy of note was the establishment of International Relief Union (IRU) through the League of Nations in 1927. This is the first known intergovernmental

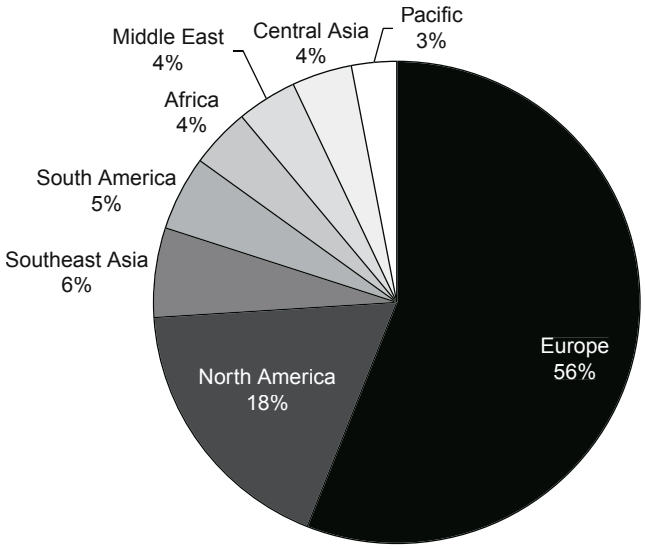


*Figure 5.2* Geographical-based quantity of DRM organizations, 1863–2009
*Source*: YIO (2010).

organization that specifically dealt with emergency relief. This initiative was designed to offer assistance to civilians affected by natural disasters as well as to provide the grounds for a 'scientific study of the causes of natural calamities, with the view of counteracting or limiting their effects' (Nature, 1940).[4] Notwithstanding these important developments, international DRM organizations were generally confined to Europe and the US and the number of organizations were relatively low.

Table 5.1 allocates the geographical distribution of DRM organizations according to the period in which they emerged. When one or more organization from a geographical region emerges an X is entered on the corresponding row. Europe and the US are clearly the main protagonists for the diffusion of regional DRM across the globe, which began in earnest in the 1970s. Until this period, DRM organizations were generally confined to Europe with the exception of some networks that emerged in the US and one in Jordon, New Zealand and the Philippines. This dramatically changed in the 1980s, which is orthogonal to the rapid increase in the quantity of DRM organizations, where all regions experienced the creation of new DRM organizational structures. The last decade has seen a slightly lower geographical spread suggesting that the expansion of DRM is beginning to plateau.

*Table 5.1* Geographical distribution of DRM organizations, 1863–2009

| | Europe | North America | South America | Southeast Asia | Africa | Middle East | Central Asia | Pacific |
|---|---|---|---|---|---|---|---|---|
| 1863–1909 | X | | | | | | | |
| 1910–1919 | X | X | | | | | | |
| 1920–1929 | X | | | | | | | |
| 1930–1939 | X | | | | | | | |
| 1940–1949 | X | X | | | | X | | |
| 1950–1959 | X | X | | | | | | |
| 1960–1969 | X | X | | X | | | | X |
| 1970–1979 | X | X | X | X | X | X | X | |
| 1980–1989 | X | X | X | X | X | X | X | X |
| 1990–1999 | X | X | X | X | X | X | X | X |
| 2000–2009 | X | X | X | X | X | X | | |

*Source*: YIO (2010).

This geographical analysis is useful for locating the general source of the global DRM model and also illustrates when DRM became a global phenomenon. The following empirical analysis now examines the connections made between networks in order to identify which organizations have been most prominent.

### The DRM network

A majority of organizations operating in the field of DRM have formal and informal inter-organizational links. These include, for example, MoUs, financing schemes, cooperative partnerships, affiliations, active or preparatory participation, and observer, consultant or supervisor status, or when an organization is instrumental in setting up another organization.[5] These links are understood as a necessary part of the intersubjective activity that promotes and reproduces the DRM model. However, this interaction is not evenly distributed across all DRM organizations. Instead, some organizations are linked to more networks than others. The higher the number of links registered to the same organization, the more potential influence that organization will be.

Table 5.2 lists the number of links each organization has according the YIO. This provides an indication of who the most prominent actors may be in diffusing and advocating DRM. For reasons of parsimony, subsidiary bodies or agencies of large organizations, such as the IFRC, the EU, and the UN, have been grouped together under their principal names. Thus, ECHO is classified as EU and UNISDR is classified as UN. The results demonstrate that the UN is the major transnational actor which has 236 connections to or from DRM organizations. Other important organizations include the

*Table 5.2* Number of network links between international organizations involved with 'emergencies' and 'disasters', 2011

| International/regional organization | Number of links |
|---|---|
| United Nations and associated agencies | 236 |
| European Union | 73 |
| International Federation of Red Cross and Red Crescent Societies | 44 |
| Council of Europe | 35 |

*Source*: YIO (2010).

EU with 73 connections, the IFRC with 44, and the Council of Europe with 35.

If international organizations provide the primary medium for transporting a global model, it would be expected that they are not only active in creating links but also a select few will be referenced by other organizations, whereby legitimacy is conferred by a perceived authority in the field. Disaggregating the data according to this logic reveals that many organizations tend to reference ten or more links to other organizations yet relatively few receive more than ten references. The top six organizations that received the most references according to the Yearbook of International Relations are displayed in Table 5.3. The most referenced set of organizations in descending order include the UN, the EU, IFRC, WHO, WFP and VOICE.[6] The number of referenced connections to the UN is 130, which clearly outweighs references to the other five organizations that range between 67 (EU) and 20 (VOICE).

This quantitative review not only highlights the most prolific international organizations that work in the field of DRM but also reveals a highly complex international DRM community. While the following analysis has a bias towards some of the most active organizations – UN agencies, the EU and the IFRC – this community, to be sure, is an intricate, dynamic and multifarious phenomenon. It also contains its share of tensions and disputes, such as conflicting views on international relief coordination, between aid and development strategies for reducing vulnerability, and differences of impartiality and the politics of DRM (Hannigan, 2012: 36).[7] The reader should keep in mind that the theoretical lens used in this chapter – world society theory – tends to prioritize similarities over differences, meaning that much of this complexity is overlooked. This is not considered a weakness of the theory; rather, it reveals the general characteristics of all theory as abstractions from reality. World society theory is used because it helps to identify general patterns of diffusion within this complex environment.

*Table 5.3* Most referenced international organizations involved with 'emergencies' and 'disasters', 2011

| International/regional organization | Number of links |
|---|---|
| United Nations and associated agencies | 130 |
| European Union | 67 |
| International Federation of Red Cross and Red Crescent Societies | 29 |
| World Health Organization | 29 |
| World Food Programme | 19 |
| Voluntary Organizations in Cooperation in Emergencies | 17 |

*Source*: YIO (2010).

## Relational diffusion

The previous section described the emergence of a large number of DRM-related international organizations in the last quarter of the 21st century and found that the UN is one of the most authoritative organizations involved with DRM. This section delves into *how* the UN and other organizations have diffused a particular DRM model across the globe through intersubjective exchange. The following accordingly analyses the history of the UN's involvement in DRM, as well as other international organizations, in order to show how the international community spreads DRM norms. In particular, this section reveals how the DRM community has explicitly targeted regional organizations as an important target of global DRM advocacy.

Relational diffusion is divided into two general categories. The first is through the inter-organizational coordination of disaster reduction and relief efforts. The second is through the creation of regional and global arenas that facilitate the propagation and construction of the global DRM model. Table 5.4 summarizes the two categories of relational diffusion and the various diffusion mechanisms used by the international community. A review of these general categories also helps to shed light on the various mechanisms of diffusion used by the international community, which include: the production of manuals and education material as well as simplifying global agendas.

### Inter-organizational diffusion

Contemporary inter-organizational cooperation can be traced back to at least the creation of the League of Nation's International Relief Union (IRU) in 1927. Its first meeting in 1932, for example, included the League of Red Cross and Red Crescent Societies, the Sovereign Order of Malta,

the International Institute of Agriculture and the International Labour Organization (Macalister-Smith, 1985: 20). Over the last 60 years the UN has continued this tradition by fostering DRM cooperation through interrelational modes of exchange. Like the IRU, the UN's promotion of inter-organizational cooperation on DRM does not appear to be the result of any strategic or explicit decisions by UN practitioners, but rather a functional response to deal with a recurring problem with few capacities. This has increasingly involved regional organizations as receivers of DRM norms; however, more recently some regional organizations such as the OAS and the EU have also become diffusers of regional DRM.

UN-based inter-organizational cooperation on DRM began with the Palestine conflict in 1947 and the worldwide food shortage that gripped the attention of the newly formed organization.[8] These events motivated the UN's first efforts in disaster relief. In May 1948, a committee of the assembly appointed Count Folke Bernadotte as the UN mediator on Palestine. Two months later, Bernadotte initiated a disaster relief project to protect the Arab and Jewish refugees from the approaching winter as well as from famine and disease (UN, 1948–1949: 200). This initiative was later replaced by the UN Relief for Palestinian Refugees (UNRPR), which signed cooperation agreements with the International Committee of the Red Cross, the League of Red Cross Societies, and the American Friends Service Committee as well as an arrangement with UNICEF (Ibid). Within the framework of this relief project, Bernadotte appointed a Director on Disaster Relief whose headquarters would be in Beirut through the collaboration of LAS and the government of Lebanon. The director was also assisted by a Chief Medical Officer from the World Health Organization (WHO), a Chief Supply Officer from the International Refugee Organization (IRO), a Director of Field Operations and a supervisor field medical officer from the International Rescue Committee (IRC) (UN, 1947–1948: 312).

Cooperation with regional organizations thus began at an early stage. Three years after the UN's first efforts on disaster relief in 1948, the UN awarded LAS and the OAS observer status in the UN's Economic and Social Council (ECOSOC) (UN, 1951: 68) where discussions and decisions on DRM are undertaken. This inter-organizational coordination would, at least, have given the newly formed regional organization an ongoing comprehension and knowledge of the evolving DRM activity within the UN.[9]

UN activity in Palestine was followed by intermittent relief aid in the 1950s. Some examples include UNICEF's assistance to the 1950 Ecuadorian earthquake (UN, 1950: 690), the 1954 flood in Iraq, and

*Table 5.4* Categories of relational diffusion

| Categories | | Examples |
|---|---|---|
| Inter-organizational diffusion | Global networks of 'necessity' | IRU meetings, Middle East disaster and relief project |
| | Bilateral regional support | Pan-Caribbean Disaster Preparedness and Prevention Project, Tropical Cyclone Committee for the South-West Indian Ocean, SADC action plan |
| Arenas of diffusion | Global and regional platforms | UNISDR Global Platform for DRR, regional platform for Africa |
| | World conferences | UNCED, Yokohama, Hyogo, Rio+20, HFA2 |

the Chilean earthquake in 1960 (UN, 1960: 248, 430).[10] Attention to natural disaster relief developed until it became an annual occurrence in 1964.[11] By the early 1970s, UN disaster relief activity spanned the globe, from Bangladesh, India, and Lesotho to Haiti, Afghanistan, Nepal and Costa Rica (UN, 1979: 941). With the release of a DRM report by the Secretary-General in 1971, the objectives of the UN also widened to include prevention, control, prediction, planning, preparedness, rehabilitation and reconstruction. Cooperation now shifted from disaster relief to DRM.[12]

In conjunction with the geographical spread and number of DRM organizations that began to emerge on a global scale in the 1970s, the UN took measures to accelerate worldwide coordination on DRM. In 1974, the UN noted that due to the general 'lack of adequate worldwide co-ordination' in the area of disaster relief, the UNDRO was in a 'unique position … to provide a global system of mobilizing and co-ordinating disaster relief, and that this capability should be strengthened as a matter of priority and urgency' (UN, 1974: 588). The institutionalization of this global vision for DRM began to materialize in 1975 when the Council requested that the UNDRO and other UN bodies and relevant organizations begin to prepare an international strategy for disaster prevention.[13]

During this time, the UN also contributed to providing expert advice and technical assistance to regional organizations (UN, 1979: 942; 1980: 973). For example, a fact-finding mission was sent to seven Andean countries in order to implement a regional project on DRM and support intra-regional assistance (UN, 1974: 582). Plans for a pan-Caribbean DRM project were also evolving in the late 1970s and finalized in 1981.

The following year, the UNDRO established an emergency telecommunications network in the Caribbean region and handed over the administrative responsibilities of the regional programme – the Pan-Caribbean Disaster Preparedness and Prevention Project – to CARICOM in 1983 (UN, 1981: 484; 1982: 714–715; 1983: 533). The UNDRO continued to closely support this effort. In the following year, it sent two full-time experts on emergency telecommunications to the region and organized seminars, workshops, training programmes, simulations and support for disaster plans. These efforts aimed to support and create national emergency offices. By the end of 1984, a total of 23 out of the 28 member states had national programmes on disaster preparedness and prevention (UN, 1984: 521). This insight may help to explain why CARICOM created an advanced form of DRM cooperation in the early 1990s compared to a majority of regional organizations that began to cooperate in operational activities near the end, and after the turn, of the century.[14]

The Caribbean region was not the only region to receive assistance. Global DRM activity in the 1980s involved a considerable amount of training and education from the UN to regional organizations and states. In 1984, for example, the UNDRO participated in or sponsored regional-based programmes, such as the Tropical Cyclone Committee for the South-West Indian Oceans, a seminar on disaster preparedness in the South-West Pacific, flood management in Asian countries, a disaster training programme for South Asian countries, a disaster experts meeting in ASEAN, a regional seminar on disaster preparedness, a regional training seminar for the South-West Indian Ocean, DRM assistance to Southeast Asia and India, and a regional meeting with the OAU, and it supported the Balkan region's creation of a permanent International Governmental Committee for Earthquake Risk Reduction (UN, 1984: 520–521, 533; 1985: 547). By 1985, the UN's regional-based action was officially recognized: increasing emphasis was to be placed on 'regional approaches and methods to solve problems related to disaster prevention' (Ibid).[15] Since Yokohama, the UN has continued to promote DRM in regional organizations, which has been more recently streamlined into DRR-based advocacy since the late 1990s. As shown in more detail in the following section, the UN and other international organizations such as the IFRC and the World Bank use an array of different diffusion mechanisms to promote DRM across the globe.

As a sign of the UN's increased involvement and authority as an agent of DRM norms, the UNISDR has been proactive in supporting bilateral links in many regional organizations. For example, the UNISDR signed an MoU with ECO setting out 'modes of cooperation' on DRR in 2007;

the SADC multi-sectoral disaster management strategy was financed and co-authored by the UNDP (UNDP, 2001); the PIF's Madang DRR framework was financed and drawn up by SOPAC, which has strong links to the UN and the EU (SOPAC, 2010); LAS signed an MoU with the UNISDR in 2008 (El Mallah, 2011a); and the LAS strategy for DRR was developed in collaboration with the UNISDR regional office, UN agencies, the World Bank, IFRC and civil society (UNISDR, 2011a). Ongoing support and continual integration of UN-based DRR in regional organizations have also seen the establishment of, inter alia, a Memorandum of Cooperation (MoC) on DRR with ASEAN, the UNISDR, and the World Bank in 2009; a joint declaration on DRM with ASEAN in 2010; the creation of a regional supply hub in Malaysia; the exchange of letters between OCHA and the EU on disaster response; and cooperation agreements with the OAS. These and other initiatives are furthermore supported by ISDR regional offices for Africa, the Americas, the Arab states, Southeast Asia and the Pacific, and Europe.[16] It is worth noting that the EU and select states are also beginning to participate in similar endeavours such as the Swedish Civil Contingencies Agency cooperation with SADC or ECHO's proactive involvement in diffusing DRR strategies to other states (see Commission, 2009; Jönsson, 2010).[17]

This brief historical description serves to illustrate that from an early stage of the UN's history its operational practice in the area of disaster relief has been transnational. That is, risk reduction and disaster relief cooperation included regional organizations, UN agencies and INGOs such as the Red Cross. From the UN's point of view this was a novel approach: 'The programme for the United Nations Relief for Palestine Refugees (UNRPR) represented a new type of organization in the Secretariat in that, with a view to the greatest economy and dispatch, it utilized the machinery of existing disaster relief agencies and the facilities of the appropriate specialized agencies' (UN, 1948–1949: 161). While this may not have been entirely novel it did set an important precedent in the newly formed organization that was critical for the later diffusion of DRM principles. As the previous section on organizational 'links' highlights, the inter-organizational role of the UN has since expanded to include a large number of networks that are now a common feature of global DRM.

Of course, the UN is not the only organization that promotes DRM. The Global Facility for Disaster Reduction and Recovery (GFDRR), the IFRC, and a host of other NGOs and states are also important advocates of DRM. The IFRC, for example, has created and disseminated 'Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance' (IDRL Guidelines) and a

supplementary 'Model Act' to guide states on legal preparedness issues for international response operations (IFRC, n.d.). The establishment of these IDRL tools is supported by a number of international and private organizations, such as Microsoft, the World Customs Union, OCHA, the Inter-Parliamentary Union and Baker and McKenzie (Ibid). The GFDRR is a partnership of 41 states and 8 organizations, including the World Bank; UNDP; UNISDR; IFRC; EU; the African, Caribbean, and Pacific Group of States (ACP); the Islamic Development Bank; and the Arab Academy for Science, Technology and Maritime Transport. In line with the HFA priorities one of the main goals of the GFDRR is to 'enhance global and regional advocacy, strategic partnerships, and knowledge management for mainstreaming disaster risk reduction [and to] promote the standardization and harmonization of hazard risk management tools, methodologies, and practices' (GFDRR, 2014).

While the international community is conducting an increasing amount of activity on DRM, this is not yet reflected in terms of the overall financial commitment from states and organizations on DRM. In the last 20 years, from 1990–2010, the percentage of development funds that have been spent on humanitarian aid, relief and reconstruction, and disaster preparedness and prevention amounts to USD 160.66 billion, which represents 0.005 per cent of total development aid provided during the period (USD 3.1 trillion). Furthermore, when DRM-based funding is broken down, only six per cent of DRM funding went to prevention and preparedness programmes (AidData, 2014). In other words, a very small amount of funding is invested in strengthening the resilience of states and their communities. Some of the major donors include the EU, the US, Japan, the World Bank and the Asian Development Bank (Kellett and Caravani, 2013).

Of particular interest is the emerging role of the EU as not only a receiver but also a diffuser of DRM.[18] The clearest indication of this expansion is the 2009 Commission communication to the Council and European Parliament on an EU strategy for supporting DRR in developing countries. This document explicitly complements and builds on the Hyogo Framework Programme for Action (HFA) goals and the UNISDR mandate by: emphasizing the importance of focusing on regional organizations; reducing duplication of member states' national DRR programmes; integrating Disaster Risk Reduction principles in EU development and humanitarian aid policies; and 'support[ing] developing countries in integrating DRR considerations into their development policies and planning effectively' (Commission, 2009: 5). The methods for achieving these goals are achieved through the dissemination of DRM knowledge via national

media, the publication of primary education material and training initiatives to 'empower people to protect themselves' and to build a 'culture of safety and resilience at all levels' (Ibid: 8). Plans to set up DRR networks in disaster-prone countries and to expand inter-organizational exchange with NGOs and civil society are also prioritized (Ibid: 11).

Recent decisions and initiatives give further support to the external goals of the EU. The 2011 Council Conclusions on the External Cooperation on Critical Infrastructure Protection, for example, invites member states to 'share information and good practice with other Member States and the Commission on developing close cooperation with relevant third countries in the field of critical infrastructure protection' (Council, 2011b: 7(e)). ECHO's Humanitarian Implementation Plan (HIP) for 2012 also addresses DRR, which aims to:

> strengthen local capacities in risk management and disaster preparedness, preparation/revision of contingency plans, enhancing the equipment of local preparedness committees for disaster response, mitigation works to protect vital infrastructures. (ECHO, 2012: 4)[19]

Two main conclusions can be gleaned from the overview of the international DRM community. First, the functional requirement to assist with little capacity (see UN, 1964: 390) has meant that the UN has naturally used existing relief agencies to support its DRM aims. Such participation provides a natural outlet for dialogue and the transference of ideas between agencies, states and regional organizations. At the very least, these *networks of necessity* have formed a habitual and effective practice of inter-organizational cooperation that provides the possibility for the diffusion of ideas through operational practice and dialogue. Second, bilateral support to regional organizations provides a complementary avenue for the exchange or transference of ideas through technical support and facilitating forums for learning. The expanding role of the UN in DRM also includes the facilitation of 'arenas of diffusion' that have an important means for diffusion and deliberation.

**Arenas of diffusion**

Large international organizations are understood as a mechanism through which global models can be constructed and diffused by providing a forum for the interaction of states (Lechner and Boli, 2005: 84–88).[20] Examples of these forums include UN world conferences on the environment, major contemporary art exhibitions, and even the football World Cup (Ibid).[21] These arenas are often accompanied by a

large number of IGOs and professionalized individuals that can generate 'models of legitimate goals and putative "best practices"' as well as the capacity to carry or propagate the script (Schofer et al., 2004). The UN has increasingly supplied and financed specific arenas where the diffusion of a global DRM model can accelerate through intensive moments of dialogue. When major global sites of interaction are facilitated the contents of the global DRM model can also be mutually adjusted and further institutionalized (see Lechner and Boli, 2005).

The first world conference on DRM was held in 1994 in Yokohama, Japan. The outcome of this conference produced a general strategy that reiterated the need for states to adopt comprehensive DRM procedures. This is the first institutionalized expression of a global DRM model that was designed by the international community. However, it should also be noted that the 1992 UN conference on Environment and Development (UNCED) and the release of Agenda 21 action plan marked an important step towards harnessing global commitment. While Agenda 21 is focused on sustainable development, many of the issues raised in the conference and subsequent meetings (Rio+5, Rio+10 and Rio+20) are clearly related to vulnerability and natural hazards, such as urbanization, climate change and population growth. The Yokohama conference and its succeeding conference in Hyogo ought to be seen within these broader global and overlapping issues.

The second world conference included a large number of practitioners and state representatives who collectively produced the HFA.[22] The HFA includes five targets that states, and regional organizations, have agreed to achieve by 2015. The HFA targets provide the main impetus for the UNISDR to promote, advocate and set mid-term goals for regional organizations and states. The UNISDR Task Force has consequently set up national platforms, established reviews and evaluation studies, workshops, conferences and working groups. (UN, 2005: 1017).[23] These initiatives are important because they provide further sites for the diffusion of the global DRM model.

In addition to these arenas of diffusion, the UN organizes global, regional and national platforms for Disaster Risk Reduction (DRR) that are designed as sites for the exchange of information and proposals for new DRM initiatives (UNISDR, 2012a). Some examples include the UNISDR Thematic Platform on Knowledge and Education and the Africa Platform for DRR. These arenas are understood to have developed out of earlier regional fora from the 1990s, such as regional symposia on IDNDR, regional roundtables on DRM, and international conferences (UN, 1991: 411; 1995: 939; 2000a: 882). These and other arenas of diffusion provide

important sites for the UN to encourage states to strengthen regional capacities, which seem to be taking effect. In the 1994 UN yearbook it was noted that: '[a]t the regional and subregional levels, countries facing the same threats were urged to strengthen cooperation by establishing subregional or regional centres for disaster reduction and prevention; strengthen regional and national capacities to reduce natural disasters; and establish mutual assistance agreements and joint projects for disaster reduction' (UN, 1994a: 851). A similar message was reiterated in the 'Yokohama Strategy and Plan for Action for a Safer World' (UN, 1994b) and again in the second world conference a decade later (see UNISDR, 2005: 2; UN, 2005: 1017). By 2007, regional organizations were making concerted efforts to adopt DRM procedures in accordance with the goals set out in the HFA. ECOWAS approved the subregional policy and mechanism for DRR; the AU released the Africa Regional Strategy for DRR; and the Coordination Centre for the Prevention of Natural Disasters in Central America reissued its Regional Strategy for Disaster Reduction 2006–2015 (UN, 2007: 948).

The facilitation of arenas of diffusion by the UN and other organizations provides the preconditions for the diffusion of the regional DRM model. In addition to this, global conferences also provide the conditions for the (re)construction of DRM norms that are then disseminated to states and regional organizations. The current normative environment that upholds DRM cannot be readily imagined without the proactive role of the UN in orchestrating inter-organizational cooperation and the facilitation of global sites of exchange.

**Mechanisms of diffusion**

If inter-organizational coordination and arenas of diffusion provide the necessary conduits of diffusion, then through what means is the DRM model diffused? Based on the previous sections on relational diffusion, three specific diffusion mechanisms used by the international community are identified: intervention, agenda setting and 'manual making'. Table 5.5 provides an overview of these mechanisms and their sub-categories. To be sure, this is not an exhaustive account of all diffusion mechanisms, but rather an identification of the main forms in which ideas are diffused according to a review of international advocacy on DRM.

Intervention by the international community in regional organizations and their member states takes a number of forms. As we have seen, the international community has been fairly active in providing technical assistance to regional organizations, such as the establishment of an emergency telecommunications network in the Caribbean region by

the UNDRO, and more recently, technical assistance to ASEAN's AHA Centre through the support of Australia, Belgium, Japan, New Zealand, USA, the EU and the UN family (AHA Centre, 2013). Beyond such technical support, the international community has also been highly active in facilitating numerous workshops, conference, meetings and seminars on DRR to national and regional emergency management practitioners. This continual intersubjective exchange of (standardized) information is furthermore complemented by financial and administrative support to regional organizations in forming particular policies and strategies on DRM. This includes the UNISDR-ECO MoU on 'modes of cooperation'; the UNDP-SADC co-authorship of the SADC multi-sectoral disaster management strategy; the financing and drafting of the PIF's Madang DRR framework by SOPAC; and the development of the LAS strategy for DRR in connection with the UN agencies, the World Bank, IFRC and civil society organizations. These various forms of intervention are clearly driven by the international community, requiring little proactive participation by regional organizations. Combined, these forms of intervention complement one another and provide a continual source of information flow between the global and regional levels of DRM cooperation.

Simplified agenda setting is an additional mechanism through which the DRM model can be diffused. The formation of rationalized institutional structures in the form of easily identifiable common goals helps to construct a standard recipe of DRM that is easily diffused. This was first done through the Yokohama world conference in 1994. Emerging out of the International Decade for Natural Disaster Reduction (IDNDR), a Scientific and Technical Committee was established (UN, 1989: 245). One of the first activities of the Committee was to recommend the organization of a world conference on DRM, which subsequently adopted a plan of action for the conference (UN, 1993: 741).[24] A long list of 18 recommendations for action was agreed upon at the conference that encouraged states to mobilize domestic resources, develop risk assessments and document disasters (UN, 1994b: 14–15). Unlike the outcome of the second world conference a decade later, the 'Yokohama Strategy and Plan of Action for a Safer World' provided few simplified categories that states could easily adopt. In contrast, the HFA reduced the number of recommendations to a set of five identifiable cultural categories in the form of simplified, stylized and standardized goals. Examples include: 'identify, assess and monitor disaster risks and enhance early warning' and 'reduce underlying risk factors'. These common categories are shorthand for the DRM model that is now highly institutionalized as a global concept. It is worth noting

*Table 5.5* Relational mechanisms of diffusion

| **Mechanism** | | **Examples** |
|---|---|---|
| Intervention | Technical | Establishment of early warning systems in the Caribbean |
| | Operational | Relief assistance, training and simulation exercises |
| | Information | Facilitation of workshops, meetings, seminars on DRR |
| | Policy | Financial and administrative support to regional DRM agreements |
| Agenda setting | Simplification | HFA targets |
| Manual making | Legislation | SOPAC guide to developing national action plans and IDRL guidelines |
| | Education | IFRC guide for public awareness and education |
| | Technical standards | Sphere Handbook |
| | Terminology | UNISDR terminology on DRR |

that it is during this period that regional organizations began to either adopt the new HFA agreement verbatim in conjunction with DRM cooperation or updated existing framework agreements, such as SADC, PIF, ECO, the AU and LAS.[25] Simplified agenda setting provides a suitable set of standardized goals that can be easily adopted into regional DRM policy prescriptions. This clearly supports the diffusion of ideas, which is supported by the various intervention methods discussed above and reinforced through the production and dissemination of manuals.

'Manual making' represents the third form in which DRM-based ideas can be diffused. International organizations publish a range of manuals, guides or reports on 'best practices' in order to encourage regional organizations and their member states to adopt a particular form of DRM. The UN, in particular, has been in the business of publishing such manuals for half a century (see UN, 1964: 390; 1982: 701; 1984: 521; 1991: 414). Other examples from the international community include: 'policy and practical guidelines' for mainstreaming gender issues in DRM (UNISDR, 2008, 2009d); best practices on flood management, knowledge sharing and emergency food security reserve management (EUPPRD, 2011; Malteser International, 2011); global best practices in housing construction (World Bank, 2010); and good practices in local disaster risk reduction (UNISDR, 2010b). Many of these reports are either complemented by, or are direct outcomes of, workshops hosted by the UNISDR. Other organizations that provide similar education initiatives and manuals of 'best practices'

include: the IFRC guide for '[p]ublic awareness and public education for disaster risk reduction'; SOPAC's guide to organizations on how to influence states to develop DRM legislation; and GFDRR's resettlement guide for populations at risk (SOPAC, 2009; Correa, 2011; IFRC, 2012).

A particular set of guides and handbooks that have been published and disseminated by the international community include primary and tertiary-level educational material. For example, in 2009 the UNISDR published a report on 'educational material for school earthquake safety: from guidelines to practices' (2009b). This document not only provides guidelines for the most appropriate type of student handbooks and workbooks to be used for fostering knowledge on earthquake resilience, but also recommends how earthquake drills should be carried out, how disaster safety plans ought to be formed, and what the essential items for an emergency utility kit ought to have (Ibid). Examples of other primary school documents from the UN and other international organizations include: 'Risk Reduction Methods: Disaster Reduction Handbook for Foundation Phase Learning (Grade 1–3)' (UNISDR AF, 2009); Tsunami textbooks from pre-elementary school to high school levels (IOC, 1997); and 'The A.B.C. of Cyclone Rehabilitation' (UNESCO, 1996). Higher education schemes also receive international support, such as a master of science in 'sustainability, development, and peace' at the UN University in Japan, or an Erasmus Mundus exchange programme in flood risk management (PreventionWeb, 2012a). To be sure, the promotion of educational initiatives is not new (UN, 1967: 584; 1987: 701; 2007: 943–964); however, the intensity with which these initiatives are being put into place does seem to be increasing.[26] UN efforts are of course complemented by a host of other organizations that are also active in the provision of DRM-based education material that include inter alia: the Red Cross, the International Institute of Earthquake Engineering and Seismology (IIEES), the Inter-Agency Network for Education in Emergencies (INEE) and the International Tsunami Information Center (ITIC) (PreventionWeb, 2012a). For at least two decades, countries such as Colombia, the US, Australia, Spain and Ecuador, have also created national handbooks for schools to foster basic knowledge on DRM (Ibid).[27]

A related initiative that has helped to increase the standardization of knowledge is the normalization of DRM terminology. This is defined as a process whereby the various concepts and definitions used for DRM are streamlined into standardized statements. For example, in 2009 the UNISDR published a booklet on the terminology of disaster risk reduction that defines a list of common terms, such as climate change, disaster, risk, and early warning system (UNISDR, 2009g). It is

also interesting to note that this document also includes terms that are exclusive to the institutional structure of the UN, such as 'national platform for disaster risk reduction', and introduces 'emerging' terms, such as 'prospective disaster risk management' (Ibid). In other words, the UN plays a strong hand in determining the appropriate language to be used, which has clear consequences for the social construction of DRM activities. Standardized multilingual projects on key terms and phrases on DRM were first developed in 1991 (UN, 1991: 414) and updated prior to the Hyogo world conference on DRR in 2004 (UNISDR, 2004b, 2009g). As we have seen, this has had a clear effect on regional DRM agreements (Chapter 4), which often use the same UN-based language. Other important booklets that present standards of appropriate behaviour include the 'Code of Good Practice', the 'Humanitarian Accountability Partnership Standard' and the 'Sphere Handbook' (Joint Standards Initiative, 2012).

As these educational programmes, guides and other knowledge-standardizing initiatives have been instigated by the international community from a fairly early stage, it is reasonable to conclude that this has helped to form common social categories of standardized knowledge on DRM (Meyer, [2001] 2009: 347).[28] However, the extent to which these standardized procedures have any 'sticking' potential at the local or community level remains an open empirical question, particularly if local norms and customs do not 'match' global prescriptions (see Acharya, 2004). Indeed, the use of simplified agenda setting may help to diffuse a particular DRM recipe; however, the implementation of these goals becomes difficult precisely because they do not contain particularities. This 'catch-22' syndrome is difficult to overcome and presumably creates favourable conditions for decoupling between global prescriptions and local perspectives. As Chapter 7 suggests, the outcome of these diffusion techniques tends to remain at the regional or state level whereby the importance of DRM is reified with words rather than action. While this section does not test the extent to which the various mechanisms of diffusion are successful, it nevertheless underlines some of the primary tools used to advocate DRM and draws attention to an increase in the use of these diffusion mechanisms by the international community and the standardized agreements produced by regional organizations.

## Cultural diffusion

Cultural diffusion is the 'cultural understanding that social entities belong to a common social category [that] constructs a tie between them' (Strang and Meyer, [1993] 2009: 139). When these cultural categories

exist, diffusion is more likely as there is a recognized similarity between different states. In order to tweak this argument towards the role of regional DRM, it is proposed that common cultural categories, such as societal values, knowledge and language, are conditioned by the international community into standardized features of DRM. Once these categories become institutionalized or taken for granted by states, the diffusion of regional DRM becomes more likely. It is furthermore posited that when these cultural categories are connected to a theorized pattern of explanation based on pre-existing global models, diffusion will occur rapidly. Theorization is understood as 'the self-conscious development and specification of abstract categories and the formulation of patterned relationships such as chains of cause and effect' (Strang and Meyer, [1993] 2009: 141). It is the transfer of collectively based ideas, beliefs and values from the world cultural script – such as human rights and progress – to a global model.

Table 5.6 depicts three cultural categories that are discussed in the following subsections. It shows how the international community has successfully connected DRM with three cultural categories that reflect economic, scientific and humanitarian interests. Standardization mechanisms are the tools the UN and other organizations use for crafting common social categories that can then be used for the rapid diffusion of regional DRM. Examples of the standardization mechanisms are included in the far-right column.

**Rationality**

Rationality is often defined by world society theorists as a central component of the world cultural script. It is the 'structuring of everyday life within standardized impersonal rules that constitute social organizations as a means to collective purpose ... exchange is governed by rules of rational calculation [and] ... rule constituting a market' (Meyer, Boli and Thomas, [1987] 2009: 76). In order to fully understand why this is an important normative component of DRM cooperation, a review on the rise of the contract helps to shed light on the origins of the common-sense practices that are taken for granted today. The rise of the contract in this regard is important for DRM because it reveals how the individual was forced to 'think in the future' which fostered a heightened sense of responsibility.

The emergence of the market system during and after the Enlightenment period fundamentally changed the way people interacted. Based on a common and competitive financial interest, people of different faiths, cultures and customs began to intermix more intensely than before. This provided a 'powerful educational force' and 'altered

*Table 5.6* Common cultural categories used for the diffusion of the global DRM model

| | | Standardized mechanisms | Examples |
|---|---|---|---|
| i | Rationality | Rationalized vocabulary | DRM as an 'investment in the future' |
| ii | Science | Scientific studies | Climate change |
| iii | Universal rights | Rights-based DRM | The humanitarian imperative |

character by heaping tangible rewards on people who displayed a certain calculating, moderately assertive style of conduct' (Haskell, 1985a: 550; Weber, [1930] 2010: 17, 20). A crucial phenomenon that surfaced through the market system was the adherence to the contract. By assenting to a contract and the market principles of self-discipline, utility, honesty, and punctuality, people were obligated to be responsible and calculable individuals – a force that awakened the 'sovereign individual' and provided a sense of security for the future (Haskell, 1985a: 552; Nietzsche, [1913] 2003: 36). People also began to live in the future to the extent that contractual agreements were made in the present on the understanding that a future event would take place.[29] The moulding of individuals into 'civilized' people who obtained a sense of responsibility through the act of promise keeping (responsibility) and living in the future is crucial for comprehending the rise of the humanitarian norm on DRM – a sensibility that Nietzsche typifies as the conscience of the modern man ([1913] 2003: 36).

Before long the contract was a legal norm and responsibility (promise keeping), a social convention that went beyond the market system. This, among other things, empowered people to think and act ahead of time as well as awarding the right of intervention in future events (Haskell, 1985a: 556). The stage was thus set for the performance of the sovereign individual that would be legitimated by others through the newly fashioned script epitomizing the empowerment of the individual, rational action, progress and responsibility. That is, some of the central properties of the modern world script.

Legitimizing cooperation on the basis of future events via rational calculative means provides essential common cultural categories that give meaning to DRM: 'thinking in the future' as a 'responsible' individual informs the rational contours of DRM. As we have seen, many regional organizations emphasize the importance of reducing financial costs (Chapter 4), even if the actual costs (see Table 4.1) have not substantially increased over the last 40 years. One would also expect

agents of DRM norms to increasingly adorn themselves with rationalized activity. This is certainly the case for the UN which is in the process of becoming more of a rationalized, functional and calculative entity, as action is increasingly legitimated by rational behaviour and cost-benefit calculations. Reflecting this change, the Secretary-General noted that policymakers should recognize 'disaster reduction as an investment in the protection of national assets' (UN, 1996: 539; see Ban, 2009). This notion of investment is often repeated in high-level speeches and declarations by the UN as well as regional organizations (CARICOM, 2001: 6; Wahlström, 2010b: 2; Ban, 2010, 2011). By invoking the term 'investment', Ban Ki-moon and others infuse DRM with a common social category that reflects the 'responsible investor' who is concerned with improving the future. This sentiment is closely connected to the notion of rationalization as part of the world cultural script which has the effect of conferring legitimacy to regional DRM. Rationalization is also intimately intertwined with the rise of science, which is another important cultural category intertwined with DRM.

**Science**

Science is an important concept for many world society theorists because of the power it has in legitimizing social activity. The essence of the scientization thesis is a universal search for stability (Meyer, 2010: 11; see Drori et al., [2003] 2009). Scientific knowledge provides stability and a sense of security in what is otherwise a haphazard and confusing world.[30] Translated into DRM, this means having control over unpredictable events via scientifically informed prediction.[31] It is thus 'important in constructing agentic human actorhood to establish, not only that the universe is a lawful and rational place, but also that humans can and do figure it out; gratuitous displays of knowledge information, and analysis help to do this' (Ibid: 272). UN scientific efforts in DRM are thus part of, and contribute to, a wider system of meaning for the rationalized actor (Ibid: 276) that is supported by inter-organizational coordination.

Like inter-organizational cooperation, connecting science to DRM can be traced back to the IRU. Using science to master nature and, more specifically, to prepare for and predict future catastrophes, underpinned much of the activity of the IRU. Indeed, due to financial difficulties the only action taken by the IRU was the creation and distribution of a scientific journal. In giving support to Caroalo's project, the director of the ICRC, Gustave Ador, noted that he was highly optimistic that 'science will before long give us a map of world catastrophes'; a 'world map showing the catastrophes – earthquakes, volcanic eruptions, floods, drought, etc.,

[that leave] ... their mark upon the surface of the globe' (Ador, 1923, cited in Hutchinson, 2000: 27–28). Ador continued, noting that he believed it was possible that science could also help predict future events and thus help society take preparatory measures (Ibid). While the technology may have been lacking, the vision and the importance of connecting science to DRM was not underestimated and continued through the UN and other international organizations. Indeed, modern manifestations of Ador's vision can be seen in the Global Earth Observation System of Systems (GEOSS) and the Group on Earth Observations (GEO).

The pursuit of scientific studies has been a dominant and expanding theme throughout the UN's involvement with DRM.[32] The value the UN places on scientific knowledge is based on the belief that 'man's current scientific and technical capacities could help conquer the environmental scourge' (UN, 1970: 637). The body of scientific knowledge established since the 1960s presents a running theme in UN DRM activity that is epitomized in a statement made by the international ad hoc group of experts on the International Decade for Natural Disaster Reduction (IDNDR): that the following decade would represent 'an opportunity for the world community to use existing scientific and technical knowledge to reduce the damage done by natural disasters' (UN, 1989: 355). As the century was closing, ongoing and more sophisticated scientific documents were being published (UN, 2000b: 882). Invoking the common social category of science as the answer to disaster-related problems infuses DRM with a sense of order, stability and legitimacy, as science is often perceived as the most legitimate form of knowledge.

Crowning DRM with science is also closely connected to the global climate change discourse. International organizations increasingly contribute climate change as the main reason for the general increase in natural disasters (Ban, 2009; UNISDR, 2009g; GFDRR, 2012a; IFRC, n.d.), which is also appearing in official regional documents on DRM (LAS, 2007: §19; Commission, 2009; 2011b; González, 2011). Although this link is often presented as a scientific fact, it may be more of a rationalized myth. The connection between global warming and the frequency of natural disasters is not yet a verified fact but a collection of scientific theories (Field et al., 2012; Voiland, 2013; Earth Observatory, n.d.). This is reflected in a recent report by the Intergovernmental Panel on Climate Change, which notes: 'there is low confidence in any observed long-term (i.e., 40 years or more) increases in tropical cyclone activity (i.e., intensity, frequency, duration)' (Field et al., 2012: 8). The point trying to be made here is not the extent to which global warming is responsible for the increases in weather-related disasters, but that it is

a collective belief legitimized through science. Thus, by connecting the DRM model to climate change and invoking the name of science, the capacity for DRM to diffuse becomes greater because associated legitimacy is connected to DRM.

**Universal rights**

An additional common cultural category associated with regional DRM – or, at least, relief assistance –is universal rights. Scholars, for example, have pointed to the strong connection between DRM and the fundamental right to life, as well as the right to food, clothes, shelter and health (Hardcastle and Chua, 1998; Puspita, 2010; Breau and Carr, 2011; Carmalt and Dale, 2012). Perhaps the most well-known example of the rights-based DRM is the humanitarian imperative. This began with the establishment of the guiding principles of the Red Cross in 1965 that were used as a bedrock for supporting a civil society movement in the early 1990s that drew up a 'code of conduct' on disaster relief (IFRC, 1996; Slim, 2012). Produced in 1994, this document was developed by the eight largest disaster response agencies existing at that time (IFRC, 2011). The first of ten principles outlined smartly captures an institutionalized humanitarian norm that further reinforces the importance of DRM as a legitimized global model:

> The humanitarian imperative comes first. The right to receive humanitarian assistance, and to offer it, is a fundamental humanitarian principle which should be enjoyed by all citizens of all countries. As members of the international community, we recognise our obligation to provide humanitarian assistance wherever it is needed. Hence the need for unimpeded access to affected populations is of fundamental importance in exercising that responsibility. The prime motivation of our response to disaster is to alleviate human suffering amongst those least able to withstand the stress caused by disaster. (IFRC, 1994)

This code was endorsed by the international community at the 26th International Conference of the Red Cross and Red Crescent. As of October 2012, more than 500 humanitarian organizations have now signed the code of conduct. A Humanitarian Charter has also been established which makes a serious link between international law and humanitarian ethics (Sphere, 2011). The idea of DRM as a right is also present in publications directed at regional organizations. For example, the Office of the UN High Commissioner for Human Rights (OHCHR) and the UN

Development Programme (UNDP) produced the publication *Checklists for Integrating Human Rights in Natural Disaster Management in the Pacific* (UNDP, 2007) and the UN Inter-Agency Standing Committee recently adopted operational guidelines on human rights and natural disasters (IASC, 2011). However, the extent to which a rights-based DRM will become a fully theorized category is still to be decided. Significant disputes arose with the first publication of the Sphere project, for example, which has now been fully revised (Hannigan, 2012: 40), albeit not fully institutionalized as a taken-for-granted concept in the international community. Linking DRM with the idea of a universal right nevertheless demonstrates a possible candidate that can frame DRM as a universal right or common social category. This will in turn afford the global DRM model with greater legitimacy, as it is seen not only through the economic and scientific eyes but also through the humanitarian eye.

Presenting DRM around 'elaboration' models of rationalization, science and universal rights strengthens its legitimacy and thus accelerates the path of diffusion (Strang and Meyer, [1993] 2009: 141). At least three additional global models can be identified with DRM, which further strengthens its existence as a legitimate global model. 'Environmental protection' and 'sustainable development' are attached to DRM as evidenced in the preamble of the Yokohama strategy (UN, 1994b: 4) and 'women's rights' are reinforced through the HFA (UNISDR, 2005). By supplementing the DRM global model with these additional models a higher status is achieved, which also paves the way for the rapid diffusion of DRM. The DRM model thus becomes more readily understood as a rational and necessary policy to be implemented by states at the regional level as it is recognized in connection to common cultural categories in local contexts. The more elaborate and complex the model, the more rapidly it diffuses (see Strang and Meyer, [1993] 2009).

## The mutual constitution of relational and cultural diffusion

The analysis on cultural diffusion ought to be viewed in parallel with relational diffusion. Together they define the extent to which regional DRM can diffuse as a global model. Relational diffusion reveals how norms can diffuse through inter-organizational cooperation and how arenas of diffusion provide for moments of intense diffusion, and even the modification, of the DRM model. Cultural diffusion emphasizes the importance of common cultural categories through the layering of additional global models, such as rationalization, scientific progress and a

rights-based discourse to create an increasingly elaborate and legitimate DRM model. These common categories help to provide a smooth transition of the DRM global model to regional organizations; the higher the number of common social categories that are constructed around DRM, the more likely regional DRM cooperation will be an appropriate field of cooperation. The existence of these features of diffusion helps to explain the existence of a multifaceted normative environment that conditions states to cooperate on regional DRM.

## Summary

This chapter describes the role the international community has in diffusing DRM norms to regional organizations and their member states. It began with a broad quantitative account of international organizations that cooperate in some form of DRM, which produced two important observations. First, that there is a strong correlation between the global proliferation of DRM-related organizations in the 1970s and 1980s, and the rise of regional DRM cooperation in the following two decades. Second, a number of organizations stand out within this bourgeoning and highly complex community in terms of their prolific activity and networking abilities. Based on a study of the UN, and other central advocates of DRM such as the EU and the IFRC, *relational* diffusion mechanisms could be located. In particular, the international community tends to facilitate various forums where the exchange of ideas can be rapidly diffused among member states of regional organizations, such as regional platforms, training exercises, bilateral support and world conferences. These initiatives are furthermore categorized into three specific mechanisms of diffusion. The first is through the direct intervention of the international community in regional organizations in terms of technical assistance, relief operations, the facilitation of meetings, and financial and administrative support. The second is through the formation of simplified agenda setting which enables prepackaging of ideas that can be easily diffused. The third, which requires a more proactive stance by regional organizations, is the idea of 'manual making': the production of standardized guides for national DRM legislation, education, relief assistance and the language of DRM.

The UN, for example, has been a particularly robust actor in using these relational initiatives. Based largely on a functional premise, since 1947 the UN has actively involved and encouraged inter-organizational cooperation and networking on DRM that, through a process of learning through doing, has placed itself in a position to disseminate and reify the

global DRM model. This is complemented by establishing sites of intense intersubjective exchange, which provide the possibility to modify and diffuse the global DRM model. World conferences on DRM are good examples of these arenas of diffusion. More day-to-day mechanisms of diffusion are also used, such as publishing manuals on 'best practices', the frequent sending of experts and advisors to countries, providing technical assistance, promoting specific national legislation and educational initiatives, and organizing conferences and workshops.

These relational examples of how international organizations spread DRM-related ideas and standardized information to states and their regional organizations are made possible through 'cultural diffusion': the linking of common social categories with the DRM model. Three categories are highlighted in this chapter. First, rationalized economic behaviour is grafted into DRM whereby cooperation on DRM is promoted as an investment for the future. Responsible regional organizations ought to include this dimension of cooperation if they wish to be seen as legitimate organizations. Second, scientific discourse is also grafted into DRM, which affords it with greater legitimacy, as science is often perceived as the highest form of knowledge and accepted truth statements. The global discourse on climate change and its association with DRM is a good case in point. Third, efforts are being made to connect DRM into a rights discourse. While still a matter of debate within the international community, if this is accepted, it will most likely imbue the DRM global model with an additional layer of complexity that has the effect of legitimizing its existence and aiding in its diffusion.

Taken together, many of these fairly diverse forms of diffusion are united by a process of transcendence from their functional roots. This can be seen in the origins of inter-organizational cooperation based on a general lack of capacities to meet a given problem; the simplification of the HFA principles; 'truth-claims' made when attributing climate change with the general increase in the frequency of disasters; and the practice of infusing the concept of investment with DRM cooperation despite the negligible growth in estimated economic damages from natural disasters in regional organizations (see Table 4.1). It is not that these and other DRM-related phenomena are fictitious but that they are becoming rationalized myths over time. Simplifying an agenda to five instead of 17 goals makes it easier to diffuse; simplifying rational arguments based on the science of climate change not only legitimates DRM but also means that it can diffuse more readily. Through a process of simplification the DRM model has been able to rapidly diffuse; however, only at the cost of transcending the functional and rational origins of the DRM model. It

is assumed, therefore, that a balance is needed between simplifying a set of ideas in order to make them travel and appear legitimate, while not over-simplifying which could increase the risk of delegitimizing a set of ideas. A dash of pretence is thus considered helpful for the successful diffusion of DRM.

The analysis in this chapter does not reflect regional organizations as independent disaster managers that can effectively provide the means for more resilient communities. Instead, the role of regional organizations is to act as useful conduits of ideas between the global and national levels of governance. Of course, the aims of regional DRM programmes are highly rationalized; however, this does not necessarily mean that they will be implemented. Indeed, this chapter lays an additional layer of doubt on the ability of regional organizations to implement their DRM goals. These goals are largely products of relational and cultural diffusion practices that have been lifted from their rational moorings in order to effectively diffuse; yet their success in diffusion also limits their translation into viable goals at the local level.

None of the relational and cultural diffusion processes mentioned in this chapter can independently account for the diffusion of the global DRM model. However, taken together as a whole, they provide a multifaceted and complex process of diffusion that has influenced states to construct a particular type of regional cooperation on DRM. One important aspect of relational diffusion that has not yet been fully covered is *how* the intersubjectivity between international and regional organizations constructs particular roles that affect how states cooperate through regional organizations. This theme is turned to in the following chapter.

# 6
# Norm Reproduction in the School of DRM

This chapter examines the interaction between international and regional organizations and how this creates particular roles that reproduce the global DRM model.[1] When an individual or an organization acts out a global model, the set of norms embodied within that model is reproduced. This is essential for the existence of a norm that would cease to exist if it were not practiced by its recipients. Thus, following the logical thread in the previous two chapters – that established the existence of a global DRM model (Chapter 4) and described its diffusion (Chapter 5) – this chapter examines how this model, once diffused, is maintained through inter-subjective exchange. This reproduction of the global model is achieved through a hierarchical relationship between the receiver and the teacher of DRM norms (see Finnemore, 1993).[2] The 'student' of norms will practice and attempt to mimic the 'teacher', while the teacher will tell the student what type of acceptable behaviour is warranted in the area of DRM.

This school of DRM is largely divided between regional organizations that act as the students and the UN that acts as the teacher. The performances of these organizations in taking on particular roles is a central concept in the sociology of knowledge that is influential in world society theory: 'Institutions are embodied in individual experience by means of roles … [as an] essential ingredient of the objectively available world of any society (Berger and Luckmann, 1967: 74). This relationship and the extent to which these organizations embody different roles are distinguished through an analysis of public and private speeches made by regional DRM authorities in international fora as well as official agreements on DRM. These authorities are individuals that oversee DRM cooperation in regional and international organizations such as the EU Commissioner responsible for International Cooperation, Humanitarian Aid and Crisis Responses, and the Secretary General for ASEAN.

The first section of this chapter outlines how a discourse analysis is used to identify the roles within an inter-organizational setting and how these roles help to reproduce the global DRM model. Attention is then focused on the role of the regional organizations as learners or students of the regional DRM model. The outcome of this analysis reveals that a majority of regional organizations tend to conform to the role of a student, with the case of the EU as the main exception. This ambiguity is explored in the next section where speeches and statements from the EU show signs of an ideational shift from a student to a teacher of regional DRM. The final section analyses the extent to which the UN and international organizations act as teachers of regional DRM. The overall findings give further weight to the importance the global normative environment has on state decisions to cooperate on regional DRM; it emphasizes the dynamic roles played by regional organizations who strive to become more like the teacher of norms; and it casts a particular reading on the role regional organizations have in reifying global DRM norms rather than providing resilience to local communities from natural hazards. The findings also place emphasis on the power gained through enacting a global model: the more authority an organization gains as a teacher of DRM norms, the more normative power it gains in determining the future trajectory of the policy field.

## Reproducing norms through discourse

When regional organizations conform to a global model their activities not only become standardized, but they will also ceremonially reproduce the global cultural script. By enacting a global model – derived from the world cultural script – regional organizations are consequently awarded with legitimacy, not because the model serves a functional requirement but because member states observe that others also follow a similar pattern of cooperation (Jepperson, 2001: 5). Member states will thus reproduce an existing global model as common practice through interrelational exchange between international and regional organizations (Meyer et al., 1997: 158).[3] This reproduction is usefully explained through the interaction between students and teachers of norms.

The teacher is understood as the 'disinterested other' who teaches and spreads the global script to the 'interested actor'. Also referred to as professionalized 'others', teachers of norms 'instruct and advise individuals and organizations on how to be better actors in light of general principles' (Meyer, 2010: 7). They confirm, support, and give advice on the correct and most appropriate type of behaviour. On the other hand,

students of norms learn and enact the global model as taught by the teacher and consequently reproduce the global model by standardizing policies and by reciting their policies and activity – that are homogenous with the global script – to teachers of norms. Just like the formal school system that emphasizes 'individual achievement, individual capacities and individual limitations and … individualized attention to the unique properties of each student' (Boli, 2005: 389), organizations can also act as an 'individuating institution' to a regional organization or a state.[4] An example of the student–teacher relationship is when students repeat to the teacher what they have learned as well as the accomplishments that they have achieved. Conversely, an example of a teacher–student relationship is when the teacher rewards good behaviour, teaches best practices and punishes non-performance. To be sure, the teacher–student dichotomy is not static but fluctuates from interested to disinterested actorhood. This is based on the idea that if an organization promotes the DRM model to others, it will obtain a higher degree of legitimization. States and regional organizations will thus embark on a process of becoming an 'interested agent' of norms which ultimately leads to becoming a 'disinterested other' (Meyer, 2010: 7): from a student to a teacher of norms (see Meyer and Jepperson, [2000] 2009).

The principal method used to analyse the interrelational role between regional organizations and the UN is discourse analysis. Here, speeches and official regional DRM agreements are used to uncover the roles of regional organizations in teaching or learning the DRM model. A hermeneutic discourse analysis is based on the assumption that meaning can be interpreted through texts. When a question is applied to a text a discourse is produced between the researcher and the material. By asking the same questions – or 'knocking' on the door of the text until it gives a resonating tone (Alvesson and Sköldberg, 2009: 122) – an interpretation of a text is created. The text in this case is largely made up of speeches and official documents on DRM. The principal question applied to these texts is: can the context of the whole (world culture) relate to its parts (regional organizations) and vice versa? This is subsequently separated into two specific questions: (1) is there continuity in the texts in terms of common values and principles of world culture? And (2) does the author of the text act as a teacher or as a student? The aim of this study is to reveal the authority associated with the roles of a teacher and student of a DRM model and how this constitutes state behaviour. The typical 'method' used to systemically review the meaning of texts in IR is predicate analysis that concentrates on the (ad)verbs and adjectives that are attached to nouns (Milliken, 1999: 232). This is loosely

applied to the analysis and is complemented by an emphasis on personal pronouns (see Fairclough, 1992, 1995; Hardt-Mautner, 1995; Wodak and Chilton, 2005), as the main focus is on identifying the roles an organization performs. To be specific, it is assumed here that when the first-person singular is favoured, it reflects interested behaviour. When the first-person plural is used in the context of others or as a community, it reflects disinterested behaviour.

## Learning the global DRM model

As students of norms, individuals and organizations will emulate and thus reproduce the core values embodied in a particular global model. To a large extent, this can be seen in the rhetoric of regional officials who relay the global aims and goals of the HFA, present lists of achievements, reiterate their commitment to upholding the global model and will favour the use of the first-person singular. As noted in the previous chapter, one important relational diffusion technique used by the international community is to simplify a global agenda to only a few goals, which can greatly assist in its diffusion and cognizance. This was effectively achieved with the establishment of the HFA in 2005. As the goals of the HFA can be instantly recognized by this acronym, inserting HFA in speeches and texts adds legitimacy to an organization as it connects the local with the global and thus ushers in authority to the text via increased legitimacy. 'HFA' can thus be interpreted as a linguistic symbol that provides a (detached) meaning within the institutionalized world of DRM. Put simply, a linguistic symbol is a commonplace word that expresses a set of ideas within a specific issue area that is easily transmittable (see Berger and Luckmann, 1967: 57). The following experts provide some examples of such rhetoric presented by practitioners from regional organizations. That is, they reiterate their commitment to the global DRM model by invoking the importance of the HFA and present lists of achievements as an expression of the good student.

Celebrating the International Day for Disaster Reduction, the Secretary General of ASEAN made the following statement:

> let us use this event to reflect not only the importance of disaster risk reduction towards achieving sustainable development, but to also reaffirm our commitment to speed up and achieve the ASEAN Community, Hyogo Framework for Action and Millennium Development Goals by 2015. I would also like to extend my sincere recognition to the international community, non-government

> organisations, academic institutions and civil society for their outstanding energy and assistance for supporting the ASEAN Member States in every level of disaster risk reduction initiatives. I would encourage that we continue the existing collaboration and keep on inventing new strategies and technologies to further enhance disaster risk reduction, climate change adaptation as well as poverty alleviation initiatives. (Pituwan, 2010)

Pituwan's speech reiterates ASEAN's desire to commit to the HFA. It expresses gratitude to the international community, it favours the personal pronoun in the first-person singular, and it encourages the continual process of institutionalization of DRM at the regional and global level. ASEAN thus appears to claim its membership in a global community of DRM through a shared sign system and through expressing its commitment to the global DRM model. Similar traits are observable in other regional organizations that not only refer to the HFA but are also keen to pledge their allegiance to the global aims of DRM. Expressing their commitment and desire to uphold the DRM model, a LAS representative at the UN's third Global Platform for DRR notes: 'I would like to assure you of the commitment of the Arab League to continue its efforts to reduce disaster risks' (El Mallah, 2011b). Presenting a speech at the same venue, the AU Commissioner for Rural Economy and Agriculture, Tumusiime Rhoda Peace, similarly notes that their political commitment to implement 'global and regional frameworks for disaster risk reduction remains strong in Africa' (2011: 3). Addressed to a similar audience, Adelina Kamal, head of the disaster management and humanitarian assistance division in the ASEAN secretariat notes that their framework agreement (AADMER) 'reaffirms and is a manifestation of ASEAN's commitment to the implantation of the HFA' and contributes to the 'global disaster reduction aims' (2009). And in the opening remarks at a conference for the preparation of the 2001–2004 framework on DRM, CARICOM's coordinator for CDERA notes: 'It is our expectation that your presence [UNDP and USAID] will assist us in fashioning a strategy that promotes a broad based consensus approach to disaster management in general and risk reduction in particular' (Collymore, 2001: 1).

Pituwan's speech and other statements from regional organizations not only emphasize the HFA as a linguistic symbol but also share a common sense of commitment. This predicate clearly reflects a hierarchical structure where regional organizations assume a sense of humility in the face of more normatively powerful organizations. Put differently,

these expressions illustrate a loyalty to an external 'other' in a student–teacher relationship. The regional organizations wish to live up to the expectations and obey the rules set by an external source that is close to the DRM global model.

These commitments are often followed by the practice of listing a set of achievements that represent progress towards the aims and goals advocated by the 'teacher' and thus further reinforce the performances of the role of a student. For example, Russell Howorth, the director of the agency responsible for DRM in the PIF, notes in a speech at the UN's third session of the Pacific Platform for DRM that:

> Over the past two years progress has been made, in areas such as agriculture and education…training courses available at regional and national level…humanitarian response is being streamlined and strengthened … development planning and decision- making frameworks is progressing [sic]. (2011: 6–7)

Other examples of listing include the AU (Tumusiime, 2011), LAS (El Mallah, 2011a), OAS (Ramdin, 2009), CARICOM (Riley, 2011), SADC (Mothae, 2010) and ASEAN (Kamal, 2009). Indeed, a general pattern in the construction of many speeches made by regional organizations can be recognized. For instance, if a new regional organization wishes to become part of the institutionalized field of DRM, then, preassembly, it would construct a speech along the following lines: (1) begin with salutations to appropriate guests and special thanks to the UNISDR; (2) explain why DRM is important for your regional organizations (increasing frequency of disasters and need for investment); (3) note your commitment to the HFA; (4) list capacities and initiatives that the regional organizations have already achieved (in line with the HFA); note some challenges; and (5) end with reinforcing the commitment the regional organization has to the HFA and give particular thanks to the UNISDR. The first-person singular will also be used (instead of the first-person plural), which will place the regional organizations in the lower echelons of a hierarchical relationship between the student and the teacher. After all, the student would not dare to teach the teacher. This is the general 'script' used by regional organization. When they enact this script, the global DRM model is reproduced. While this may be a general trend there is also variation amongst the regional organizations. This is most clearly the case with the EU, which positions itself in a more authoritative position than most other regional organizations, yet less so than the UN.

## The EU as an apprentice of DRM

A review of speeches and texts from EU practitioners reveals that it is more of a teacher than a student of norms. The EU, for example, reiterates and expresses a cultural diffusion technique (see previous chapter) by promoting a rights-based DRM, it prefers the personal pronoun in the first-person plural, and it uses a declarative rather than complying tone in its rhetoric. The EU appears to be more of an apprentice than a student of norms. The following experts from various speeches help to convey this particular performance.

The European Commissioner for International Cooperation, Humanitarian Aid and Crisis Response delivered a speech to the United Nations on 24 September 2010. Conveying some of her activities, Kristalina Georgieva noted:

> I travel to countries that are suffering because of natural or man-made disasters, from Haiti to Pakistan, from Sudan to the Sahel and many other places. In these moments of human hardship, it is not just relief staff and money that come to rescue lives. It is above all the common and universal values of our shared humanity which bring us together to express our solidarity with our fellow men and women, across borders, across oceans, across cultures, across religions. This is the very common cultural heritage, which we need to value and promote through the Alliance. The promotion of universal human rights lies at the heart of that common cultural heritage. (2010c)

The rhetoric used by the EU conjures up images of world culture writ large, where global principles of human rights and progress are reified. Georgieva claims human rights as the basis for a global common heritage. She does this by claiming that global empathy is fashioned through the suffering of humankind that is brought on by natural and man-made disasters. This empathy is then transferred and made synonymous with human rights. The Commissioner thus invokes a rights-based DRM that is in line with the cultural diffusion practice used by the UN and other international organizations to diffuse the DRM model (see Chapter 5). The EU is thus acting as a diffuser instead of a receiver of DRM norms. The statement is also strongly declarative. Georgieva proclaims the universal values as facts: this is 'our shared humanity'; this is our 'common cultural heritage'.[5] This tone is important because it implies a hierarchical relationship in the sense that the Commissioner gives herself the right, or has the power, to claim status. This statement

is thus not only representative of a European worldview, but also makes an ideational claim, and legitimates its action through reiterating the core values of the world script. This stands in contrast to a majority of other regional organizations that take on a more sober image that is more indicative of a student.

On occasion the EU also provides lists of achievements to the UN (EU, 2014). However, a subtle difference in the type of language used can be detected. Instead of only using the first-person singular that would identify a dialectical relationship between a student and a teacher of norms, the EU also uses the first-person plural. By using 'we' and not 'I', the EU shifts its ideational position from a student to an apprentice or even a teacher itself. For example: 'We fully share the Secretary General's view that there is evidence of greater investment needs in disaster risk reduction'; and 'We all know that investing in disaster risk reduction (DRR) activities before a disaster takes place pays significant dividends' (Ibid). This effectively puts the EU on a more equal footing with the UN and other international organizations that diffuse the DRM model.

To be sure, the EU has not always taken such an authoritative stance. Earlier speeches at international conferences tend to be more 'standard' whereby, the first-person singular is favoured and the language used is more compliant (Guth, 2007; EU Presidency, 2009). A similar pattern may also be emerging with the OAS, whereby speeches made by OAS officials have recently included a more inclusive and declaratory tone. For example, Sherry Tross, the OAS Executive Secretariat for Integral Development (SEDI) notes in the fourth session of the global platform for DRR:

> We (the international community) should be talking about a single development agenda around the objectives and principles of sustainable development, where disaster risk reduction and adaptation to climate change are integral components and *imperatives* for improving the well-being and prosperity of our people, measured in terms of access to health, education and employment; a healthy environment capable of meeting the needs of present and future generations; and strong democratic institutions. (Tross, 2013)

This general movement from 'interested' to 'disinterested' action emphasizes the importance of the dynamic hierarchical structure between the student and the teacher of norms. This role change over time is important for the normative authority an organization holds in relation to related organizations within the institutionalized field of DRM. The increasing authority of the EU as an apprentice also means that they

will embody the global script to the point that the global values become their own:

> We need to focus political attention, to ensure a shared understanding and commitment regarding humanitarian action. The Development agenda has benefited from the formidable political traction of The Millennium Development Goals. It is time to build a renewed **global consensus** on the **goals, norms and principles** for humanitarian assistance. (Georgieva, 2011b, original emphasis)

Although the Commissioner's speech is performed in a different context, there is continuity in her declarative language (see Georgieva, 2010b). By acting out this specific role, Georgieva reinforces the EU's self-identity as a moral leader and implicitly proclaims what type of cooperation is needed in the future: a presumptuous and authoritative statement. The various initiatives made by the EU in the past three years as an external supplier of Disaster Risk Reduction (DRR) have only strengthened such resolve. In a recent trip to Southeast Asia, the Commissioner describes a number of 'needs' that ASEAN ought to adopt, using language that resonates a teacher–student relationship:

> In our own development, we Europeans have learned how important it is to share the benefits of growth: when economic resources are shared, the society is far more resilient. This is why in this time of more disasters and rapid economic changes, we need to be particularly vigilant to tackle inequalities, as the poorest are also the most vulnerable. This is an important lesson for Europe's unity and future, and a lesson that will matter for the future of ASEAN as well. (Georgieva, 2011a: 2)

The Commissioner continues by advising how to 'realise environmental degradation' and what type of collective cooperation should be executed. Not only does Georgieva's speech provide a list of the most appropriate types of cooperation – such as the need to cooperate collectively in the area of preparedness, response and recovery – but she also tells ASEAN what type of threat will be important for them based on European historical experience. This statement, thus, assumes that the EU is somewhat ahead in the DRM game – Europeans have already learned the importance of sharing knowledge – and therefore is in a 'better' position to share their knowledge to those who are less privileged. While this may be disconcerting, a neocolonial image appears to be embedded in

the language and helps to reveal how the EU perceives itself in Southeast Asia as an authoritative teacher.

The EU has thus increasingly become more of a disinterested 'other' rather than an 'interested agent' of DRM norms, whereby it confers power and authority to itself through the promotion of DRM values. Keeping this in mind, a common thread remains: all regional organizations claim strong links with the UN and a majority play a student-type role when in its presence. If the UN is the classical 'teacher' of a global DRM model, does it also 'act' as a teacher?

## Teaching the global DRM model

The UN is a teacher of norms. Its rhetoric on global DRM is infused with declarative statements, the use of the first-person plural and cultural diffusion techniques. The UN also employs the ritual of award giving to 'good' students who follow the global script and facilitate arenas of diffusion.

Cast in dramatic imagery reminiscent of Winston Churchill's chronicle of the Second World War, the UN Secretary General's opening speech at the 2009 global platform on DRR is clear in its authoritative message: the HFA goals must be incorporated if the values that 'we' wish to protect, based on the world cultural script, are to remain.

> Risks are growing, especially in poor countries. In many parts of the world, we are losing ground. Moreover, it is clear that climate change is making things worse. The storm clouds are gathering. We face a more threatening future from natural hazards. Millions of people will be hit twice over. First, by more extreme weather. Second, by the loss of ecosystems and food and water supplies … Risk reduction is an investment. It is our first line of defence in adapting to climate change. It will pay handsome dividends. The Hyogo Framework for Action is vital in reducing risk. We can link the implementation of Hyogo with a new climate agreement. We can achieve a triple win – against poverty, against disasters and against climate change. I challenge you to set a target…. I urge you to start working now on the immediate practical steps that will achieve this goal. The United Nations will back you in this effort. As one UN … [W]e know the problem. We know what to do. (Ban, 2009)

This message could be easily read as a call to arms. We will be 'hit', 'we are losing ground', action is 'vital' and 'our first line of defence', we need

to 'win', achieving the 'goal' will be 'challenging', we need to be 'practical', and the top brass will 'back you in this effort'. A second image that surfaces in this statement is a calculative need to 'invest' in the future. These images are not unique to Ban's speech but are often repeated in different fora by UN officials when referring to DRM (Egeland, 2005; Ban, 2010, 2011; Wahlström, 2010a, 2010b, 2010c).[6] Ban and other UN practitioners set forth a single and clear instruction: to insert the HFA goals in national and regional organizational structures. By incorporating images of a collective by using the first-person plural and the use of phrases like 'as one UN', the Secretary General signals the reward of surmounting his 'challenge': namely, acceptance into the global cultural order. Thus legitimacy is bestowed upon regional organizations and states that adopt the DRM model embodied in the HFA framework, as well as the cultural script of human rights and environmental protection. Like the EU's relationship to ASEAN, the UN constructs itself as a 'knower' who transmits (objectified) knowledge to the 'non-knowers' (see Berger and Luckmann, 1967: 70–71).

An example of ritual creation by the UN offers a further illustration of the power the UN holds in forming the 'rules of the game' on regional DRM. On 11 May 2011 the UNISDR recognized President Susilo Bambang Yudhoyono of Indonesia as the 'UNISDR Global Champion for Disaster Risk Reduction'. In a letter of commendation to the President, Special Representative of the Secretary General for Disaster Risk Reduction Margareta Wahlström noted:

> I am honored that you have accepted to be the in recognition of your efforts and commitment in protecting people and communities from the impact of disasters [sic] …You have been instrumental in instilling a culture of safety under pinned by strong community engagement, both at the national and local levels…I applaud your leadership in fostering a drive for resilience within the South East Asian Nations, underscored by greater coherence and coordination among Member States. Your guidance and leadership will be of immense value to countries at risk around the world [sic]. (UNISDR, 2011c)

This ritualistic action legitimizes the role of the UN, Indonesia and ASEAN through a public award-giving ceremony. By publicly awarding a state for adopting the institutionalized rules of (regional) DRM, the UN sends a clear signal of what action is necessary for increasing the status of a state; and reifies its position as a higher-order organization that holds the rights – through the disinterested action of its professional

employees in promoting (Western) transcendental values – to instruct, teach and advise regional organizations and nation states. The statement by Wahlström also provides a map of the most appropriate action for other states: (1) they ought to engender a 'culture of safety' at the local and national levels; (2) they ought to actively participate at the regional level; and (3) they ought to cooperate on regional DRM.[7] Interestingly, this practice has recently been used by CARICOM which celebrated CDEMA's 20th anniversary by awarding 'individuals and institutions whose long term efforts have fundamentally changed the delivery of disaster management in the region for the better' (CARICOM, 2011). The process of award giving through symbolic or 'mnemotechnic aids' not only reaffirms transmitted knowledge (Berger and Luckmann, 1967: 71), but also strengthens the constructed relationship and ongoing performance between organizations. Furthermore, the act reinforces the central cultural script of liberal individualism: as soon as individual organizations are signalled as being superior to others, a logic of competition arises which further reinforces the individualism of each contestant.

Like the UN, other international organizations – such as the IFRC (2013), the Global Network of Civil Society Organizations for Disaster Reduction (GNDR, 2013) and the WHO (2013) – also act as teachers, and less as students, in reproducing the global DRM model. The first-person plural is preferred over first-person singular, which limits the construction of a student–teacher dichotomy, and the language used is authoritative rather than complying. For example, the Secretary General of IFRC notes in his official speech at the fourth global platform for DRR:

> On behalf of vulnerable people across the world … the IFRC calls on **Governments** to ensure that resource and policy commitments are put in place; we call on **the private sector** to see disaster risk reduction as a responsive, innovative and cost effective investment; we call on **the people** themselves to change their lifestyles, attitudes and mindsets to fit the demands of change, and we call on **civil society organizations** to participate and facilitate support to vulnerable populations in a timely manner. (Geleta, 2013, original emphasis)

This authoritative statement unequivocally tells the audience what is needed and what needs to be done, echoing Ban Ki-moon's statement on DRR: 'we know the problem. We know what to do' (2009). In contrast to this position, regional organizations such as CARICOM (Riley, 2013), the AU (Timamy, 2013), ECCAS (Tchoungui, 2013), ECOWAS (Diop, 2013), IGAD (Sebhatu, 2013) and ASEAN (Reyes, 2013) prefer the first-person plural, use more compliance-based language and tend to focus

on listing their own achievements and their own needs for the future. At the same global platform, for example, the ASEAN Technical Advisor for Disaster Risk Reduction notes:

> **As we near 2015, ASEAN sees the need for us to step up towards achieving the goals of not only AADMER but also HFA.** Despite the challenges and constraints in the implementation of HFA and AADMER Work Programme in the region, the ACDM affirms that HFA remains relevant and its goals pursued beyond 2015. **From the current HFA, we believe that we have established a stable foundation for effective DRR by (1) strengthening national and local capacity for DRR, (2) localizing DRR at the community level, (3) ensuring inclusive approaches and engaging multi-stakeholders and (4) mainstreaming DRR in development.** (Reyes, 2013, original emphasis)

Keeping in mind the importance of these and other international organizations in promoting DRM, they generally reinforce the UN's general advocacy of DRR, rather than competing or acting as students of the UN. They collectively create a community that is important for fostering, developing and reifying norms on DRM. As reflected in the speeches above, the UN and its agencies are of significant strategic importance for reifying and producing the global DRM model. This is largely in line with an insight into the sociological roles of institutions made more than 30 years ago. While

> *all* roles represent the institutional order … *Some* roles, however, symbolically represent that order in its totality more than others. Such roles are of great strategic importance in a society, since they represent not only this or that institution, but the integration of all institutions in a meaningful world. (Berger and Luckmann, 1967: 76, original emphasis)

While the EU does not seem to 'fit' with the general student–teacher model, it can be understood more as an apprentice of the global DRM model. That is, it has recently begun to act out features of the UN's teaching role by not only learning, but also exporting the DRM model.

## Summary

This chapter demonstrates how the global DRM model, once diffused, is reproduced through the continual interaction between regional organizations and the international community. This is an important aspect

of global norm activity that helps to explain why states have been so willing to cooperate on DRM via regional organizations in the last ten to 20 years. Typified as a teacher–student relationship, the empirical analysis emphasizes the critical role the UN plays in the promotion and production of regional DRM and it highlights the important role regional organizations play as students of the regional DRM model. However, the EU does not fully conform to the role of a student or a teacher of DRM. Carrying on the analogy of the 'school of DRM', the EU was instead classified as an apprentice of the global DRM model. The ambiguity raised through the 'apprentice' status of the EU suggests that the idealized roles of the regional organizations are dynamic, albeit one that is theoretically inclined to expect a shift from interested agents to disinterested others. Put simply, the 'students' tend to strive to become like the teacher and thus not only adorn the same principles, values and patterned activity of DRM, but also begin to teach the same pattern to others.[8] The dynamic nature of role playing between interested and disinterested others also touches on the importance organizations have in constructing the rules of the game. The more an organization establishes itself with the authority of a 'disinterested other' or as a teacher of global DRM norms, the more power it will have in determining the trajectory of a vital policy field that has direct relevance to other associated global models, such as state sovereignty. Indeed, the notion of normative power should not be underestimated: the clear dichotomy between the UN and other regional organizations places emphasis on the power the UN has in constructing the rules of the game. However, even these organizations are also limited to the extent to which they can use such power within the confines of the existing world cultural script.

A focus on ideational reification between regional organizations and the international community also emphasizes the role of regional organizations in substantiating the global DRM model. It emphasizes how the external normative environment influences the motivations of states to cooperate on regional DRM.

# 7
# The Great Divide: Translating Expectations into Capabilities

What regional activities are actually taking place to increase the resilience of communities from natural hazards? Previous chapters have charted a journey through two explanations for why states have chosen to cooperate on regional DRM revealing the anticipated role of regional organizations in DRM. However, it is also necessary to go beyond expectations and analyse the operational aspects of regional activity on DRM. This provides insight into the functioning role of regional organizations and allows for a more accurate analysis on their current limitations and future possibilities. A similar quantitative scheme used to assess the anticipated role of regional organizations is applied to ten cases according to the extent to which they have development-specific regional capacities in encouraging local DRM awareness, instigating information sharing, providing operational support, developing standardized procedures and pooling DRM assets. This review reveals that a majority of regional organizations have struggled to implement regional DRM goals and consequently hold few substantial DRM-related capacities. A majority of regional organizations, for example, fail to successfully impact the community level or provide operational capacities to facilitate responses to disasters. It is also revealed that all cases, except for the EU, are heavily dependent on external donor or operational support which limits their roles as independent crisis managers. All regional organizations, however, do exhibit a strong capacity to facilitate dialogue and exchange information within and across the international community. One can also observe a fairly high level of operational capacity to facilitate responses to disasters in the EU, CARICOM and ASEAN.

When regional DRM aims (anticipated cooperation) are compared to this lack of capacities a general capability-expectations gap appears across all cases. For some organizations, such as the EU, ASEAN and

CARICOM, this gap is fairly small as reflected in their regional preparedness and response capacities. Whereas for others, such as SADC, LAS and PIF, the gap is expansive as they have made little substantial efforts to meet words with deeds. By reaching back to the empirical examples and theoretical explanations offered in previous chapters, this gap is principally explained through the successful advocacy of the international community on shaping regional policy.

This chapter is divided into four sections. First, regional capacity is defined along with a discussion on how it is measured. Second, a review of regional capacity is conducted for all ten cases and measured according to the five qualitative anchors described in the previous section. Third, the main empirical findings from this review are discussed including a capability-expectations gap that exists in all regional organizations. The chapter concludes by highlighting persistent challenges to the expected role of regional organizations in DRM and tentatively suggests some avenues for practical and low-cost cooperation, such as expanding inter-regional dialogue to encourage useful strategies to overcome the current limitations and apparent lack of incentives.

## Regional capacity

Regional capacity is understood as the operational or actual activities that are being pursued by regional organizations. Through a review of national self-evaluation reports and civil society, international risk surveys and HFA progress reports, the capacity of regional organizations is mapped out in the following section according to the quantitative scale used in Chapter 2 to map out the anticipated role of regional DRM. In order from low to high capacity this scale is determined by five qualitative anchors: the actual capacity of regional organizations to improve DRM awareness; support information sharing and knowledge creation; facilitate responses to disasters; establish standardized procedures among member states; and pool DRM-related assets.[1] Few changes have been made to the original qualitative anchors to allow for close comparisons. A slight exception to this is this 'awareness' category, which is now defined more broadly to include the regional transfer of information and awareness to national and local levels of governance. This means that instead of analysing the extent to which regional organizations formally acknowledge the need to cooperate (through agreements and declarations), an assessment of a regional organization's capacity examines its role in increasing formal awareness at the national and local levels.[2] For a more specific and thorough overview of the five qualitative

anchors used to assess the level of regional capacity see the 'scorecard' in Appendix A2. This 'scorecard' provides a systematic guide to assessing the empirical material in order to produce meaningful and comparable results across the selected cases.

The results of this qualitative assessment are displayed in Table 7.1. In comparison to anticipated cooperation, regional capacity is generally low across most regional organizations except for the EU, ASEAN and CARICOM. Regional organizations that have least DRM capacity are Mercosur, ECO and PIF. Explaining the lack of capacity in some of the regional organizations can be, in part, contributed to the little anticipated activity reflected in their DRM agreements. This is the case, for example, with Mercosur and ECO. However, other regional organizations such as PIF, SADC and LAS were expected to have higher levels of capacity according to their regional goals. As will be discussed in the third section of this chapter, reasons for this capability-expectations gap include a lack of resources, political will, and incomplete information.

Before moving on to a review and measurement of the selected regional organizations' capacities, it ought to be made clear that this analysis is based on ten regional organizations that have been selected according to their differences rather than their similarities. While this provides sufficient grounds for effective comparisons, it can be misleading if a case is interpreted as fully representing regional activity in a particular region. To be sure, most geographical regions now showcase 'spaghetti bowls' (Baldwin, 2006) of regional organizations many of which now cooperate with some form of DRM (see Table 1.1). The SPC and its associated agency, SOPAC, for example, are more active than PIF in the

*Table 7.1* Set values for regional capacity

| Regional organization | A | I | OC | S | AP | Total 2013 |
|---|---|---|---|---|---|---|
| AU | 0.10 | 0.20 | 0.15 | 0.00 | 0.00 | 0.45 |
| ASEAN | 0.00 | 0.20 | 0.15 | 0.15 | 0.15 | 0.65 |
| CARICOM | 0.10 | 0.20 | 0.15 | 0.10 | 0.15 | 0.70 |
| ECO | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.10 |
| EU | 0.05 | 0.20 | 0.20 | 0.20 | 0.10 | 0.75 |
| LAS | 0.10 | 0.15 | 0.00 | 0.00 | 0.00 | 0.25 |
| Mercosur | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.10 |
| OAS | 0.10 | 0.20 | 0.15 | 0.00 | 0.00 | 0.45 |
| PIF | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.10 |
| SADC | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.15 |

*Note*: Awareness (A); Information (I); Operational capacity (OP); Standardizations (S); Asset pooling (AP).

Pacific, and SICA is more active than Mercosur in South America. These regional 'spaghetti bowls' are furthermore part of a complex network of international actors that, as we have seen, play an important role in shaping regional approaches to DRM. It should also be emphasized that evidence of increased regional capacity is not equivalent to increased resilience. Rather, it elevates the likelihood of producing safer communities through the continual and effective use of its regional capacities.

**African Union**

The capacity of the AU does not meet its anticipated goals as projected in its Regional Strategy (AU, 2004) and Programme for Action (AU, 2009). According to reports from the AU's African Working Group (AWG) and the UNISDR, there remains a significant gap between regional and global objectives and national and local implementation. There is a lack of awareness at the national level due to limitations in information flow from the regional level (UNISDR, 2013b: 12) and there has been little development of planned regional policies and 'operational mechanisms' to 'prepare for and ensure rapid and effective disaster response in situations that exceed national coping capacities' (AU, 2009: 13). Other issues that have not been satisfactorily addressed include integrating a gender perspective in DRM, increasing the capacity of DRM at the local and community levels, and a lack of decentralization (UNISDR, 2013b: 12). As of 2013, less than half of AU member states had established institutional and legal frameworks on DRR, and only 31 member states had developed contingency plans (Ibid: 21).

Positive inroads have nevertheless been achieved. The instigation of one regional and 40 national platforms by the AU and the UNISDR, for example, provides important forums for dialogue, information sharing and knowledge dissemination. The Regional Economic Communities (REC) – ECCAS, ECOWAS, IGAD, SADC, EAC and IOS – have established DRM programmes and COMESA, SADC and EAS have established an inter-regional joint five-year climate change adaptation and mitigation program. Another important achievement is the African Risk Capacity (ARC), established in 2012. The ARC provides a similar function to the Caribbean Catastrophe Risk Insurance Facility (CCRIF) by pooling risk across countries, which requires less financial input from each country compared to independent insurance schemes. At the time of writing, the ARC has not yet been activated but is operational. The African Center for DRM (ACDRM) was also established in the same year, which provides regional-based training and knowledge dissemination on DRM. Other markers of progress include an increase in the adoption of building

codes and land use management, media training in West, Eastern and Southern Africa, and disaster loss databases in Ethiopia, Kenya, Uganda, Mozambique and Mali (UNISDR, 2013b: 20–21). A further development is reflected in the formation of the AWG in 2010 which is designed as the main institutional mechanism to transfer regional DRM goals to the national level: its official purpose is to 'provide coordination and technical support to Member States for the implementation of the African Regional Strategy' (AU, 2009: 4).

These progressive events cast some positive light on the DRM capacity of Africa as a region. However, it is difficult to establish any significant causal links between the role of the AU in orchestrating many of these and other activities. If the AU aims to be an authoritative actor on advocating DRR, it is clearly overshadowed by the more active participation and financial backing of international organizations, states and NGOs. For example, the establishment of AWG was proposed and facilitated by the UNISDR; the Nairobi Action Plan for Parliamentarians was facilitated by the UNISDR; a number of the RECs were established with the support of UNDP, Japan and other international actors; and the ACFRM was established with support of the Addis Ababa University, the Asian Disaster Preparedness Center, Cordaid, UNDP, and the Ethiopian DRM and Food Security Sector (ACDRM, 2013). While the ARC is an AU-led initiative, it is supported by the WFP and has received financial support from the UK, the Rockefeller Foundation and IFAD (ARC, n.d.). Other related projects, such as the establishment of the African Centre for Disaster Studies in 2002, suggest that there are a number of initiatives that are contributing to a more resilient Africa through international and local actors that bypass the AU. Without regional oversight regional-based activities on DRM may become sidelined and increase the potential for the unnecessary duplication of resources. This is a role that the AU ought to take on more forcefully in light of the limited impact regional and international efforts have had on the national level.

The AU Programme of Action and the African Regional Strategy project an anticipated regional capacity that focuses on the promotion of awareness, information, dialogue, some operational capacity as well as preliminary efforts to mainstream DRM into national and local emergency management systems. While there may be more advanced capacity in some RECs, the actual capacity of AU paints a less optimistic picture where national and local systems have been slow to make changes, and a majority of activities that contribute to a more resilient Africa has been predominantly instigated by the international community. Accordingly, the AU's DRM capacity is awarded with a total of value of 0.45. That is,

0.10 for awareness (31 member states have developed national contingency plans and less than half have established legislation), 0.20 for information and 0.15 for operational capacity (the creation of a reinsurance programme). Its major limitations include weak political will, budget constraints and inadequate resources.

**Association of Southeast Asian Nations**

Over the past decade ASEAN has been criticized for its inability to facilitate responses to transboundary disasters and promote preparedness and prevention policies at the national and local level (Gentner, 2005; Lee, 2011). Institutional mechanisms and programmes related to DRM are seen as rhetoric that reflects 'good intentions' rather than actual capacity (Lee, 2011: 40). The sovereignty-sensitive aspects of the ASEAN-way prevent any credible cooperation at the regional level (Ibid: 47). However, others argue that some of the regional DRM-based initiatives may be a sign of a gradual shift from the principle of non-intervention to non-indifference (Amador, 2009: 19). The following empirical overview of ASEAN's existing capacities confirms the latter: ASEAN is making significant steps towards achieving its ambitious DRM goals.

ASEAN's anticipated activity as reflected in its Regional Programme (ASEAN, 2004) and its Agreement on Disaster Management (ASEAN, 2005a) include a number of aspiring goals such as: the establishment of a disaster relief fund, a centre for facilitating responses to requests and monitoring disaster risk, simulation exercises, and the dissemination of information and best practices through training. Many of these goals are currently being translated into action. Perhaps the most significant institutional mechanism that has emerged is the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA). Since its establishment in November 2011 (operational a year later in 2012), the centre has set up a Disaster Monitoring and Response System (DMRS), produced standby arrangements (including information on available national assets for emergency response), and facilitated and responded to eight disasters.[3] For example, the AHA centre sent an assessment team to the 2012 Myanmar earthquake and dispatched 250 tents; in collaboration with a Rapid Needs Assessment (RNA)team was sent to assess possibilities for assistance in the aftermath of Typhoon Bopha in the Philippines in 2012; and AHA acted as an information hub for national disaster management organization focal points, deployed a coordination team and offered nine rescue boats to the Philippines' national disaster risk reduction and management council in response to Typhoon Haiya (AHA, 2013; ADInet, n.d.). HFA has also created and used the Disaster

Emergency Logistics System (DELSA) warehouse of emergency stockpiles that includes boats, generators, mobile storage units, family kits, shelter toolkits and tents (Personal Correspondence, 2014).

Together with the Asian Disaster Reduction Center (ADRC), ASEAN has also established various workshops and training modules including an intensive six-month training programme for executives and a Training for Trainers (TOT) initiative designed to build local capacity by training local government officials. Simulation exercises have also been conducted which aim to test and use the operational capabilities of the AHA and the Standard Operating Procedures, and to test national customs, immigration and quarantine clearance systems to allow for faster reaction time for external assistance. Since 2005 a simulation exercise has also been conducted each year which is based around common natural hazards, such as earthquakes, hurricanes and landslides (ASEAN, 2008, 2013).

These and other observations on the increasing capacity of ASEAN as an emerging disaster manager in Southeast Asia must be seen in light of continuing challenges. First, the local level appears to be lagging behind regional developments. Only half of National Disaster Management Organizations (NDMO) have an annual budget allocation for potential response needs, and only six out of ten local governments have a budget allocation for potential disasters (GFDRR, 2011: 25).[4] Cambodia, Lao PDR and Myanmar have particularly limited budget provisions, and a number of member states have been slow to release emergency funds in times of disasters (Ibid: 25–26). This tends to reflect a lack of political will at the local level.[5] Some explanations for this may be due to limited information sharing among some member states, the lack of enforcement mechanisms and no specific funds for assisting the implementation of regional goals into local practices (Novak, 2011). In an effort to improve this situation a consortium of seven civil society organizations was established in 2009 to assist the ASEAN secretariat to implement the AADMER at the local and national levels (APG, 2012).

Second, not all member states have established national action plans on disaster management, and many of the national action plans that are in place are not consistent with the regional goals anticipated in AADMER (Ibid). Member states display a considerable range of differing capacities, levels of development and preparedness (Thuzar, 2013). Third, ASEAN's impressive DRM capacities are predominantly financed by external actors. The operationalization of the AHA centre, staff recruitment, and administration costs, for example, are supported by Australia, Belgium, Japan, New Zealand, USA, the EU and the UN family (AHA Centre, 2013). Out of these donors, Japan stands out as

a particularly strong supporter of ASEAN. In 2006, Japan established a Japan-ASEAN Integration Fund (JAIF) with a pledge to provide USD 70 million to strengthen the regional organization including its DRM capacity. Japan-ASEAN cooperation on DRM then accelerated after the T□hoku earthquake in 2011. Japan has since provided and introduced satellite communications equipment to the AHA centre to upgrade risk identification and monitoring systems; it supports the DELSA stockpile emergency supply depot; is assists with the management of the AHA centre; it conducts workshops and conferences; and it has proposed the formation of a disaster management network for the ASEAN region (MOFA, 2012). Japan has even improved national information and technology systems in Laos, Myanmar and Cambodia in order to streamline effective communication between member states (Thuzar, 2013: 303).

Financial and technical support from civil society, international organizations and states clearly provide important capacities for ASEAN. However, this also means that ASEAN remains fairly dependent on external sources of financing, particularly as its own budget is extremely limited (UNU-CRIS, 2008). As along as external actors see value in supporting ASEAN's role as a disaster manager in the region, ASEAN will have the resources and capacity to support member states. The impressive capacity of ASEAN does not necessarily reflect its political will as a regional actor. For example, ASEAN has been criticized for not taking a leading role in the recent catastrophe in the Philippines (Keithley, 2013); yet, the example of its diplomatic success in Myanmar proves that it does have the capacity to make a difference.

Notwithstanding its limitations, ASEAN holds much potential as a regional actor in Southeast Asia. It has made significant steps in fulfilling the aims of the AADMER, such as enhancing dialogue, disseminating knowledge and establishing operational capacities through the AHA centre. Concerted attempts have been made to streamline operational capacities among member states through annual simulation exercises, and it has even established a stockpile of emergency supplies. Despite these inroads, the extent to which these activities translate into effective operational capacity remains unclear: its role will be determined in analysing its future responses to disasters. Its continual dependency on international support makes it difficult to measure its political will and the limited success in translating regional goals into local practice hampers the effectiveness of the member states acting together in order to meet future transboundary threats. The level of ASEAN's DRM capacity is equivalent to 0.65 in Table 7.1. It receives 0.15 for its operational capacity through the HFA (its reliance on external funding means that is

does not receive a full value for this condition); 0.15 for standardization (simulation exercises); 0.15 for asset pooling (DELSA warehouse); 0.20 for information sharing (simulations exercises, TOT initiative, training modules); and 0.00 for national and local awareness.

**Caribbean Community**

The role of CARICOM/CDEMA as a regional actor in disaster management has significantly developed since its member states established CDERA in 1991. It has become increasingly active in facilitating preparedness and prevention programmes in member states, organizing forums of dialogue and information exchanges, and delivering operational capacity through its Regional Response Mechanism (RRM).[6] According to its own database of programmes, the agency has implemented 45 projects that focus on enhanced community resilience, knowledge management, improved institutional support and DRM mainstreaming (CDEMA, n.d.). A prominent example is the Caribbean Hazard Mitigation Capacity Building Programme (CHAMP) that aims to assist in the development of national hazard mitigation policies, promote the use of hazard information in development decisions and strengthen building standards and training (OAS, 2004). Another initiative to translate regional goals into national or local levels includes the formation of the Comprehensive Disaster Management Coordination and Harmonization Council (CDM CHC). CDEMA also established a specific programme, with financial support from the Australian government, to enhance the national capacities of the Haitian Civil Protection Directorate, with an express aim of streamlining its national preparedness, prevention and response plans with CDEMA's regional strategy (CDEMA, 2010). Through these or related programmes Caribbean countries, such as Trinidad and Tobago, Grenada and Jamaica, have made significant efforts to mainstream regional goals and aims into national action plans (HFA, 2013d, 2013j; Kirton, 2013: 12).

In the area of response, the RRM and its sub-regional focal points in Antigua, Barbados, Jamaica, and Trinidad and Tobago have been activated a number of times to respond to disasters that have overwhelmed national capacities. The technical teams, the Rapid Needs Assessment Team (RNAT), and representatives from the CDEMA Coordination Unit (CDEMA CU) have been deployed in various disasters, such as the Haitian earthquake and Hurricane Tomas in 2010, Hurricane Irene in 2011 and the 'Christmas disaster' in the Lesser Antilles in 2013. Sub-regional warehouses that store basic first aid and relief equipment have been used in a number of these disasters as well as the facilitation of aerial reconnaissance and technical and administrative support to national emergency

authorities (CDEMA, 2014). The Caribbean Disaster Risk Unit (CDRU), made up of 35 police, fire and military personnel from the participating states, was also deployed to Haiti in 2010 and participates in collective training exercises (Arthur, 2011). In terms of financing for response and recovery, an East and a North-West Caribbean Donor group have been set up by UNDP to coordinate the activities of various international donors and support the functioning of CDEMA. The conduct of annual simulation exercises by sub-regional focal points (Kirton, 2013: 11) also provides additional support and the enhancement of operational practices at the regional and national levels.

The capacity of CARICOM as a disaster manager is limited through its high dependence on donor support (HFA, 2011d: 4). Participating states of CDEMA provide less than ten per cent of its budget for operational expenses and only one country has a prioritized budget for sub-regional DRM activities (Kirton, 2013: 5, 11). This means that the agency must rely on external support for its mitigation and response capacities. This is evident, for example, in recent response and recovery efforts in the Bahamas (Hurricane Irene) where aerial reconnaissance was financed by USAID and OFDA, and in Saint Lucia (Hurricane Tomas) where CIDA provided a water infrastructure specialist through CDEMA (CDEMA, n.d.). Donor support for response and recovery is also channelled through the East and a North-West Caribbean Donor groups that are constituted by a large number of international and regional organizations. Mitigation projects are also predominantly financed by other organizations, such as the CDB, USAID, CIDA and UNDP, which reduces the agenda setting capabilities of CDEMA.

Judging the impact of these and other projects is difficult to properly assess. CHAMP, for example, seems to have had some impact, such as the formulation of hazard-risk reduction policy in Jamaica (MLE, 2005). However, the continual range in national DRM capacities almost a decade after CHAMP was initiated tends to reflect a limited impact of this and other projects dedicated to strengthening national and local emergency systems (HFA, 2011d: 4). National disaster risk assessments, for example, remain limited in many member states (Ibid: 13) as well as a sufficient maritime and air transportation network (Kirton, 2013: 11). Part of the reason for this lack of capacity is reflected in recent country assessments on national DRM activity that highlight the lack of financial and material resources and a lack of political will as indicators of continued vulnerability in Caribbean island states (HFA, 2011a, 2011f, 2013e, 2013f, 2013g; Kirton, 2013: 7). Thus, potentially useful initiatives such as CDM CHC are often limited to raising awareness and

sharing information while being hampered by a lack of communication, resources and capacities (HFA, 2011d: 6). The lack of resources and technical knowledge at the local level also means that successful development projects may risk potential collapse if long-term maintenance and support systems are not put in place.[7]

CARICOM continues to develop its regional capacity in the areas of prevention, preparedness, response and recovery. It has made significant institutional steps towards achieving a more resilient region. However, its continual lack of financing, local implementation of regional aims and a general lack of political commitment drives a wedge between expectations and capabilities. Its progress in achieving its regional aims, even if limited, is an important sign of potentially closing this gap in the future. CARICOM receives a total value of 0.70, which is divided into: 0.10 (awareness); 0.20 (information); 0.15 (operational capacity); 0.10 (standardization); and 0.15 (asset pooling). Its main limitations are its dependency on external donors and limited national support.

**Economic Cooperation Organization**

As one of the main regional bodies in central Asia, ECO provides an important regional hub for increasing the resilience of its member states, many of which are highly vulnerable to natural disasters, such as epidemics, earthquakes, landslides and flooding (GFDRR, 2009). As documented in Chapter 2, ECO has not yet established a specific programme on DRM. Instead, it has organized a series of conferences together with the UNISDR on enhancing DRM capacity. This has facilitated important sharing of information, goal setting and awareness gathering of the importance of DRM for the region. On a whole, there has been very little development of any DRM capacities other than information sharing in the region. MoUs – such as the 2007 MoU between UNISDR and ECO – have not been well implemented and there remains a need for harmonization across the different member states which hold varying capacities (HFA, 2013a: 14). A Central Asia Centre for Disaster Response and Risk Reduction have been created. However, Tajikistan is yet to sign the agreement (HFA, 2013g: 16). Furthermore, as national HFA progress reports on DRM fail to mention the ECO-RCRM, the operational value of this Iran-based institute for enhancing regional resilience remains doubtful (see de Guttry, 2012: 25). National self-evaluation reports also identify a lack of local knowledge and capacity to deal with transboundary threats, a lack of joint training to enhance preparedness, and poor warning and communication systems (HFA, 2012a: 11–12; HFA, 2012b: 15). There

is also a reported lack of dedication of ECO member states as well as restrained information flows across countries.[8]

As a regional disaster risk manager, ECO does not have a significantly high capabilities-expectations gap because its expectations are low. However, there still appears to be a gap due to limited operational capacity and weak collective commitment. Furthermore, the aim of increasing awareness and information seems to stay at the regional level as there is a real need for information flows and communication between the regional, national and local levels. ECO consequently receives a low score of 0.05, which is based on its limited information sharing capacity.

**European Union**

Out of the regional organizations analysed, the EU is one of the most equipped and developed disaster managers. Through its community mechanism, it coordinates and funds exchanges, training programmes and simulation exercises that increase specialized knowledge and information, and it encourages transnational disaster management coordination. Within a four-year period, from 2010–2013, the EU conducted 15 simulation exercises with another two planned for 2014 as well as 11 module exercises (ECHO, 2013a, 2013b). The exercise scenarios involve a range of hazards that include terrorism, tsunami, floods, nuclear accidents, marine pollution, forest fires and earthquakes. Roughly 2000 national experts have participated in the training programmes and over 500 experts have completed exchanges (ECHO, 2013b; Hollis, 2010a: 44). In terms of response, the EU has been active in its capacity as a leader in facilitating and coordinating member state responses to disasters. In 2012, for example, the Monitoring and Information Centre (MIC) – now the ERCC – facilitated various requests for assistance from member states, such as an earthquake in Italy, forest fires in Greece, and floods in Bulgaria. The MIC also provided EFFIA forecasts and risk maps to Slovenia and a scientific report on the consequences of the Italian earthquake. It is also interesting to note an important development in the use of modules for fire fighting during the European summer in 2012. Not only were general requests for assistance sent to member states, but the MIC specifically requested France to activate its ground forest fire fighting module. While France could still deny this request, it does mark a small step towards 'forced solidarity' and an increase in supranational capacities (ECHO, 2012).

According to the regional aims and goals of the community mechanism the EU certainly appears to be meeting its expectations. However, there are some good reasons to be hesitant in claiming symmetry

between expectations and existing capabilities. A recent analysis of the EU's capacity as a crisis manager notes: 'the Civil Protection Mechanism, as it stands today, is unlikely to add much value when an overwhelmed state calls for assistance' (Boin, Ekengren and Rhinard, 2013: 155). In 2012, for example, a series of forest fires affected five southern member states that requested assistance through the MIC. However, its available capacities, such as the use of existing fire fighting modules, were exhausted; placing limitation on what the MIC could achieve as a disaster manager (ECHO, 2012). Other shortcomings of the EU's capacity include: an opaque crisis management venue; a limited capacity to collect and interpret data (dependent upon the proactive measures of member states); a lack of authority as a crisis manager; and no operational standards for the use of its capacities (Boin, Ekengren and Rhinard, 2013: 155–156). In addition to these points, there does not seem to be any considerable impact at the local level of disaster management. According to the 2012 survey of public perception on EU civil protection, only 38 per cent of respondents were aware that the EU coordinates civil protection (Commission, 2012b: 4). A similar, albeit more generalized, finding is reflected in a recent comparative study of 22 civil security systems in Europe which notes that the EU is 'not a visible actor in delivering civil protection in the studied states' (ANVIL, 2013). The study also notes that member states do not always have a clear overview on national spending on DRM and that under-funding was a concern in some member states (Ibid). Limited funding is also reflected at the regional level that prevents the EU from achieving some of its ambitious goals (Boin, Ekengren and Rhinard, 2013: 159). Furthermore, national participation in preparedness activities, such as the exchange of experts, training and simulation exercises, is asymmetrical: a minority of states are involved in a majority of the activities (Hollis, 2010a: 60).

Despite these shortcomings, the EU's capacity and role as a disaster manager has grown significantly over the last two decades. It may suffer from a capabilities-expectations gap; however, this should not overshadow its growing role in providing for a more resilient Europe. According to its agreement on establishing a community mechanism and the review of its actual capacities, the EU reaches a value of 0.75. It has limited impact in forming national and local awareness (0.05); it has a high capacity in the dissemination of information (0.20) and operational capacity (0.20); it contributes to standardization efforts through simulation exercises and the operational use of modules (0.20).; and finally, it has some asset pooling, mainly in the form of its modules and CESIS system (0.10).

**League of Arab States**

Anticipated cooperation on disaster risk management through LAS began in 1987 where the need for regional solutions to counter regional threats was acknowledged. The Arab Supreme Relief Committee was established through this agreement. However, implementation of its goals has been stifled by a low number of member states that have ratified the agreement (IDRL, 2008). Furthermore, its aim to produce relief plans for response to disasters and to coordinate communication between member states (LAS, 1987: Art. 5) appears to be limited. Recent self-evaluations of national emergency systems reveal that at least eight of the member states identify the lack of regional early warning systems, or information exchange, as hindrances to effective regional cooperation.[9] Furthermore, only two member states mention LAS as a regional partner in DRM, whereas a majority mention the importance of: other regional organizations, such as the EU, IGAD, GCC and the IOC; governments, such as the US, France and Italy; and UN agencies, such as the UNDP, UNISDR and UNESCO. Local development towards increasing DRM capacity has also faced difficulty in translating words into action (UNISDR, 2011a: 17). These reflections cast little positive light on the anticipated outcome from the Arab Strategy for DRR (LAS, 2011), although it may still be too early to cast judgement on this new initiative.

The limited ability to translate regional declarations of intent into practice by LAS does not mean that it has been entirely inactive, nor does it mean that effective projects and initiatives are not being implemented to increase the resilience of the region from natural hazards. For example, the Arab Network for Environment and Development (RAED), a complex of NGOs, signed an MoU with UNISDR in 2008 to assist member states and local communities to become more disaster resilient (UNISDR, 2011a: 17). RAED holds a particularly strategic position as a conveyor belt of ideas between the local level and regional level as it holds observer status in the LAS Council of Arab Ministers Responsible for Environment (CAMRE) and the Council of Economic and Social Affairs. Through the Aqaba Declaration, LAS also supports the UNISDR global initiative, *Making Cities Resilient*, whereby close to 300 Arab cities and municipalities have now joined the campaign. Some activity has also emerged through the Regional Centre for Disaster Risk Reduction (RCDRR), such as training programmes on local disaster risk management (GFDRR, 2012b), as well as the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), such as a regional workshop on regional climate modelling (PreventionWeb, 2012b).

Existing cooperation on disaster risk is also proceeding through the various forums and institutions related to sustainable development. The Joint Committee on Environment and Development in the Arab Region (JCEDAR), for example, cooperates on DRM in the context of sustainable development in the region (UNDP, 2010), and the Centre for Environment and Development for the Arab Region and Europe (CEDARE) has been active in supporting forums for high-level dialogue on DRM. The Arab Initiative for Sustainable Development and the subsequent creation of the Arab Environment Facility (AEF) in 2006 also deal with areas of DRM such as climate change, desertification, deforestation and urbanization. However, the AEF currently has only nine signatories and only three countries have ratified the agreement (MOE, 2012). Unfortunately, this lack of political will tends to be reflected more generally by LAS member states. An evaluation on regional programmes on sustainable development, for example, notes: '[r]egional declarations on sustainable development that have been presented at previous conferences, both in the region and internationally, have often expressed ambitious goals with little concrete action in support of them' (ESCWA, 2011: 22).

The development of operational capacities that are anticipated to emerge based on the League's agreements on DRM is particularly slow. Frequent dialogue on the need for increased cooperation is maintained through various forums; however, actual activity is predominantly financed and implemented by the UNISDR and other international actors. Despite increasing threats from environmental degradation, desertification, and climate change, there remains a general lack of political will and high dependence on external donors. Accordingly, LAS has a total value of 0.25 which is based on is capacity to disseminate information (0.15) and assist in awareness raising at the local level (0.10).

**Common Southern Market**

Unlike most regional organizations analysed in this book, Mercosur has been surprisingly conservative in its anticipated capacity as a disaster manager in the region. While there have been more elaborate calls for cooperation since the establishment of the REHU, the main purposes of the REHU are confined to enhancing coordination and cooperation between the DRM systems of member states. Thus far, little capacity other than enhancing dialogue and potential coordination between similar regional organizations has taken place (Mercosur, 2010: Art. 10; Haver and Foley, 2011). Yet, aspirations for cooperation appear to be developing. The seventh REHU meeting, for example, expressed the need

for organizing and making a record of humanitarian supplies that can be used in the event of a disaster (Mercosur, 2012), and a recent meeting of environmental minsters agreed on folding DRM issues into environmental policies (AVN/Press, 2013). However, these issues remain in the realm of expected capacities. Actual capacities are limited. An evaluation of Brazil's regional cooperation on DRM, for example, notes that development of any coordination is going at a slow pace which is partly due to a lack of dedication by the government of Brazil (HFA, 2013b: 15).

As Mercosur has not established high expectations, there is no significant gap between its current lack of regional capacities. This can be at least partly explained by member states' participation in existing regional and bilateral initiatives whereby they are concerned about duplicating efforts (HFA, 2012d: 12). However, this would not explain the increasing expectations reflected in the aims and proposals of recent REHU meetings. Mercosur has a value of 0.10 based on its limited capacity in disseminating information.

**Organization of American States**

Like Mercosur, the OAS has been less ambitious in its aims, perceiving its role in DRM as a supporter of national and sub-regional efforts rather than becoming an actor in its own right. Thus, unlike CARICOM, EU and ASEAN, the OAS has chosen not to establish a pan-American hub for the facilitation of disaster response. Instead it provides a similar meta-regional role to that of the AU by supporting sub-regional organizations, such as CARICOM and CAPRADE, and national emergency systems. The OAS has been fairly successful in achieving these aims. This has principally taken shape through its funding of DRM projects, its use of the Inter-American Emergency Aid Fund (FONDEM), and its networking and knowledge sharing initiatives. Examples of projects the OAS has implemented include the Grenada Hurricane Resilient Home Reconstruction Programme, the Haiti Building Standards Development Project and the Central American School Retrofitting Programme (DSD, 2010). In the period from 1998 to 2013, FONDEM has been activated at least 35 times to provide relief aid to over 20 countries in the Americas from a variety of natural hazards ranging from earthquakes, hurricanes, floods and landslides (ReliefWeb, n.d.). In terms of networking, the Inter-American Network for Disaster Management (INDM) is the main institutional tool used to provide a link between (global) civil society and national level of DRM activity. Since its operationalization in 2007, the INDM now has a pool of over 600 experts that can be used to assist programmes, draft proposals and develop policies. INDM is also connected to 178 governmental and 45

intergovernmental organizations, 67 NGOs, 20 universities, 12 private companies and 6 related networks on DRM (INDM, n.d.). It has furthermore facilitated at least 44 training activities that range from space applications for early warning systems to risk management and climate change, and it has established 34 national focal points to liaise and help to provide a link between the regional and national levels. Other notable networking and knowledge sharing initiatives include the facilitation of UNISDR regional platforms and 'hemispheric encounters' for national mechanisms and networks on risk reduction. In addition to these activities, affiliated OAS organizations such as the White Helmets Initiative and the Pan-American Development Fund (PADF) are active in the region. The White Helmets, for example, were deployed at least 39 times in the period 2005–2008 (Cacos Blancos, 2012) and PADF elicits important financial support from public and private institutions for response, reconstruction and rehabilitation programmes. As PADF is a member of the Inter-American Committee on National Disaster Reduction, it also plays a significant role in connected regional aspirations to civil society and the community level.

Even if the OAS does not project relatively ambitious aims, a capabilities-expectations gap can nevertheless be observed. Its projected aim to design regional standards, increase inter-agency coordination and decrease duplication (OAS, 2011b: Art. 4–5), for example, has not been achieved. According to an evaluation of DRM activities by the OAS, some limitations included: the lack of a pan-American insurance scheme; the lack of inter-agency coordination between regional organizations, civil society and the private sector; few effective emergency warning systems; dependence on international support; and few monitoring systems (HFA, 2011d: 2–8). Furthermore, out of the member states that filled out evaluation forms (22 out of 33), only 63 per cent had established a public information system and have taken measures to invest in more resilient urban settlements (Ibid: 23–25). This tends to suggest a lack of political will at the national level. Indeed, a report by the World Bank notes that despite the increasing costs natural disasters produce, only 3.6 per cent of international disaster financing is used to invest in risk reduction (Jamie, 2012; see Kapila, 2010). Finally, the extremely slow process of ratification of the Inter-American Convention to Facilitate Disaster Assistance also points to a lack of political will and limited trust in the OAS as a disaster manager.[10]

The aim of strengthening pan-American resilience through the OAS is ultimately dependent on the collective will of its member states. Currently, this will appears to be fairly limited. While there are certainly positive developments that push the region towards a more resilient

community, it appears hampered by a lack of integration. OAS mechanisms are designed and used primarily for increasing awareness, knowledge sharing and relief funds. Response and recovery capacities, however, remain in the hands of the affiliated WHI. The OAS has a total value of 0.45. Its strength lies in its networking abilities (information: 2.0) largely through the INDM and the use of its financial capacity through FONDEM (operational capacity: 0.15), whereas its weakness lies in standardization (0.00), asset pooling (0.00) and awareness (0.10).

**Pacific Islands Forum**

The PIF has a very limited set of capacities. Its one and only strength lies in its ability to organize and participate in high-level discussions on DRM and related issues. The PIF is conspicuously absent in its support for the Regional Platform for Disaster Risk Management and the Pacific Disaster Risk Management Partnership Network. The latter reflects an impressive coordination of DRM activities that are currently being conducted by international organizations, such as the IFRC, the UNISDR, SOPAC, AUSAID, NZAID and the Pacific Disaster Centre. To date, the website lists 235 projects that have been completed or are ongoing in the area of DRM. However, the PIF is not registered as having led or financed any DRM-related projects in the last two decades. In comparison, the SPC has financed seven and implemented over 60 of these projects since 2004 (PDRMPN, 2009). These and other programmes aim to strengthen national legislation on DRM through the creation of Joint National Action Plans, support community level disaster management through education initiatives, and provide capacity through promoting early warning systems. Furthermore, self-evaluations on the role of regional organizations in the Pacific rarely emphasize the PIF. Instead, a collection of other international and regional organizations are usually referred to that provide technical, policy and community support. It is interesting to note that a number of self-evaluations are critical on the over-supply of international support programmes that have poor exit strategies in relation to the existing capacity of PICs to maintain many short-term programmes (HFA, 2013c, 2013h; RNZI, 2012).

While the PIF remains fairly dormant on DRM issues, it has not been entirely inactive. For example, PIF leaders published a communiqué in 2012 that aims to work with the IFRC to implement IDRL in the Pacific (IFRC, 2013) and collaborate on DRM with other regional organizations through the Council of Regional Organisations of the Pacific (CROP). An example of the latter is the establishment of a 'a roadmap' to incorporate climate change and DRM into a single regional strategy (PIF, 2013b). The

PIF secretariat also uses its regional platform to elicit support from member states to continue DRM-based programmes, such as the Pacific Catastrophe Risk Assessment and Financing Initiative (PIF, 2013a). Through the support of the World Bank, SOPAC and other organizations, this initiative aims to improve the capacity of PICs through providing disaster risk modelling assessment tools and financial resilience through reinsurance.

This brief overview demonstrates the narrow role the PIF musters in obtaining high-level support for DRM initiatives. Based on its anticipated activity according to the Madang Framework, there is a large gap between the expectations and capabilities. This does not mean that the role of regional organizations is void in the Pacific – SOPAC, for example, is an important actor – but that PIF as an institution remains limited. Accordingly PIF has a value of only 0.10 based on its limited impact on national and local levels and its capacity to disseminate information.

**Southern African Development Community**

SADC has been particularly slow in turning its DRM ambitions from anticipated to actual activity. Its DRR Strategic Plan, among other things, aims to: strengthen legal and institutional frameworks at the regional, national and local levels; monitor, identify and assess risks, and develop early warning systems at all levels; and ensure that DRR becomes a national and local priority (RRSU, 2009). These aims have not been fulfilled. The following represents some of the shortfalls that were identified in national self-evaluations by SADC member states as: no dedicated funding for disaster preparedness and response; a lack of government commitment; limited collaboration among neighbouring states; a lack of standardized reporting tools and monitoring systems; little information management capacity; and a general failure to conduct a review on 'lessons learned' after a disaster session (SADC, 2012c: 17–19). Similar reflections are made in HFA progress reviews by SADC member states who note: that SADC 'has a very weak disaster risk Management Structure that is still at its infant stage. It has never … facilitated cooperation in DRR within the regions' (HFA, 2011c: 9); that 'SADC based early warning system is non-functional and requires capacity building' (HFA, 2011b: 9); that there 'is still a large gap in development of regional cooperation on risk reduction … [and that there] is inadequate information and experiences sharing on regional risk assessments … among the national disaster risk management authorities' (HFA, 2010: 13; see HFA, 2009: 6; HFA, 2013i: 20–21; SADC, 2013).

In spite of these reports, SADC is pursuing its aims of networking and knowledge dissemination through the 2011 inauguration of a regional

platform for DRR, workshops, and facilitation of a biannual meeting of the heads of national disaster management organizations (the SADC Disaster Management Technical Committee) who meet when 'financial constraints' do not overwhelm them (RRSU, 2009). Pockets of progress can also be seen in the integration of DRR in school curricula in Zimbabwe and Malawi, and multi-hazard response strategies are reportedly being developed in member states (SADC, 2013). A DRR Unit has also been established that aims to coordinate regional preparedness and response projects; however, its capacity is fairly weak (Niekerk, 2010; SADC, 2012b; Ferris, Petz, and Stark, 2012: 46). International donors are attempting to increase the capacity of SADC through various projects and funds. The European Development Fund for Regional Political Cooperation, for example, provided SADC with 18 million euros to enable it to fulfil its mandate. A priority area of the fund is to enhance DRR and DRM (SADC, 2012d). The EU-ACP Natural Disaster Facility, the UNISDR, the World Bank, UNDP and the Swedish Civil Contingencies Agency are also active donors in supporting SADC's DRM capacities.

While SADC has not been very successful in fulfilling its goals as set out in the DRR Strategic Plan, there are a number of related initiatives that SADC has achieved. SADC is cooperating, for example, with the AU to implement the Africa Monitoring of the Environment for Sustainable Development (AMESD) project (financed by the EU). This includes a drought service and a fire satellite information service for member states (AMESD-SADC, n.d.). In addition to this, the SADC Climate Service Centre produces and disseminates climate-change information and conducts training modules. Some of the listed 'results' from its website include seasonal weather forecasting, and the production of hazard maps for droughts, floods and cyclones. It is also in the process of setting up a Climate Data Processing Centre that will establish a Real Time Extreme Weather and Climate Monitoring System (MONIS). The centre is funded by the UNDP, WMO, World Bank, various US government agencies and Belgium (SADC, 2012a). As part of SADC's Regional Food Security Programme, the SADC Regional Remote Sensing Unit (RRSU) – established in 1988 – provides training programmes and technical support, monitors seasonal changes through satellite images, and maintains a database of historical data (RRSU, 2010). As the RRSU cooperates with national departments of meteorological services, National Early Warning Units (NEWU), and National Disaster Management Units (NDMU), an important information flow between the regional and national levels can be maintained. Incorporation of these associated projects into SADC's DRM cooperation would certainly increase its limited capacities.

However, based on the national self-evaluation, the potential value of this appears to be underdeveloped.

Regional and national capacity and political will to implement the goals outlined in SADC DRR's strategy are lacking. Little progress has been made in translating anticipated activity into operational capacity. While there has been some progress in sharing information this, too, according to national self-evaluations, needs to be improved. Increased support for international donors, such as the EU, UNDP and the World Bank, may provide the necessary funds to see some of its goals implemented. However, this does not ensure long-term development of the regional DRM capacity: SADC must take ownership of regional DRM practices in order to achieve greater resilience in the region. Accordingly, SADC has a value of 0.15 which is contributed by its only real capacity, which is to network and disseminate some information.

## Comparing capacities

This subsection aims to highlight general patterns across the cases in order to reveal the current and potential role of regional DRM. One of the most apparent patterns is the high prevalence of (inter)national organizations and civil society groups that are understood as a necessary condition for the maintenance and existence of a majority of regional DRM arrangements (see Chapter 3). It is furthermore argued that this DRM community not only assists regional organizations to increase national and community resilience, but that they have also paradoxically contributed to a capability-expectations gap that they seek to reduce by encouraging states to set regional aims that are beyond the states' capacity to effectively implement. Regional organizations are strategically placed to close this gap; however, this means taking ownership of regional DRM seriously. Until this happens, the role of many regional organizations will remain highly limited.

The most developed aspect of DRM, according to the five qualitative anchors used to assess the capacity of regional organizations, is the production and dissemination of information. That is, their role in implementing and facilitating information exchanges through various media, such as networks, conferences, regional platforms, workshops, education programmes and the exchange of experts. Every regional organization was awarded a value between 0.1 and 0.2 reflecting a significantly high level of capacity across all cases (Table 7.1). It is also worth noting that half of the organizations also play a substantial operational role through either facilitating responses to disasters – such as

ASEAN, CARICOM and the EU – or facilitating reinsurance schemes, such as the AU and CARICOM. However, the role of regional organizations in increasing the awareness of local and national levels, increasing standardization procedures across member states and pooling assets is restricted. These findings generally follow neoliberal institutionalist expectations that would anticipate reduced cooperation as the transaction costs increase. However, a minority of regional organizations are performing more developed roles.

Regional organizations that have achieved significant progress in translating words into deeds include the EU, ASEAN and CARICOM (see Figure 7.1). These organizations have established information and operational-based capacities, they have instigated standardizing procedures, and they have even begun to pool emergency response assets. They appear to be developing into significant regional crisis managers in their own right. These examples reflect great potential for the role of regional organizations in supporting global resilience efforts. However, there are also a number of issues that restrict the potential role of regional DRM.

An important difference within the above-mentioned triad is the dependency ASEAN and CARICOM have on international donors; a dependency that is endemic among all regional organizations examined in this book, except for the EU. Most descriptions of regional capacities are often intricately supported by, and dependent on, various external actors such as national governments, civil society, regional financial institutions and international organizations. Indeed, the hypothetical absence of international donor support provides a powerful counterfactual for supporting the claim that the international community is a necessary condition for regional DRM in most regional organizations. External support to regional DRM includes operational capacities as well as various programmes that aim to increase preparedness and prevention capacities. As many regional organizations have small budgets, access to external funds is often the only means available to pursue increased cooperation on DRM: international donors cover the transaction costs of cooperation as de facto regional paymasters. While this provides an important avenue for enhancing regional resilience to natural disasters, it also means that short-term projects with visible outcomes tend to be favoured over long-term measures to increase resilience. This, in turn, restricts successful approaches to addressing root causes of vulnerability in many developing countries. Poor exit strategies in disaster resilience programmes, and few monitoring and evaluation tools, can moreover revert capacities to pre-existing levels. While this may not be the case for all DRM programmes, these prevailing conditions are likely to produce

a cyclical system of recurrent assistance.[11] At its extreme, international and regional DRM programmes reify rather than reduce risk. A total of 220 DRM programmes, for example, were implemented in the Pacific region in the period 2002–2012, yet the level of DRM development in most Pacific island countries have not significantly developed (DRR Project Portal, 2013). According to self-evaluations, this is partly the result of the over-supply of international support programmes in relation to existing resources. If this is the case, that regional- and international-sponsored DRM programmes are not having a significant impact, then the current approach taken must be seriously examined.

There is nevertheless a silver lining in the abundance of international donors. Regional organizations can provide the appropriate forums for connecting like-minded organizations together to produce more than a sum of their parts. The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), for example, includes partnerships with the World Bank, the Secretariat of the Pacific Community (SPC), and the Asian Development Bank; financial support from the Global Facility for Disaster Reduction and Recovery (GFDRR), the European Union (EU-ACP), and the government of Japan; and technical support from GNS Science, Geoscience Australia, and AIR Worldwide. Other examples of similar coalitions of external actors include RAED in the Arab region, PADF in the Americas, and the East and a North-West Caribbean Donor groups for the Caribbean. These types of collective initiatives not only produce a sizable and potential contribution to regional resilience, but also make future contributions more certain as the loss of one donor will not severely decrease donor-related capacity. However, it bears to keep in mind that currently most regional organizations tend to be mere participants rather than leading facilitators of these groups, limiting their potential role.

The excessive presence of, and support by, international organizations and NGOs to most regional organizations questions the apparent role of regional organizations as independent or potential crisis managers. At times it would seem that regional organizations are used as legitimate conduits for fulfilling the mandates of international organizations rather than acting as autonomous actors. While the interests of regional and international organizations is often aligned it can be difficult to fully disentangle the real and perceived interests of regional organizations. Yet, the limited political will to implement regional aims and goals suggests that regional interests are influenced from international rather than local concerns, demands and interests. As world society theorists would expect, this produces a decoupling between international and local levels. This is also reflected in a lack of awareness at the local level, which is reflected

as a general pattern across all regional organizations including the EU. Regional organizations naturally focus their perspective on the regional level to the detriment of strengthening local and community-based capacities. They provide paper-thin resilience at the regional level and intermittent support at the local level. However, the 'gap' is not consistent across all regional organizations. As the following subsection explains some regional organizations have much larger gaps than others.

Apart from the lack of financial capacities and the consequent reliance on third parties, a related issue that feeds through most regional organizations is the lack of political will. This is reflected in, for example, limited budget provisions and the lack of signatories or ratification of DRM agreements. Even when regional and international support produces legislative changes in countries, such as the Joint National Action Plan (JNAP) on DRM in Pacific countries (UNISDR, 2013c), it does not necessarily mean that they have obtained greater capacity. As of 2013, for example, Tonga has not portioned any of its national budget for DRM activities (HFA, 2012c) even though it has recently established a JNAP through the support of SOPAC and UNISDR. This example is not specific to Tonga; as we have seen, national budget allocations in a number of regional organizations such as the AU, EU, ECO, LAS and SADC are limited (see also UNISDR, 2013c: 11). Until states take ownership of their role as disaster managers, capacity will remain apparent rather than real. However, it would also seem that some regional organizations are more willing to develop regional resilience than others. The PIF and CARICOM, for example, face similar environmental hazards such as rising sea water levels and hurricanes and both regions exhibit high vulnerability (WRR, 2013). There is high functional demand for regional DRM and there is plenty of international support to overcome transactions costs. Yet, despite these structural conditions CARICOM has developed considerable capacities while the PIF has not.

The limited amount of inter-regional cooperation is another determinant that reduces the potential role of regional organizations. While the EU is actively supporting the DRM capacities of other regions and developing countries, its self-perceived role as a teacher (see Chapter 5) tends to blind it from learning from other regions. On a whole, it would appear that greater inter-regional dialogue could help to foster the exchange of ideas. The EU's formation of modules, for example, could be easily implemented in other regions as it cleverly uses existing national capacities or combines sub-regional capacities that can be used in the event of a disaster. Likewise, the establishment of sub-regional focal points

in the Caribbean is a useful initiative that could provide more efficient response times in the EU and in ASEAN. Furthermore, the OAS makes an explicit connection between developing DRM capacities and democracy promotion. This is an important link that could be grafted easily into the global discourse on DRR as a stepping stone to address root causes of vulnerabilities. Another related role that regional organizations could easily develop through their existing capacity is to harness existing programmes that currently exist outside their orbit, such as the African Centre for Disaster Studies, and through this act as a leading information hub for regional, national and local DRM.

## The capability-expectations gap

When the level of regional capacities is compared against anticipated cooperation (as reflected in regional DRM agreement), a general capability-expectations gap emerges. This gap is illustrated in Figures 7.1 and 7.2. While this is an expected finding – at least according to world society theory – the gap between expectations and capabilities varies across cases and is, in some cases, fairly minor. The EU, CARICOM and ASEAN projected advanced DRM cooperation (>0.5) and displayed advanced capacities (>0.5), and Mercosur and ECO projected nascent DRM cooperation (<0.5) and displayed nascent capacities (<0.5). However, the other five cases projected advanced DRM cooperation (>0.5), yet displayed nascent capacities (<0.5). The gap between these cases is generally quite large except for the AU (see Figure 7.2).

Figure 7.1 illustrates the corresponding DRM values of expectations and the capabilities of regional organizations. The former is based on the anticipated role of regional organizations according to the projected goals of regional DRM agreements (see quantitative scale in Chapter 2; Appendix A1). The latter is based on actual cooperation that has been achieved by the regional organizations (Appendix A2). As both expectations and capabilities were measured according to similar criteria and the same quantitative scale (between 0 and 1), they can be plotted on the same chart in order to illustrate the gap between expectations and capabilities. When the anticipated role of regional organizations closely resembles actual capabilities, the organizations are plotted within a close proximity to the diagonal line the runs across the graph. This means that organizations that are located southeast of the chart generally have a high capability-expectations gap, while organizations that closely align to the northeast or southwest of the chart have a low-to-medium capability-expectations gap. One can observe the generally low levels of

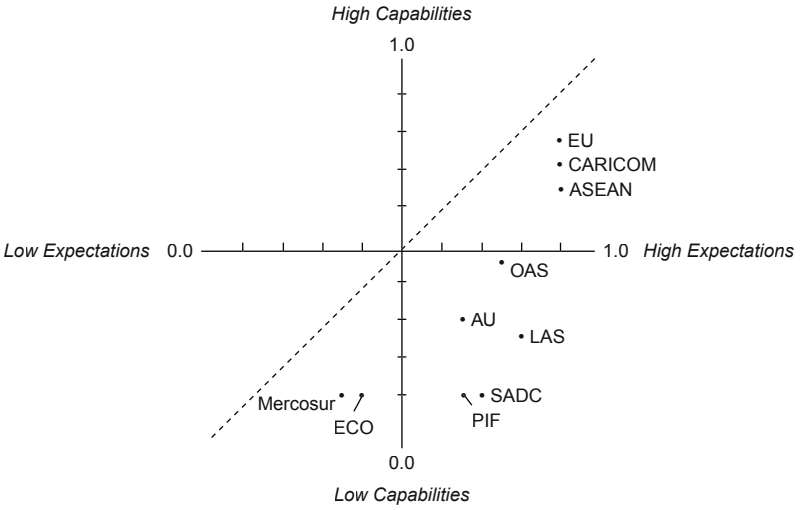


*Figure 7.1* Regional DRM expectations and capabilities

regional capacity in all but three cases and note that half of the cases display high expectations and exert low capabilities.

Figure 7.2 displays the findings through a radar chart, which provides for a more explicit depiction of the expectations gap. That is, the gap between capabilities (dashed line) and expectations (single line). The smaller the distance between the lines, the smaller the capability-expectations gap. The regional organizations are presented clockwise beginning with the smallest gap and ending with the largest gap.

What can explain this gap and variation between the cases? One explanation, based on world society theory, explains the former by emphasizing the mismatch between standardized models of DRM, on the one hand, and the general lack of available resources and local customs on the other. It is argued that regional organizations develop highly elaborate and standardized agreements (Chapter 2) according to 'imagined truths' (Meyer and Jepperson, [2000] 2009: 123) that are reified by the international community (Chapters 4 and 5). Regional organizations are understood here as 'isomorphic actors' that act out a global DRM model through words rather than deeds. Acting out this model is often prioritized over and above rational concerns of implementation. This produces endemic decoupling: 'for organizations, decision-making discourse will be disconnected from decision-making and both from action' (Ibid: 124). Seen in empirical light, these inferences are broadly confirmed as there is a general decoupling between institutional elements and practice.

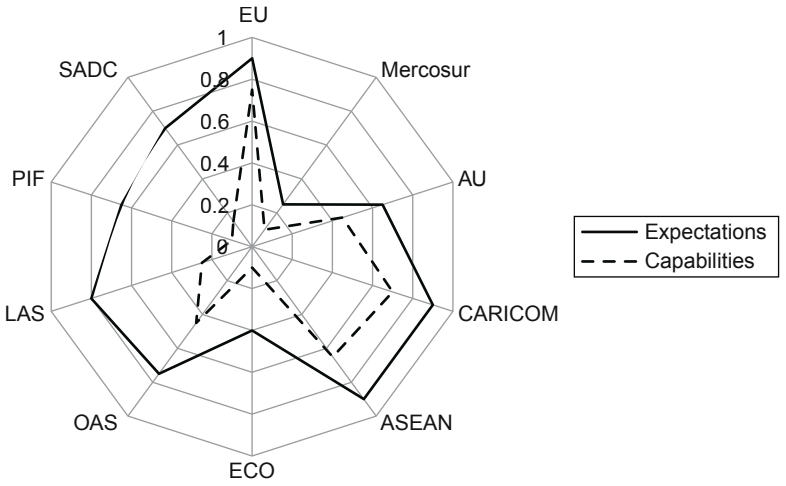


*Figure 7.2* Regional capability-expectations gap

This is most apparent with SADC, PIF, LAS and the OAS. The theory also helps to explain the lack of enforcement mechanisms and evaluation procedures in DRM agreements, as this could potentially create inconsistencies and legitimacy issues for the organizational structure of a regional organization by revealing its limited function (Meyer and Rowan, [1977] 2009: 104). However, the theory struggles to convincingly explain variation between the cases. Why, for example, are there large capability-expectations gaps in PIF and SADC and much smaller gaps in CARICOM and ASEAN? World society theory provides a clue in the form of differences in local customs and path-dependent histories. Accordingly, the role of regional organizations in providing resilience is limited to an unlikely match between local resources and customs, on the one hand, and elaborate global goal setting on the other.

An alternative explanation emphasizes the functional logic of cooperation. Regional organizations create agreements on DRM because it provides a collective good that will benefit its members. States agree to invest in regional cooperation on the assumption that the institutional initiatives will serve the functions they are designed for and that the expected benefits of cooperation will outweigh the costs. Why then would states agree to cooperate on regional DRM when they cannot carry through with implementation? At least two inter-related reasons can account for this gap. First, criticizing the functional logic of states on the outcome of cooperation is logically misleading according to the classic *post hoc ergo*

*propter hoc* fallacy. That is, it is difficult for states to anticipate the future costs of cooperation based on the often broad aims featured in regional DRM agreements. This is particularly the case when states have to make decisions with limited information. This may also be why evaluations and enforcement mechanisms are mostly absent in regional DRM agreements as this keeps contingent costs low. Second, the information that states use to motivate their decision to cooperate through regional DRM initiatives is based on 'apparent information': acquired knowledge that is legitimated through a collective belief system (Chapter 3). As we have seen, this belief system is largely constituted by the international community who iterate rationalized or functional-based arguments for regional DRM cooperation; that is, there is a general increase in the frequency and costs of weather-related disasters and the benefits of investing in regional DRM outweigh the costs. These rational arguments help to persuade states to cooperate on regional DRM as the benefits outweigh the costs.

These two explanations converge in their emphasis on the importance the international community has in shaping regional DRM goals through 'imagined truths', or a collective belief system and the offer of technical and financial support. World society theorists see states as agents of world culture – supported and reified through the international community – that structure their interests according to highly standardized and rationalized goals. Neoliberal institutionalists see states as rational actors who cooperate on DRM when the benefits outweigh the costs. The international community is an intervening variable, or de facto regional paymaster, that reduces the transaction's costs and provides 'apparent' information that persuades states on the benefits of cooperation. While these two explanations are based on highly different presuppositions, they converge in their emphasis on the international DRM community as a necessary condition for regional DRM.

Paradoxically, this international community that is so necessary for regional DRM also contributes to the problem (capability-expectations gap) they are trying to fix by encouraging regional organizations to realize goals that they are incapable of implementing. A cyclical – or, at worst, a Sisyphean – process thus develops whereby regional organizations are necessarily supported by a dense network of actors to help implement their goals; yet, consistent problems prevent these goals from being realized. This results in continual and earnest efforts that do not produce the desired outcomes. One of the main issues of resistance is that regional organizations are unwilling or unable to increase resilience due to various factors raised in this book, such as limited political will, sovereignty concerns (the ASEAN way), and inadequate resources. Other likely

candidates that deserve future attention include diplomatic tensions, inter-state and intra-state conflict, and cultural customs and beliefs.

Another issue – that is also reflected in the general orientation of regional DRM – is that the international community has focused on disaster response rather than prioritizing local disaster risk reduction. Out of the USD 3 trillion in aid provided by the international community in the last 20 years, only 3.5 per cent (USD 106.7 billion) was used for disasters and only 0.4 per cent (USD 13.5 billion) was channelled to reducing disaster risk (Kellett and Caravani, 2013: 5). Put differently, for every dollar spent on DRR more than 106 dollars was spent on response (Ibid: 37). These financial constraints on DRR projects mean that short-term DRR projects will be most likely to be favoured over longer-term projects, which reduces the possibility of improving the root causes of vulnerability. Furthermore, there is an imbalanced distribution of international financing whereby the low-income countries come out as the 'losers' (Ibid: 35).[12] Developing countries should instead be the 'winners' in receiving a greater proposition of financial aid in order to strengthen their capacities. States ought to use their regional organization as a forum for influencing international donors to rethink through their priorities in order to achieve a safer and more resilient world.

## Summary

This chapter has reviewed the capacities of regional DRM and found that they are very limited. The most consistent and developed capacity across all cases is the ability of regional organizations to provide forums for dialogue between regional, national, international and civil society actors. However, the aims and objectives that much of this dialogue produces, such as providing increased community-based resilience, increasing regional operational practices, and standardizing risk information across countries, has not been effectively implemented. Despite international technical and financial support, disaster losses continue to increase (GNDR VFL, 2013).

When the level of capacities is measured against anticipated cooperation a clear capability-expectations gap can be observed in all ten cases. This gap presents a much more modest role for regional organizations than expressed through various regional DRM agreements and declarations. Out of these cases, the EU, ASEAN and CARICOM clearly stand out as established crisis managers despite their existing weaknesses. Significantly, the EU is not dependent on financial donors for implementing its disaster management goals compared to other cases examined in this book.

Support from the international DRM community is understood as a necessary condition for regional DRM in a majority of regional organizations. As many regional organizations have highly limited budgets, donor support is the only means by which it can develop its own capacities. However, this also means that its ability to act independently is restricted. While it may be too simple to claim that regional organizations are used as convenient conduits for achieving the goals of international organizations, donor support does have implications for the type of initiatives that are implemented. Short-term programmes, for example, are often favoured over long-term projects, which is partly the result of financial inequity in the distribution and prioritization of international development aid. This means that limited efforts are being made to tackle the root causes of vulnerability and enhance resilience.

While the EU does not rely on donor support, it is restricted in its capacity to strengthen community-based resilience; a general pattern encountered across all cases. Less focus is placed on frequent small-scale events that erode the resilience of local communities. Regional organizations ought to expand their mandate to encompass a more holistic role not only as managers and facilitators, but also as aides and suppliers of local community resilience initiatives. Indeed, this is one of the HFA aims that appear in most standardized versions of regional DRM agreements. However, a lack of political will, inadequate resources, short-term DRR projects with poor exit strategies, and limited financial support to low-income countries, represent a small list of barriers towards achieving greater resilience.

While the current capacity of most regional organizations are fairly low they do hold much potential for translating standardized global goals into specific, culturally sensitive aims for the betterment of their member states and their local communities. The example of ASEAN's diplomatic role in facilitating international relief aid in the aftermath of Cyclone Nargis, for example, provides an important yet under-examined role that could be developed: as regional organizations stand at the crossroads of national and global actors, it is perfectly situated to act as a legitimate diplomatic actor. Another potential means for establishing greater resilience is through greater inter-regional cooperation where each regional organization can learn and debate on the most effective tools available to cross the luminous gap between talk and action. Finally, regional organizations can use their existing capacity to coordinate forums for dialogue in an effort to persuade the international community to prioritize DRR efforts that can make real and long-lasting changes by increasing the resilience of their member states.

# 8
# A World of Regions

In an eye-witness account of the 1906 San Francisco earthquake, Jack London poignantly noted: '[a]ll the shrewd contrivances and safeguards of men had been thrown out of gear by thirty seconds' twitching of the earth-crust' ([1906] 2003: 108). London's observation reverberates a general truism that has increasingly come into sharp relief as today's 'shrewd contrivances' augment transnational vulnerabilities in an interdependent environment. Regional DRM is a modern attempt to counter such disruptions of society. The last two decades have witnessed a substantial increase in regional activity on DRM, such as the formation of ASEAN's agreement on disaster management and emergency response, the EU's community mechanism on civil protection and the AU's Africa regional strategy for disaster risk reduction. Over 30 regional organizations now cooperate on DRM with the aim of increasing the resilience of their member states and communities from natural hazards. But what role do these regional organizations play as disaster managers?

The short answer is that their current role is limited and their potential role in reducing risk from natural hazards is promising. Member states need to first increase their political commitment and financial support to DRM if the ambitious goals of their regional organizations are to be realized. The international community has been highly influential in supporting regional organizations to adopt a standardized set of principles on DRM and provide financial and technical support. This has been important for raising awareness on the need for regional responses to regional problems. Yet, until member states translate these global principles into a manageable and localized context a capability-expectations gap will continue to hinder efforts to increase the resilience of communities. On a more global scale, states will also need to get serious about funding long-term

risk reduction initiatives instead of concentrating on short-term disaster relief operations. The 0.4 per cent of global aid that is earmarked for DRR is unacceptably low (Kellett and Caravani, 2013). States and international organizations need to increase their commitment and coordination in order to secure a more resilient future.

According to the aims and goals of regional DRM agreements, the *anticipated* role for regional organizations is particularly ambitious. Out of the ten regional organizations examined in this book, a majority have not only acknowledged the functional need to cooperate on reducing vulnerability to natural hazards but have also agreed to increase preparedness and prevention measures as well as facilitate regional responses to member states that are overwhelmed by a disaster. Some organizations, such as CARICOM and ASEAN have even agreed to produce and maintain collective stockpiles of emergency supplies and aim to standardize DRM knowledge and practices between their member states.

The anticipated role of regional organizations has been assessed through two classical lines of thought in international relations theory that explain why states choose to cooperate. This, in turn, provides a useful gateway for understanding the role of regional organizations in DRM. The first, informed through neoliberal institutional theory, argues that regional DRM is informed through a 'bottom-up' process: functional demand-driven conditions, such as rising levels of intra-regional interdependence, provide a rational basis for motivating states to cooperate on regional DRM. In this case, the role of regional organizations in DRM is to provide an additional tool of the state that will reduce the economic risk of future disasters. A second explanation, informed through world society theory, argues that the role of regional DRM is constructed and constituted through a 'top-down' process: from the global to the local. The main instrument used to motivate states to cooperate on regional DRM is a complex international community of DRM organizations. The role of the regional organization is to act as a legitimate conduit of ideas, which reflects and reifies the world cultural script.

## A 'bottom-up' perspective

A 'bottom-up' perspective is carved out in Chapter 3 which argues that member states are motivated to cooperate on regional DRM when the perceived benefits outweigh the costs. Four explanations are consequently explored: that high interdependencies, asymmetrical risk, expectations of future disasters and intra-regional power disparities will influence the preference structure of states to cooperate on regional

DRM. At least two of these underlying structural conditions are identified as jointly forming a sufficient condition to explain when states are willing to cooperate on regional DRM: the level of interdependence and the extent to which risk is concentrated in a small number of states.[1] While the consistency and coverage of this explanation may be questionable when states first began regional DRM cooperation from the mid-1970s to the mid-1990s, it does provide a fairly accurate explanation for a developed or more advanced level of cooperation after the mid-1990s.[2]

A further explanation based on intra-regional power distribution – that regional DRM cooperation would be likely when the relative amount of material capacity and risk from natural disasters is located in a single country – produced less satisfactory results. As not all regional organizations have regional 'paymasters', this explanation could not be applied. However, a nuanced adjustment to the initial proposition to include the possibility of 'regional risk coalitions' – the concentration of material power and risk in a minority of states – does improve its explanatory power. In fact, the addition of this explanatory condition to the configuration of interdependencies and asymmetrical risk increases the accuracy of an explanation for the outcome.

The fourth explanation – based on the hypothesis that when the relative economic costs from previous natural disasters rise the demand for regional DRM cooperation will increase – was also difficult to prove. Instead of observing increasing relative costs to regional organizations, the actual costs (as a percentage of GDP) decreased in most regional organizations over the 40-year period of investigation.[3] This anomaly is explained by emphasizing the intervention of external actors in regional organizations that reduce the transaction costs of cooperation through financial and technical support as well as the exchange of information. Most notably, the exchange of 'apparent information' on the increasing number and severity of natural disasters tends to be a consistent basis for creating and developing regional DRM agreements (Chapter 4; also see ASEAN, 2005a; Council, 2007b; PIF, 2009a: 3; González, 2011; LAS, 2011).

Despite some pessimism of usefully applying neoliberal institutionalism to comparative regional studies, it remains highly appropriate for revealing the functional-based motivations that contribute to state cooperation on regional DRM. While not all hypotheses were corroborated, those that failed usefully questioned their scope conditions. 'Bottom-up' demand-driven conditions for generating DRM cooperation at the regional level exist within a complex formula of interdependence, asymmetrical risk, external intervention and power disparities.

## A 'top-down' perspective

Chapters 4 through 6 analyze the role of regional DRM through a 'top-down' perspective by positing that the role of regional DRM cooperation is largely constructed through the successful diffusion of standardized ideas by the international community. This explanation begins with the assumption that a world cultural script – informed by highly institutionalized and taken-for-granted concepts – structures appropriate behaviour for the individual, the state, and international organizations. These institutionalized concepts include scientific progress, individualism, human rights and rationalization. Emerging out of this world cultural script are particular global models that prescribe appropriate behaviour such as the 'nation-state'. It is suggested here that regional DRM can also be understood as a global model that is legitimized through its connection to, or 'theorization' of, the global cultural script, such as rationalization and the use of science to legitimize its existence. This model is then diffused and supported by a rising league of professionalized 'others'. This is illustrated by the rise of DRM organizations from the late 1970s onwards, which is interpreted as a prerequisite for regional DRM cooperation. It was shown that various techniques of relational and cultural diffusion are mutually administered by the international community such as inter-organizational cooperation and arenas of diffusion (Chapter 5). The outcome of this model is the standardization of regional DRM cooperation in terms of the content, concepts, and values that appear in regional DRM agreements (Chapter 4). Evidence for this narrative is understood to verify the role global norms have on constructing the interests of states for enacting regional DRM.

Regional organizations thus reflect an emerging global strategy for increasing the resilience of their communities; however, the locus of this strategy and its successful diffusion by the international community also produces challenges to its implementation. These hurdles are produced through the standardization of regional DRM agreements, limited capacities, the simplification of 'global targets' and the lack of their translation and enforcement. The scientific and rationalized discourses that legitimate global DRM may also reduce effective implementation if technical solutions to disaster-prone countries are emphasized rather than focusing on social vulnerabilities. Moreover, the empirical evidence tends to suggest that regional organizations are primarily concerned with either reifying the global cultural script on DRM or transcending the 'underlying self' towards 'enacted agency', which essentially deprioritizes the implementation of DRM goals. These

issues combined mean that endemic decoupling occurs. This is largely confirmed in Chapter 7, which highlights a general capability-expectations gap across all regional organizations. While an account on the role of norms in a globalized world produces invaluable insights, it is by no means the only perspective that can shed light on the role of regional organizations in DRM.

## A parallel perspective

Both 'bottom-up' and 'top-down' approaches have something useful to say and provide important, albeit different, lenses for viewing the same issue. The following narrative for example emphasizes one or the other lens according to the extent to which they are considered most useful in explaining an empirical observation over *time*.

Regional DRM cooperation first emerged through largely rational concerns in the South. As ASEAN, PIF and CARICOM share a long history of disasters it was recognized from an early stage that regional cooperation would be beneficial. The ASEAN declaration on mutual assistance on natural disaster, for example, was signed only a few months after the establishment of the ASEAN Concord in 1976. However, little activity other than the signing of declarations and promoting awareness was made; a limitation predominantly due to the small amount of resources and jurisdiction assigned to regional organizations. This limited involvement in DRM was the standard regional response to natural hazards until the emergence of a league of international organizations emerged during the 1980s, many of which aimed to improve the DRM capacities of (developing) countries through, inter alia, empowering regional organizations. This mandate was then standardized through consistent intersubjective exchange in a highly interconnected group of international organizations that supported and helped to produce an emerging global strategy on resilience: the Yokohama conference in 1994 and the HFA in 2005. These and other global fora have helped to develop a global DRM model. The influx of international organizations and the production, reification and diffusion of this model resulted in its emulation into standardized regional programmes and strategies that far surpass the actual capacities of the regional organizations. The predominantly Western script thus feeds into existing functional concerns in the South which resulted in the *potential* use of regional organizations as effective disaster managers. However, this potential remains largely dormant as seen in the general capability-expectations gap. We thus can

see that ideational- and material-based structure has informed the role of regional organizations in the area of DRM.

## The capability-expectations gap

The actual capacity of regional organizations in administering DRM reveals a limited role for regional DRM (Chapter 7). The most consistent and developed area of regional cooperation on DRM is their ability to provide or facilitate forums of dialogue between local, national and international actors. However, only a minority of regional organizations – the ASEAN, the EU and CARICOM – have been active in response activities as well as supporting standardized interoperability measures. Furthermore, the EU is the only regional organization that is not dependent on external donor support. This issue of dependence curtails effective long-term planning for increasing the resilience of member states and their communities. Of course, without external support many regional organizations may not have even begun cooperating on DRM: international donor support has been hugely important for the development of regional DRM. Yet, continual reliance also means that regional activities are not fully determined by regional actors. One of the outcomes of this reliance is the favouring of short-term risk reduction programmes over long-term projects. This is, at least partly, due to financial inequity in the distribution of international development aid whereby a very small percentage is dedicated to DRR. The political will of member states furthermore reinforces these limitations as many have not yet taken an active role in implementing regional-based goals centred on increasing the resilience of local communities. All this means that, in spite of good-willed international technical and financial support, disaster losses continue to increase (GNDR VFL, 2013). It is thus not surprising that a capability-expectations gap characterizes all ten regional organizations examined in this book. Yet, it is important to keep in mind that regional organizations have an important role to play even if their potential has not yet been realized. Even with limited capacities, regional organizations can still provide impetus towards achieving a more resilient world of regions.

## Theoretical reflections

The theoretical approaches applied in this book hold a number of different presuppositions. World society theory has a bias to structure over agency, it elevates the importance of ideas and norms over self-interested action, and

it critiques the rational(ized) structure that constitutes states. Neoliberal institutionalism has a bias to agency over structure, it elevates the importance of self-interested action over ideas and norms, and it emphasizes the pursuit of rational goals. When explaining the role of regional DRM, neoliberal institutionalism implicitly assumes social reality, while world society theory sees this as the principal object of inquiry.[4] Keeping these significant differences in mind, these theories do not have to be viewed in isolation, but rather as two distinct and alternative perspectives that can assist one another to provide a richer understanding and explanation of an 'interesting' phenomenon.

As these theoretical perspectives are idealized depictions of a non-reality, the ambiguities that are created when comparing these abstract notions to empirical data not only produce knowledge, but can also create overlap between the theories' substantive emphasis on the international community. The limits of the 'expectations condition' for explaining the outcome in Chapter 3, for example, ushers in the importance of the international community in reducing the transaction costs of states and providing 'apparent information' that presumably motivates states to cooperate on regional DRM. This rational basis for cooperation is, in turn, largely confirmed through the analysis on the standardized features of regional DRM agreements (Chapter 4). Of course, questions of validity can be raised; however, if the different presuppositions of these theories are accepted in parallel by the reader a greater explanation can emerge not by merging the theories but through a bifocal perspective.

The usefulness of this approach is reinforced by understanding the limits of the theoretical lenses used in this book. For example, the strongest and weakest aspect of world society theory is its inherent focus on global similarities. World society theory gains parsimony by explaining much but is simultaneously limited in its accuracy; its breadth outweighs its depth of explanation. Mercosur, for example, is difficult to explain because it has few standardized features, and unlike a majority of regional organizations, has not developed advanced versions of DRM cooperation. Similarly, the low and idiosyncratic pattern of regional DRM cooperation before the mid-1990s is difficult to explain.[5] Neoliberal institutionalism, on the other hand, can provide useful answers to some of these anomalies through its 'bottom-up' focus. Instead of focusing on similarities, it expects differences based on the varying capacities and material resources of states and their regional organizations. It can thus easily explain the pre-1990 level of regional DRM cooperation, although it struggles to adequately explain cooperation after the 20th century

without recourse to the international community as an intervening variable. The rational application thus excels in its emphasis and fine-tuning of the functional moment that was deemed sufficient for the emergence of regional DRM. World society theory, on the other hand, excels in its emphasis and fine-tuning of the social construction of DRM. The latter takes a critical step back from the functional moment by connecting DRM to a broader environment of global norms.[6]

## A state in a world of risk

The central actor in determining the current and future role of regional DRM is the state, which is at present fairly restrictive in offering its full support to regional organizations. According to the two perspectives offered in this book, both confirm the central role of the state in a highly interdependent and globalized world. This position tends to go against the grain of commentaries on the devolving status or porousness of the state (see Kirchner and Sperling, 2007). Contra this position, the state is not conceived as a degenerate actor in world politics but as a dynamic actor/agent that is able to (re)shape itself in an ever-changing contextual environment.

According to neoliberal institutionalism, states will cooperate in order to achieve greater gains or solve collective action problems. If there are disincentives, such as the number of states (Olson, 1971), 'free-riding' and 'distrust' (Ostrom, 1990; Barett, 2007), the likelihood that states will agree to advanced forms of cooperation that restrict their behaviour is limited. If this logic is applied to regional DRM, it is not surprising that states are guarded in the amount of obligation they would entrust to regional organizations, particularly as the area of civilian protection arguably runs close to the heart of state sovereignty. However, since the mid-1990s, a large majority of the cases examined in this book produced advanced forms of cooperation that, while not reaching the level of an independent supranational capacity on DRM, do include emerging initiatives that require states to standardize DRM coordination and provide lists of assets that can be used in the event of a transboundary natural disaster. Nonetheless, it is argued that states remain in full control of the protection of their citizens for the following two reasons. First, most regional organizations exhibit an intergovernmental system of DRM cooperation, which means that state cooperation remains voluntary. Second, even the establishment of framework agreements that provide obligatory measures does not necessarily equate to a loss of sovereignty if there is a lack of enforcement measures. The poor translation of

regional aims into national and local DRM practices – contributing to the capability-expectations gap – furthermore emphasizes the role of the state in determining the success of regional DRM.

World society theory frames state sovereignty in different terms. Instead of an a priori condition, it is understood as a global model and therefore liable to change as a contingent social construction. The interrelationship between the regional DRM model and the 'nation-state model' strengthens rather than weakens the modern state by heaping further responsibility on it to enact through an additional model – via regional organizations – and thereby increase its legitimacy as a state. As global models are attached to the legitimate and external action of states, and less on the actual practices of states, there will be little competition between the two global models as decoupling would be expected to occur between official statements and operational practice (Meyer, 2009: 50). The state is not impervious to change; rather it achieves resilience as an entity through its ability to change either through the adoption of global norms, or by striking a balance between functional concerns of the state and preservation of its own sovereign identity.

The centrality of the state also raises an important and troubling question: why do states support global initiatives on increasing the resilience of societies from natural hazards, yet generally fail to implement the goals produced by these organizations? Why do high levels of vulnerability continue to exist despite consistent and determined action by the international community? This book offers some answers to these questions, such as world society theory's emphasis on decoupling and neoliberal institutionalism's hypothesis on incomplete information. However, these are questions that deserve greater attention. It calls for future studies that go beyond the structural scope of this study by examining, for example, the role of leadership or norm entrepreneurs in shaping the role of regional DRM.

## The added value of regional DRM

The *current* value and role of regional organizations is fairly limited. While the anticipated cooperation of regional organizations appears highly promising, actual cooperation to date is less praiseworthy. Most regional organizations have had limited success in translating global and regional DRM goals into action – a general finding across most regional organizations that is particularly apparent in the inability of states to implement and share DRM-based knowledge at the community level. Compounding this issue is the heavy reliance regional organizations

have on international donor support. However, some regional organizations have made significant efforts to provide an additional layer of regional protection through a range of activities, such as the production of early warning systems, the publication of education material for schools, the facilitation of responses, simulation exercises, and emergency stockpiling.

The role of regional organizations in DRM can be improved: they hold great potential that has not yet been fully realized. Regional organizations are strategically located at the intersection of the global and national level of interaction. They can provide an important depository of regional-based knowledge on threats, risks, political nuances and cultural customs that can complement the international community's activity on supporting risk reduction measures and other DRM activities. At their best, regional organizations can provide a 'cultural filter' that will effectively translate and prepare global DRM aims and goals into workable and context-specific practices. This enhanced role is plausible as it does not require extensive resources. However, it does necessitate member states to be more proactive and committed at the regional level.[7]

It should also be noted that some regional organizations appear to be designed to perform slightly different functional roles that, if realized, could provide for a more effective distribution of roles and capabilities. Out of the ten cases examined in this book, the AU, the EU and the OAS stand out as 'meta-regional' organizations. That is, they are regional organizations that encapsulate sub-regional organizations. For example, the AU includes SADC, IGAD, ECOWAS and EAC; the EU includes the CBSS, the CEU, the CoE, the DPPI SEE and the Nordic Council; and the OAS includes CARICOM, Mercosur, SICA, CAN and SELA. The functional role of these regional organizations ought to concentrate on the facilitation of information to reduce duplication. Armed with the leading concepts of solidarity and subsidiarity, these regional organizations can also empower and support sub-regional organizations that are often more in tune with sub-regional risk solutions and local customs and traditions. Concentration on operational activities, for example, may be better suited to sub-regional organizations rather than these meta-organizations. The EU, for example, may provide an added value to its member states not only though facilitating responses to transboundary disasters, but also through enhancing sub-regional national and local participation in community resilience. While this may require increased costs in the short term, it will most likely produce lesser costs in the long term if local preparedness and prevention strategies were strengthened in member states. Through an effective distribution of capabilities, regional

resilience ought to increase. This requires, however, increased inter-regional coordination that is currently lacking in many organizations.

Inter-regional cooperation is also useful for other regional organizations that are not geographically connected. CARICOM, for example, could provide useful information and lessons learnt in the use of sub-regional contact points to the EU; ASEAN could provide useful information on stockpiling to the OAS and the AU; while the AU could also provide valuable information to the EU on reinsurance initiatives. While regional organizations may be dependent on external donors and have limited capacities, there is still much they can do to enhance their role as disaster managers that will, in turn, produce increased resilience to natural hazards. Regional organizations, as assumed by the international community, have the potential to provide a crucial link between global and local initiatives. However, until states take regional organizations seriously and provide collective will, then regional organizations will remain limited disaster managers.

Disaster risk management is global. The challenge is thus to understand how various global actors – from the local to transnational – can effectively coordinate in order to produce a more resilient environment. Charged by functional and ideational concerns, states have begun to operate through regional organizations as an important entity within this emerging field that has been increasingly disciplined within a global strategy for resilience. Yet, until states commit themselves to implementing this global strategy and until the global community discovers more effective measures to work through regional organizations, achieving this grand strategy will remain elusive. Regional organizations have much to offer, but this will require a reorientation of member states and the international community. This is a difficult and complex task that if achieved will truly produce a more resilient world or regions.

# Appendix

## A1 Measuring Regional Expectations

*Table A1* Assessment 'scorecard' for regional expectations

| **Qualitative anchors** | **Values** | | |
|---|---|---|---|
| | **0.10** | **0.15** | **0.20** |
| Awareness | Related cooperation on DRM | Non-executive statement on the need for regional DRM cooperation | Executive statement on the need for regional DRM cooperation |
| | *e.g. SADC cooperation on drought mitigation* | *e.g. ECO MoU with UNISDR (ECO)* | *e.g. ADEMER (ASEAN, 2005)* |
| Information | Establishment of one or two specific means of information exchange and cooperation | Institutionalized regional or inter-organizational cooperation | Establishment of numerous means of information exchange and cooperation |
| | *e.g. workshops, regional platforms, conferences* | *e.g. national emergency managers' meetings* | *e.g. networks, platforms, exchange of experts, commissioned studies, risk mapping* |
| Operational capacity | Preparedness and prevention-based operational capacity | Affiliated or limited operational capacity | Full and specific operational capacities for prevention, preparedness, response and recovery |
| | *e.g. data analysis centres (i.e. ECO centre)* | *e.g. OAS and the White Helmets Initiative* | *e.g. regional hub for facilitating responses to disasters, rapid assessment teams* |
| Operational standardization | Transboundary preparedness plans | Transboundary operational harmonization | Institutionalized operational interoperability |
| | *e.g. transboundary risk maps* | *e.g. simulation exercises, Standard Operating Procedures* | *e.g. EU modules* |
| Asset pooling | Preregistration of national capacities | Regional stockpiling | Regionally owned and operated response-based assets |
| | *e.g. EU's CECIS* | *e.g. ASEAN's DELSA* | *e.g. regionally operated aeroplanes, boats, personnel for response and recovery* |

*Note*: If evidence for awarding a regional organization with a value of 0.1 is not sufficient, there is nevertheless some evidence of limited cooperation a value of 0.05 is given.

## A2 Measuring Regional Capabilities

*Table A2* Assessment 'scorecard' for regional capacity

| Qualitative anchors | Values | | |
|---|---|---|---|
| | 0.10 | 0.15 | 0.20 |
| Awareness | Change in local and national DRM practices<br>*e.g. increased local awareness through strengthening city resilience, and primary education* | Establishment of national contingency plans<br>*e.g. regional support to member state to create risk maps* | DRM legislation change<br>*e.g. creation of Joint National Action Plan in Tonga through the assistance of SOPAC* |
| Information | Establishment of one or two specific means of information exchange and cooperation<br>*e.g. workshops, regional platforms, conferences* | Institutionalized regional or inter-organizational cooperation<br>*e.g. MoU with UNISDR, regional committee groups, national emergency managers' meetings* | Establishment of numerous means of information exchange and cooperation<br>*e.g. networks, conferences, regional platforms, exchange of experts, commissioned studies, risk mapping* |
| Operational capacity | Preparedness and prevention-based operational capacity<br>*e.g. data analysis centres (i.e. ECO centre)* | Affiliated, limited or interdependent operational capacity<br>*e.g. OAS and the White Helmets Initiative, reinsurance initiative, North-West Caribbean Donor Group* | Full and specific operational capacities for prevention, preparedness, response and recovery<br>*e.g. regional hub for facilitating responses to disasters, rapid assessment teams* |
| Operational standardization | Transboundary preparedness plans<br>*e.g. transboundary risk maps* | Transboundary operational harmonization<br>*e.g. simulation exercises, Standard Operating Procedures* | Institutionalized operational interoperability<br>*e.g. EU modules* |
| Asset pooling | Pre-registration of national capacities<br>*e.g. EU's CECIS* | Regional stockpiling<br>*e.g. ASEAN's DELSA* | Regionally owned and operated response-based assets<br>*e.g. regionally operated aeroplanes, boats, personnel for response and recovery* |

*Note*: If evidence for awarding a regional organization with a value of 0.1 is not sufficient, there is nevertheless some evidence of limited cooperation a value of 0.05 is given.

## A3 Interdependence

*Table A3* Regional symmetric trade-introversion (STI) conversion to fuzzy-values (fv)*

| Regional organization | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | STI | fv STI | STI | fv STI | STI | fv STI | STI | fv STI |
| EU | 0.55 | 0.66 | 0.52 | 0.61 | 0.74 | 0.87 | 0.76 | 0.89 |
| ASEAN | 0.75 | 0.88 | 0.71 | 0.85 | 0.66 | 0.80 | 0.73 | 0.87 |
| PIF | 0.73 | 0.87 | 0.75 | 0.88 | 0.80 | 0.91 | 0.79 | 0.91 |
| CARICOM | 0.89 | 0.95 | 0.86 | 0.94 | 0.98 | 0.97 | 0.98 | 0.97 |
| Mercosur | 0.68 | 0.82 | 0.72 | 0.86 | 0.90 | 0.95 | 0.89 | 0.95 |
| SADC | 0.54 | 0.65 | 0.26 | 0.22 | 0.84 | 0.93 | 0.93 | 0.96 |
| LAS | 0.20 | 0.16 | 0.20 | 0.16 | 0.60 | 0.73 | 0.55 | 0.66 |
| AU | 0.03 | 0.06 | 0.14 | 0.11 | 0.74 | 0.87 | 0.81 | 0.92 |
| OAS | 0.69 | 0.83 | 0.63 | 0.77 | 0.72 | 0.86 | 0.75 | 0.88 |
| ECO | -0.10 | 0.02 | 0.80 | 0.91 | 0.63 | 0.77 | 0.55 | 0.66 |

*Note*: * fsQCA 2.0 software (breakpoints: 0.90, 0.45 and 0.00).

*Source*: UNU-CRIS RIKS (2011).

Table A3 displays the raw STI figures and their translation to fuzzy-values. When a regional organization has an STI indicator below zero it has an extra-regional trade bias and when it is above zero it has an intra-regional trade bias. A figure of 1.00 is equivalent to no extra-regional trade and -1.00 is equivalent to no intra-regional trade. In other words, the closer the STI value is to 1 the more interdependent the region is in terms of trade.[1] Taken over a 40-year period, this indicator demonstrates a general trend of economic interdependence before and after the establishment of regional DRM cooperation (cf. Best, 1997; De Lombaerde and Langenhove, 2005).

In order to test the interdependence hypothesis, the STI index is converted to fuzzy-values in order to make a reliable comparison with the regional DRM fuzzy-values calculated in Chapter 2. To make this conversion, three qualitative breakpoints are set between 'full membership in a set' (0.95), the 'crossover point' (0.50) and 'full non-membership in a set' (0.05) (Ragin, 2008a: 85).[2] The first step in converting the STI index is based on the observation that the STI data value -1 indicates full extra-regional trade and 1 indicates full intra-regional trade. Accordingly, the threshold that determines if a regional organization is in the set of interdependence is pegged at 0.45. That is, it is assumed that

when a regional organization's intensity of internal trade is more than 0.45, its internal trade bias, as an indicator of interdependence, becomes a significant factor for encouraging regional DRM cooperation. This, in turn, increases the likelihood that its member states will form 'insurance regimes' to limit the liability incurred through natural disasters. This threshold is based on general commentaries on the level of interdependence. An STI value of 0.70, for example, is generally accepted as a representative figure of high regional interdependence (cf. Hamanaka, 2012). Using this as a general base line and keeping in mind that 0.00 is equivalent to an equal share of intra- and extra-regional trade intensity, 0.90 is equivalent to full membership in the set of interdependence, and 0.00 is equivalent to full non-membership in the set of interdependence.[3]

## A4 Asymmetric Risk

*Table A4* Asymmetric risk (AYS) conversion to fuzzy-values (fv)*

| Regional organization | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | AYS | fv AYS | AYS | fv AYS | AYS | fv AYS | AYS | fv AYS |
| EU | 212 | 0.72 | 236 | 0.76 | 115 | 0.54 | 194 | 0.69 |
| ASEAN | 122 | 0.55 | 130 | 0.57 | 172 | 0.65 | 137 | 0.58 |
| PIF | 395 | 0.92 | 362 | 0.90 | 348 | 0.89 | 366 | 0.90 |
| CARICOM | 228 | 0.75 | 193 | 0.69 | 166 | 0.64 | 160 | 0.63 |
| Mercosur | 192 | 0.69 | 113 | 0.53 | 132 | 0.57 | 123 | 0.55 |
| SADC | 316 | 0.86 | 310 | 0.85 | 157 | 0.62 | 183 | 0.67 |
| LAS | 236 | 0.76 | 305 | 0.85 | 203 | 0.71 | 259 | 0.79 |
| AU | 306 | 0.85 | 444 | 0.95 | 354 | 0.89 | 452 | 0.95 |
| OAS | 337 | 0.88 | 317 | 0.86 | 466 | 0.96 | 520 | 0.97 |
| ECO | 157 | 0.62 | 125 | 0.56 | 203 | 0.71 | 210 | 0.72 |

*Note*: * fsQCA 2.0 software (breakpoints: 458, 98, 0)
*Source*: Table A5.2

The fuzzy-values for the set of asymmetrical risk are presented in Table A4. In order to establish a general pattern of (a)symmetrical risk across time, the total economic damage from each country in a regional organization is calculated for each decade.[4] The coefficient of variation (CV) is then calculated for each decade from the 1970s to the 2000s. The conversion from this raw data is determined by three qualitative breakpoints: full membership, the crossover point and full non-membership in the set of asymmetrical risk. The following hypothetical scenario helps to explain and justify these breakpoints. If a regional organization has 21 member states – the average number of the 10 cases examined

in this thesis – and if one of the member states accounted for 100 per cent of the total regional estimated economic damage, the CV would be 458 per cent.[5] This is representative of very high asymmetries and consequently marks the breakpoint for full membership in the set of asymmetries. At the other extreme, if more than half of the member states (11 out of 21) equally share the total regional estimated economic costs from natural disasters, a CV of 98 per cent is produced. Based on the theoretical assumption that if all members of a regional organization are equally affected by a catastrophic event there will be no motivation to cooperate (Keohane, 1989: 123), 98 per cent represents the crossover point. As any figure below 98 will be more symmetrical than asymmetrical it qualifies as being more out than in the set of asymmetrical risks. A CV of 0 per cent consequently represents the breakpoint for non-membership in the fuzzy set.

## A5 Expectations

*Table A5.1* Regional estimated economic damages (EXP) conversion to fuzzy-values (fv)*

| Regional organization | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2009 | |
|---|---|---|---|---|---|---|---|---|
| | EXP | fv EXP | EXP | fv EXP | EXP | fv EXP | EXP | fv EXP |
| EU | 0.16 | 0.12 | 0.20 | 0.14 | 0.15 | 0.11 | 0.09 | 0.08 |
| ASEAN | 1.27 | 0.99 | 0.26 | 0.19 | 0.45 | 0.43 | 0.27 | 0.20 |
| PIF | 1.01 | 0.96 | 0.88 | 0.91 | 0.29 | 0.22 | 0.13 | 0.10 |
| CARICOM | 0.33 | 0.27 | 3.75 | 1.00 | 1.19 | 0.98 | 1.73 | 1.00 |
| Mercosur | 0.82 | 0.87 | 0.85 | 0.89 | 0.08 | 0.07 | 0.09 | 0.08 |
| SADC | 0.22 | 0.16 | 1.41 | 1.00 | 0.06 | 0.07 | 0.08 | 0.07 |
| LAS | 0.39 | 0.34 | 0.97 | 0.94 | 0.19 | 0.13 | 0.13 | 0.10 |
| AU | 0.32 | 0.25 | 0.67 | 0.73 | 0.10 | 0.08 | 0.16 | 0.12 |
| OAS | 0.39 | 0.34 | 0.24 | 0.17 | 0.29 | 0.22 | 0.22 | 0.16 |
| ECO | 0.96 | 0.94 | 0.38 | 0.33 | 1.73 | 1.00 | 0.16 | 0.12 |

*Note*: * fsQCA 2.0 software (breakpoints: 1.00, 0.50, 0.00).

*Source*: EM-DAT (2011b), Officer and Williamson (2011), UNU-CRIS RIKS (2011).

Table A5.1 illustrates the fuzzy-values for the expectation condition, which reflects the percentage of regional GDP losses from natural disasters in each regional organization. For a breakdown of these figures consult Table A5.2. Following the same procedure for establishing the level of interdependence and asymmetrical risk – where three qualitative breakpoints are defined and justified through existing substantive

*Table A5.2* Economic damage caused by natural disasters as a percentage of regional GDP, 1970–2008 (USD,000)

| | | Time period | | | |
|---|---|---|---|---|---|
| | | **1970–1979** | **1980–1989** | **1990–1999** | **2000–2007** |
| EU | Est. econ. damage | 689,110 | 3,398,570 | 8,253,062 | 10,998,766 |
| | Inflation adjusted | 2,831,888 | 7,978,000 | 11,914,000 | 12,707,750 |
| | % of regional GDP | 0.16 | 0.20 | 0.15 | 0.09 |
| ASEAN | Est. econ. damage | 192,918 | 319,486 | 1,922,217 | 2,320,286 |
| | Inflation adjusted | 801,146 | 639,700 | 2,673,100 | 2,573,000 |
| | % of regional GDP | 1.27 | 0.26 | 0.45 | 0.27 |
| PIF | Est. econ. damage | 288,130 | 923,921 | 817,202 | 876,050 |
| | Inflation adjusted | 1,141,800 | 2,058,370 | 1,181,820 | 995,750 |
| | % of regional GDP | 1.01 | 0.88 | 0.29 | 0.13 |
| CARICOM | Est. econ. damage | 6,675 | 278,782 | 212,142 | 676,578 |
| | Inflation adjusted | 31,708 | 650,416 | 292,710 | 882,114 |
| | % of regional GDP | 0.33 | 3.75 | 1.19 | 1.73 |
| Mercosur | Est. econ. damage | 344,825 | 831,000 | 376,948 | 614,072 |
| | Inflation adjusted | 1,723,685 | 2,804,303 | 669,582 | 954,350 |
| | % of regional GDP | 0.82 | 0.85 | 0.08 | 0.09 |
| SADC | Est. econ. damage | 12,170 | 265,765 | 58,042 | 206,586 |
| | Inflation adjusted | 139,700 | 1,474,400 | 99,413 | 239,012 |
| | % of regional GDP | 0.22 | 1.41 | 0.06 | 0.08 |
| LAS | Est. econ. damage | 19,380 | 885,850 | 567,414 | 1,311,799 |
| | Inflation adjusted | 439,676 | 3,605,300 | 896,654 | 1,431,195 |
| | % of regional GDP | 0.39 | 0.97 | 0.19 | 0.13 |
| AU | Est. econ. damage | 145,727 | 907,897 | 282,561 | 1,024,705 |
| | Inflation adjusted | 538,320 | 2,212,660 | 418,400 | 1,190,950 |
| | % of regional GDP | 0.32 | 0.67 | 0.10 | 0.16 |
| OAS | Est. econ. damage | 1,889,771 | 6,203,112 | 19,160,384 | 38,181,427 |
| | Inflation adjusted | 7,724,000 | 12,545,000 | 27,390,000 | 42,871,250 |
| | % of regional GDP | 0.39 | 0.24 | 0.29 | 0.22 |
| ECO | Est. econ. damage | 139,835 | 397,700 | 4,302,476 | 1,235,727 |
| | Inflation adjusted | 758,642 | 792,653 | 6,407,900 | 1,372,087 |
| | % of regional GDP | 0.96 | 0.38 | 1.73 | 0.16 |

*Source:* EM-DAT (2011b); UNU-CRIS RIKS (2011); UNSTATS (2011).

and theoretical knowledge – the following breakpoints are constructed for the set of expectations. The crossover breakpoint is pegged at 0.80 per cent of regional GDP; the breakpoint for full membership in the set of expectations is 1.00 per cent of regional GDP; while the breakpoint for full non-membership in the set of expectations is 0.10 per cent of regional GDP. These figures were chosen based on previous studies that assess the vulnerability of national economies to natural disasters. High vulnerability, for example, is set by Lino Briguglio at the loss of 1 per cent of national GDP (1995: 1620; cf. Benson and Clay, 2004: 20). As the figures in Table 8.1 are averages of the total amount of economic damages within a decade, continually high levels of GDP that exceed 0.5 per cent of regional GDP are regarded as significant for motivating states to cooperate on DRM.[6] Figures of more than 1 per cent of regional GDP are regarded as severe and thus fully in the set of expectations. Conversely, when there is no loss to regional GDP it is considered highly unlikely that states will cooperate on DRM.[7]

Four calculations were made in order to find the percentage of regional GDP losses from natural disasters (Table A5.2). First, the figures for the estimated economic damages that affected each region were sourced from the International Disaster Database (EM-DAT) at the Centre for Research on the Epidemiology of Disasters (CRED), Université Catholique de Louvain.[8] These economic damages include infrastructure, crop and housing damage, as well as loss of revenues, unemployment, and market destabilization from natural disasters (EM-DAT, 2009). Second, the raw figures from EM-DAT – which represent the current value of the year of the natural disasters – were adjusted to the real value in 2008 based on the Consumer Price Index (Officer and Williamson, 2011).[9] Third, the per cent of estimated economic damage in relation to regional GDP for each year was calculated to provide for a better approximation of the importance and impact natural disasters have on each regional organization.[10] Fourth, the data is adjusted to the accession status of each member within a regional organization, on the assumption that, all other things being equal, the economic impact of disasters from non-members of a regional organization will not have an effect on regional cooperation. Consequently, data for incoming members is included from the point of their entry into the regional organization.[11]

## A6 Intra-Regional Power Disparity

The empirical indicator used for assessing the asymmetry of intra-regional power is based on the multiplication between the percentage share of

*Table A6.1* Intra-regional power disparity (IPD) conversion to fuzzy-values (fv)*

| Regional organization | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2008 | |
|---|---|---|---|---|---|---|---|---|
| | Multi | fv IPD | Multi | fv IPD | Multi | fv IPD | Multi | fv IPD |
| EU | 2036 | 0.36 | 1562 | 0.24 | 1314 | 0.19 | 1276 | 0.18 |
| ASEAN | 2252 | 0.42 | 2050 | 0.36 | 2305 | 0.44 | 1885 | 0.32 |
| PIF | 8413 | 0.96 | 7795 | 0.94 | 7525 | 0.94 | 7969 | 0.95 |
| CARICOM | 489 | 0.07 | 1018 | 0.14 | 800 | 0.11 | 1158 | 0.16 |
| Mercosur | 6696 | 0.90 | 4901 | 0.78 | 3431 | 0.62 | 5732 | 0.85 |
| SADC | 6 | 0.04 | 1730 | 0.28 | 2744 | 0.53 | 2662 | 0.52 |
| LAS | 491 | 0.08 | 816 | 0.11 | 579 | 0.08 | 562 | 0.08 |
| AU | 168 | 0.05 | 1221 | 0.17 | 934 | 0.12 | 913 | 0.12 |
| OAS | 5168 | 0.81 | 4883 | 0.78 | 6295 | 0.88 | 6933 | 0.91 |
| ECO | 1540 | 0.23 | 4542 | 0.75 | 3252 | 0.60 | 1523 | 0.23 |

*Note*: * fsQCA 2.0 software (breakpoints: 8100, 2500, 100).
Multi = Multiplication

*Source*: World Bank (2012); Table A5.1.

*Table A6.2* Intra-regional power disparity (IPD) conversion to fuzzy-values (fv): regional risk coalitions

| Regional organization | 1970–1979 | | 1980–1989 | | 1990–1999 | | 2000–2008 | |
|---|---|---|---|---|---|---|---|---|
| | Multi | fv IPD | Multi | fv IPD | Multi | fv IPD | Multi | fv IPD |
| EU | 8480 | 0.96 | 7109 | 0.92 | 5018 | 0.79 | 4719 | 0.76 |
| ASEAN | 7806 | 0.94 | 7525 | 0.93 | 5907 | 0.86 | 3851 | 0.67 |
| Mercosur | 9700 | 0.98 | 9583 | 0.98 | 9040 | 0.97 | 9604 | 0.98 |
| ECO | 9417 | 0.97 | 9209 | 0.97 | 8602 | 0.96 | 7507 | 0.93 |

*Note*: * fsQCA 2.0 software (breakpoints: 8100, 2500, 100).
Multi = Multiplication
*Source:* World Bank (2012); Table A5.1.

a member state's GDP (power) and the percentage share of economic damages caused by natural disasters (incentive). By multiplying these percentages together, a final score is given that reflects the extent to which both power and a high incentive base are located within a minority of countries. For example, the regional paymaster in the OAS is the US, which accounts for 91 per cent of economic damages in the region and 76 per cent of regional GDP (2000s). The US thus contributes to 99.6 per cent of the total score of 6933 for the OAS. On the other extreme is LAS, where power is more evenly spread out. The highest percentage of economic damage from natural disasters is attributed to Algeria, which accounts for approximately 9 per cent of the region's GDP, while Qatar has the highest percentage of GDP but has not incurred any recorded

costs from natural disasters. The League of Arab States receives a total score of 562 in the 2000s period.

The extent to which each region holds a favourable systemic environment for DRM cooperation is translated into fuzzy-values by establishing three breakpoints between full membership, crossover, and full non-membership in the set of intra-regional power asymmetries (Tables A6.1, A6.2). The breakpoint that determines full membership in this set is a value of 8100. This is based on the hypothetical situation where one country holds 90 per cent of a region's GDP and the percentage of economic damages caused from natural disasters. Instead of 100 per cent, 90 per cent was chosen because it is highly unrealistic that a regional organization would exist if only one member was contributing the full amount of GDP. The crossover point is pegged at a value of 2500, which is derived from a condition in which more than 50 per cent of GDP and estimated costs are invested in a minority of countries within a regional organization. Full non-membership is pegged at 100. This represents a condition where countries within a regional organization contribute less than 10 per cent of regional GDP and estimated damages. Again, 0 was not chosen, as this would be highly unlikely for a functioning regional organization.

# Notes

## 1 The Role of Regional Organizations in Disaster Risk Management

1. For two exceptions, albeit in neighbouring disciplines, see Hannigan (2012) and Ferris and Petz (2013).
2. Understanding regional DRM is important because it illustrates a *potential* change in role of the state from a sole protector of its citizens to a sharing of this responsibility with neighbouring countries. Of course, this can only be partially seen in the development of EU civil protection; however, other regional organizations, such as ASEAN's legal agreement on DRM, reflect a slow creep towards supranational capacities. If a part of state sovereignty is defined by its ability to protect, then the global rise of regional DRM could mark an important global development for the 'state of the state'.
3. By motivation I mean reasons for action as justified in official regional agreements on DRM (see Davidson, 2001; Finlay and Schroeder, 2008). Cooperation is defined as when 'actors adjust their behaviour to the actual or anticipated preferences of others, through a process of policy coordination' (Keohane, 1984: 51).
4. I thank an anonymous reviewer for this point.
5. A case is defined as 'phenomenon for which we report and interpret only a single measure on any pertinent variable' (Eckstein, 1992: 124). Other constants represented in the selection of the dependent variable include the minimum age of the regional organizations and its multi-dimensional attributes (that is, more than just a security community). These are included for the purposes of eliminating competing explanations.
6. For more information on the individual agreements please consult the References, which lists all of the agreements or sources of cooperation under the name of the organization as it appears in Table 1.1.
7. On the different concepts of a region, regionalization or regionalism, see Deutsch et al. (1957); Russett (1967); Hurrell (1995a, 1995b); Gamble and Payne (1996); Fawcett (2004); Katzenstein (2005); Breslin and Higgott (2010); De Lombaerde et al. (2010); Karns and Mingst (2010); and Mansfield and Solingen (2010).
8. For a similar review on these definitions, see Börzel (2012a).
9. This definition is related to Boin's classification of disaster as a subset of 'crisis' with the purpose of combining objective and subjective elements (Boin, 2005a, 2005b; Stallings, 2005; Boin and t' Hart, 2007; Boin and Rhinard, 2008).
10. For useful overviews on the use and definition of this highly contested concept, see Quarantelli (1998), Perry and Quarantelli (2005) and Perry (2007).
11. Risk can also be understood in a broader sense as a social construction (Beck, 1992, 1999) that is influenced by a number of social institutions such as governments, science, law and mass media (Mythen, 2004: 54).

12. For some useful reviews, see Gaillard (2007), Lewis and Kelman (2010) and Comfort, Boin and Demchak (2010).
13. Regional DRM is considered a part of the global 'policy field' of DRM (see Hannigan, 2012).

## 2 Regional Disaster Risk Management

1. An exception to this was CARICOM, which established an agency to facilitate and manage major natural disasters in the Caribbean region in 1991.
2. The scope conditions for selecting these regional organizations over others are based on the following criteria: (1) regional organizations ought to provide variation on the dependent variable that ranges from no cooperation to advanced cooperation; (2) they ought to represent a diverse geographical range; (3) all selected regional organizations should have existed for at least two decades, which allows for a detailed time-series analysis (in order to disentangle the rise of regional DRM with the emergence of regional organizations); and (4) all regional organizations should be multi-dimensional.
3. The choice for using this specific approach is grounded on the following points. First, QCA fits neatly into the neo-positivistic methodology used for explaining the research question, as it seeks out theoretically derived hypotheses that can be tested via Poppers principle of falsification. False hypotheses can then be eliminated in order to narrow down the field of analysis towards provisional truth statements. Second, an emphasis on the combination of sufficient and necessary 'conditions' (independent variables) based on 'multiple conjectural causation' allows for different combinations of variables, leading towards the same outcome (Rihoux and Ragin, 2009: 8). This opens up the possibility that other combinations of causal conditions can lead to the same or different outcome and thus goes beyond typical quantitative studies, such as regression analysis and the assumption of additivity, that 'ignore specific, distinct patterns and "outliers"' (Rihoux and Ragin, 2009: 9). This means that equifinality – the situation where more than one combination of variables produces an outcome – can be brought to light. Third, the technique of applying a specific value to empirical data based on the degree to which it fits into a given set demands a high amount of transparency and a continual dialogue between theory and cases. This forces the researcher to make clear choices. Combined with the formal methods based on Boolean algebra and set theory, QCA methods can easily be replicated, which increases its validity (Rihoux and Ragin, 2009: 14). Alternating from method to theory also bridges the gap between qualitative and quantitative methods by forcing the researcher to clearly relate empirics to a quantitative value system and vice versa. This not only provides a valuable tool that can utilize techniques from both methods, but also underlines a misconception of their incompatibility as methods.
4. More specifically, there are three 'qualitative breakpoints' that constitute a fuzzy-set. The threshold for full membership is 0.95, the crossover point is 0.5 and full non-membership is 0.05 (Ragin, 2008b: 17).
5. It should be noted that while it is tacitly assumed that a regional organization ought to have a full value at the first level before going on to the

next, this might not always be the case. There may be, for example, limited issue coverage of information, no operational capacity, but a commitment to standardize national programmes on DRM.

6. See, for example, recent proposals from the European Commission and Council in this area (Council, 2007c, 2011a; FloodWise, 2011).
7. For a more nuanced study on the difficulties associated with standardizing and regional DRM, see Rhinard, Hollis and Boin (2012).
8. This is based on the assumption that cooperation will not disintegrate over time. Once institutionalized, policy issues have a tendency to be 'locked-in' (Moravcsik, 1997) or 'path-dependent' (Mahoney, 2001).
9. Counterintuitively, the recent increase in farming development in many African countries in terms of drilling wells, eradicating parasites, and better treatment of cattle diseases, together with rising prices for beef, increased demand leading to an overproduction and depletion of natural resources, which increased the vulnerability of society to droughts and floods (Newsday, 1973: 16).
10. Assessed DRM documents and their individual total scores (in parentheses) for the AU include: UN 1985 (0.30); AU 2004 (0.40); 2009 (0.65), 2010a (0.40).
11. According to this index, Indonesia, Vietnam and the Philippines feature in the top 15 most vulnerable countries.
12. The agreement notes that these initiatives were established on the knowledge that its member countries had limited capacities to meet transboundary disasters in the region.
13. The group met biennially until it was upgraded to the ASEAN Committee on Disaster Management (ACDM) which now meets on an annual basis (ASEAN, 2004, 2011a).
14. For a more detailed description of this process and the involvement of the UNHCR, see ASEAN (2004: 5–9). Also note that the ARPDM was agreed in 2003 but not published until 2004, which explains the discrepancy with the in-text reference.
15. Other references to DRM include the establishment of the ASEAN socio-cultural community (ASCC) under the Declaration of ASEAN Concord II, which notes the need to 'intensify cooperation in area of public health, including prevention and control of infectious diseases ... population growth, unemployment degradation and transboundary pollution as well as disaster management' (ASEAN, 2004: C§4, 6). A Transboundary Haze Action Plan (1998) and ASEAN Agreement on Transboundary Haze Pollution in June 2002 was also established.
16. Assessed DRM documents and their individual total scores (in parentheses) for ASEAN include: ASEAN 1976b (0.20), 1976a (0.30), 2003 (0.20), 2004 (0.55), 2005a (0.90), 2005b (0.45), 2009 (0.80).
17. In August 2011, Kazakhstan, Kyrgyzstan, and Tajikistan formed an intergovernmental centre for disaster response and risk reduction, which is designed to improve coordination and cooperation in DRM (UNPAN, 2012).
18. Assessed DRM documents and their individual total scores (in parentheses) for ECO include: ECO 2006 (0.20), 2007 (0.20), 2008b (0.40), 2009 (0.30), 2010a (0.30).

19. According to Magnus Ekengren, civil protection was placed on the agenda three years before the declaration at the ministerial meeting in Rome in 1985 (2008: 47) and received stimulus from the forest fires and heat waves at that time (Ekengren et al., 2006: 460).
20. Also see European Commission (2003) which set the rules for implementation of the community mechanism.
21. Already by the end of 2003, 6737 persons were registered in the database (Ekengren et al., 2006: 461).
22. I am thankful to Sara Myrdal for providing detailed information on this point and on the CCA.
23. I wish to convey special thanks to Ylva Petterson for her assistance in providing information on the Council's DRM activities.
24. The Treaty was signed by the heads of state on 13 December 2007 and entered into force on 1 December 2009.
25. For a more in-depth discussion on this as well as the five-year history that pre-empts this clause, see Myrdal and Rhinard (2010).
26. Sara Myrdal and Mark Rhinard note that member state requirements are further specified in a declaration after the establishment of the Treaty which noted that member states could 'choose the most appropriate means by which to comply with its own solidarity obligations towards the stricken state' (2010: 6). This provides more flexibility to the choices available to member states, thus, diluting the possible strength of the agreement.
27. The following selection of key EU documents were used to assessed the level of DRM cooperation (individual values in parentheses): Council 1987 (0.30), 1989 (0.40), 1990b (0.20), 1990a (0.40), 1991 (0.30), 1992 (0.35), 1994 (0.65), 1997 (0.40), 1999 (0.40), 2001a (0.70), 2001b (0.30), 2002a (0.45), 2002b (0.30), 2003 (0.30), 2007a (0.35); Commission 2004 (0.60), 2007 (0.35).
28. This was supported by the UNDRO, CARICOM, PAHO/WHO, the Red Cross, Canada, the UK and the ECC (Carby, 2011: 30).
29. The creation of CARICOM through the 1973 Treaty of Chaguaramas was an extension and development from the previous British West Indies Federation (1958–1962) and the Caribbean Free Trade Association (CARIFTA) (YIO, 2010).
30. Assessed DRM documents and their individual total scores (in parentheses) for CARICOM include: CARICOM 1990 (0.50), 1991 (0.70), 2001 (0.50), 2005 (0.65), 2006 (0.45), 2007 (0.75), 2008 (0.70).
31. Other members include Algeria, Bahrain, Comoros, Djibouti, Kuwait, Mauritania, Morocco, Oman, Palestine, Qatar, Somalia, Sudan, Tunisia, United Arab Emirates, and Libya (suspended in 2011).
32. The Hyogo Framework for Action (HFA) set out five distinct goals in the area of DRM that were developed by the UN and disseminated at the 2005 world conference on Disaster Risk Reduction. For more on this, see Chapter 4 and UNISDR (2005).
33. The following LAS agencies have also incorporated disaster risk reduction measures: the Arab Academy for Science, Technology and Maritime Transport (AASTMT), the Arab Centre for the Study of Arid Zones and Dry Lands (ACSAD), the Arab Organization for Agricultural Development (AOAD), the Arab Labour Organization (ALO) and the Arab League's Educational, Cultural and Scientific Organization (ALECSO) (LAS, 2011: 7).

34. Assessed DRM documents and their individual total scores (in parentheses) for LAS include: LAS 1987 (0.45) and 2011 (0.80).
35. This Treaty emerged in between the 8th and 9th International Conference of American States that began in 1890 in Washington, DC.
36. Cuba was suspended in the period 1962–2009.
37. Meetings of consultation of ministers of foreign affairs are also held upon the Permanent Council request.
38. Colombia, Nicaragua and Panama signed the agreement in 1992 followed by Peru in 1996. Member states that have ratified the agreement include Panama, Peru, Uruguay, Dominican Republic and Nicaragua (OAS, 1991).
39. The inter-American committee for emergency situations was also set up at this time which consists of the 'Chair of the Permanent Council, the Secretary General of the OAS, the Director of the Pan American Health Organization, the President of the Inter-American Development Bank, and, in due course, the Chair of the Inter-American Council for Integral Development, or their respective representatives' (OAS, 1995a: Art. VI).
40. Inter-American Defence Board also has some influence on DRM through the provision of technical, advisory and educational services (OAS, 2006b).
41. Assessed DRM documents and their individual total scores (in parentheses) for OAS include: SOA 1994 (0.55); OAS 1991 (0.10), 1995a (0.40), 1999 (0.30), 2002 (0.50), 2003a (0.40), 2005b (0.40), 2006a (0.55), 2006c (0.45), 2006b (0.50), 2007b (0.55), 2008a (0.65), 2009 (0.30), 2010b (0.40), 2011b (0.65).
42. Other regional declarations on security include the 1992 Honiara Declaration, the 2000 Biketawa Declaration, and the 2002 Nasonini Declaration. None of these declarations mention natural disasters, although the latter comes close when it notes its commitment to the 'adverse effects of globalization' (PIF, 2002). Two treaties have also been signed within the lifespan of the Forum, both of which have a security dimension. First, the Treaty of Rarotonga, signed in 1985, establishes a nuclear-free zone in the Pacific. The second treaty is referred to as the 1995 Waigani Convention, which bans the exporting of hazardous and radioactive wastes to the Pacific (Boxall, 2005: 169).
43. This is not particularly surprising given the strong links between SOPAC and the UN and the financial support from the EU (SOPAC, 2010).
44. The Pacific Plan was released in the same year, which outlines the need to develop and implement 'policies and plans for the mitigation and management of natural disasters' as well as supporting the Madang Framework (PIF, 2005: 7).
45. Assessed DRM documents and their individual total scores (in parentheses) for PIF include: PIF 1975 (0.35), 1997 (0.20), 2005 (0.65).
46. The Southern African Development Cooperation Community (SADCC) created a food security sector in 1980, which was placed under the Agriculture and Natural Resources (FANR) Development Unit (SADC, 2002: §1.3.2). This was followed by a Regional Early Warning System established in 1986.
47. The reason for this facelift was due to non-implementation of the strategy, pressure to realign DRM with the 2004 Regional Indicative Strategic Development Plan (RISDP) and the 2004 Strategic Indicative Plan for the Organ (SIPO), and external pressure to conform to the 2004 African Union Partnership for Africa's Development (NEPAD) in 2004 (SADC, 2004, 2006).

48. Assessed DRM documents and their individual total scores (in parentheses) for SADC include: SADC 1999 (0.30), 2001b (0.20), 2001a (0.55), 2006 (0.70).

## 3 The Rational Role of Regional DRM Cooperation

1. These figures can be retrieved through an advanced search on the EM-DAT website under the following selection pattern: 'all regions'; time period 1970–1979/2000–2009; 'natural' type of disasters; and estimated economic damages (USD) (2011b). Note that the 1970 result of USD 53.8 billion was adjusted to current prices in 2005 (Officer and Williamson, 2011).
2. As noted more extensively in Chapter 2, neoliberal institutionalism is selected because it cannot easily explain the empirical phenomenon. Neoliberal institutionalism is consequently applied to (1) explain what motivates states to cooperate on regional DRM cooperation by (2) testing neoliberal institutionalism through a reassessment of its scope conditions.
3. There is another definition of interdependence that Keohane and Nye refer to, which is based on 'relative vulnerability': 'the relative cost of alternatives for the parties, the less dependent state is the one which possesses relatively lower costs from the termination or drastic alteration of the relationship' (1973: 160). The broader definition based on mutual sensitivity is used in this study.
4. The primary source used for generating the STI data comes from the UNU-CRIS Regional Integration Knowledge System (RIKS) platform database. It organizes the STI data – sourced from the United Nations Commodity Trade Statistics Database – into regional groups (UNU-CRIS RIKS, 2011). According to the UN statistics division, this database, notwithstanding its limitations, is the most comprehensive with over 1 billion records (see Chen and Lombaerde, 2011: 5). Some limitations mentioned by the UN statistics division include: (1) confidential trade statistics not revealed to the UN; (2) discrepancies in country report to the UN statistical division (based on new commodity classifications); and (3) the imports reported from one country do not always match the exports from the connecting country. For a fuller account see UNcomtrade (2010).
5. Intra-regional trade intensity, in turn, is measured by the ratio of intra-regional trade share to the region's share of total world trade. Intra-regional trade share is the percentage of a regional organization's total trade (regional imports and exports) (Iapadre, 2006). For more on the link between natural disasters and the economy see Bergholt and Lujala (2012).
6. The STI is chosen because it takes into account internal and external bias of trade and is generally considered to be the most appropriate indicator of trade interdependence (Hamanaka, 2012). An internal bias to trade means that the intensity of trade within a region is higher than its external trade intensity: it has a bias to intra- and not extra-regional trade (Ibid). This indicator is also chosen because it can provide valuable comparisons across regions. Intra-regional trade share, for example, can be over-determined when a large trading country exists within a region even if the region does not have a trade bias (Anderson and Norheim, 1993, cited in Hamanaka,

2012: 3). Comparing intra-regional trade share across different regions would thus create an unrepresentative illustration of regional trade activity.

7. The only exception to this is ASEAN, which has generally maintained a value around 0.70.
8. This is according to the 2000–2008 period. Only ASEAN, the EU and the OAS share more than 20 per cent of their trade internally.
9. For example, this could include the Maastricht Treaty in the EU, the reconfiguration of the OAU to the AU, SADCC to SADC, and the creation of Mercosur in the 1990s.
10. The outcome condition is measured according to five indicators of ascending cooperation, beginning with collective declarations and knowledge sharing activities (nascent cooperation), and ending with regional operational capacities and collective asset sharing (advanced cooperation). See Chapter 2.
11. Coverage is the proportion of membership of the outcome condition that can be explained by the explanatory condition (Ragin, 2008b: 86).
12. Consistency is expressed in the following formula: $(Xi \leq Yi) = \sum [\min Xi, Yi] \sum (Xi)$. The operator 'min' stands for the lower of the two values; Xi stands for the degree of membership in the causal combination; and Yi is the degree of membership of the outcome condition (Ragin, 2008a: 134). The function of assessing necessary conditions in the fsQCA 2.0 software was used as a more efficient manner to arrive at these values.
13. By drawing on the data set for the expectation hypothesis, the standard deviation (SD) is first calculated and then divided by the mean to produce a coefficient of variation (CV). The SD is helpful for showing the distribution of economic costs within a region in relation to the mean; the larger the SD, the wider the distribution. The CV expresses the ratio of the SD to the mean, which provides for a more coherent comparison between regions as the CV does not rely on a single mean (see UCLA, 2012). For more on estimated economic costs see Appendix A5.
14. That is, all cases are more in than out of the set of asymmetries, and more out than in the set of regional DRM cooperation.
15. The coverage has increased from 48 per cent in the 1990s to 82 per cent in the 2000s. While some consistency is lost – such as the EU and CARICOM in the 1990s – it remains at a fairly high level: 98 per cent in the 1990s and 88 per cent in the 2000s.
16. Including social costs – the number of deaths – have been purposefully omitted as the number of deaths caused by transboundary disasters has continually decreased over the last century (EM-DAT, 2010).
17. The annual estimated costs for each member of a regional organization was sourced from the EM-DAT database (2011b), the total estimated damage for each year was then calculated. This figure was then adjusted to the current USD value in 2008 (Officer and Williamson, 2011) and then divided by the total regional GDP (UNU-CRIS RIKS, 2011) of a particular year, giving the percentage of regional GDP affected by natural disasters. In order to more clearly illustrate general trends, the average figure for each decade was calculated. The EM-DAT advanced search was limited to the following categories: countries of the selected regional organization, natural disasters occurring in the period 1970–2008, estimated economic damages. As the regional GDP

figures were only accessible up to 2007, the average for the last period is shorter. See Appendix A5 for a more detailed description.

18. Here, I assume that each member state of each regional organization is sufficiently aware of its own economic history and the impact disasters have had on the region's economy, an assumption of perfect information.
19. Significant economic damage also occurred in Spain during 1980 from the result of drought. A major storm in Germany also produced significant damage in 1976 (EM-DAT, 2011b).
20. The source for this information was taken from an advanced search on the EM-DAT database (2011b).
21. Keohane argues that these entrepreneurs are necessary for international cooperation in regimes. However, this will only come about if (1) the entrepreneur gains through cooperation and (2) the organizational costs to the entrepreneur will be lower than the anticipated gains (1989: 112).
22. Generally accepted levels are above 75 per cent (Ragin, 2008a: 136).
23. According to the adjusted intra-regional power disparity figures, a negated configurational analysis shows that a combination of independence, asymmetrical risk and intra-regional power disparities (DRM→STI*ASY*IPD) can explain DRM with a 75 coverage rate and a 94 per cent consistency rate. However, as this formula is produced by negating the DRM values, the importance of this alternative causal pathway would be more consistent than the original formula (DRM→STI*EXP*~IPD) but with a very low coverage. It can explain much but with little accuracy. Note also that this is one of two possible causal pathways to the same result. As the alternative (DRM→~STI*ASY*EXP) has much lower consistency and coverage levels (80 and 30 per cent, respectively), it has not been included.
24. The Intra-regional power (IPD) disparity for coalitions of four or fewer countries is derived by adding the percentage of the combined share of GDP and percentage of economic costs to the three or four most affected and affluent members of a regional organization. These two percentages are then multiplied. The resulting value is then added to the values produced by repeating the same procedure individually for all other member states in a regional organization. These raw figures were then subjected to the same qualitative breakpoint classification used in the previous section on determining the membership of a regional organization in the set of power disparity (8100 for full membership; 2500 for the crossover point; and 100 for full non-membership).
25. The inclusion of regional coalitions thus increases the explanatory value of power, however, to the point of becoming a trivial condition. Converted into a configurational analysis, the new intra-regional power disparity values produce the following most complex formula: DRM→~STI*ASY*EXP*~IPD. The solution coverage is 38 per cent and the solution consistency is 79 per cent.
26. Note that the figures for LAS are based on the percentage of estimated damages in the period 2006–2009 and the average percentage of regional GDP share from 2006–2010.
27. There is no observable necessary condition for the development of regional DRM as there is no consistent subset of the outcome. However, a combination of sufficient conditions can be found, which is expressed in the following 'most complex solution': DRM→STI*ASY*~IPD+STI*ASY*~EXP. This means

that DRM is a product of high membership in the set of interdependence (STI) and asymmetrical risk (AYS) and intra-regional power symmetry (IPD), or that DRM is a product of high membership in the set of interdependence (STI) and asymmetrical risk (AYS) and not expectations (EXP). This formula was arrived by a minimization process based on a high consistency (≥75) of empirically relevant combinations of the explanatory conditions. The minimization process is based on the standard rule as expressed by Charles Ragin: 'If two Boolean expressions differ in only one causal condition yet produce the same outcome, then the causal condition that distinguishes the two expressions can be considered irrelevant and can be removed to create a simpler, combined expression' (Ragin, 2008b: 38).

28. This causal recipe (DRM→STI*ASY*IPD) has a coverage of 84 per cent and a consistency rate of 86 per cent.
29. This more parsimonious causal recipe (DRM→STI*ASY) has a coverage of 82 per cent and a consistency rate of 83 per cent.
30. The values are prioritized over the raw data because it has a single numerical dimension between 0 to 1 and covers a general trend between decades, limiting biased or idiosyncratic results that could emerge with raw data.
31. It should be noted that the AU and the OAS over-determine the increase in interdependence over time. If these two cases were hypothetically removed, a more constant trend would result, which would mean that, while important, the INUS condition (DRM→STI*ASY) becomes more trivial for explaining regional DRM. If an increase in the interdependence condition over the entire 40-year period of investigation is calculated, interdependence as a causal condition becomes less trivial. Furthermore, the particular increase in intra-regional trade intensity during the 1990s correlates with the general increase in regional DRM development in most regional organizations.
32. However, this does not mean that uncertainty can be eliminated. Even if there was perfect information on DRM in a regional organization it would not reduce uncertainty as the future is ultimately unknowable (DeSombre, 2009: 152). Keeping this in mind, the spread of information can still reduce uncertainty to a point that advances in cooperation are possible.
33. SOPAC's donors include: Australia, Fiji Islands, Canada, France, Ireland, Japan, New Zealand, USAID, Taiwan, the UK, the Commonwealth Secretariat, the EU and certain UN agencies (SOPAC, 2011).

## 4 The Standardization of DRM

1. Following a standard world society definition of 'institutionalization', a global DRM model is a 'set of cultural rules' on the preparedness, prevention, response and recovery to natural disasters 'that give[s] generalized meaning to social activity' for states, regional and international organizations 'and regulate[s] it in a patterned way… [it] involves processes that make such sets of rules seem natural and taken for granted while eliminating alternative interpretations and regulations' (Meyer, Boli and Thomas, [1987] 2009: 85).
2. Rationalization is a central term used in world society theory that is defined as 'the structuring of everyday life within standardized impersonal rules that constitute social organization as a means to collective purpose' (Meyer, Boli and Thomas, [1987] 2009: 76).

3. This is understood as an adequate cause for the emergence of regional DRM. An adequate cause is when the outcome cannot be imagined without its existence and a coincidental cause is when the outcome cannot be imagined without its existence even though the condition is not part of the ideal type (Jackson, 2011: 150–151). The idea in this case is that regional DRM is standardized by a global set of norms.
4. A standard content analysis is used as the main method to retrieve empirical data on the extent to which regional DRM is standardized. If regional DRM is a global model that states attempt to replicate, there are a number of features of DRM that ought to appear in a majority of the regional organizations under investigation. The three 'operationalizing measures' (Neuendorf, 2001) – the content of regional DRM agreements that includes the aims and methods of cooperation, the concepts or type of language used in the agreements, and the types of values propagated in the agreements – are assessed according to the degree to which they display similarities with other regional organizations. If these categories reflect a high degree of homogeneity, a stronger case can be made for the importance of the global normative context on regional activity.
5. The raw figures are sourced from the EM-DAT database according to the following search categories: countries pertaining to selected regional organizations; time period '1970–2009'; 'natural disasters'; and 'estimated economic damages per country'. These figures are adjusted for inflation based on the Consumer Price Index (Officer and Williamson, 2011) according to real 2008 prices. These are adjusted for inflation because the raw figures correspond to 'the damage value at the moment of the event, i.e. the figures are shown true to the year of the event' (EM-DAT, 2009). Once adjusted, the average amount of estimated damages for each decade was calculated.
6. By rationalization I mean 'the structuring of everyday life within standardized impersonal rules that constitute social organization as a means to collective purpose' (Meyer, Boli and Thomas, [1987] 2009: 76).
7. 'Disinterested Others' or 'Otherhood' is described as a process where an agent rises above the self to become an 'Other' (Otherhood) and is empowered by universal rights and scientific authority (Meyer, 2010: 7). Agents that embody this universal script and become Others achieve the ultimate form of legitimacy by transcending self-interest and drawing on scientific authority. This is explained by Meyer as the 'sacralization of the modern individual in terms of the highest and most universal principles reflects this [religious] characteristic … and it tends to empower this individual (and the organizations and states derived from the individual) as an agent for the universal principles themselves' (2010: 7). The UN is assumed as the 'other' in this case as all regional organizations have references to the UN, a similarity not shared with any other organization.
8. ECO and Mercosur do not yet have a framework agreement, and the PIF, LAS, OAS and AU do not list definitions in their agreements.
9. Note that SADC's referent point of protection is not clearly stated in its agreements except for the environment. Its website, however, does mention the importance of human life and the preservation of essential assets and the economy.
10. An early connection made between DRM and women's rights by the UN was through the 1968 international conference on human rights. A resolution

was adopted by the Commission on the Status of Women and the General Assembly that recommended the protection of women and children against violence in territories with armed conflicts and natural disasters (UN, 1969: 516–517; see UN, 1989: 334; UN, 2010).

11. This is at least according to Voltaire's *Candide* (Internationalist, 2005).
12. Until the turn of the 18th century slavery was commonly accepted, the punishment for crime was often administered through mutilation, burning, flogging, execution or exile (see Foucault, 1977: 1–6). Even brutality was considered an 'uncomplicated "pleasure in life" in the medieval period' (Elias, 1978, cited in Haskell, 1985a: 548).
13. For more on these relative ranking systems, see UNDP (2011). 'Very high human development' is ranked between 0.955 and 0.805; 'high human development' is ranked between 0.796 and 0.712; 'medium human development' is ranked between 0.710 and 0.536; and 'low human development' is ranked between 0.534 and 0.327 (UNDP, 2013).

## 5 International Organizations and Norm Diffusion

1. DRR is defined by the UN as 'The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events' (UNISDR, 2004b). DRR can, thus, be understood as a sub-category of DRM which also includes response and recovery aspects risk management.
2. These include conventional and non-conventional IGOs and INGOs. Conventional international organizations are defined as 'autonomous international governmental and non-governmental organizations of a non-profit nature. Multinational enterprises are therefore excluded. All such bodies have members in at least 3 countries and do not have their activities or decision-making structured in favour of any particular country'. Non-conventional organizations also include (autonomous) conference series and multilateral treaties (UIA, 2012; see YIO, 2010). Also note that 20 per cent of the organizations were not listed with an origin date.
3. The year 1863 marks the beginning of the modern period of international organizations in DRM. The first recorded emergency relief organization with an international mantel – that continues today – is the Sovereign Military Hospitaller Order of St John of Jerusalem, of Rhodes and of Malta, established in 1099.
4. Although the Red Cross at this time did not include emergency relief from natural disasters in its mandate, it was part of the original plans when the organization was established by Henry Dunant and others (McEntire, 1998: 50) in 1863.
5. These various links are based on the Yearbook of International Organization's criteria for organizational links.
6. The Voluntary Organisations in Cooperation in Emergencies (VOICE) is a network of 83 European NGOs cooperating in the area of humanitarian aid.
7. I would also like to especially thank an anonymous reviewer for emphasizing this point.

8. The global food shortage spurred 44 nations to meet in 1943 to 'banish hunger and establish a stable world agriculture' (UN, 1951: 872). This grew into the UN Interim Commission on Food and Agriculture, which eventually led to the creation of the UN Food and Agriculture Organization (FAO) in October 1945. While attention to natural disasters was not its original concern, it was soon added to the FAO's mandate in the early 1950s as the concern with food shortages and increasing population growth continued.
9. In 1953, these organizations as well as the Organisation for European Economic Co-operation (OEEC) were included on the council's list of organizations with similar responsibilities (UN, 1953: 495).
10. Examples of the type of aid provided include milk, drugs, soap, insecticides, vitamin capsules and food. The typical costs of aid ranged between USD 53,000–120,000 (UN, 1954: 265).
11. Examples of coordinated relief efforts include the 1964 volcanic eruption in Costa Rica, the 1966 hurricane in Western Samoa and the flooding of the Euphrates River in Syria in 1967. Aware that the UN still had 'virtually' no resources to provide assistance directly after a natural disaster had occurred (UN, 1964: 390), and noting the increase in requests for assistance by developing countries (UN Res. 1049(XXXVII), 1964), acting Secretary-General U Thant set up a voluntary emergency trust fund, requested to draw funds from the Working Capital Fund (see UN, 1968: 672) and also recommended an increase in technical assistance (UN, 1964: 390). Similar proposals continued throughout the 1960s and intensified in the early 1970s: the ceiling for disaster relief funds, or the 'Working Capital Fund', increased from USD 100,000 to 200,000 in the period 1969 to 1971, doubled again in 1974 and continued to increase during the 1970s (UN, 1971: 475; 1973: 458; 1975: 562; 1976: 514; 1979: 941). By the early 1990s, annual contributions from the UNDRO had reached above USD 200 million (UN, 1991: 413; see 1990: 346; 1994a: 850–851; 1999: 858). By 2007, OCHA was receiving contributions amounting to over USD 800 million (UN, 2007: 911).
12. In order to operationalize these objectives and bolster the UN's emerging organizational structure in DRM, the Council requested the Secretary-General to appoint a disaster relief coordinator (UN, 1971: 474). The Office of the United Nations Disaster Relief Co-ordinator (UNDRO) was subsequently created in 1972.
13. To be sure, the UN was not coercively applying a set standard of appropriate behaviour on states but was principally, and increasingly, requested by states and later regional organizations to provide advice and administrative assistance on DRM. Indeed, a part of the stated motivation to increase cooperation was due to the increasing requests by states (UN, 1989: 345). Viewed through world society theory, this represents a 'dialectic of knowledge' whereby the state increasingly recognizes that legitimate action can be obtained through cooperation that is based on an idealized functional need (in order to diffuse) that not only legitimizes the state but also encourages the expansion of activity by the UN. The UN and the state, thus, carry out a necessary mutualistic mode of activity.
14. In addition to including existing regional organizations, the UN also created regional commissions for the purpose of promoting economic growth. These commissions were set up in Europe (UNECE) and Southeast Asia

(ESCAP) in 1947 and in Latin America (UNECLAC) in 1948 (at this time the Commission in South America was the UN Commission for Latin America and the Commission for Southeast Asia and the Pacific was the Commission for Southeast Asia). A decade later, a regional commission was also established in Africa (UNECA) and a Western Asia Commission emerged in 1973 (UNESCWA). The use of these agencies to disseminate and promote DRM strategies already began in the 1950s, when ESCAP assisted in the creation of the Mekong River Commission in 1957. ESCAP was also instrumental in forming the Typhoon Committee in 1968 and, together with WMO, ECAFR created a 'regional action programme for natural disaster relief' in 1970 (UN, 1970: 424). While significant, these events tended to be ad hoc rather than institutionalized arrangements, as few other DRM activities arose. Indeed, the mandate of the commissions has only recently begun to include attention to DRM activities. The UNECE has now begun to cooperate with the OECD on DRR; ESCAP established a committee on disaster risk reduction in 2009; UNECLAC signed an MoU with the Caribbean Catastrophe Risk Insurance Facility (CCRIF) on DRM in 2010, and a recent dialogue between ECOSOC and the commission executive secretaries emphasized the need to strengthen the commissions' role in development strategies (IISD, 2011). As these commissions are well established it is somewhat surprising that no official DRM cooperation has emerged until very recently. Instead of focusing on its own regional bodies, the UN has been more active in promoting the DRM model on regional organizations.

15. Regional organizations were also considered essential partners in global DRM coordination by the early 1980s. UN resolutions on DRM before 1980 did not include 'regional organizations' when referring to partner organizations that provide relief assistance; instead, the general term 'intergovernmental' was used. However, in 1980 regional organizations were mentioned in appreciation of their relief aid, and from 1981 'regional organizations' were included in the standard list of partner organizations that provide disaster relief (UN, 1980: 980; 1981: 498; 1982: 676; 1983: 493).
16. A further observation that emphasizes the increasing importance the UNISDR places on regional organizations can be seen in the 2010–2011 expenditure breakdown, where a majority of the costs went to the regional work programmes (UNISDR, 2010c: 22).
17. The UN's cluster approach provides a further example of inter-organizational coordination. In an effort to create a more efficient response effort by the international community, the UN's Inter-Agency Standing Committee (IASC) adopted the 'humanitarian reform agenda' in 2005 (UN, 2007: 914). An ongoing initiative that has emerged from this new agenda are global 'clusters' of relief organizations that are grouped around particular themes such as education and disasters, emergency shelters, emergency telecommunications, child protection, and nutrition. The aim of the cluster programme is to strengthen global response capacity to disasters by coordinating relief organizations in principal fields of response (OneResponse, 2011). The main focus on the cluster approach is to provide effective response from the international community to states. The global cluster leads do not include any regional organizations and even though sub-clusters have been set up in some regions – such as the Pacific Humanitarian Team (PHT) – it is unclear the extent to which regional organizations are involved.

18. This does not mean the EU has been inactive in supporting developing countries with disaster resilience as reflected in the various programmes conducted through DIPECHO; however, there has been no concerted or strategic cooperation on disaster risk reduction at the community level (Commission, 2009: 4).
19. To be sure, these initiatives do not mean that the EU competes with the UN for legitimacy; instead, they are understood as partners (see Meyer, 2009: 50). As a sign of the EU's commitment to the UN's engagement with the global dissemination of DRM knowledge, the commission's financial support of the UNISDR in the period 2010–2011 was the third highest, below the World Bank and Sweden (UNISDR, 2011b). EU-UN cooperation also tends to be well established with a clear view of their collective and complementing roles in the international system (see ECHO, 2012). Expressing their joint view on global security issues, the EU and the UN note: 'In the years ahead, therefore, Europe's attachment to multilateralism – and to the United Nations, as the pivot of the multilateral system – will help determine whether, and how, the institutional architecture established in the years after World War II can continue to serve as the bedrock of the international system.... An active commitment to an effective multilateralism means…taking global rules seriously, whether they concern the preservation of peace or the limitation of carbon emissions; it means helping other countries to implement and abide by these rules; it means engaging actively in multilateral forums, and promoting a forward-looking agenda that is not limited to a narrow defence of national interests' (Commission, 2003).
20. This is apparently achieved by (1) preparation and agenda setting by professionalized others around common issues that can be addressed by a global collective, and (2) intersubjective exchanges between different countries and participating NGOs in the international fora. Differences in terms of customs, traditions and perceptions between the participants are expected and it is, in part, through this discourse that symbolic documents are produced that lay out common principles and plans of action (Lechner and Boli, 2005: 84–88).
21. Other ways in which cultural scripts can emerge or deteriorate include conflicts between different world models and critical shocks to the system (Boli, 2005: 395–396; Meyer, 2009: 56).
22. The second conference has approximately 4000 participants representing 168 states, 78 observer organizations, 161 NGOs and 152 media organizations (UN, 2005: 1015).
23. The promotion of the HFA also gave rise to other structural changes within the UN DRM system such as a management oversight board, a reformed ISDR task force, an advisory committee and a strengthened ISDR secretariat (UN, 2005: 1017).
24. It aimed to review national, regional, and international accomplishments of the decade, create an action programme for the future and increase the knowledge platform on DRM. Examples of the major themes to be presented at the conference included: 'the cost benefits of hazard mitigation, construction of safer buildings, drought management, disaster warning and preparedness systems, interaction between natural and technological disasters, and the vulnerability of communities and special groups' (UN, 1993: 741).

25. For a full description of these and the other regional organizations under review consult Chapter 2.
26. For a review of the increasing number of educational initiatives from the international community see the list under 'educational materials' on the PreventionWeb website: www.preventionweb.net.
27. The first registered date for the national production of DRM-related textbooks for children on the PreventionWeb database is by Colombia in 1989.
28. John Meyer notes that 'Educational expansion, curricular structures…all flow through a professionalized international world, producing pronounced world isomorphism' ([2001] 2009: 347).
29. The contract is also built on a number of assumptions of actions that must be followed in order to achieve the contractual goal. The growth of these 'contingent recipes', argues Thomas Haskell, are fundamental for instilling typified causal modes of action as well as moral responsibility (1985b: 554; Gasking, 1955). This was an important precondition for the emergence of a 'humanitarian sensibility' (Haskell, 1985a: 559).
30. Science is described as a 'cultural canopy' that supports and constitutes modern world society by awarding legitimacy and status to those actors that speak science (Drori et al., [2003] 2009: 266–267). Amongst other 'advantages', science not only legitimizes action but also provides a layer of meaning for action and understanding about how the world works, producing a sense of stability and security.
31. The concept of 'prediction' is one of the cornerstones of the UN's humanitarian 'reform', tying the desire for scientific knowledge with the expansion of cooperation.
32. As early as 1962, when a separate subsection entitled 'measures concerning natural disasters' first appeared in the UN yearbook, emphasis was placed on promoting scientific knowledge (UN, 1962: 392). The UN also adopted the International Relief Union's assets and responsibilities in 1966 (UN, 1966: 532). Upon the Secretary-General's recommendations, it was agreed in the following year that UNESCO would take over the scientific study of natural disasters from the IRU and that the Administrative Committee on Coordination would look into the implication this has for the coordination of the UN family in the area of natural disasters (UN Res. 1268(XLIII), 1967).

## 6 Norm Reproduction in the School of DRM

1. The global DRM model is defined as: a 'set of cultural rules' on the preparedness, prevention, response and recovery to natural disasters 'that give generalized meaning to social activity' for states, regional and international organizations 'and regulate it in a patterned way… [it] involves processes that make such sets of rules seem natural and taken for granted while eliminating alternative interpretations and regulations' (Meyer, Boli and Thomas, [1987] 2009: 85).
2. These diametrical terms are also referred to as a principle-agent relationship (Meyer and Jepperson, 2000: 111). However, this term is avoided in this thesis as it can be too easily confused with Principal-Agent Theory (see Laffont and Martimort, 2002).

3. Instead of emphasizing the mode of diffusion in argumentation (Risse, 2000), deliberation via epistemic communities (Haas, 1992) and modern technology (Deutsch et al., 1957), the dynamic ideational reification of global actors supports and constitutes global models.
4. This is not a one-way street. Actor and action are intermittently intertwined, which means that actorhood can switch to otherhood.
5. The emphasis on personal pronouns is an established area of discourse analysis that this study rests upon. For more on this see: Hardt-Mautner, 1995: 16; Wodak and Chilton, 2005: 151; Huckin, 2002; Fairclough, 1992, 1995; Inigo-Mora, 2004.
6. The 'military' and 'investment' themes are repeated in many other speeches by top UN officials. The following offers a small selection: 'We are…on the threshold of a breakthrough in acceleration in risk reduction practice, leaders and decision-makers and individuals seem to be hesitating – holding their step. Let us consider in this meeting why and what we as risk reduction policy makers and practitioners can do to accelerate actions' (Wahlström, 2010a); 'we recognize that you … are the front line of defence of humanitarian principles in times of disaster or emergency' (Wahlström, 2010b); 'It is time to invest and act immediately to make African continent more resilient to disasters' (Wahlström, 2010c); 'Experience and common sense agree: we must invest today for a better tomorrow' (Ban, 2011); and 'we must recognize that climate change will bring more incidents of extreme weather. That is why we must invest more in reducing the risk of future disasters' (Ban, 2010).
7. In addition to this award, the UN also gives out the Sasakawa Award for Disaster Reduction as well as Certificates of Distinction and Merit each year to individuals that have 'significantly contributed to the implementation of the Hyogo Framework for Action' (UNISDR, 2009e, 2009f).
8. The progressive normative bias in world society theory, however, does not anticipate disintegration.

## 7 The Great Divide: Translating Expectations into Capabilities

1. For a more full description see Chapter 2.
2. Two points should be considered here. First, this change digresses away from the original qualitative scale that starts with few and ends with high transaction costs, as changes in national legislation has been understood to come with high costs. Second, and more generally, the indicators are not perfect and it is also recognized that they are not fully independent from each other, such as the relationship between awareness and information. However, through the systematic use of the qualitative anchors, it should nevertheless provide a good indication on the extent to which each regional organizations exhibit expectations and capabilities.
3. These include the 2012 Myanmar earthquake and Typhoon Bopha in the Philippines, and the 2013 Jakarta Flood, Aceh Earthquake, Lao PDR flood, Maring/Metro Manila flood in the Philippines, Bohol Earthquake in the Philippines, and Typhoon Haiyan in the Philippines (Personal correspondence, 2014).

4. Note that Singapore is an exception.
5. This is also closely connected into development issues. One reason why local governments are not prioritizing disaster relief funds is due to the opportunity cost of reserving potentially unspent funds during a fiscal year (GFDRR, 2011: 26).
6. The components of the RRM include: a regional coordination centre (RCC), a regional coordination plan (RCP), a regional telecommunication plan, response teams (the CARICOM disaster relief unit, the Rapid Needs Assessment Team, the regional urban search and rescue light level team, Caribbean electricity company, Caribbean water and waste water association, technical support teams), the Eastern Caribbean Donor Group (ECDG), the North Western Caribbean Donor Group (NWCDG), national disaster plans and regional warehouses (Arthur, 2011).
7. The European Commission, for example, provided a 13.2 million euro development project that saw the construction of digital radars in strategically located areas in the Caribbean in view of creating the Caribbean Disaster Early Warning System. The cost of maintenance, however, has presented difficulties.
8. For individual progress reviews see: PreventionWeb.com.
9. The countries include: Egypt, Bahrain, Jordon, Tunisia, Yemen, Lebanon, Mauritius, and the State of Palestine. For individual progress reviews see: PreventionWeb.com.
10. Colombia became the sixth country to ratify the agreement in January 2013.
11. The international community has recently become aware of this issue, noting that 'underlying risk factors have not been adequately addressed … and as such need to be addressed strongly in HFA2 to build the resilience of communities' (UNISDR, 2013b: 11).
12. Zimbabwe, for example, received an equivalent of USD 0.04 per person compared to Lebanon which received USD 68.03 per person (Ibid: 35).

## 8 A World of Regions

1. That is, interdependencies and asymmetrical risk are insufficient but necessary parts of sufficient but unnecessary condition.
2. Consistency is defined as 'the *degree* to which the empirical evidence is consistent with the set theoretic relation in question' (Ragin, 2009: 108, original emphasis). Coverage is defined as the proportion of membership of the outcome condition that can be explained by the explanatory condition (Ragin, 2008b: 86).
3. Note the single outlier of this finding is CARICOM, which experienced a general increase in relative costs from natural disasters over the entire period of investigation. This can be generally explained by the excessive and consecutive losses from major earthquakes and hurricanes.
4. Social reality is defined here as 'the sum total of objects and occurrences within the social cultural world as experiences by the common-sense thinking of men living their daily lives among their fellow-men, connected with them in manifold relations of interaction' (Schutz, 1954: 261). It should also be

noted that it is assumed here that world society theory is generally based on different 'practices of knowledge' (Gunnell, 2010: 15): world society theory is based on analyticism and neoliberal institutionalism is based on neopositivism (see Jackson, 2011). For a deeper discussion on these issues see Hollis (2012).

5. Anticipated answers from world society theory might argue that it is only a question of time before Mercosur also establishes a standardized version of DRM cooperation and that DRM cooperation before the mid-1990s can be explained by the non-existence of an established *regional* model on DRM that only emerged after the first world conference on DRM in 1994. A further ambiguity that arose through the empirical analysis was the unexplained failure of some DRM organizations, which reveals a progressive bias in world society theory that cannot easily explain normative disintegration. A possible strategy to deal with these and other outliers is to more fully engage with the scope conditions of global norms.
6. Chapter 4 shows, for example, that cooperation is itself only made possible by a historically informed normative environment and a contemporary diffusion of DRM norms. There would be no 'logical' reason for a state to provide aid to a neighbouring country, and no reason for regional or global DRM, in the absence of important historical facts, such as the rise of the contract and the responsible individual, conjoined with other common social categories and global models such as scientific progress.
7. A useful method for possibly increasing political will is to focus on the use of regional insurance coalitions. As shown in Chapter 3, most regional organizations have one or two states that have most capacity and also suffer the most from disasters. Particular attention to these actors as regional leaders may help to improve the current situation. Regional organizations have the potential to reduce vulnerability of member states and can add value to the long-standing humanitarian and development agencies; however, it must overcome the challenge of coordination and collective will.

## Appendix

1. For more on the technical specification of this indicator see (Iapadre, 2006; Hamanaka, 2012).
2. Justified on theoretical and empirical claims, these 'benchmarks' are used to rescale the interval data into fuzzy-values, which is achieved through using the 'estimates of the log of the odds of full membership' (Ibid: 87). This direct method of calibration is translated in the following formula: degree of membership = exp (log odds)/[1+exp(log odds)] (Ragin, 2008a: 91). This fairly complicated procedure is simplified by using the fsQCA 2.0 software (version date: January 2009).
3. A value of 0.70 is interpreted as being in the set of interdependence and not the crossover for full membership as there is clearly a possibility for higher interdependence. The threshold is consequently set at 0.90.
4. See discussion on 'expectations' data in Chapter 8.
5. This would change slightly depending on the values of the other member states. Here, ten other member states account for 1 per cent each and the remaining states account for 0 per cent.

6. That is, more than half of what is considered highly damaging to a region.
7. Note that even if the crossover breakpoint was shifted to a higher percentage of regional GDP such as 0.8, the resulting fuzzy-values would not significantly change as there is a significant difference between regional organizations with high and low values.
8. While there are certain limitations in terms of the quality and quantity of figures sourced from this database, it is nevertheless considered the best source of information currently available. Furthermore, as the data is used over a long period of time, general trends ought to represent a good approximation of the economic costs to each region. A missing or false datum for a particular year is unlikely to affect the general trend over the 40-year period. The collated figures are limited to 'natural disasters', including drought, earthquake, epidemic, extreme temperature, flood, insect infestation, mass movement dry, mass movement wet, storm, volcano and wildfires. These disasters are entered into the database only when one or more of the following instances occur: more than 10 people are killed, more than 100 people are affected, and when a state of emergency is declared or when a call for international assistance is made (EM-DAT, 2009).
9. To see the raw figures of the estimated economic damages before adjusted to the percentage of GDP, see Table 3.1.
10. The figures for regional GDP are sourced from the UN Statistics Office. The Regional Integration Knowledge System (RIKS) at the UN University Institute on Comparative Regional Integration Studies (UNU-CRIS) is also used, which has a pre-assembled data-set for each regional organization.
11. Note that expulsions and suspensions, such as Fiji's suspension from the PIF in 2008, Libya's expulsion from LAS in 2011, and Seychelles' period of voluntary departure from SADC from 2003–2008, are not taken into consideration.

# References


ACDRM, 2013. Africa Centre for Disaster Risk Management. Available from: <http://www.aau.edu.et/acdrm/> [accessed 11 February 2014].

Acharya, A., 2004. How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism. *International Organization*, 58(2), 239–275.

Acharya, A. and Johnston, A. I., 2007. Comparing Regional Institutions: An Introduction. In: A. Acharya and A. I. Johnston, eds. *Crafting Cooperation: Regional International Institutions in Comparative*. Cambridge: Cambridge University Press, 1–31.

ACS, 2010. Saint-Marc Plan of Action. Available from: <http://www.acs-aec.org/Disasters/18th%20SC%20Disasters/English/plan%20de%20accion%20Saint-marc_En.pdf> .[accessed 20 March 2012].

ADInet, n.d. ASEAN Disaster Information network. Available from: <http://adinet.ahacentre.org/> [accessed 11 February 2014].

Aguaconsult, 2009. Evaluation of DIPECHO Action Plans for the CARIBBEAN. Main Report 21 April. Available from: <http://www.alnap.org/pool/files/erd-3690-full.pdf> [accessed 10 March 2012].

AHA Centre, 2013. ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management. Available from: <http://www.ahacentre.org> [accessed 10 April 2014].

AidData, 2014. AidData Beta: Open Data for International Development. Available from: <http://aiddata.org> [accessed 28 May 2014].

Alexander, D. E., 2013. Resilience and Disaster Risk Reduction: An Etymological Journey. *Natural Hazards Earth System Sciences*, 13, 2707–2716.

Alvesson, M. and Sköldberg, K., 2009. *Reflexive Methodology: New Vistas for Qualitative Research*, 2nd ed. Los Angeles: Sage.

Altay, N. and Green, W. G., 2006. OR/MS Research in Disaster Operations Management. *European Journal for Operational Research*, 175, 475–493.

Amador, J. S., 2009. Community Building at the Time of Nargis: The ASEAN Response. *Journal of Current Southeast Asian Affairs*, 28 (4), 3–22.

AMESD-SADC, n.d. AMESD in the SADC Region: Agriculture and Environmental Resource Management. Available from: <http://www.amesdsadc.org/about-us> [accessed 11 February 2014].

ANVIL, 2013. Results. Available from: <http://anvil-project.net/downloads/ > [accessed 11 February 2014].

APEC, 2005. Strategy for Disaster Risk Reduction and Emergency Preparedness and Response in the Asia Pacific Region: 2009 to 2015. Available from: <http://aimp.apec.org/Documents/2008/TFEP/TFEP1/08_tfep1_012.pdf> [accessed 20 March 2012].

APG, 2012. AADMER Partnership Group. Available from: <http://www.aadmer-partnership.org/who-we-are/about-us/> [accessed 11 February 2014].

ARC, 2013. African Risk Capacity: ARC Establishment. Available from: <http://www.africanriskcapacity.org/arcestablishment> [accessed 21 August 2013].

ARC, n.d. African Risk Capacity (ARC): Sovereign Disaster Risk Solutions: A Project of the African Union. Available from: <http://www.africanriskcapacity.org/c/document_library/get_file?uuid=43413e5d-f31c-4bd7-b114–68-a935e36e8b&groupId=350251> [accessed 11 February 2014].

Arthur, E., 2011. Effective Disaster Preparedness: Caribbean Approaches to Civil-Military Coordination. Available from: <http://www.slideshare.net/CivMilCoE/earl-arthurs#btnPrevious> [accessed 11 February 2014].

ASEAN, 1967. The Bangkok Declaration. Available from: <http://www.aseansec.org/1212.htm> [accessed 10 March 2012].

ASEAN, 1976a. Declaration on Mutual Assistance on Disasters. Available from: <http://www.aseansec.org/17455.htm> [accessed 2 June 2011].

ASEAN, 1976b. Declaration of ASEAN Concord. Available from: <http://www.aseansec.org/1216.htm> [accessed 2 June 2011].

ASEAN, 2003. Declaration of ASEAN Concord II (Bali Concord II) Available from: <http://www.aseansec.org/15159.htm> [accessed 2 June 2012].

ASEAN, 2004. The ASEAN Regional Programme on Disaster Management. Available from: <http://www.aseansec.org/18455.htm> [accessed 30 November 2010].

ASEAN, 2005a. Agreement on Disaster Management and Emergency Response. Available from: <http://www.jus.uio.no/english/services/library/treaties/13/13–02/asean_disaster_management.xml> [accessed 30 November 2010].

ASEAN, 2005b. Declaration on Action to Strengthen Emergency Relief, Rehabilitation, Reconstruction and Prevention. Available from: <http://www.asean.org/17066.htm> [accessed 10 June 2011].

ASEAN, 2008. Simulated Exercise: Typhoon Disaster Scenario. Available from: <http://reliefweb.int/report/indonesia/announcement-asean-committee-disaster-management-acdm-aseans-regional-emergency> [accessed 11 February 2014].

ASEAN, 2009. SASOP – Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations. Available from: <http://www.aseansec.org/publications/SASOP.pdf> [accessed 8 June 2012].

ASEAN, 2011a. ASEAN Committee on Disaster Management, ASEAN DRR Portal: Raising Disaster Resilience in Southeast Asia. Available from: <http://www.aseandrr.net/About/ASEANCommitteeonDisasterManagement.aspx> [accessed 10 March 2012].

ASEAN, 2011b. First Press Release of the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children (ACWC). Jakarta, 16 June 2011. Available from: <http://www.asean.org/26409.htm> [accessed 10 March 2012].

ASEAN, 2013. ASEAN Disaster Emergency Response Simulation Exercise Begins in Hanoi Today. Available from: <http://www.asean.org/news/asean-secretariat-news/item/asean-disaster-emergency-response-simulation-exercise-begins-in-hanoi-today> [accessed 11 February 2014].

AU, 2004. Africa Regional Strategy for Disaster Risk Reduction. Available from: <http://www.unisdr.org/files/4038_africaregionalstrategy1.pdf> [accessed 10 March 2012].

AU, 2009. Programme of Action for the Implementation of the Africa Regional Strategy for Disaster Risk Reduction (2006–2015). Available from: <http://www.

unisdr.org/files/13003_versionacceptedbyAUProposedAfricaPr.pdf> [accessed 9 March 2012].
AU, 2010a. Declaration of the Second African Ministerial Conference on Disaster Risk Reduction. Available from: <http://www.unisdr.org/files/13655_MinisterialDeclarationinEnglishadop%5B1%5D.pdf> [accessed 29 August 2011].
AU, 2010b. Programme of Action for the Implementation of the Africa Regional Strategy for Disaster Risk Reduction (2006–2015). Available from: <http://www.ugandaclusters.ug/dwnlds/0502Programs/DisasterPrep/disasterprep/keydocs/disaster_risk_reduction/programme_of_action_for_implementing_african_pgm_on_DRR.pdf> [accessed 9 March 2012].
AU, 2011a. AUC-World Bank Consultation: Proposed Agenda. Available from: <http://www.au.int/en/content/auc-world-bank-consultation-0> [accessed 29 August 2011].
AU, 2011b. Press Release: The African Union Special Emergency Assistance Fund for Drought and Famine in Africa Approved Emergency Relief Assistance to Somalia. Available from: <http://www.au.int/en/dp/pa/sites/default/files/Press%20Release%20-%20emergency%20relief%20assistance%20to%20Somalia.pdf> [accessed 29 August 2011].
AVN/Press, 2013. Mercosur Proposes Strategies for Shared Management of the Environment. Available from: <http://venezuela-us.org/2013/11/12/mercosur-proposes-strategies-for-shared-management-of-the-environment/> [accessed 11 February 2014].
Badejo, D. L., 2008. *The African Union*. New York: Chelsea House.
Bailes, A. J. and Cottey, A. A., 2006. Regional security cooperation in the early 21st century. In: *SIPRI Yearbook 2006: Armaments, Disarmament and International Security*. Stockholm: Stockholm International Peace Research Institute, 195–223.
Baldwin, D., 1997. The Concept of Security. *Review of International Studies,* 23 (1), 5–26.
Baldwin, R., 2006. Multilaterilising Regionalism: Spaghetti Bowls as Building Blocs on the Path to Global Free Trade. *NBER Working Paper* 12545, Cambridge, MA, USA: National Bureau of Economic Research.
Ban, K., 2009. Opening Video Statement of United Nations Secretary-General Ban Ki-moon. Second session of the Global Platform for Disaster Risk Reduction, Geneva, 16–19 June. Available from: <http://www.unisdr.org/files/11963_GP09Proceedings.pdf> [accessed 18 August 2011].
Ban, K., 2010. General Assembly Meeting on 'Strengthening of the Coordination of Humanitarian and Disaster Relief Assistance of the United Nations, including Special Economic Assistance'. Remarks given to the General Assembly, 19 August 2010. Available from: <http://www.un.org/apps/news/infocus/sgspeeches/search_full.asp?statID=916> [accessed 18 November 2011].
Ban, K., 2011. General Assembly Informal Thematic Debate on Disaster Risk Reduction. Remarks given to the General Assembly, 9 February 2011. Available from: <http://www.un.org/apps/news/infocus/sgspeeches/search_full.asp?statID=916> [accessed 18 November 2011].
Barett, S., 2007. *Why Cooperate? The Incentive to Supply Global Public Goods*. Oxford: Oxford University Press.
BBC, 2014. Tonga Homes Flattened by Powerful Cyclone Ian. Available from: <http://www.bbc.co.uk/news/world-asia-25716975> [accessed 17 January 2014].

BEAC, 2012. Joint Committee on Rescue Cooperation in the Barents Region. Available from: <http://www.beac.st/?DeptID=8733> [accessed 1 August 2012].

Beck, U., 1992. *Risk Society*. New Delhi: Sage Pub.

Beck, U., 1999. *World Risk Society*. Malden, MA, USA: Blackwell Pub, Inc.

Bellers, R. and McKemey, K., 2000. Evaluation of the DIPECHO Action Plans Implemented in the Caribbean. Available from: <http://www.alnap.org/pool/files/erd-3630-full.pdf> [accessed 21 March 2012].

Benson, C. and Clay, E. J., 2004. *Understanding the Economic and Financial Impacts of Natural Disasters*. Washington, DC: The World Bank.

Berger, P. L. and Luckmann, T., 1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Anchor Books, Random House.

Bergholt, D. and Lujala, P., 2012. Climate-Related Natural Disasters, Economic Growth, and Armed Civil Conflict. *Journal of Peace Research,* 49 (1), 147–162.

Berkovitch, N., 2003. Globalization of Human Rights and Women's Rights: The State and World Polity. *Theory and Critique,* 23, 13–48.

Berkovitch, N. and Bradley, K., 1999. The Globalization of Women's Status: Consensus/Dissensus in the World Polity. *Sociological Perspectives,* 42 (3), 481–498.

Best, E., 1997. Capacities for Regional Integration: Conceptual Framework for Comparative Analysis. In: M. O. Hösli and A. Saether, eds. *Free Trade Agreements and Customs Unions: Experiences, Challenges and Constraints*. TACIS/European Commission–EIPD, Maasttricht, 51–75.

Bettencourt, S., et al., 2006. Not If but When: Adapting to Natural Hazards in the Pacific Islands Region – A Policy Note. The World Bank East Asia and Pacific Region Pacific Islands Country Management Unit. Available from: <http://web.worldbank.org/> [accessed 21 March 2012].

Boin, A., 2005a. Back to Nature? A reply to Stallings. In: R. W. Perry and E. L. Quarantelli, eds. *What Is a Disaster? New Answers to Old Questions*. USA: Xlibris Corporation, 280–286.

Boin, A., 2005b. From Crisis to Disaster: Towards An Integrative Perspective. In: R. W. Perry and E. L. Quarantelli, eds. *What Is a Disaster? New Answers to Old Questions*. USA: Xlibris Corporation, 153–173.

Boin, A., Ekengren, M. and Rhinard, M., 2013. *The European Union as Crisis Manager: Problems and Prospects*. Cambridge: Cambridge University Press.

Boin, A. and Rhinard, M., 2008. Managing Transboundary Crises: What Role for the European Union? *International Studies Review,* 10 (1), 1–26.

Boin, A. and t' Hart, P., 2007. The Crisis Approach. In: H. Rodriguez, E. L. Quarantelli and R. R. Dynes, eds. *Handbook of Disaster Research*. New York: Springer, 42–54.

Boli, J., 2005. Contemporary Developments in World Culture. *International Journal of Comparative Sociology,* 46 (5–6), 383–404.

Boli, J. and Thomas, G. M., 1999. *Constructing World Culture: International Nongovernmental Organizations since 1875*. Stanford, California: Stanford University Press.

Borton, N., et al., 2001. Draft Regional Multi-Sectoral Disaster Management Strategy. Sponsored by the UNDP for the SADC Disaster Management Mechanism. Available from: www.unisdr.org/africa/af-partners/docs/sadc-strategy.pdf> [accessed 2 June 2011].

Boxall, S., 2005. The Pacific Islands Forum and Regional Security. In: J. Henderson and G. Watson, eds. *Securing a Peaceful Pacific*. New Zealand: Canterbury University Press, 166–187.

Breau, S. and Carr, I., 2011. Humanitarian Aid, Human Rights and Corruption. In: Marco Odello and Sofia Cavandoli, eds. *Emerging Areas of Human Rights in the 21st Century: The Role of the Universal Declaration of Human Rights*. Oxon; New York: Routledge, 149–176.

Breslin, S. and Higgot, R. A., eds., 2010. *International Relations of the Asia-Pacific. Volume 4: Regions and Regionalism*. London: Sage Pub.

Briguglio, L., 1995. Small Island Developing States and Their Economic Vulnerabilities. *World Development*, 23 (9), 1615–1632.

Brugnoni, P., 2013. UNASUR Conferencia de Alto Nivel de Autoridades vinculades a le Gestión de Riesgos de Desastres, Lima, 22 y 23 de abril de 2013. PowerPoint presentation, available from: http://www.cenepred.gob.pe/es/unasur/07-rehu.pdf.

Buhari-Gulmez, D., 2010. Stanford School on Sociological Institutionalism: A Global Cultural Approach. *International Political Sociology,* 4, 253–270.

Buzan, B., 1991. New Patterns of Global Security in the Twenty-First Century. *International Affairs,* 67 (3), 431–451.

Buzan, B. and Wæver, O., 2003. *Regions and Powers: The Structure of International Security*. Cambridge; New York: Cambridge University Press.

Cacos Blancos, 2012. Asistencia humanitaria. Available from: <http://www.cascosblancos.gov.ar/?q=es/node/91> [accessed 11 February 2014].

CAN, 2004. Andean Strategy for Disaster Prevention and Relief. Decision 591, 10 July. Available from: <http://www.comunidadandina.org/ingles/normativa/D591e.htm> [accessed 20 March 2012].

Candeloro, A., 2010. PPRD South Programme: Algeria – The Important Role of Women in the Algerian Civil Protection. Available from: <http://www.euromedcp.eu/en/countries/algeria/447-the-important-role-of-women-in-the-algerian-civil-protection.htm>l [accessed 15 August 2011].

Carby, B., 2011. Caribbean Implementation of the Hyogo Framework for Action: HFA Mid-Term Review. United Nations Development Programme: Disaster Risk Reduction Centre, University of the West Indies.

CARICOM, 1990. The Kingston Declaration. Available from: <http://www.caricom.org/jsp/communications/meetings_statements/kingston_declaration.jsp?menu=communications> [accessed 10 June 2011].

CARICOM, 1991. Agreement Establishing the Caribbean Disaster Emergency Response Agency (CDERA). Available from: <http://www.caricom.org/jsp/secretariat/legal_instruments/agreement_cdera.jsp?menu=secretariat> [accessed 18 May 2011].

CARICOM, 2001. Comprehensive Approach for Disaster Management in the Caribbean Project: A Strategy and Results Framework for Comprehensive Disaster Management in the Caribbean. Available from: <http://www.preventionweb.net/files/2518_CDMStrategyFDF.pdf> [accessed 8 June 2011].

CARICOM, 2005. Caribbean Community Regional Programme Framework 2005–2015. Available from: <http://cdm.cdera.org/cccdm/2006/downloads/Caribbean%20Community%20Regional%20Programme%20Framework%202005–2015.pdf> [accessed 11 June 2011].

CARICOM, 2006. Treaty on Security Assistance among CARICOM Member States. Available from: <http://www.caricom.org/jsp/secretariat/legal_instruments/treaty_security_assistance.pdf> [accessed 8 June 2011].

CARICOM, 2007. Comprehensive Disaster Management: Strategy and Programme Framework 2007–2012. Available from: www.fao.org/…/25488–01c9bb70e364-ba4a7a6a6bca2d2513b92.pdf> [accessed 8 June 2011].

CARICOM, 2008. Agreement Establishing the Caribbean Disaster Emergency Management Agency. Available from: <http://www.caricom.org/jsp/secretariat/legal_instruments/agreement_cdema.pdf> [accessed 18 May 2011].

CARICOM, 2010. *CDERA to CDEMA: The Transition Years*. Vol. I: 2007–2008: Caribbean Disaster Emergency Management Agency. Available from: <http://www.cdema.org/flipbook/cdema.htm> [accessed 18 May 2011].

CARICOM, 2011. Nominations now open for CDEMA 20th Anniversary Awards. Available from: <http://www.cdema.org/index.php?option=com_contentandview=articleandid=976:cdema-20th-anniversary-awardsandcatid=35:press-releases> [accessed 18 May 2011].

Carmalt, J. C. and Dale, C. H., 2012. Human Rights and Disaster. In: Ben Wisner, J. C. Gaillard and IIan Kelman, eds. *The Routledge Handbook of Hazards and Disaster Risk Reduction*. Oxon: Routledge, 61–71.

CBSS, 2012. EUROBALTIC Programme for Civil Protection in the Baltic Sea Region. Available from: <http://www.territorialcooperation.eu/frontpage/show/1221> [accessed 1 August 2012].

CCCCC, 2012. 2012–2013 Caribbean Risk Management Project. Available from: <http://www.caribbeanclimate.bz/ongoing-projects/2012–2013-caribbean-risk-management-project.html> [accessed 21 August 2013].

CDB, 1998. Strategy and Operational Guidelines for Natural Disaster Management. Caribbean Development Bank. Available from: >www.caribank.org> [accessed 2 June 2011].

CDEMA, 2010. CDEMA Committed to Rebuilding Haiti. Available from: <http://www.cdema.org/> [accessed 11 February 2014].

CDEMA, 2011. The Guidance Tool: A Manual for Mainstreaming Climate Change Adaption into the CDM Country Work Programme. Available from: <http://unfccc.int/files/adaptation/application/pdf/cca_guidance_tool_E_book_.pdf> [accessed 12 June 2013].

CDEMA, 2013. Provision of Assistance in Response to Disasters. Available from: <http://www.cdema.org/index.php?option=com_content&view=article&id=359&Itemid=198> [accessed 21 August 2013].

CDEMA, 2014. Situation Reports. Available from: <http://www.cdema.org/> [accessed 11 February 2014].

CDEMA, n.d. CDM Database. Available from: <http://cdema.org/cdm/database/index.php> [accessed 11 February 2014].

CEI, 1996. Cooperation Agreement on the Forecast, Prevention and Mitigation of Natural and Technological Disasters. Available from: <http://iea.uoregon.edu/page.php?format=print&query=treaty_info&mitch_id=3133> [accessed 5 August 2012].

CEPREDENAC, 1993. Coordination Centre for the Prevention of Natural Disasters in Central America. <http://unterm.un.org> [accessed 21 April 2014].

Charvériat, C., 2000. Natural Disasters in Latin America and the Caribbean: An Overview of Risk. Inter-American Development Bank Research Department working papers series, 434, 1–104.

Chen, L. and De Lombaerde, P., 2011. Regional Production Sharing Networks and Hub-ness in Latin America and Asia: A Long-term Perspective. *Integration and Trade*, 32 (45), 17–34.

Cichowski, R., 2005. Women's Rights, the European Court and Supranational Constitutionalism. *Law and Society Review*, (38), 489–512.
CoE, 1987. EUR-OPA Major Hazards Agreement. Available from: <http://www.coe.int/T/E/Cultural_Co-operation/Disasters/> [accessed 20 March 2012].
Collymore, J., 2001. Opening remarks from Jeremy Collymore. CDERA CDM Regional Conference, 6 June 2001, Barbados. Available from: <http://www.cdera.org/projects/cdm/cdmconfremarks1.php> [accessed 17 November 2011].
Comfort, L., Boin, A. and Demchak, C. C., (eds), 2010. *Designing Resilience: Preparing for Extreme Events*. Pittsburgh: University of Pittsburgh Press.
Commission, 2003. The European Union and the United Nations: The Choice of Multilateralism. COM (2003) 526 final.
Commission, 2004. Commission Decision of 29 December 2003 laying down rules for the implementation of Council Decision 2001/792/EC. Euratom establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions. 2004/277/EC, Euratom.
Commission, 2007. Commission Decision of 8 August 2007 laying down rules for the implementation of the provisions on transport in Council Decision 2007/162/EC. Euratom establishing a Civil Protection Financial Instrument. 2007/606/EC, Euratom.
Commission, 2009. EU Strategy for supporting disaster risk reduction in developing countries. Communication from the Commission to the Council and the European Parliament. COM(2009) 84 final, Brussels, February 23.
Commission, 2010a. Commission Decision of 29 July 2010 amending Decision 2004/277/EC, Euratom as regards rules for the implementation of Council Decision 2007/779/EC. Euratom establishing a Community civil protection mechanism. 2010/481/EU, Euratom.
Commission, 2010b. Humanitarian Aid and Civil Protection. Available from: <http://ec.europa.eu/echo/civil_protection/civil/prote/mechanism.htm> [accessed 3 December 2010].
Commission, 2011a. Commission staff working paper. Impact Assessment – 2011 Review of the Civil Protection Regulatory Framework. Brussels, 20 December 2011. SEC(2011) 1632 final.
Commission, 2011b. Implementation Plan of the EU Strategy for Supporting Disaster Risk Reduction in Developing Countries 2011–2014. Available from: <http://ec.europa.eu/europeaid/what/environment/documents/implementation-plan-disaster-risk-reduction-2011–2014_En.pdf> [accessed 12 November 2012].
Commission, 2012b. Civil Protection. Special Eurobarometer 383. Available from: <http://ec.europa.eu/echo/files/eurobarometer/reports/CP.pdf> [accessed 11 February 2014].
Commission, 2012c. EU Solidarity Fund. Available from: http://www.statewatch.org/news/2012/jan/eu-com-civil-protection-mechanism-18919-add2–11.pdf [accessed 15 August 2011].
Correa, E., 2011. Preventive Resettlement of Populations at Risk of Disaster. Available from: <http://www.gfdrr.org/sites/gfdrr.org/files/preventive_resettlement_LAC_Experiences.pdf> [accessed 10 April 2014].
Costea, A. and Felicio, T., 2005. Global and Regional Mechanisms of Disaster Reduction and Relief: Review, Evaluation, Future Directions of Integration. *UNU-CRIS Occasional Papers,* 12, 1–40.

Council, 1987. Resolution of the Council and the Representatives of the Governments of the Member States, Meeting within the Council of 25 June 1987 on the Introduction of Community Cooperation on Civil Protection. 87/C 176/01.

Council, 1989. Resolution of the Council and the Representatives of the Governments of the Member States, Meeting within the Council of 13 February 1989 on the New Developments in Community Cooperation on Civil Protection. 89/C 44/03.

Council, 1990a. Resolution of the Council and the Representatives of the Governments of the Member States, Meeting within the Council of 23 November 1990 on Community Cooperation on Civil Protection. 90/C 315/01.

Council, 1990b. Resolution of the Council and the Representatives of the Governments of the Member States, Meeting within the Council of 23 November 1990 on Improving Mutual Aid between Member States in the Event of a Natural or Man-Made Disaster. 90/C 315/02.

Council, 1991. Resolution of the Council and of the Representatives of the Governments of the Member States, Meeting within the Council of 8 July 1991 on Improving Mutual Aid between Member States in the Event of Natural or Technological Disaster. 91/C 198/01.

Council, 1992. The Maastricht Treaty: Provisions Amending the Treaty Establishing the European Economic Community with a View to Establishing the European Community. Available from: <http://www.eurotreaties.com/maastrichtec.pdf> [accessed 8 June 2011].

Council, 1994. Resolution of the Council and the Representatives of the Governments of the Member States, Meeting within the Council, of 31 October 1994 on Strengthening Community Cooperation on Civil Protection. 94/C 313/01.

Council, 1997. Council Decision of 19 December 1997 Establishing a Community Action Programme in the Field of Civil Protection. 98/22/EC.

Council, 1999. Council Decision Establishing a Community Action Programme in the Field of Civil Protection (2000–2004). 1999/847/EC.

Council, 2001a. Council Decision of 23 October 2001 Establishing a Community Mechanism to Facilitate Reinforced Cooperation in Civil Protection Assistance Interventions. 2001/792/EC, Euratom.

Council, 2001b. Resolution of the Council and of the Representatives of the Governments of the Member States, Meeting within the Council of 26 February 2001 on Strengthening the Capabilities of the European Union in the Field of Civil Protection. 2001/C 82/01.

Council, 2002a. Council Resolution of 19 December 2002 on Special Civil Protection Assistance to Outermost and Isolated Regions, to Insular Regions, to Regions Which Are Not Easily Accessible, and to Sparsely Populated Regions, in the European Union. 2003/C 24/03.

Council, 2002b. Council Resolution of 28 January 2002 on Reinforcing Cooperation in the Field of Civil Protection Training. 2002/C 43/01.

Council, 2003. Council Resolution of 22 December 2003 on Strengthening Community Cooperation in the Field of Civil Protection Research. 2004/C 8/02.

Council, 2007a. Council Decision Establishing a Civil Protection Financial Instrument. 2007/162/EC, Euratom.

Council, 2007b. Council Decision Establishing a Community Civil Protection Mechanism (recast). 2007/779/EC.
Council, 2007c. Directive of the European Parliament and of the Council on the Assessment and Management of Flood Risks. 2007/60/EC.
Council, 2007d. Treaty of Lisbon: Amending the Treaty of the European Union and the Treaty Establishing the European Community, Signed at Lisbon, 13 December 2007.
Council, 2008. Consolidated Version of the Treaty of the Functioning of the European Union. 25 March 1957. C 115/49.
Council, 2011a. Council Conclusions on Integrated flood Management within the European Union. 3085th Justice and Home Affairs Council Meeting, Brussels, 12 May 2011.
Council, 2011b. Council Conclusions on the Development of the External Dimension of the European Programme for Critical Infrastructure Protection. Available from: <http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/jha/122503.pdf> [accessed 8 March 2012].
Council, 2013. The EU Integrated Political Crisis Response Arrangements. IPCR Secretariat, General Secretariat of the Council: Brussels.
Crawford, J. and Fiorentino, R. V., 2005. *The Changing Landscape of Regional Trade Agreements*. Geneva, Switzerland: World Trade Organization.
Crondstedt, M., 2002. Prevention, Preparedness, Response, Recovery – An Outdated Concept? *Australian Journal of Emergency Management,* 17 (2), 10–13.
Davidson, D., 2001. *Essays on Actions and Events*. Oxford; New York: Oxford University Press.
De Bruijne, M., Boin, A. and van Eaten, M., 2010. Resilience: Exploring the Concept and Its Meanings. In: L. Comfort, A. Boin and C. C. Demchak, eds. *Designing Resilience: Preparing for Extreme Events*. Pittsburgh: University of Pittsburgh Press, 13–33.
De Guttry, A., 2012. Surveying the Law. In: A. De Guury, M. Gestri and G. Venturini, eds. *International Disaster Response Law*. The Hague; The Netherlands: Springer, 3–45.
Dell, S. S., 1966. *A Latin American Common Market?* New York: Oxford University Press.
De Lombaerde, P. and Van Langenhove, L., 2005. Indicators of Regional Integration: Methodological Issues. *IIIS Discussion Paper*, 64 (March), 1–35.
De Lombaerde, P., et al., 2010. The Problem of Comparison in Comparative Regionalism. *Review of International Studies,* 36, 731–753.
DeSombre, E. R., 2009. Power, Independence, and Domestic Politics in International Environmental Cooperation. In: H. Milner and A. Moravscik, eds. *Power, Interdependence, and Nonstate Actors in World Politics*. Princeton; Oxford: Princeton University Press, 147–164.
Deutsch, K. W., et al., 1957. *Political Community and the North Atlantic Area*. Princeton, NJ: Princeton University Press.
Diop, A. Y., 2013. ECOWAS: Official Statement by Dr. Adrienne Y. Diop. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].
DPPI-SEE, 2000. Disaster Preparedness and Prevention Initiative. Available from: <http://www.dppi.info/aboutus> [accessed 20 March 2012].

Drori, G. S., et al., [2003] 2009. World Society and the Authority and Empowerment of Science. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 261–280.

DRR Project Portal, 2013. DRR Project Portal. Available from: <http://www.drrprojects.net/drrp/project/project/search> [accessed 11 February 2014].

DSD, 2010. Project Execution. Available from: <http://www.oas.org/dsd/Nat-Dis-Proj/Natdesproject/Projectexe.htm > [accessed 11 February 2014].

EAC, 2012. *Disaster Risk Reduction and Management Strategy (2012–2016)*. Arusha, Tanzania: EAC Secretariat.

Earth Observatory, n.d. The Impact of Climate Change on Natural Disasters. Available from <http://earthobservatory.nasa.gov/Features/RisingCost/rising_cost5.php> .[accessed 13 October 2014].

ECCAS, [2009] 2010. UNISDR signs agreement with the Economic Community of Central African States to strengthen collaboration on DRR. <http://www.unisdr.org/archive/17053> [accessed 21 April 2014].

ECHO, 2012. European Community Civil Protection Mechanisism: Activations overview 01.01.2007–31.12.2012. Available from: <http://ec.europa.eu/echo/files/policies/disaster_response/EUCPM_activations_since_01012007.pdf> [accessed 26 March 2014].

ECHO, 2013a. Exercises. *Newsletter for Civil Protection National Experts*, 7(December), 4.

ECHO, 2013b. Preparedness. Available from: <http://ec.europa.eu/echo/policies/prevention_preparedness/preparedness_En.htm> [accessed 11 February 2014].

Eckstein, H., 1992. *Regarding Politics: Essays on Political Theory, Stability, and Change*. Berkeley, Los Angeles, Oxford: University of California Press.

ECO, 1996. Treaty of Izmir. Available from: www.ecosecretariat.org/ftproot/Documents/Basics/Treaty_of_Izmir.doc [accessed 5 September 2011].

ECO, 2006. Baku Declaration. The 9th Summit Declaration. Baku, 5 May 2006. Available from: <http://www.ecosecretariat.org/> [accessed 31 August 2011].

ECO, 2007. Memorandum of Understanding between the Economic Cooperation Organization (ECO) and the United Nations Secretariat of the International Strategy for Disaster Reduction (UN/ISDR), Tehran, 9 May 2007. Available from: <http://www.ecosecretariat.org/> [accessed 26 August 2011].

ECO, 2008a. Recommendations. Third ECO International Conference on DRM. 7–8 October 2008, Tehran, Iran. Available from: <http://www.preventionweb.net/files/3554_Conferencerecomm.pdf > [accessed 19 July 2012].

ECO, 2008b. Regional Center for Risk Management of Natural Disasters 2008. Available from: <http://www.eco-rcrm.ir/> [accessed 20 March 2012].

ECO, 2008c. Stabilization of Regional Center for Disaster Risk Management in IRAN (ECO-RCRM), ECO Regional Center for Risk Management of Natural Disasters. Available from: <http://www.eco-rcrm.ir/show=14> [accessed 31 August 2011].

ECO, 2009. Tehran Declaration. The 10th Summit Declaration, Tehran, 11 March 2009. Available from: <http://www.ecosecretariat.org/> [accessed 31 August 2011].

ECO, 2010a. Istanbul Declaration. The 11th Summit Declaration, Istanbul, 23 December 2010. Available from: <http://www.ecosecretariat.org/> [accessed 31 August 2011].

ECO, 2010b. Status Report of Agreements/MoUs Signed by the ECO Member States. Available from: <http://www.ecosecretariat.org/ftproot/Documents/Stat_ECO_Agree_MOU.htm> [accessed 31 August 2011].

ECOWAS, 2006. ECOWAS Policy for Disaster Risk Reduction. <[http://www.unisdr.org/files/4037_ECOWASpolicyDRR.pdf]> [accessed 21 April 2014].

Egeland, J., 2005. Opening Statement by Mr. Jan Egeland, Under-Secretary General for Humanitarian Affairs, United Nations. World Conference on Disaster Reduction, 18 January 2005. Available from: <http://www.unisdr.org/2005/wcdr/thematic-sessions/WCDR-proceedings-of-the-Conference.pdf> [accessed 10 August 2011].

Ekengren, M., 2008. EU Civil Protection: An Ascending Sector. In: A. Boin, M. Ekengren and M. Rhinard, eds. *Security in Transition: Towards a New Paradigm for the European Union*. Acta B 41, Stockholm: National Defence College, 47–63.

Ekengren, M., et al., 2006. Solidarity or Sovereignty? EU Cooperation in Civil Protection. *European Integration,* 28 (5), 457–476.

El Mallah, F., 2011a. Key Achievements and DRR Priorities within the League of Arab States System. Presentation. Available from: <http://www.preventionweb.net/files/globalplatform/entry_presentation~globalplatformigolaskeyachievindrr9mayfinal.pdf> [accessed 2 June 2011].

El Mallah, F., 2011b. Statement of the League of Arab States. Third Session of the Global Platform for Disaster Risk Reduction, 11 May. Available from: <http://www.preventionweb.net/files/globalplatform/leagueofarabstatesofficialstatement.pdf> [accessed 2 June 2011].

EM-DAT, 2009. EM-DAT Glossary. Available from: <http://emdat.be/glossary/9> [accessed 15 June 2011].

EM-DAT, 2010. Number of People Reported Killed by Natural Disasters: 1900–2010, Natural Disasters Trends. The International Disaster Database, Centre for Research on the Epidemiology of Disasters – CRED. Available from: <http://www.emdat.be/natural-disasters-trends> [accessed 15 June 2011].

EM-DAT, 2011a. Disaster Trends. Available from: <http://www.emdat.be/> [accessed 31 July 2012].

EM-DAT, 2011b. The OFDA/CRED International Disaster Database. Université Catholique de Louvain, Brussels, Belgium. Advanced Search. Available from: <http://www.emdat.be/advanced-search> [accessed 3 February 2012].

EMP, 2010. Conclusions and Recommendations of the Meeting on the Institutional Framework for Disaster Risk Reduction in Latin America and the Caribbean, Asia and Africa. Available from: <http://www.preventionweb.net/english/professional/publications/v.php?id=17442> [accessed on 25 May 2014].

Engel, U. and Fomes, J. F., 2010. Africa's New Peace and Security Architecture: An Introduction. In: U. Engel and J. F. Porto, eds. *Africa's New Peace and Security Architecture: Promoting Norms, Institutionalizing Solutions*. England; USA: Ashgate, 1–13.

EPPR, 2010. Emergency Prevention, Preparedness and Response: A Working Group of the Arctic Council. Available from: < http://eppr.arctic-council.org/> [accessed 1 August 2012].

ERC, 2013. ECHO Factsheet: Emergency Response Centre. Available from: <http://ec.europa.eu/echo/files/aid/countries/factsheets/thematic/ERC_En.pdf> [accessed 21 August 2013].

ESCAP, 2008. *Striving Together: ASEAN and the UN*. Bangkok, Thailand: UN Publications.

ESCWA, 2011. Regional Review of Institutions for Sustainable Development in the Arab Region. <http://www.escwa.un.org> [accessed 11 February 2014].

Etzioni, A., 1965. *Political Unification: A Comparative Study of Leaders and Forces*. New York: Holt, Rinehart and Winston.

EU, 2014. Disaster Risk Reduction: Critical components of poverty reduction and sustainable development strategies (14/07/2014). Available from: <http://eeas.europa.eu/delegations/un_geneva/press_corner/all_news/news/2014/20140714_drr_En.htm> .[accessed 10 October 2014].

EUPPRD, 2011. Fifth PPRD South Training Workshop on Flood Risk Management. Available from: <http://www.preventionweb.net/english/professional/trainings-events/events/v.php?id=17748> [accessed 1 August 2012].

EU Presidency, 2009. EU Statement on Disaster Risk Reduction Intervention by the CZ Presidency on behalf of the EU. Available from: <http://www.unisdr.org/we/coordinate/global-platform> [accessed 25 August 2013].

European Parliament, 2010. European Parliament Resolution of 23 November 2010 on Civilian-Military Cooperation and the Development of Civilian-Military Capabilities. 2010/2071(INI); 2012/C 99 E/02.

Fairclough, N., 1992. *Discourse and Social Change*. London: Polity.

Fairclough, N., 1995. *Critical Discourse Analysis. The Critical Study of Language*. London and New York: Longman.

Fawcett, L., 2004. Exploring Regional Domains: A Comparative History of Regionalism. *International Affairs*, 2004, 80 (3), 429–446.

Fawcett, L. and Hurell, A., 1995. *Regionalism in World Politics: Regional Organization and International Order*. Oxford: Oxford University Press.

Ferris, E. and Petz, D., 2013. In the Neighborhood: The Growing Role of Regional Organizations in Disaster Risk Management. The Brookings Institution – London School of Economics Project on Internal Displacement.

Ferris, E., Petz, D. and Stark, C., 2012. The Year of Recurring Disasters: A Review of Natural Disasters in 2012. <http://www.brookings.edu/research/reports/2013/03/natural-disaster-review-ferris> [accessed 11 February 2014].

Field, C. B., et al., 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaption: Special Report on the Intergovernmental Panel on Climate Change*. New York: Cambridge University Press.

Finlay, S. and Schroeder, M., 2008. Reasons for Action: Internal vs. External. In: E. N. Zalta, ed. *The Stanford Encyclopedia of Philosophy*. Fall 2008 edition available from: <http://plato.stanford.edu/archives/fall2008/entries/reasons-internal-external> [accessed 2 July 2012].

Finnemore, M., 1993. International Organizations as Teachers of Norms: The United Nations Educational Scientific, and Cultural Organization and Science Policy. *International Organization,* 47 (4), 567–597.

Fioramonti, L., ed. 2012. *Regionalism in a Changing World: Comparative Perspectives in the New Global order*. London; New York: Routledge.

FloodWise, 2011. Project Update. Cross Border River Basin Management. Available from: <http://floodwise.eu/assets/marijnlbok/files/FLOOD-WISE%20Update%20WG-F%20March%202011%20final.pdf>[accessed 9 December 2011].

Foucault, M., 1977. *Discipline and Punish: The Birth of the Prison*. Penguin Group.

Gaillard, J. C., 2007. Resilience of Traditional Societies in Facing Natural Hazards. *Disaster Prevention and Management*, 16 (4), 522–544.
Gamble, A. and Payne, A., 1996. *Regionalism and World Order*. London: MacMillan Press.
García, M., 1998. Women's Rights and the Treaty of Amsterdam on European Union. *European Parliament Working Paper*, FEMM 104, 1–136.
Gasking, D., 1955. Causation and Recipes. *Mind,* 64 (256), 497–487.
Gassebner, M., Keck, A. and Teh, R., 2010. **Shaken, Not Stirred: The Impact of Disasters on International Trade**. *Review of International Economics,* 18 (2), 351–368.
Geleta, B. 2013. Youth and volunteering newsflash. Available from: <http://www.ifrc.org/PageFiles/41321/June%202013-YV-e-newsflash-EN.pdf> .[accessed 10 October 2014].
Gentner, H. H., 2005. ASEAN: Cooperative Disaster Relief after the Tsunami. *Südostasien Aktuell*, 4, 1–9.
Georgieva, K., 2010a. How Can We Respond to a World Where the Frequency and Intensity of Disasters Is Increasing? Brussels, 18 October 2010. Available from: <http://ec.europa.eu/commission_2010–2014/georgieva/pdf/insurance_speech_20111018_En.pdf> [accessed 29 July 2012].
Georgieva, K., 2010b. Institutional Challenges for the EU's Growing Political Power. Security and Defence Day, Brussels, 30 November. Available from: <http://ec.europa.eu/commission_2010–2014/georgieva/index_En.htm>[accessed 18 August 2011].
Georgieva, K., 2010c. Universal Human Rights at the Heart of Common Cultural Heritage. New York, 24 September 2010. Available from: <http://ec.europa.eu/commission_2010–2014/georgieva/index_En.htm> [accessed 18 August 2011].
Georgieva, K., 2010d. Women, Peace and Security. New York, United Nations, Ministerial-level meeting. 25 September. Available from: <http://ec.europa.eu/commission_2010–2014/georgieva/index_En.htm>[accessed 15 August 2011].
Georgieva, K., 2011a. ASEAN and the European Union – New Strategies and Cooperation in Disaster Management. Public speech during visit to Indonesia, Jakarta, Indonesia, 12 September 2011. Available from: <http://ec.europa.eu/commission_2010–2014/georgieva/index_En.htm> [accessed 15 August 2011].
Georgieva, K., 2011b. Our Changing World and What It Means for International Humanitarian Action. International Conference Organized by the Order of Malta, 27–28 January. Available from: <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/11/53andtype=HTM>L [accessed 18 August 2011].
GFDRR, 2009. Central Asia and Caucasus Disaster Risk Management Initiative (CAC-DRM).
GFDRR, 2011. ASEAN: Advancing Disaster Risk Financing and Insurance in ASEAN Countries: Framework and Options for Implementation. Vol. 1: Main Report. Available from: <http://www.gfdrr.org/sites/gfdrr.org/files/DRFI_ASEAN_DRFI_draft_report(October%2030,%202011).pdf> [accessed 11 February 2014].
GFDRR, 2012a. Community-Based Disaster Risk Management Course. Available from: <https://www.gfdrr.org/node/1141> [accessed 11 February 2014].
GFDRR, 2012b. Global Facility for Disaster Reduction and Recovery. Available from: <http://www.google.com/search?client=safariandrls=enandq=GFDRRandie=UTF-8andoe=UTF-8> [accessed 7 March 2012].

GFDRR, 2014. Track I – Partnership in Disaster Risk Reduction. Available from: <https://www.gfdrr.org/track-I> [accessed 10 April 2014].
GNDR, 2013. Fourth Global Platform for Disaster Risk Reduction: Draft Official Statement. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].
GNDR VFL, 2013. Views from the Frontline: Beyond 2015 – Recommendations for a Post-2015 Disaster Risk Reduction Framework to Strengthen the Resilience of Communicates to All Hazards. Available from: >www.globalnetwork-dr.org> [accessed on 26 May 2014].
González, P., 2011. Official Statement of the General Secretariat of the OAS as the Third Session of the Global Platform for Disaster Risk Reduction. Geneva, Switzerland. 11 May 2011. Available from: < www.preventionweb.net> [accessed 7 March 2012].
Gunnell, J. G., 2010. Making Sense of the Study of International Relations: Seeking a Guide for the Perplexed. *Qualitative and Multi-Method Research,* 8 (1), 13–18.
Guth, E., 2007. ISDR Plenum Statement. Available from: <http://www.unisdr.org/we/coordinate/global-platform> [accessed 25 August 2013].
Haacke, J., 2003. *ASEAN's Diplomatic and Security Culture: Origins, Development and Prospects*. London; New York: Routledge.
Haacke, J. and Williams, P. D., 2009. Regional Arrangements and Security Challenges: A Comparative Analysis. *Crisis States Working Papers Series* 1797, 1–29.
Haas, E. B. and Schmitter, P. C., 1964. Economics and Differential Patterns of Integration. Projections about Unity in Latin America. *International Organization*, 18 (4), 259–299.
Haas, P. M., 1992. Introduction: Epistemic Communities and International Policy Coordination. *International Organization,* 46 (1), 1–35.
Hamanaka, S., 2012. Is Trade in Asia Really Integrating? *ADB Working Paper Series on Regional Economic Integration*, 91 (January), 1–32.
Hannigan, J., 2012. Disasters without Borders. Cambridge, UK: Polity Press.
Hardcastle, R. J. and Chua, A. T. L., 1998. Humanitarian Assistance: Towards a Right of Access to Victims of Natural Disasters. *International Review of the Red Cross*, 325 (December).
Hardt-Mautner, G., 1995. Only Connect: Critical Discourse Analysis and Corpus Linguistics. *UCREL Technical Papers*, August, 1–30.
Harper, D., 2011. *Disaster*. Available from: <http://www.etymonline.com> [accessed 2 February 2012].
Haskell, T. L., 1985a. Capitalism and the Origins of the Humanitarian Sensibility, Part 1. *American Historical Review,* XC, 339–361.
Haskell, T. L., 1985b. Capitalism and the Origins of the Humanitarian Sensibility, Part 2. *American Historical Review,* XC, 547–566.
Haver and Foley, 2011, International Dialogue on Strengthening Partnership in Disaster Response: Bridging National and International Support: Background Paper 2 Regional and International Initiatives.
Hettne, B. and Söderbaum, F., 2000. Theorising the Rise of Regionness. *New Political Economy,* 5 (3), 457–473.
HFA, 2009. Angola: National Progress Report on the Implementation of the Hyogo Framework for Action. Available from: <http://www.preventionweb.net> [accessed 11 February 2014].

HFA, 2010. Namibia: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011) – Interim. Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2011a. Antigua and Barbuda: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2011b. Botswana: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2011c. Lesotho: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2011d. OAS: Informe regional del progreso en la implementación del Marco de Acción de Hyogo (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2011e. Saint Lucia: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2012a. Kyrgyzstan: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011) – Interim. Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2012b. Tajikistan: National Progress Report on the Implementation of the Hyogo Framework for Action (2009–2011) – Interim. Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2012c. Tonga: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013) – Interim. Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2012d. Venezuela: Informe Nacional del Progreso en la Implementación del Marco de Acción de Hyogo (2009–2011). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013a. Afghanistan: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013b. Brazil: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013c. Fiji: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013d. Grenada: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013e. Haiti: Rapport national de suivi sur la mise en oeuvre du Cadre d'action de Hyogo (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013f. Jamaica: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].

HFA, 2013g. Kazakhstan: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013h. Samoa. National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013i. Tanzania, United Rep of: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
HFA, 2013j. Trinidad and Tobago: National Progress Report on the Implementation of the Hyogo Framework for Action (2011–2013). Available from: <http://www.preventionweb.net> [accessed 11 February 2014].
Hironaka, A., 2002. The Globalization of Environmental Protection: The Case of Environmental Impact Assessment. *International Journal of Comparative Sociology,* 43, 65–78.
Hollis, S., 2010a. *National Participation in EU Civil Protection*. Acta B 42. Stockholm: National Defence College.
Hollis, S., 2010b. The Necessity of Protection: Transgovernmental Networks and EU Security Governance. *Cooperation and Conflict,* 45 (3), 312–330.
Hollis, S., 2012. A rational response to natural disasters? Explaining the global rise of regional disaster risk management. Unpublished Ph.D dissertation, Hertie School of Governance.
Hollis, S., 2014a. The External Construction of EU Development Policy. *Journal of European Integration*, 36 (6), 549–566.
Hough, P., 2008. *Understanding Global Security*. 2nd ed. Oxan; New York: Routledge.
Howorth, R., 2011. Opening Address. 3rd Session of the Pacific Platform for Disaster Risk Management, 1 August 2011. Available from: <http://www.pacificdisaster.net/pdnadmin/data/original/PPDRM2011_S1_SOPAC_RH_OpeningFinal_lr.pdf> [accessed 18 August 2011].
Huckin, T., 2002. Critical Discourse Analysis and the Discourse of Condescension. In: E. Barton and G. Stygall, eds. *Discourse Studies in Composition.* Cresskill, NJ: Hampton Press, 155–76.
Hurrell, A., 1995a. Explaining the Resurgence of Regionalism in World Politics. *Review of International Studies*, 21 (October 1995), 331–358.
Hurrell, A., 1995b. Regionalism in Theoretical Perspective. In: L. Fawcett and A. Hurrell, eds. *Regional in World Politics: Regional Organization and International Order*. New York: Oxford University Press, 37–73.
Hutchinson, J. F., 1997. Civilian Ambulances and Lifesaving Societies: The European Experience, 1870–1914. *Clio Med.*, 41, 158–178.
Hutchinson, J. F., 2000. Disasters and the International Order: Earthquakes, Humanitarians, and the Ciraolo Project. *International History Review,* 22 (1), 1–36.
Hwang, K. D., 2007. Constructing Politico-Security Regionalism in Southern Africa: The Case of SADC. *Journal of International and Area Studies*. 14 (1), 67–84.
Hyland, P., Gomez, O. and Greensides, F., eds, 2003. *The Enlightenment: A Sourcebook and Reader.* London; New York: Routledge.

Iapadre, L., 2006. Regional Integration Agreements and the Geography of World Trade. Statistical Indicators and Empirical Evidence. In: P. De Lombaerde, ed. *Assessment and Measurement of Regional Integration*. London: Routledge, 65–85.

IASC, 2011. IASC Guidelines Common Operational Datasets (CODs) in Disaster Preparedness and Response. Available from: <http://reliefweb.int/node/388479>[accessed 10 June 2011].

ICPDR, 2004. *Flood Action Programme – Action Programme for Sustainable Flood Protection in the Danube River Basin*. (ICPDR Document IC/082) [online]. Available from: <http://www.icpdr.org/main/sites/default/files/ICPDR_Flood%20_Action_Programme.pdf> [accessed 4 July 2013].

IFRC, 1994. The Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organisations (NGOs) in Disaster Relief. Available from: <http://www.ifrc.org/Global/Publications/disasters/code-of-conduct/code-english.pdf> [accessed 14 November 2011].

IFRC, 1996. The Fundamental Principles of the Red Cross and Red Crescent. Available from: <http://www.icrc.org/eng/assets/files/other/icrc_002_0513.pdf> [accessed 20 March 2012].

IFRC, 2011. Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief: List of Signatories. Available from: <http://www.ifrc.org/Global/Publications/disasters/code-of-conduct/codeconduct_signatories.pdf> [accessed 14 November 2011].

IFRC, 2012. Public Awareness and Public Education for Disaster Risk Reduction: A Guide. <http://www.ifrc.org/Global/Publications/disasters/reducing_risks/302200-Public-awareness-DDR-guide-EN.pdf> [accessed 10 April 2014].

IFRC, 2013. Pacific Regional Office: Annual Report. Available from: <http://www.pacificdisaster.net/pdnadmin/data/original/IFRC_2013_PacRegion_Annual_Report.pdf> [accessed 11 February 2014].

IFRC, n.d. Current Active Agreements at Regional and Global Level. Available from: <http://www.ifrc.org/en/who-we-are/governance/working-partners/agreements/> [accessed 25 April 2013].

IFRC, 2014. Tonga: Tropical Cyclone Ian. *IFRC Information Bulletin*, 1 (2014–000003), 1–4.

IGAD, 2000. Regional Disaster Preparedness Strategy. Available from: <ochaonline.un.org> [accessed 20 March 2012].

IISD, 2011. News: ECOSOC Emphasizes Role of Dialogue with Regional Commissions in Cooperation and Development. Available from: <http://uncsd.iisd.org/news/ecosoc-emphasizes-role-of-dialogue-with-regional-commissions-in-cooperation-and-development/> [accessed 14 November 2011].

INDM, n.d. Organizations. Available from: <http://www.rimd.org/organizaciones.php> [accessed 11 February 2014].

Inigo-Mora, I., 2004. On the Use of the Personal Pronoun We in Communities. *Journal of Language and Politics*, 3 (1), 27–52.

Internationalist, 2005. The Enlightenment to the French Revolution: Lisbon, 1755: The Earth Shook. *Internationalist*, January 2005.

IOC, 1997. Earthquakes and Tsunamis: High School Textbook. Available from: <http://www.preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=3944> [accessed 10 July 2012].

IOC, 2002. Les projets de la COI depuis sa création: Contribution à la Coopération régionale en matière de Sécurité civile (2002–2005). Available from: <http://

commissionoceanindien.org/publications/archives/> [accessed 17 January 2014].
ISRBC, 2002. Framework Agreement on the Sava River Basin (FASRB). Available from: <http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basic_documents/fasrb.pdf> [accessed on 25 May 2014].
Jackson, P. T., 2011. *The Conduct of Inquiry in International Relations: Philosophy of Science and Its Implications for the Study of World Politics*. London; New York: Routledge.
Jamie, H., 2012. Americas Meet to Review HFA Progress. Available from: <http://www.unisdr.org/archive/29848> [accessed 11 February 2014].
Jaques, T., 2007. Issue Management and Crisis Management: An Integrated, Non-linear, Relational Construct. *Public Relations Review,* 33 (2), 147–157.
Jepperson, R. L., 2001. The Development and Application of Sociological Neoinstitutionalism. *Working Paper,* 5. Robert Schuman Centre, European University Institute, Florence.
Jepperson, R. L., Wendt, A. and Katzenstein, P. J., 1996. Norms, Identity, and Culture in National Security. In: Peter J. Katzenstein, ed. *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press, 33–72.
Joint Standards Initiative, 2012. Humanitarian Standard for Aid Workers. Available from: <http://www.jointstandards.org/standards> [accessed 10 April 2014].
Jones, E. B., Bisek, P. A. and Ornstein, C., 2001. *Comprehensive Disaster Management in the Caribbean: Baseline Study*. Available from: <http://www.preventionweb.net/english/professional/publications/v.php?id=2516> [accessed 18 May 2010].
Jönsson, L., 2010. The Swedish Civil Contingencies Agency. MSB Presentation: Partnership SADC Meeting. Available from: <ochaonline.un.org> [accessed 10 July 2012].
a Theory of Multinational Politics. *International Organization,* 25 (4), 790–818.
Kamal, A., 2009. Progress of the HFA Implementation in the ASEAN Region. Presented at the Global Platform for Disaster Risk Reduction, Geneva, 16–19 June 2009. Available from: <http://www.preventionweb.net/files/globalplatform/ASEANreportforGP.pdf> [accessed 6 November 2011].
Kant, E., 1756. Most Remarkable Cases of the Earthquake: History and Physiography of the Most Remarkable Cases of the Earthquake which Towards the End of the Year 1755 Shook a Great Part of the Earth. Essay One. Available from: <http://evans-experientialism.freewebspace.com/kant_Earthquake01.htm> [accessed 10 June 2013].
Kapila, M., 2010. Topic 4: What Kind of Instrument Post-HFA? Moderator's Reflections Informed by the Debate. HFA MTR Debate 26 July – 7 August 2010. <http://www.preventionweb.net/english/hyogo/hfa-mtr/documents/Moderators-Final-Reflections-Topic4.pdf> [accessed 11 February 2014].
Karns, M. and Mingst, K., 2010. *International Organizations: The Politics and Processes of Global Governance*. 2nd ed. Boulder, CO, USA: Lynne Rienner Publishers.
Kasperson, J. X., et al., 2003. Vulnerability to Global Environmental Change. In: A. Diekmann, et al., eds. *The Human Dimensions of Global Environmental Change*. Cambridge, MA: MIT Press, 280–290.
Katzenstein, P. J., 1996. Regionalism in Comparative Perspective. *Cooperation and Conflict,* 31 (2), 123–159.

Katzenstein, P. J., 2005. *A World of Regions: Asia and Europe in the American Imperium*. Ithaca, NY; London: Cornell University Press.
Keithley, S., 2013. ASEAN Slowly Gets Up to Speed on Haiyan. *Diplomat*, 23 November.
Kellett, J. and Caravani, A., 2013. *Financing Disaster Risk Reduction: A 20 Year Story of International Aid*. London, UK; Washington, DC: Overseas Development Institute.
Keohane, R. O., 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press.
Keohane, R. O., 1989. *International Institutions and State Power: Essays in International Relations Theory*. Bolder, CO; San Francisco; London: Westview Press.
Keohane, R. O. and Nye, J. S., 1973. Power and Interdependence. *Survival: Global Politics and Strategy*, 15 (4), 158–165.
Kiel, D., 2011. An ounce of prevention is worth a pound of cure: reframing the debate about law school affirmative action. *Denver University Law Review,* 88 (4), 791–806.
Kirchner, E. and Sperling, J., 2007. *EU Security Governance*. Manchester; New York: Manchester University Press.
Kirton, M., 2013. *Caribbean Regional Disaster Response and Management Mechanisms: Prospects and Challenges*. Washington, DC: Brookings Institute.
Koloamatangi, M., 2005. Regionalism: EU and Pacific Perspectives. In: J. Henderson and G. Watson, eds. *Securing a Peaceful Pacific*. Canterbury: Canterbury University Press, 187–192.
Laffont, J. and Martimort, D., 2002. *The Theory of Incentives: The Principle-Agent Model*. Woodstock; Oxfordshire: Princeton University Press.
Larsson, P., 2009. The Crisis Coordination Arrangements (CCA). In: S. Olsson, ed. *Crisis Management in the European Union: Cooperation in the Face of Emergencies*. Dordrecht; Heidelberg; London; New York: Springer, 127–139.
LAS, 1987. Arab Cooperation Agreement Regulating and Facilitating Relief Operations Arab League, Decision No. 39 (unofficial translation). Available from: <http://www.ifrc.org/Docs/idrl/I644EN.pdf> [accessed 10 June 2011].
LAS, 2007. The Arab Ministerial Declaration on Climate Change. Available from: <http://css.escwa.org.lb/SDPD/1164/MinisterialdeclarationonCC.pdf> [accessed 2 June 2011].
LAS, 2011. Arab Strategy for Disaster Risk Reduction 2020. Available from: <http://www.unisdr.org/we/inform/publications/18903> [accessed 2 June 2011].
Lechner, F. J. and Boli, J., 2005. *World Culture: Origins and Consequences*. MA, USA; Oxford, UK; Victoria, Australia: Blackwell Pub.
Lee, J., 2011. Transnational Natural Disasters and Environmental Issues in East Asia: Current Situation and the Way Forward from the Perspective of Regional Cooperation. *IFANS Review*, 19 (1), 25–53.
Lewis, J. and Kelman, I., 2010. Places, People and Perpetuity: Community Capacities in Ecologies of Catastrophe. *ACME: An International E-Journal for Critical Geographies*, 9 (2), 191–220.
Lian, C., Santos, J. R. and Haimes, Y. Y., 2007. Extreme Risk Analysis of Interdependent Economic and Infrastructure Sectors. *Risk Analysis*, 27 (4), 1053–1064.
London, J., [1906] 2003. The Story of an Eye-Witness: The San Francisco Earthquake. In: J. E. Lewis, ed. *The Mammoth Book of Journalism*. London: Robinson.

Macalister-Smith, P., 1985. *International Humanitarian Assistance: Disaster Relief Actions in International Law and Organization*. Dordrecht: Martinus Nijhoff Pub.

Mace, G., 1988. Regional Integration in Latin America: A Long and Winding Road. *International Journal*, 43 (3), 404–427.

Mahoney, J., 2001. Path-Dependent Explanations of Regime Change: Central America in Comparative Perspective. *Studies in Comparative International Development* (SCID), 36 (1), 111–141.

Malamud, A., 2005. MERCOSUR Turns 15: Between Rising Rhetoric and Declining Achievement. *Cambridge Review of International Affairs,* 18 (3), 421–436.

Malteser International, 2011. Regional Workshop on Goof Practices and Policies in CBDRR in South East Asia. Available from: <http://www.preventionweb.net/english/professional/trainings-events/events/v.php?id=20959> [accessed 1 August 2012].

Mansfield, E. D. and Milner, H. V., 1999. The New Wave of Regionalism. *International Organization, 53* (3), 589–627.

Mansfield, E. D. and Solingen, E., 2010. Regionalism. *Annual Review of Political Science,* 13, 145–163.

Manyena, S. B., 2006. The Concept of Resilience Revisited. *Disasters*, 30, 433–450.

Maroofi, Y. M., 2011. Statement by H. E. Mr. M. Yahya Maroofi, the ECO Secretary General on the Occasion of 21st Meeting of the ECO Regional Planning Council (RPC), Tehran, 17–19 May 2011. Available from: <http://www.ecosecretariat.org/> [accessed 5 September 2011].

Mattli, W., 1999. *The Logic of Regional Integration*. UK; USA; Australia: Cambridge University Press.

McEntire, D., 1998. Balancing International Approaches to Disaster: Rethinking Prevention Instead of Relief. *Australian Journal of Emergency Management,* Winter, 50–55.

Mechler, R., 2004. *Natural Disaster Risk Management and Financing Disaster Losses in Developing Countries*. Karlsruhe: Verlag Versicherungswirtschaft GmbH.

Mercosur, 2009. Reunión Especializada de Reducción de Riesgos de Desastres Socionaturales, la Defencsa Civil, la Protección Civil y la Asistencia Humanitaria, MERCOSUR/CMC/DEC. No 03/09. Available from: <http://www.sice.oas.org/trade/mrcsrs/decisions/DEC0309_s.pdf> [accessed 2 June 2011].

Mercosur, 2010. Comunicado conjunto de los estados partes del Mercosur y estados asociados. Available from: <*www.mintra.gob.pe/…/Cumbre_MERCOSUR_Mendoza_junio_2012.pdf*> .[accessed 10 October 2014].

Mercosur, 2012. Joint Communique of States Parties Mercosur and Associated States. Available from: >www.mercosur.int> [accessed 11 February 2014].

Meyer, J. W., [2001] 2009. The European Union. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 344–355.

Meyer, J. W., 2009. Reflection: Institutional Theory and World Society. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 36–67.

Meyer, J. W., 2010. World Society, Institutional Theories, and the Actor. *Annual Review of Sociology,* (36), 1–20.

Meyer, J. W., Boli, J. W. and Thomas, G. M., [1987] 2009. Ontology and Rationalization in the Western Cultural Account. In: G. S. Drori and G. Krücken,

eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 67–89.
Meyer, J. W. and Jepperson, R. L., 2000. The "Actors" of Modern Society: The Cultural Construction of Social Agency. *Sociological Theory*, 18 (1), 100–120.
Meyer, J. W. and Jepperson, R. L., [2000] 2009. The "Actors" of Modern Society: The Cultural Construction of Social Agency. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 111–136.
Meyer, J. W. and Ramirez, F. O., [2000] 2009. *The World Institutionalization of Education*. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 206–222.
Meyer, J. W. and Rowan, B., [1977] 2009. Institutionalized Organizations: Formal Structure as Myth and Ceremony. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 89–111.
Meyer, J. W., et al., 1997. World Society and the Nation-State. *American Journal of Sociology,* 103 (1), 144–181.
Meyer, J. W., et al., [1997] 2009. World Society and the Nation-State. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 173–206.
Milliken, J., 1999. The Study of Discourse in International Relations: A Critique of Research and Methods. *European Journal of International Relations,* 5, 225–254.
Minh, Lê Lu'o'ng, 2013. ASEAN offers support to Philippine Government in the wake of Typhoon Haiyan. Available from: <http://www.asean.org/news/asean-secretariat-news/item/asean-offers-support-to-philippine-government-in-the-wake-of-typhoon-haiyan> [accessed 17 January 2014].
Missiroli, A., 2006. Disasters Past and Present: New Challenges for the EU. *European Integration,* 28 (5), 423–436.
MLE, 2005. National Hazard-Risk Reduction Policy for Jamaica. Available from: <http://www.odpem.org.jm> [accessed 11 February 2014].
MOE, 2012. The Arabic Environment Facility. Available from: <http://www.moe.gov> [accessed 11 February 2014].
MOFA, 2012. Japan's Official Development Assistance White Paper. Available from: <http://www.mofa.go.jp> [accessed 11 February 2014].
Moravcsik, A., 1997. Does the European Union Represent an *n* of 1? *ECSA Review,* X (3), 1–5.
Mothae, T., 2010. Opening Address of the 2010 Disaster Risk Reduction (DRR) Preparedness and Planning Workshop in Report on the SADC Disaster Risk Reduction and Preparedness Planning Workshop. Gaborone, Botswana, 5 October. Available from: <http://reliefweb.int/sites/reliefweb.int/files/resources/Full_report_101.pdf> [accessed 21 March 2012].
MunichRE, 2013. Touch Natural Hazards Database. Available from: <https://www.munichre.com/touch/portal/en/service> [accessed 13 June 2013].
Murden, S. W., 2009. The Secondary Institutions of Regional Interstate Society. In: B. Buzan and A. Gonzalez-Pelaez, eds. *International Society and the Middle East: English School Theory at the Regional Level*. New York: Palgrave Macmillan, 117–140.
Murithi, T. and Ndinga-Muvumba, A., 2008. Building an African Union for the 21st Century. In: J. Akokpari, A. Ndinga-Muvumba and T. Murithi, eds. *The African Union and Its Institutions*. South Africa: Fanele, 1–25.

Mwanasali, M., 2008. From Non-Interference to Non-Indifference: The Emerging Doctrine of Conflict Prevention in Africa. In: J. Akokpari, A. Ndinga-Muvumba and T. Murithi, eds. *The African Union and Its Institutions*. South Africa: Fanele, 41–63.

Myrdal, S. and Rhinard, M., 2010. The European Union's Solidarity Clause: Empty Letter or Effective Tool? An Analysis of Article 222 of the Treaty on the Functioning of the European Union. *Occasional UI Papers,* 2, 1–26.

Mythen, G., 2004. *Ulrich Beck: A Critical Introduction to the Risk Society*. London; Sterling, Virginia: Pluto Press.

NATO, 1998. EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief. Available from: <http://www.nato.int/cps/en/natolive/topics_52057.htm> [accessed 20 March 2012].

Nature, 1940. International Relief Union. *Nature,* 145 (May 25), 808.

Neuendorf, K. A., 2001. *The Content Analysis Guidebook*. Thousand Oaks, CA, USA: Sage Pub.

Newsday, 1973. Death in the Sun. Published 2 September 1973, in *Africa's Discontent: Coping with Human and Natural Disasters*, edited by R. I. Rotberg, 15–17, *Report of the World Peace Foundation,* 33.

Niekerk, D., 2010. Disaster Risk Reduction Capacity Development for the SADC region. Available from: <http://acds.co.za/uploads/working_papers/SADC_concept_paper_pres.pdf> [accessed 11 February 2014].

Nietzsche, F., [1913] 2003. *The Genealogy of Morals*. Trans. by Horace B. Samuel. USA: Dover Publications, Inc.

Nordic Council, 2002. Nordic Public Health Preparedness Agreement. Available from: <http://www.norden.org/en/about-nordic-co-operation/agreements/treaties-and-agreements/social-and-health-care/nordic-public-health-preparedness-agreement/> [accessed 1 August 2012].

Novak, A., 2011. Integration of Disaster Management in ASEAN. Available from: <https://www.academia.edu/1687729/Integration_of_ASEAN_disaster_management> [accessed 11 February 2014].

Nye, J. S., 1965. Patterns and Catalysts in Regional Integration. *International Organization*, 19 (4), 870–884.

OAS, 1991. Inter-American Convention to Facilitate Disaster Assistance. Twenty-first Regular Session of the General Assembly of the Organization of American States, Santiago, Chile. 06/07/1991. Available from: <http://www.oas.org/juridico/english/treaties/a-54.htm>[accessed 24 August 2011].

OAS, 1994. Summit of the Americas Plan of Action. First Summit of the Americas, Miami, Florida, 9–11 December 1994. Available from: <http://www.summit-americas.org/miamiplan.htm> [accessed 26 August 2011].

OAS, 1995a. Statutes of the Inter-American Emergency Aid Fund (FONDEM). AG/RES. 1327 (XXV-0/95).

OAS, 1995b. White Helmets, AG/RES. 1351 (XXV-O/95). Available from: <http://www.oas.org/EN/PINFO/RES/RESGA95/agd1351.htm> [accessed 26 August 2011].

OAS, 1999. OAS Natural Disaster Reduction and Response Mechanisms. AG/RES. 1682 (XXIX-O/99).

OAS, 2002. Natural Disaster Reduction. AG/RES. 1885 (XXXII-O/02).

OAS, 2003a. Declaration on Security in the Americas. Available from: <http://www.oas.org/documents/eng/DeclaracionSecurity_102803.asp> [accessed 26 August 2011].

OAS, 2003b. Inter-American Committee for Natural Disaster Reduction (IACNDR); Inter-American Strategic Plan for Policy on Vulnerability Reduction, Risk Management and Disaster Response (IASP). Available from: <http://www.oas.org/dsd/Documents/CP_3737%28IASP%29_CP11553.pdf> [accessed 6 September 2011].

OAS, 2003c. Natural Disaster Reduction. AG/RES. 1955 (XXXIII-0/03). Available from: <http://www.oas.org/juridico/english/ga03/agres_1955.htm> [accessed 6 September 2011].

OAS, 2004. Caribbean Hazard Mitigation Capacity Building Programme (CHAMP). Available from: <http://www.oas.org/champ/> [accessed 11 February 2014].

OAS, 2005a. Mar del Plata Plan of Action: Fourth Summit of the Americas. Available from: <http://www.state.gov/p/wha/rls/60503.htm> [accessed 25 August 2011].

OAS, 2005b. Natural Disaster Reduction and Risk Management. AG/RES. 2114 (XXXV-O/05).

OAS, 2005c. Reducing the Risks of Natural Disaster through Hemispheric Cooperation. Note by the Secretary General, November 2005. http://www.oas.org/dsd/publications/NaturalHazards/DisastersReport-FINAL_OCT25_.pdf

OAS, 2006a. Coordination of Volunteers in the Hemisphere in Response to Natural Disasters and the Fight Against Hunger and Poverty – White Helmets Initiative. AG/RES. 2165 (XXXVI-O/06).

OAS, 2006b. Inter-American Program for Sustainable Development (2006–2009). First Inter-American Meeting of Ministers and High-Level Authorities on Sustainable Development, Santa Cruz de la Sierra, Bolivia, 4–5 December 2006. Available from: <http://www.oas.org/dsd/Documents/PIDSeng.pdf> [accessed 25 August 2011].

OAS, 2006c. Natural Disaster Reduction, Risk Management, and Assistance in Natural and Other Disaster Situations. AG/RES,2184(XXXVI-0/06).

OAS, 2007a. Annual Report of the Secretary General. Available from: <http://www.oas.org/SGInfAnual/2007/English/15_OTHERAUTONOMOUS_DECENTRALIZED_ORGANS.pdf> [accessed 24 August 2011].

OAS, 2007b. Natural Disaster Reduction, Risk Management, and Assistance in Natural and Other Disaster Situations. AG/RES. 2314 (XXXVII-O/07).

OAS, 2008a. Coordination of Volunteers in the Hemisphere in Response to Natural Disasters and the Fight Against Hunger and Poverty – White Helmets Initiative. AG/RES. 2372 (XXXVIII-O/08).

OAS, 2008b. Simon Bolivar Humanitarian Task Force. AG/RES. 2373 (XXXVIII-0/08).

OAS, 2009. Existing Mechanisms for Disaster Prevention and Response and Humanitarian Assistance among the Member States. AG/RES. 2492 (XXXIX-O/09).

OAS, 2010a. Annual Report of the Secretary General 2010. Available from: <http://scm.oas.org/pdf>s/2011/AG05411E.pdf> [accessed 24 August 2011].

OAS, 2010b. Existing Mechanisms for Disaster Prevention and Response and Humanitarian Assistance among the Member States. AG/RES. 2610 (XL-O/10).

OAS, 2011a. Concepts of security in the Hemisphere: Introduction. Available from: <http://wmoas.shss.cofc.edu/z_Final_Second_2011.pdf> [accessed 26 August 2011].

OAS, 2011b. Existing Mechanisms for Disaster Prevention and Response and Humanitarian Assistance among the Member States. AG/RES. 2647 (XLI-O/11).

OAS, 2011c. Washington Model Organization of American States General Assembly: Final Packet Second Committee. Available from: <http://wmoas.shss.cofc.edu/z_Final_Second_2011.pdf> [accessed 26 August 2011].

OAS, 2011d. Creation of the Inter-American Team of Consultant of Natural Disaster Counteraction. Available from: <http://wmoas.shss.cofc.edu/z_Final_Second_2011.pdf> [accessed 7 June 2011].

OAS, 2012. Washington Model Organization of American States General Assembly: Final Packet Second Committee. Available from: <http://prosper.cofc.edu/~wmoas/Second_Committee_FNAL_Packet_2012.pdf> [accessed 1 August 2012].

Officer, L. H. and Williamson, S. H., 2011. The Annual Consumer Price Index for the United States, 1774–2011. *Measuring Worth*. Available from: >www.measuringworth.com/uscpi/> [accessed 2 December 2011].

OneResponse, 2011. Cluster Approach. Available from: <http://oneresponse.info/Coordination/ClusterApproach/Pages/Cluster%20Approach.aspx> [accessed 14 November 2011].

Olson, M., 1971. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Harvard, MA: Harvard University Press.

Ostrom, E., 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

PDRMPN, 2009. Pacific Disaster Risk Management Partnership Network: Projects and Capacities. Available from: <http://www.pdrmpn.net/pdrmpn/> [accessed 11 February 2014].

Peduzzi, P., et al., 2009. Assessing Global Exposure and Vulnerability towards Natural Hazards: The Disaster Risk Index: Supplement. *Nat. Hazards Earth Syst. Sci.*, 9, 1149–1159.

PERSGA, 2009. PERSGA countries sign a new protocol. Available from: <http://www.persga.org/calender.php?id=25> .[accessed 10 October 2014].

Perry, G., 2009. *Beyond Lending: How Multilateral Banks Can Help Developing Countries Manage Volatility*. Centre for Global Development: Brookings Institution Press.

Perry, R. W., 2007. What Is a Disaster? In: H. Rodriguez, E. L. Quarantelli and R. R. Dynes, eds. *Handbook of Disaster Research*. New York: Springer, 1–15.

Perry, R. W. and Quarantelli, E. L., eds, 2005. *What Is a Disaster? New Answers to Old Questions*. USA: Xlibris Corporation.

PIF, 1975. Regional Natural Disaster Relief Fund. Available from: <http://www.forumsec.org.fj> [accessed 24 August 2011].

PIF, 1997. *Aitutaki Declaration on Regional Security Cooperation*. Available from: >www.forumsec.org> [accessed 2 June 2011].

PIF, 2002. Nasonini Declaration. Available from: <http://www.forumsec.org.fj/resources/uploads/attachments/documents/Nasonini%20Declaration.pdf> [accessed 2 June 2011].

PIF, 2003. Risk Financing for Disasters. Forum Economic Ministers Meeting, Session 3 paper. Available from: >www.forumsec.org> [accessed 2 June 2011].

PIF, 2005. An Investment for Sustainable Development in Pacific Islands Countries: Disaster Risk Reduction and Disaster Management – Building the Resilience of Nations and Communities to Disasters: A Framework for Action 2005–2015. Madang, Papua New Guinea, 6–8 June 2005. Available from: >www.sopac.int> [accessed 15 November].

PIF, 2009a. Economic Costs of Natural Disasters in the Pacific Islands Region and Measures to Address Them (out of session paper). Forum Economic Minsters' Meeting, Rarotonga, Cook Islands, 27–28 October. Available from: <http://www.sopac.org> [accessed 15 July 2012].

PIF, 2009b. Regional Natural Disaster Relief Fund (RNDRF) guidelines. Available from: <http://www.forumsec.org/pages.cfm/documents/funding-assistance-1/> [accessed 2 June 2011].

PIF, 2013a. Forum Economic Ministers Meeting and Forum Economic Officials Meeting: Session 6: Climate Change Financing. Available from: <http://www.pacificdisaster.net/pdnadmin/data/original/PIFS_2013_FEMM_FEMT_S6_CC_financg.pdf> [accessed 11 February 2014].

PIF, 2013b. Pacific Plan 2013: Annual Progress Report. Available from: <http://www.forumsec.org/resources/uploads/attachments/documents/2013_PIF_Annual_Progress_Report_Eng_web.pdf> [accessed 11 February 2014].

Pituwan, S., 2010. Message from the Secretary-General of ASEAN on the Occasion of the 2010 ASEAN Day for Disaster Management and International Day for Disaster Reduction, Bangkok, 13 October 2010. Available from: <http://www.asean.org/25348.htm> [accessed 12 November 2011].

Pratt, C., 2005. Foreword. In: *Twelfth Pacific Regional Disaster Management Meeting: Summary Record*. Madang Resort Hotel, Madang, Papua New Guinea. Available from: >www.pacificdisaster.net/pdnadmin/data/original/MR0601.pdf> [accessed 2 June 2011].

PreventionWeb, 2012a. Academic Programs. Available from: <http://www.preventionweb.net/english/professional/trainings-events/academics/> [accessed 10 July 2012].

PreventionWeb, 2012b. Regional Workshop on Regional Climate Model (RCM) Applications and Analysis. Available from: <http://preventionweb.net/go/27465> [accessed 11 February 2014].

Puspita, N. Y. 2010. Legal Analysis of Human Rights Protection in Times of Natural Disaster and Its Implementation in Indonesia. Asian Law Institute Working Paper Series, 013 (April), 1–14.

Quarantelli, E. L., ed., 1998. *What Is a Disaster? Perspective on the Question*. London: Routledge.

Ragin, C., 2008a. *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago; London: University of Chicago Press.

Ragin, C., 2008b. User's Guide to Fuzzy-Set / Qualitative Comparative Analysis. Available from: <http://www.u.arizona.edu/~cragin/fsQCA/download/fsQCA-Manual.pdf> [accessed 27 July 2012].

Ragin, C., 2009. Qualitative Comparative Analysis Using Fuzzy Sets (fsQCA). In: B. Rihoux and C. Ragin, eds. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Los Angeles; London; New Delhi; Singapore: Sage, 87–123.

Ragin, C., Drass, K. A. and Davey, S., 2006. *Fuzzy-Set/Qualitative Comparative Analysis 2.0*. Tucson, Arizona: Department of Sociology, University of Arizona.

Ramdin, A., 2009. Remarks by Ambassador Albert Ramdin, Assistant Secretary General of the OAS. 2nd Session of the Global Platform for Disaster Reduction. Geneva, Switzerland, 16–19 June. Available from: <http://www.oas.org/en/about/speeches_assistant_secretary_general.asp> [accessed 2 March 2012].

ReliefWeb, n.d. FONDEM Search. Available from: <http://reliefweb.int/updates?search=FONDEM> [accessed 11 February 2014].

Reuters, 2009. Heaviest Rains in 80 Years Kill 31 in Turkey. 9 September 2009. Available from: <http://www.reuters.com/article/2009/09/09/idUSL9701772> [accessed 29 August 2011].

Reyes, M., 2013. ASEAN Statement to the 4th Session of the Global Platform for Disaster Risk Reduction 2013. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].

Rhinard, M., Hollis, S. and Boin, A., 2012. Explaining Civil Protection Cooperation in the EU: The Contribution of Public Goods Theory. *European Security*, forthcoming.

Rihoux, B. and Ragin, C. C., 2009. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Applied Social Research Methods Series 51. Los Angles; London; New Deli; Singapore: Sage Pub.

Riley, E., 2011. Opening Remarks by Elizabeth Riley, CDEMA, Deputy Executive Director (Ag) at the launch of the 2011 Global Assessment Report in Disaster Risk Reduction. Available from: <http://www.cdema.org/index.php?option=com_contentandview=categoryandlayout=blogandid=38andItemid=116> [accessed 21 November 2011].

Riley, E., 2013. Statement of the Caribbean Disaster Emergency Management Agency (CDEMA) for the Fourth Session of the Global Platform for Disaster Risk Reduction. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].

Risse, T., 2000. "Let's Argue!": Communicative Action in World Politics. *International Organization,* 54 (1), 1–39.

RNZI, 2012. Call for Pacific Countries to Manage Their Own Capacity for Climate Change Adaptation. Available from: <http://www.rnzi.com/pages/news.php?op=read&id=72160> [accessed 11 February 2014].

Rotberg, R. I., 2003. Africa's Discontent: Coping with Human and Natural Disasters. *Report of the World Peace Foundation,* 33, 1–62.

Rousseau, J. J., [1756] 1967. Rousseau to Voltaire, 18 August 1756. In: J. A. Leigh, ed. *Correspondence complète de Jean Jacques Rousseau, Vol. 4*. Trans. by R. Spang, 37–50. Available from: <http://www.indiana.edu/~enltnmt/texts/JJR%20letter.html> [accessed 13 June 2013].

RRSU, 2009. Progress of the Southern Africa Development Community on the Implementation of HFA and Africa Regional Strategy on DRR. Available from: <http://www.preventionweb.net/files/8364_SADCPRogress.pdf> [accessed 11 February 2014].

RRSU, 2010. SADC Regional Remote Sensing Unit. Available from: <http://www.un-spider.org/sites/default/files/RRSU.pdf> [accessed 11 February 2014].

Russett, B., 1967. *International Regions and the International System: A Study in Political Ecology*. Chicago: Rand-MacNally.

SAARC, 2006. SAARC Disaster Management Framework. Available from: <http://saarc-sdmc.nic.in/framework.asp [accessed 20 March 2012].

SADC, 1999. Protocol on Health. Available from: <http://www.sadc.int/index/browse/page/152>[accessed 8 June 2012].

SADC, 2001a. Draft Regional Multi-Sectoral Disaster Management Strategy. Available from: <http://www.unisdr.org/files/17934_asdrrfinalenglishjanuary2011.pdf> [accessed 7 March 2012].

SADC, 2001b. Protocol on Politics, Defence and Security Co-Operation. Available from: <http://www.SADCint/index/browse/page/157> [accessed 7 June 2011].
SADC, 2002. Regional Programme for Food Security (RPFS) in Member Countries of the Southern African Development Community (SADC). Available from: www.fao.org/fileadmin/templates/tc/spfs/pdf>/SADCpdf> [accessed 2 June 2011].
SADC, 2004. The Strategic Indicative Plan for the Organ. Available from: <http://www.SADCint/index/browse/page/116> [accessed 30 November 2010].
SADC, 2006. Building the Resilience of Southern Africa to Disasters: SADC Disaster Risk Reduction Strategic Plan 2006–2010. Review process of the SADC Strategy for DRR Policy Framework. Power Point Presentation by Masamvu, Kennedy, SADC Council Secretariat. Available from: <http://ochaonline.un.org/OchaLinkClick.aspx?link=ochaanddocId=1095645> [accessed 18 May 2011].
SADC, 2009. SADC Policy Paper on Climate Change: Assessing the Policy Options from SADC Member States. *SADC Research and Policy Paper Series*, 01/2012, 1–52.
SADC, 2011. About the Disaster Risk Reduction Unit. Available from: <http://gisportal.SADCint/drru/?q=node/2> [accessed 7 June 2011].
SADC, 2012a. Climate Services Centre. Available from: <http://www.sadc.int/sadc-secretariat/services-centres/climate-services-centre/> [accessed 11 February 2014].
SADC, 2012b. Disaster Risk Management. Available from: <http://www.sadc.int/themes/disaster-risk-management/> [accessed 11 February 2014].
SADC, 2012c. SADC Regional Disaster Risk Reduction, Preparedness and Response Planning Workshop. Available from: <https://rosa.humanitarianresponse.info> [accessed 11 February 2014].
SADC, 2012d. Southern African Development Community European Development Fund for Regional Political Cooperation Programme. SADC/4/014/1.
SADC, 2013. SADC Implementation of the Hyogo Framework for Action. Available from: <http://www.unisdr.org/files/30143_annex7sadc.pdf> [accessed 11 February 2014].
Sbragia, A., 2010. Multi-level Governance and Comparative Regionalism. In: H. Enderlein, S. Wälti and M. Zürn, eds. *Handbook on Multilevel Governance*. Cheltenham, Nothampton, MA: Edward Elgar Pub, 267–279.
Schmitter, P. C., 1970. A Revised Theory of Regional Integration. *International Organization,* 24 (4), 836–868.
Schofer, E., et al., 2004. Sociological Institutionalism and World Society. In: E. Amenta, K. Nash and A. Scott, eds. *The New Blackwell Companion to Political Sociology*. New York: Wiley-Blackwell. Available from: <http://worldpolity.files.wordpress.com> [accessed 5 August 2012].
Schutz, A., 1954. Concept and Theory Formation in the Social Sciences. *Journal of Philosophy*, 51 (9), 257–273.
Sebhatu, K. 2013. Statement By IGAD Secretariat at the Third Global Platform For Disaster Risk Reduction Geneva, Switzerland. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> .[accessed 10 October 2014].
SELA, [1975] 2008. *Report on SELA's Instruments for Cooperation, Coordination and Consultation on Disaster Risk Reduction*. XXXIV Regular Meeting of the

Latin American Council. Caracas: Venezuela, 25–27 November 2008. SP/CL/XXXIV.O/Di No.14–08.

SICA, 2010. The Central American Policy on Integrated Risk Management (PCGIR). Available from: <http://www.undp.org.cu/crmi/docs/unisdr-alignglobaldrr-rt-2011-en.pdf> [accessed 20 March 2012].

Simon, H., 1995. Rationality in Political Behavior. *Political Psychology*, 16 (1), 45–61.

Simonelli, M. M. and Duran, L. R., 2006. The Evaluation of Risks, Vulnerabilities and Response Capacity in the Mercosur Countries and Associated Country Chile: Ex Ante Evaluation Report – Final Report. Available from: <http://ec.europa.eu/echo/files/evaluation/2006/dipecho_mercosur.pdf> [accessed 7 September 2011].

Slim, H., 2012. Humanitarian Ethics in Armed Conflict: Aid Agency Dilemmas and Responsibility. Podcast lecture: 19 January. Available from: <http://podcasts.ox.ac.uk/people/hugo-slim> [accessed 3 July 2012].

Snidal, D., 1985. Coordination versus Prisoners' Dilemma: Implications for International Cooperation and Regimes. *American Political Science Review*, 79 (4), 923–942.

SOA, 1994. Summit of the Americas Plan of Action, First Summit of the Americas, Miami, Florida, 9–11 December 1994. Available from: <http://www.summit-americas.org/miamiplan.htm> [accessed 26 August 2011].

SOPAC, 2009. Guide to Developing National Action Plans: A Tool for Mainstreaming Disaster Risk Management Based on Experience from Selected Pacific Island Countries. Available from: <http://www.preventionweb.net/english/professional/publications/v.php?id=11809> [accessed 10 April 2014].

SOPAC, 2010. Revised Work Plan and Budget, 31 March 2010. Available from: <http://dev.sopac.org.fj/VirLib/WP0012.pdf> [accessed 18 June 2011].

SOPAC, 2011. International Day for Disaster Reduction. Available from: <http://www.sopac.org/index.php/media-releases/1-latest-news/357-international-day-for-disaster-reduction-making-children-and-youth-partners-in-disaster-risk-reduction-drr> [accessed 10 July 2012].

SPC, 2005. Disaster Risk Reduction and Disaster Management: A Framework for Action 2005–2015 – An Investment for Sustainable Development in the Pacific Island Countries. Available from: <http://www.preventionweb.net/files/34617_mr06131.pdf> [accessed on 25 May 2014].

Sphere, 2011. *The Sphere Project: Humanitarian Charter and Minimum Standards in Humanitarian Response*. United Kingdom: Practical Action Pub.

SPREP, 2011. Pacific Environment Programme Strategic Plan: 2011–2015. Available from: <http://www.sprep.org/att/publication/000911_SPREP_Strategicplan_2011_2015.pdf> [accessed on 26 May 2014].

Stallings, R., 2005. Disaster, Crisis, Collective Stress, and Mass Deprivation. In: R. W. Perry and E. L. Quarantelli, eds. *What Is a Disaster? New Answers to Old Questions*. USA: Xlibris Corporation, 237–275.

Stern, N., 2006. *Review Report on the Economics of Climate Change*. Available from: <http://webarchive.nationalarchives.gov.uk> [accessed 4 June 2012].

Stewart, S. R., 2005. Tropical Cyclone Report: Hurricane Ivan, 2–24 September 2004. National Hurricane Center. Available from: <http://www.nhc.noaa.gov/2004ivan.shtml> [accessed 24 July 2012].

Stone, R. W., 2009. Institutions, Power, and Interdependence. In: H. V. Milner and A. Moravscik, eds. Power, Interdependence, and Nonstate Actors in World Politics. Princeton; Oxford: Princeton University Press, 31–50.

Strang, D. and Meyer, J. W., [1993] 2009. Institutional Conditions for Diffusion. In: G. S. Drori and G. Krücken, eds. *World Society: The Writings of John W. Meyer*. Oxford: Oxford University Press, 136–156.

Tchoungui, R., 2013. Communication du Secretaire General Nassour Guelengdouksia Ouaidou, Secretaire General de La Ceeac Présenté par Le Secrétaire Général Adjoint en charge de L'Intégration Physique, Economique et Monétaire. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].

Thomas, A. V. W. and Thomas, A. J., 1963. *The Organization of American States*. Dallas, TX: Southern Methodist University Press.

Thuzar, 2013. *Beyond 2015: ASEAN-Japan Strategic Partnership for Democracy, Peace, and Prosperity in Southeast Asia*. Tokyo; Japan: Japan Center for International Exchange, 296–312.

Timamy, K., 2013. Africa Position for the 4th Global Platform for Disaster Risk Reduction. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].

Tross, S. V., 2013. Official Statement of the General Secretariat of the OAS at the Fourth Session of the Global Platform for Disaster Risk Reduction presented by V. Sherry Tross Executive Secretary Executive Secretariat for Integral Development (SEDI) [on behalf of the Secretary General José Miguel Insulza]. Geneva, Switzerland, 20 May 2013. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 10 June 2013].

Tumusiime, R. P., 2011. Statement by Her Excellency Tumusiime Rhoda Peace, Commissioner for Rural Economy and Agriculture Africa Union Commission at the Third Session of the Global Platform on Disaster Risk Reduction, Geneva, Switzerland. Available from: >www.au.int> [accessed 2 November 2011].

Turki Bin Nasser Bin Abdulaziz, A., 2009. Address at the Second Global Reform for Disaster Risk Reduction. Geneva, 16–19 June 2009. Available from: <http://www.preventionweb.net/files/globalplatform/AbdulAzizAlSaud[1].pdf> [accessed 2 June 2011].

UCLA, 2012. FAQ: What Is the Coefficient of Variation? Available from: <http://www.ats.ucla.edu/stat/mult_pkg/faq/general/coefficient_of_variation.htm> [accessed 24 July 2012].

UIA, 2012. Conventional International Organizations (Types A-D). Available from: <http://www.uia.be/31-conventional-international-organizations-types-d> [accessed 10 July 2012].

UN Res. 1049(XXXVII), 1964. *Yearbook of the United Nations*, 391. Vol. 18. USA: United Nations Publications.

UN Res. 1268(XLIII)), 1967. *Yearbook of the United Nations*, 586. Vol. 21. USA: United Nations Publications.

UN, 1947–1948. Yearbook of the United Nations. Vol. 2. New York: UN Publications.

UN, 1948–1949. Yearbook of the United Nations. Vol. 3. New York: UN Publications.

UN, 1950. Yearbook of the United Nations. Vol. 4. New York: UN Publications.

UN, 1951. Yearbook of the United Nations. Vol. 5. New York: UN Publications.

UN, 1953. Yearbook of the United Nations. Vol. 7. New York: UN Publications.
UN, 1954. Yearbook of the United Nations. Vol. 8. New York: UN Publications.
UN, 1960. Yearbook of the United Nations. Vol. 14. New York: UN Publications.
UN, 1962. Yearbook of the United Nations. Vol. 16. New York: UN Publications.
UN, 1964. Yearbook of the United Nations. Vol. 18. New York: UN Publications.
UN, 1966. Yearbook of the United Nations. Vol. 20. New York: UN Publications.
UN, 1967. Yearbook of the United Nations. Vol. 21. New York: UN Publications.
UN, 1968. Yearbook of the United Nations. Vol. 22. New York: UN Publications.
UN, 1969. Yearbook of the United Nations. Vol. 23. New York: UN Publications.
UN, 1970. Yearbook of the United Nations. Vol. 24. New York: UN Publications.
UN, 1971. Yearbook of the United Nations. Vol. 25. New York: UN Publications.
UN, 1973. Yearbook of the United Nations. Vol. 27. New York: UN Publications.
UN, 1974. Yearbook of the United Nations. Vol. 28. New York: UN Publications.
UN, 1975. Yearbook of the United Nations. Vol. 29. New York: UN Publications.
UN, 1976. Yearbook of the United Nations. Vol. 30. New York: UN Publications.
UN, 1979. Yearbook of the United Nations. Vol. 33. New York: UN Publications.
UN, 1980. Yearbook of the United Nations. Vol. 34. New York: UN Publications.
UN, 1981. Yearbook of the United Nations. Vol. 35. New York: UN Publications.
UN, 1982. Yearbook of the United Nations. Vol. 36. New York: UN Publications.
UN, 1983. Yearbook of the United Nations. Vol. 37. New York: UN Publications.
UN, 1984. Yearbook of the United Nations. Vol. 38. New York: UN Publications.
UN, 1985. Yearbook of the United Nations. Vol. 39. New York: UN Publications.
UN, 1987. Yearbook of the United Nations. Vol. 41. New York: UN Publications.
UN, 1989. Yearbook of the United Nations. Vol. 43. New York: UN Publications.
UN, 1990. Yearbook of the United Nations. Vol. 44. New York: UN Publications.
UN, 1991. Yearbook of the United Nations. Vol. 45. New York: UN Publications.
UN, 1993. Yearbook of the United Nations. Vol. 47. New York: UN Publications.
UN, 1994a. Yearbook of the United Nations. Vol. 48. New York: UN Publications.
UN, 1994b. Yokohama Strategy and Plan of Action for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation World Conference on Natural Disaster Reduction. Available from: <http://nidm.gov.in/amcdrr/yokohama.pdf> [accessed 14 June 2011].
UN, 1995. Yearbook of the United Nations. Vol. 49. New York: UN Publications.
UN, 1996. Yearbook of the United Nations. Vol. 50. New York: UN Publications.
UN, 1999. Yearbook of the United Nations. Vol. 53. New York: UN Publications.
UN, 2000a. *United Nations Millennium Deceleration*. GA fifty-fifth session, Res/55/2.
UN, 2000b. Yearbook of the United Nations. Vol. 54. New York: UN Publications.
UN, 2005. Yearbook of the United Nations. Vol. 59. New York: UN Publications.
UN, 2007. Yearbook of the United Nations. Vol. 61. New York: UN Publications.
UN, 2010. Women, Peace and Security: From Resolution to Action: The Protection Agenda under Security Council Resolution 1325/2000. Geneva High-Level Consultation, 15–16 September 2010, Outcome Document. Available from: <http://www.wilpfinternational.org/humanrights/2010/Protection%20Outcome%20Document%20final.pdf> [accessed 15 August 2011].
UNcomtrade, 2010. Available from: <http://comtrade.un.org/db/> [accessed 14 June 2011].

UNDP, 2001. United National Development Programme Regional Preparatory Assistance Document: Regional Strategy for Disaster Management in Southern Africa. Available from: <http://www.undp.org/cpr/disred/documents/regions/africa/sadc/sadc_pa.pdf> [accessed 14 June 2011].

UNDP, 2007. Checklists for Integrating Human Rights in Natural Disaster Management in the Pacific. UNDP Pacific Centre and OHCHR Regional Office for the Pacific.

UNDP, 2010. Meeting of the Joint Committee on Environment and Development in the Arab Region (JCEDAR). Available from: <http://www.unep.org/ecalendar/contents/details_view.asp?EventID=2136> [accessed 11 February 2014].

UNDP, 2011. News and Events: Kazakhstan, Kyrgyzstan and Tajikistan Established Joint Center for Disaster Response and Risk Reduction. Available from: <http://www.undp.kz/en/articles/1/112.jsp> [accessed 14 June 2011].

UNDP, 2012. Bringing Growth and Health to the Grenadian Nutmeg Industry. <http://www.undp.org/content/barbados/en/home/ourwork/environmentandenergy/successstories/bringing-growth-and-health-to-the-grenadian-nutmeg-industry-/>.

UNDP, 2013. Human Development Report 2013: The Rise of the South Human Progress in a Diverse World – Statistical Annex. Available from: <http://hdr.undp.org/en/media/HDR2013_EN_Statistics.pdf> [accessed 12 June 2013].

UNESCO, 1996. The A.B.C. of Cyclone Rehabilitation. Available from: <http://www.preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=4688> [accessed 10 July 2012].

UNISDR, n.d. What is the International Strategy? Available from: <http://www.unisdr.org/who-we-are/international-strategy-for-disaster-reduction> .[accessed 13 October 2014].

UNISDR, 2001. Arab Region Takes Steps to Reduce Disaster Risk, Endorses Strategy for Disaster Risk Reduction. United Nations International Strategy for Disaster Reduction. Available from: <http://www.unisdr.org/archive/17934> [accessed 14 June 2011].

UNISDR, 2004a. Living with Risk: A Global Review of Disaster Reduction Initiatives. Available from: <http://www.unisdr.org/we/inform/publications/657> [accessed18 August 2011].

UNISDR, 2004b. Terminology: Basic Terms of Disaster Risk Reduction. International Strategy for Disaster Reduction official website. Available from: <http://www.unisdr.org/eng/library/lib-terminology-eng%20home.htm> [accessed 30 November 2010].

UNISDR, 2005. World Conference on Disaster Reduction, 18–22 January 2005, Kobe, Hyogo, Japan. Available from: <http://www.unisdr.org/eng/hfa/docs/Hyogo-framework-for-action-english.pdf> [accessed 7 June 2011].

UNISDR, 2008. Gender Perspective: Integration Disaster Risk Reduction into Climate Change Adaptation: Good Practices and Lessons Learned. Available from: <http://www.uneca.org/acpc/about_acpc/docs/Gender_Perspectives_Integrating_DRR_CC_GoodPractices.pdf> [accessed 10 July 2012].

UNISDR, 2009a. Disaster Reduction in Africa: ISDR Informs. Available from: <http://www.unisdr.org/files/13709_UNISDRAfricaInforms2009PDF>.pdf> [accessed 3 February 2011].

UNISDR, 2009b. Educational Materials for School Earthquake Safety: From Guidelines to Practices. <http://www.preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=25928> [accessed 10 July 2012].

UNISDR, 2009c. Fourth International ECO Conference on Disaster Risk Management. In: *Disaster Risk Reduction in Central Asia*. Available from: <http://www.unisdr.org/files/12803_DRRinCAeng.pdf> [accessed 29 July].
UNISDR, 2009d. Gender – Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines. Available from: <http://www.preventionweb.net/files/9922_MakingDisasterRiskReductionGenderSe.pdf> [accessed 10 July 2012].
UNISDR, 2009e. Indonesian Scientist Eko Teguh Paripurno wins 2009 UN Sasakawa Award. Available from: <http://www.unisdr.org/archive/9935> [accessed 3 February 2011].
UNISDR, 2009f. Recognition and Interviews: Indonesian scientist Eko Teguh Paripurno wins 2009 UN Sasakawa Award. Available from: <http://www.unisdr.org/files/9935_sasakawa2009recognitionsinterviews.pdf> [accessed 11 August 2011].
UNISDR, 2009g. Terminology on DRR. Geneva, Switzerland. Available from: <http://www.unisdr.org/we/inform/terminology#letter-e> [accessed 3 February 2011].
UNISDR, 2010a. Australian Floods Demonstrate Rising Cost of Damage in the Face of "New Normal". Press Release UNISDR 2010/33, 29 December 2010. Available from: >www.unisdr.org> [accessed 3 February 2011].
UNISDR, 2010b. Local Governments and Disaster Risk Reduction: Goof Practices and Lessons Learned. Available from: <http://www.preventionweb.net/english/professional/publications/v.php?id=13627> [accessed 1 August 2012].
UNISDR, 2010c. United Nations International Strategy for Disaster Reduction Summary Annual Report and Financial Statement. Available from: <http://www.unisdr.org/files/19711_unisdrsummaryannualreportandfinanci.pdf> [accessed 3 February 2011].
UNISDR, 2011a. An Overview of Environment and Disaster Risk Reduction in the Arab Region: A Community Perspective. Available from: <http://www.unisdr.org/files/23612_bookletcbdrr.pdf> [accessed 11 February 2014].
UNISDR, 2011b. Arab Region Takes Steps to Reduce Disaster Risk, Endorses Strategy for Disaster Risk Reduction. News Archive. Available from: <http://www.unisdr.org/archive/17934> [accessed 21 November 2011].
UNISDR, 2011c. Donor Partnerships. Available from: <http://www.unisdr.org/who-we-are/donors> [accessed 18 March 2012].
UNISDR, 2012a. Regional Organizations and Platforms. Available from: <http://www.unisdr.org/partners/regional>[accessed 10 July 2012].
UNISDR, 2012b. What Is Disaster Risk Reduction? Available from: <http://www.unisdr.org/who-we-are/what-is-drr> [accessed 21 March 2012].
UNISDR, 2013a. Gulf Cooperation Council Takes First Steps to Develop Risk Reduction Road Map. Available from: <http://www.unisdr.org/archive/30600> [accessed on 25 May 2014].
UNISDR, 2013b. Report of the 4th Africa Regional Platform on Disaster Risk Reduction Protect Development Gains and Build Resilience of African Nations.
UNISDR, 2013c. The Pacific Experience in Developing Policy Legislation on Disaster Risk Reduction and Climate Change Adaptation. Available from: <http://www.unisdr.org/we/inform/publications/34003> [accessed 11 February 2014].
UNISDR AF, 2009. Risk Reduction Methods: Disaster Reduction Handbook for Foundation Phase Learners (Grade 1–3). Available from: <http://www.

preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=18424> [accessed 10 July 2012 ].
UNOCHA, 2013. Typhoon Haiyan. Available from: <http://www.unocha.org/crisis/typhoonhaiyan> [accessed 17 January 2014].
UNPAN, 2012. Public Administration News: Kazakhstan, Kyrgyzstan, and Tajikistan Establish Joint Center for Disaster Response and Risk Reduction. Available from: <http://www.unpan.org/PublicAdministrationNew> [accessed 17 July 2012].
UNSTATS, 2011. Available from: >www.unstats.un.org> .[accessed 18 March 2012].
UNU-CRIS, 2008. Capacity Survey: Regional and Other Intergovernmental Organizations in the Maintenance of Peace and Security. New York: Brugges.
UNU-CRIS RIKS, 2011. Regional Integration Knowledge System (RIKS): Regional Indicators. Available from: <http://www.cris.unu.edu/riks/web/data> [accessed 14 June 2011].
Urwin, G., 2005. Preventing Conflict: What Role for the Pacific Islands Forum? In: J. Henderson and G. Watson, eds. *Securing a Peaceful Pacific*. Canterbury: Canterbury University Press, 13–20.
USGS, 2011. Earthquakes with 50,000 or More Deaths, U.S. Geological Survey. Available from: <http://earthquake.usgs.gov/earthquakes/world/most_destructive.php> [accessed 29 August 2011].
Voiland, A., 2013. In a Warming World, Storm May Be Fewer but Stronger. Earth Observatory. Available from: http://earthobservatory.nasa.gov/Features/ClimateStorms/ [accessed 25 June 2013].
Voltaire, [1756] 2003. Poem of the Lisbon Disaster. In: P. Hyland, O. Gomez and F. Greensides, eds. *The Enlightenment: A Sourcebook and Reader*. London; New York: Routledge, 75–83.
Wahbi, S., 2013. Statement by the Chief of Sustainable Development and International Cooperation at the Fourth Global Platform for Disaster Risk Reduction. Geneva, Switzerland. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 10 June 2013].
Wahlström, M., 2010a. APEC Task Force on Emergency Preparedness. Keynote Address given in Cairns, Australia, 20–23 August 2007. Available from: >www.ocha.unog.ch> [accessed 18 November 2011].
Wahlström, M., 2010b. Second Africa Ministerial Conference on Disaster Risk Reduction Expert Meeting. Speech given in Nairobi, Kenya, 14 April 2010. Available from: <http://www.unisdr.org/files/13655_ExpertMeetingNairobi14April10.FINAL.pdf> [accessed 18 November 2011].
Wahlström, M., 2010c. The Asian Conference on Disaster Reduction. Speech given in Kobe, Japan, 17 January 2010. Available from: <http://web.adrc.or.jp/acdr/2010kobe/documents/OC_01_ISDR_Speech.pdf> [accessed 18 November 2011].
Weber, M., [1930] 2010. *The Protestant Ethic and the Spirit of Capitalism*. Trans. by Talcott Parsons. London; New York: Routledge.
Wendling, C., 2010. Explaining the Emergence of Different European Union Crisis and Emergency Management Structures. *Journal of Contingencies and Crisis Management*,18 (2), 74–82.
WHO, 2013. WHO Statement to the 4th Session of the Global Platform for Disaster Risk Reduction 2013. Available from: <http://www.preventionweb.net/globalplatform/2013/programme/statements> [accessed 23 August 2013].

Williams, P. D., 2006. From Non-Intervention to Non-Indifference: The Origins and Development of the African Union's Security Culture. *African Affairs,* 106 (423), 253–279.

Wisner, B., et al., 2004. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. 2nd ed. Oxon; New York: Routledge.

Wodak, R. and Chilton, P., eds, 2005. *A New Agenda in (Critical) Discourse Analysis*. Amsterdam; The Netherlands: John Benjamin's B.V.

World Bank, 2010. Safer Homes, Stronger Communities: A Handbook for Reconstructing after Natural Disasters. Available from: <http://www.preventionweb.net/english/professional/publications/v.php?id=12229> [accessed 10 July 2012].

World Bank, 2012. The World Bank: World Bank Development Indicators: GDP Ranking. Available from: <http://data.worldbank.org/data-catalog/GDP-ranking-table> [accessed 24 July 2012].

WRR, 2013. World Risk Report. Available from: <http://www.weltrisikobericht.de/Bericht.435.0.html?L=3>[accessed 11 February 2014].

YIO, 2010. Yearbook of International Organizations. Available from: <http://www.uia.be/yearbook-international-organizations-online> [accessed 4 November 2011].

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