

THE FUTURE OF DISASTER RISK MANAGEMENT

Draft synthesis document, meeting notes, background papers and additional materials.

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THE FUTURE OF DISASTER RISK MANAGEMENT: An On-going Discussion.

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Background

On the 18th and 19th April 2013, twenty one disaster risk and development specialists met at the headquarters of the Latin American Social Science Faculty (FLACSO) in San Jose, Costa Rica for an open debate and discussion on the past and future of disaster risk management. The objective of the meeting, organized and sponsored by FLACSO and the United Nations Office for Disaster Risk Reduction (UNISDR) was to contribute to the scoping of GAR15 (the 2015 UN Global Assessment Report on Disaster Risk Reduction), in particular to identifying key challenges to the effective management of disaster risk beyond 2015. In this sense the meeting can and hopefully will contribute to informing on-going consultations and discussions on the new international framework for disaster reduction that will enter into force in 2015.

The meeting brought together professionals from different regions and from academia, international organizations, NGOs and national disaster risk management organizations. Between them, as one participant commented, they brought to the table more than 500 years of accumulated experience in disaster risk management.

The present document is an interpretive synthesis of the meeting discussions and results and provides a starting point for further and wider debate over the next twelve months. Whilst an attempt has been made to succinctly or indicatively incorporate the full range of ideas and discussion that ensued, inevitably we will have fallen short in completely fulfilling this objective. Through a reiterative process we hope to remedy any shortfalls and omissions.

Finally, it should be made clear that in introducing and discussing different aspects and conclusions there is no implicit nor explicit suggestion that all participants necessarily agree with all affirmations. Rather, this summary attempts to reproduce in logical fashion a narrative that articulates the sum of the different opinions voiced in the meeting. No attempt has been made in this synthesis document to attribute particular ideas to particular participants,

although many of these can be cross-referenced by consulting the key-points document, the detailed meeting notes and preparatory documents provided in the annexes. Also, no bibliographical referencing is offered whilst at the same time accepting that many ideas and notions voiced in the document have and are openly discussed in academia, amongst practitioners and others today. The document thus pulls together some prevailing ideas and, we hope, a good number of new thoughts in a single place, under a single format and with a singular purpose.

1. An Evident Contradiction

The Hyogo Framework of Action (HFA) was endorsed by 168 national governments at the World Conference on Disaster Reduction held in Kobe, Japan in 2005. Since then evidence from the self-assessment reports prepared by governments for the UNISDR using the on-line HFA Monitor, highlight an incomplete but nevertheless gradual and continuous progress towards the implementation of the HFA. From this evidence it would appear that nations across the world are making good progress towards the goal of reduced disaster losses and impacts.

National and global disaster loss databases and global risk models, however, tell a different story.

On the one hand, mortality associated with floods, winds, drought and other hydro-meteorological events does seem to be trending downward. Improved development conditions are largely responsible for this reduction in mortality. Outlier events in countries with low levels of human development, like Cyclone Nargis in Myanmar, can still produce massive mortality. However, this serves rather as a case in point that proves the rule and confirms rather than negates the prior affirmation. In the context of improved development conditions, the strengthening of legal, institutional and legislative structures as well as systems for disaster management, early warning, and local capacities for preparedness and response have made an important contribution.

On the other hand, the economic and livelihood losses associated with damaged and destroyed housing, infrastructure, public buildings, businesses and agriculture have been rising at a rapid rate as well as the mortality associated with geological hazards such as earthquakes and tsunamis.

There is thus an evident contradiction between what is apparently a gathering momentum to implement the HFA on the one hand and rising economic and livelihood losses on the other. How is it possible that progress towards achieving the HFA, which should lead to reduced losses, is actually being accompanied by rising losses?

This raises a fundamental question: are losses rising because implementation of the HFA is still insufficient or are losses rising because the *disaster risk reduction* paradigm embodied in the HFA is not really fit for the purpose? In essence, we are asking: if a nation fully implements the HFA will its disaster risks and losses really be reduced? This fundamental question is of great relevance at this particular moment, when the successor arrangements for the HFA are being debated and when nations are considering investing another ten years of effort into a second HFA. If the HFA's implied *disaster risk reduction* paradigm is not assisting nations to reduce their risks, then investing more in the HFA and its successor arrangements could be tantamount to reinforcing failure.

Here it should be pointed out that the problem of disaster risk is not restricted to low and middle income countries. Events such as Hurricanes Katrina and Sandy in the USA, flooding in Europe and the Japanese tsunami illustrate that the need for risk reduction is a global problem that has not been addressed sufficiently almost anywhere. With the onset of climate change, existing climate variability could evolve into known and emerging hydro-metrological hazards that will

further impact regions and ecosystems irrespective of levels of development. At the same time, as economic systems have globalised risks and losses ripple through value and supply chains this means that even those not directly exposed can be at risk.

There are two ways of approaching this evident contradiction. Firstly, it is necessary to take into account that reported progress from government HFA self-assessments is not necessarily congruous with progress on the ground. In other words, nations may be doing less well in implementing the HFA practice than governments believe or have documented in the HFA monitor. In many countries, the shift from response oriented emergency management and disaster preparedness toward the more integral and comprehensive disaster risk reduction paradigm, expressed in the HFA, has yet to really take root. Implementation of the HFA and real ownership of disaster risk reduction by national stake-holders remains blocked in many countries by a series of conceptual, political, economic, governance or instrumental shortcomings and failures.

Legislation is often passed but then never really implemented. Specialized disaster risk management institutions often lack the political authority or technical capacity to influence development sectors. Emerging national policy frameworks, and the new institutions designed to address the impacts of climate change through adaptation seldom build on the existing experience in disaster risk management. Local governments lack the resources or capacities to fulfill the responsibilities that are mandated. Frequently the necessary resources and investments have not been made available.

These and many other shortcomings have been documented and discussed in GAR09 and GAR11 as well as in other studies and reports. So it is fair to say that, with some notable exceptions, the depth of HFA implementation is probably more superficial than most governments would have wanted. Declarations of adherence to the HFA and its objectives do not necessarily translate into real political and economic commitment.

Secondly, the possibility that disaster losses and impacts would continue to rise even if the HFA was in good part implemented is a real one. It is no accident that Priority Area 4 of the HFA, which calls for risk sensitive development in the social sector, urban development, infrastructure and environment, is the area which has achieved least traction and is probably the least understood as regards its policy, institutional and financial implications. This implies that while the HFA did create a space for anticipatory or prospective disaster risk management, this is the space into which most nations have yet to tread.

Implementation of the HFA is still dominated by a paradigm of *disaster risk reduction*. As such efforts and resources continue to be concentrated in emergency management and preparedness, and in corrective or compensatory risk management. The emphasis is still on reducing or compensating disaster losses and damage as opposed to transforming the underlying drivers that generate risk in the first place. The very concept of disaster risk reduction points to addressing risks that already exist. Prospective risk management, that is, attempting to avoid the construction of disaster risk in the first place, is still a distant goal in an age of immediacy. The deepening of the climate change

problem will only add to those existing drivers of risk which have not been successfully dealt with. Climate change drivers and impacts cannot be separated from disaster risk and the need for a transformed development paradigm, whilst the real possibility exists that a significant increase in extremes and their intensities will belie any attempt at successful adaptation in affected areas. .

If countries are making increasing investments in order to address and reduce existing risks while at the same time are failing to address the underlying risk drivers, then more and more effort will be required to intervene an accelerating accumulation of risks. Whilst, as highlighted above, disaster mortality in some types of events are trending down and good case studies and practices abound these gains are often ephemeral and fade as time passes by. New sources of risk generated by both existing and emerging economic and social processes which increase exposure of people and assets are overall growing far faster than existing risks are being reduced. There is no overall evidence to suggest that sustainable development goals are being significantly achieved by reducing the disaster risks inherent in new investments, although advances in this direction may be registered in different countries, sectors and contexts.

While, therefore, in most countries the implementation of the HFA is still incipient, *disaster risk reduction* is rowing against a rising tide of risk construction and accumulation. In coming decades new or accentuated risk drivers such as population and economic growth in exposed locations, pressure on land and water resources, badly planned and managed urban development, increasingly unequal income distribution and economic opportunities, the decline of ecosystem services and climate change and variability will compound disaster risk construction and accumulation at an increasing rate. This rising tide of disaster risk threatens to overwhelm, if not the current, then surely the next generation. That is, a very real tipping point is quickly approaching after which the effort and resources that will be necessary to effect change may exceed future generations' capacity to address the problem. From that perspective, simply extending the HFA for ten years would reflect Einstein's definition of insanity: "trying the same thing over, expecting different results."

The emphasis on reducing disasters and reducing losses, as opposed to avoiding new risk construction, has become conventional wisdom and locked into policies, governance arrangements and instrumental systems. The HFA is interpreted through this paradigm. Disasters are still predominantly seen as exogenous and unforeseen shocks that affect supposedly normally functioning economic systems and societies rather than as endogenous indicators of failed or skewed development, of unsustainable economic and social processes and of ill-adapted societies. The creation of institutional and legal structures for dealing with disaster risk and adaptation to climate change called for by the HFA still means essentially creating exogenous organizations and norms, looking inwards to the disaster risk problem as opposed to being in its centre from the beginning and building on multiple cultures of risk reduction embedded in many societies and institutions.

The present paper examines and details how the conceptual underpinnings, governance arrangements and the political and economic imperatives for disaster risk reduction have developed in a way that guarantees that risks and

losses will continue to rise. It then identifies and explores pathways for a reinterpretation, and eventually for change, not only of the HFA but also of the practice of disaster risk management itself.

2. Looking back: bad-star versus down-turn: the conceptual underpinnings of disaster risk reduction

In many ways we still live in a world of conceptual confusion, which tends to obscure, distort and immobilize rather than illuminate, illustrate and empower. If the conceptual underpinnings of disaster risk reduction are flawed, misinterpreted or misused, then from the very outset the governance arrangements and instrumental systems that flow from those underpinnings will necessarily also be flawed, and as often turns out to be the case, unfit for their intended purpose.

Conceptual models and practice have, since the 1970s, increasingly highlighted how disasters are manifestations of *unresolved development problems* and outcome-based indicators of skewed, unsustainable development processes. Many DRR publications, including all three of the UNISDR Global Assessment Reports (GAR09, GAR11, GAR13) have highlighted this concern, through the analysis of disaster loss data, global models of hazard, vulnerability and exposure, and case studies of good practice. These reports all provide increasingly convincing evidence to support the assertion that exposure and vulnerability to physical hazards are socially constructed through the interaction of economic, territorial, cultural and political processes operating at several different scales.

Even physical hazards themselves are increasingly socially constructed. Many of the hazards associated with extensive risk are produced through the same economic, social and territorial processes that generate the exposure and vulnerability to these hazards. For example, the inadequate management of runoff waters due to the increase in impervious urban space often leads to recurring flooding in downstream areas. Furthermore, the hazardous nature of extreme events such as tropical cyclones, multi-annual drought and major river floods is increasingly mediated by factors such as environmental degradation and land-use, as well as climate change. While earthquakes are natural, their hazardous nature is also conditioned by how territory and land-use is managed. There is a growing consensus among scientists over the anthropogenic nature of climate change, and the hazards associated with it, as illustrated by the SREX and AR5 of the IPCC.

Conceptually, and increasingly empirically, disaster and climate change induced risk is being accepted as endogenous to human development. Nevertheless, disaster risk reduction in practice (from international institutions, national governments, local practitioners as well as members of the academic community) continues to be driven largely by the increasingly outdated notion that disasters are exogenous, unexpected, extreme events that randomly impact otherwise “normally” developing societies. Underneath the technocratic veneer

of disaster risk reduction, the view of disasters as “Acts of God” (or “Nature”) still resonates in many places and circles.

Despite forty years of evidence pointing to the contrary, disasters are still regularly described as *natural disasters*, even in specialized publications and forums. The key driver of disasters is still considered to be large-scale physical events (extreme events), which are often taken to be synonymous with the disaster itself. While social research has prompted a shift towards vulnerability-based paradigms and toward the recognition of extensive risk, the focus on modeling *extreme events* and their impacts continues to be dominant. According to some observers, the climate change discourse and research has reinforced this tendency. As such, disaster risk is conceptualized as an externality to be managed, the act of a “*bad star*” (Latin: dis-aster) that must be prepared for, and not as a socially constructed problem driven by underlying processes whose neglect eventually manifests as a predictable, and always tragic “*down turn*” (Greek: cata-strophe). A certain tendency for nature to be erected or re-erected as the principle “enemy” has now returned. This is associated with animism and the dotting of nature with human characteristics- the reference to so-called “assassin” storms, “killer” earthquakes etc.

The continued dominance of exogenous disasters over endogenous risks in the conceptual frameworks and imaginaries constructed around disaster risk reduction spills over into language and praxis. The language of disaster is one of malaise, loss and damage. Disaster risk reduction has fallen into the seductive use of a language of deficit and negativity, becoming trapped by the concepts it harbors and promotes. In contrast to this, the broader language of risk brings concepts of transformation, opportunity and stakes, trade-offs, earnings and human and ecosystem security to the table. These opportunities usually become visible immediately after disasters, sometimes leading to a temporary *un-freeze* of the disaster risk reduction paradigm and the associated social, political and institutional mechanisms. However, the opportunity for transformation and change is rarely seized on before pre-existing mechanisms lock back into place.

Risk should be seen as a normal and inseparable part of economic activities and development: it signifies or may signify earnings and benefit for some, whilst damage and loss for others; or earnings and profit at one time and loss and damage at another according to the ways the resource-hazard continuum plays out historically. However, within the disaster risk reduction community, risk is considered *de facto* to be a negative variable to be minimized, as opposed to just another attribute of human nature, one that can actually be beneficial, when properly understood and managed, much in the same way that a flood or volcanic eruption is both resource and hazard.

Under the paradigm of disaster risk reduction, risk has become abstract and compartmentalized and its dependent relationship with development processes has been blurred and obscured. The vision of disasters as exogenous events has led to disaster risk becoming established as an independent field of inquiry, rather than a much more complex, integrated, and mutually influencing process where financial, health, economic and social risks are considered as both facets and at the same time contributing factors in an interdependent process of risk creation, accumulation, mitigation, transference, and at some point,

actualization. This more holistic vision of risk is coherent with the idea of a risk continuum and a linked set of incremental, systemic, transformative adaptation and evolutionary responses.

The separation of disasters and disaster risk from development processes fosters technocracy and technocratic and bureaucratic approaches to disaster risk reduction, which then in turn further feed the dominant concepts and imaginaries in a self-reinforcing manner. By objectivizing disasters and risks, disaster risk reduction has disconnected itself from local and sector development practices and has instead constructed itself as an autonomous, specialized, apolitical area of intervention and concern. Risk becomes personalized as an object while those who participate in either risk construction or risk management are left on the periphery.

Despite the “holism” promoted by many today, real practice is fragmented and dominated by segmented or sector specific approaches. This occurs at the national and international level, where interventions (focuses, rhythms, timing, etc.) are determined by agency (mostly administrative rather than operative) and not by territorial priorities. At the same time there are insufficient process-oriented policies, strategies and actions. Most are product oriented, as are the indicators with which risk reduction is measured. This is contrary to many observed biological and ecological processes that have successfully enabled adaptation at the organism, species and ecosystems level and provide useful analogs to learn from. The challenge however is that anthropogenic risk in co-evolved socio-ecological systems is being created and concentrated at rates that are rare in natural systems. Hence response and adaptation times are being compacted, as respite time contracts. Anthropogenic risk, such as climate change, also has cascading effects, and feedback loops that reinforce and magnify its effects. An example of this is how as the tundra melts with soaring temperatures, the methane currently locked in the frozen bogs of Siberia and Northern Canada will be freed, further compounding the greenhouse effect. A runaway world produces runaway risks.

The construction of disaster risk reduction as an autonomous sector, concerned with protecting economic sectors and society from the impact of exogenous and extreme shocks has isolated it from the mainstream concerns of government in general, including economic growth, employment and food prices, or in the case of local governments, water and power supplies, transport and waste management. Silos are created, technocracy is instilled and promoted and technical prowess, as opposed to effective decision maker and/or stakeholder engagement, dominates practice. The lack of real political and economic commitment to disaster risk reduction in many countries reflects its isolation from real political and economic imperatives.

In the private sector, risk considerations are also often limited to financial risk and internal rates of return on investment. In the best of cases disaster risk is considered an externality rather than reflecting complex interrelationships between development and society. Development gains are privatized and disaster losses socialized or usually subsidized by the public sector or treasury as residual risk.

While there are many stakeholders in disaster risk, it is often unclear what stakes they actually hold, and how this may relate to the bigger risk picture. While efforts to measure risk have become increasingly sophisticated, it is still rare to identify, and much less quantify, which stakeholders bear the risk or contributed to its construction. Neither is there a clear identification of those that should be called upon to engage in explicit risk control and risk reduction practices, as a responsibility supportive of the areas of interest of the stakeholders being confronted. Conventional risk paradigms have tended to concentrate risk by default or design around the most vulnerable communities and regions during the process of concentrating capital, knowledge and institutional capacity as part of the 'development' process.

Imagining disasters and risks in this way underpins the conventional disaster risk reduction paradigm: by reducing the risks, the magnitude of loss or realized risk is reduced. Disaster risk reduction is understood as *protecting development against* a tangible external threat. As disaster risk is a *thing* then tangible instruments ranging from response and preparedness, to corrective risk management and insurance, can be designed to reduce that "*thing*". This represents a product oriented approach and action framework, designed to protect precisely the economic processes and relations that are generating the risk in the first place.

Because of this focus on disasters as exogenous threats to otherwise "normal" economies, the need to *develop* in a different way, in a way that avoids generating new risk conditions, cannot possibly gain traction. The very term disaster risk reduction points to reducing risks that are there rather than addressing the processes that generate risk in the first place. Terms like *financial protection* point towards protecting public finances against external threats, rather than recognizing that the way those finances are used can either reduce or accelerate risk accumulation.

How disasters and risks are conceived is therefore of critical importance. The imaginary of disaster risk reduction (and previously, disaster reduction) has influenced both how the problem is defined and constructed as well as how the governance arrangements, incentives and instrumental systems developed to address the problematic have been designed. As a consequence, disaster risk reduction has become, at best, an add-on to development and, at worst, an autonomous sector largely removed from development processes. In essence, disaster risk reduction has become a band-aid that is applied to development rather than an essential and defining characteristic of development. Moreover, disaster risk reduction and climate change adaptation are like "airbags" or "cushions" that inflate (often too late) when there is a crisis but under other circumstances receive very little attention or finance

3. Risk governance and institutions

That the disaster risk reduction sector reflects an imaginary of protection against external shocks and threats is reflected in its conventional use of terminology. There are Ministries of Disasters and Emergency Management not Ministries of Resilience and Sustainability, for example. In contrast, other sectors or areas

have Ministries of Health not Ministries of Illness or Ministries of Public Safety not Ministries of Crime. Emphasis where disasters and risk are concerned is constantly placed on losses, hazard, exposure and vulnerability- but rarely on the positive social and economic attributes that can result from effectively managing risk. At the same time, however, the creation of Ministries of Sustainability or Resilience for example could run the fate of many existing institutions and organizations for disaster risk reduction in that this could lead to other areas of public practice seeing themselves as being relieved of responsibility.

Over the years, the governance arrangements for disaster risk reduction have evolved from stand-alone mechanisms for disaster response (such as civil defense and civil protection organizations) into more sophisticated and comprehensive institutional systems. These systems typically have decentralized territorial structures, based on a principle of subsidiarity and where responsibilities are assigned to regional and local governments, as well as mechanisms for cross-sector coordination, via a variety of committees, platforms etc.

But irrespective of their degree of sophistication, they are largely defined by syncretism, (the process of adding on to existing structures and goals as opposed to thoroughly redefining the problem and its solutions and the needed supporting institutional structures), leading to a form of institutional myopia. The governance arrangements for disaster risk reduction have evolved institutionally in closed silos, from a starting point of disaster response. As such they are challenged to reflect the inherent complexity and interrelated nature of risk.

Disaster risk reduction has been constructed as a sector, independent of others, with its own logic and specialist personnel, a “sector created by and for specialists”, reinforced many times by considerations of job creation and preservation, the preservation of the status quo that created the institutional space, and the search for implicit or explicit power and control over roles and functions. These institutional systems implicitly reinforce the perception of risk as exogenous to development, either objectivizing the risks or else by externalizing them somewhere into the commons, meaning that individual risk makers are not answerable to risk bearers. This approach, which denies processes of risk accumulation, also inhibits any real possibility of taking advantage of traditional community based knowledge systems. Such communities are many times “intuitive” experts” in risk management and adaptation and intuitive generators of knowledge under other scientific paradigms

Within the diverse institutional arrangements and legal frameworks that exist, an increasing number have taken on board modern risk management concepts and terminology, including the explicit highlighting of the link between risk and development. However, there is still a huge gap between discourse and practice. The evidence from government HFA self-assessments highlights a continued and fundamental preoccupation with preparedness and response together with corrective and compensatory risk management. While in discourse (as in the HFA) there is room for anticipatory or prospective disaster risk management, in practice these approaches rarely gain traction. As long as *prospective disaster risk management* is shoehorned into structures built on an imaginary of exogenous

disasters, the possibility of addressing underlying risk drivers will continue to be remote. Moreover, concepts are used and abused to justify different things and have and can become smoke screens for carrying on with the same approaches but using updated and “correct” etiquettes. This was seen in the 90s when “disaster prevention” units were set up in many national disaster organizations but referring mainly to disaster preparedness rather than risk management and reduction.

In general, there is little evidence to show that risk governance arrangements built on the disaster risk reduction paradigm have successfully intervened or modified the underlying risk drivers. When institutional systems have enjoyed strong and charismatic leadership they have undoubtedly been more effective. But these advances have usually been fleeting and have not led to any real transformation of development. At the same time, while there is considerable evidence of good development practices that do lead to reduced disaster risk, these practices (such as improved building codes, incorporation of risk reduction criteria in public investment decisions or environmental management) these have normally been promoted by other sectors without an explicit linkage to disaster risk reduction institutions. Moreover, when environmental management, risk management and climate change adaptation are successful this is rarely highlighted. Only where they fail is attention placed on these practices.

While the governance arrangements for disaster risk reduction may be backed by policies or even legislation that requires risk sensitive development, the translation into on the ground implementation has met with mixed success, even in many high-income countries. Often, passing new laws is an excuse not to enforce existing ones. The creation of a culture of compliance of laws that are already on the books, rather than the generation of new laws and norms, has often been ignored. Dealing with informality as opposed to formality also has received little attention. Land use zoning, building codes and environmental regulations are all regularly distorted by implicit or explicit corruption as the implacable logic of privatizing short-term gains and socializing the resultant risks to other sectors through space and time takes precedence over considerations of sustainability. Corruption is undoubtedly of increasing relevance in the analysis of disaster risk and should be given far more attention than has been the case up to the present.

The imaginary of disasters as extreme exogenous shocks discourages considerations of accountability and responsibility. Stakeholders and decision makers are amorphous groups and not always easily identifiable, and each hold different stakes in the risk equation. The need to influence and incorporate them is usually called for, but little real analysis has been undertaken as to who these stakeholders are and what stakes they hold. The disaster risk management discourse is rarely related to concrete on the ground concerns of households, businesses and communities.

The fact that territories of risk construction do not always coincide with the territories or space of disaster impact further complicates the spatial and jurisdictional disconnect between risk constructors and risk bearers. And,

globalization and the high degree of connectedness of risk further add to the complexity of the problem.

Risk governance arrangements are often characterized by the absence of accountability. No ombudsman, chief risk officer or similar figure generally exists with reference to disaster risk, and disasters are rarely submitted to a deep forensic analysis in order to reveal causal processes and risk generators, as is the case with air traffic or technological accidents. Nature is still assumed to be the culprit and government compensation or insurance is all too frequently assumed to be the solution: the human right to security is still overshadowed by the dominant discourse of inevitable “acts of nature” or “bad stars” that dilute responsibility and accountability from the tragically recurring “down turns”.

Mechanisms through which risk constructors can be held to account by risk bearers are generally not in place or do not function as such. Whether laws and regulations are implemented, or ignored, is rarely monitored and evaluated. Studies on how disaster risk is constructed continue to be published but rarely have a lasting impact. And development sectors themselves are also influenced by the dominant imaginary of disasters as exogenous shocks.

The failure of disaster risk reduction in countries with constrained fiscal spaces and high levels of national debt, is further exacerbated by their inability to dedicate the financial resources needed to *correct* existing risks. The role of international financial institutions in facilitating debt-financed risk accumulation in such countries, through lack of control over risk construction in infrastructure development, for example, has not been seriously analyzed, nor has the impact of international organizations “implanting” homogenous models of legislative and institutional systems which countries are then unable to resource or implement. Paradoxically, the same international financial institutions that financed risk accumulation are now promoting insurance pools to strengthen countries economic resilience and to avoid financing gaps.

4. The political and economic imperative for disaster risk reduction

Manifestations of disaster risk, ranging from disasters with a *global* scale such as the 2011 Thailand floods or East Japan earthquake, to nationally significant manifestations of extensive risk, such as in the 2010 / 2011 ENSO event in Colombia and Central America are increasingly costly to governments, citizens and businesses. Yet despite these growing impacts the imperative to address the underlying risk drivers remains weak.

The imperative for disaster preparedness and response has always been strong, and the imperative for investments in corrective risk management and risk financing is growing in concert with increasing losses. But with exceptions, such as the attempts in various countries to incorporate disaster risk considerations into the planning and evaluation of public investment projects, commitment to prospective risk management exercised as part of development planning is still an outlier on the political horizon. The fact that disaster risk reduction has been delinked from central social and economic concerns and constructed as an independent sector has not made it easy to build a strong imperative for the respective finance and planning ministries.

At the same time, the logic of disaster risk reduction has been couched in cold economic terms particularly focusing on the possible impact of intensive events at the extreme end of the loss spectrum. While dramatic when they occur, it is difficult to bring these risks onto the political agenda and make them an ongoing priority for decision makers and politicians. Fear of rare future events rarely influences political decisions, which are regularly made by playing off potential long- term benefits against short-term imperatives. Reducing hypothetical losses and avoiding theoretical impacts does not gain political traction at any level, as is becoming patently clear with climate change. Politicians rarely get elected on a platform of avoiding losses.

Efforts to broaden the spectrum of concern, by focusing on extensive risk and recurrent small and medium scale disasters has likewise not gained traction, in part because of the invisibility of the impacts. A good portion of the losses affect low-income households, informal businesses or small enterprises that seldom show up in “official” indexes. On the public infrastructure side, extensive risk losses are rarely measured. Extensive risk often does not pose a threat to strategic and often transnational economic interests and therefore seldom has a strong proponent to push for the necessary economic and political agenda in most countries.

The continued focus on high level extreme events and physical hazards, rather than on how hazards, vulnerability and exposure interact through development processes, further removes disaster risk reduction from policy choices on economic, social and territorial development. This tendency has been reinforced by that part of the climate change and disaster risk discourse which emphasizes extreme events instead of on the long-term risk continuums that need to be addressed.

In both disaster risk reduction and climate change adaptation there is a growing enthusiasm for insurance and other forms of risk financing in order pragmatically to protect against sovereign risk and theoretically to strengthen resilience. In theory at least, governments are responsible for the security of their citizens and thus the resilience of citizens should be, almost by definition, a public sector concern. However, the development of risk financing schemes normally reflects a narrower notion of the state. Often it is government and its international financial arrangements that are protected against disasters but not the nation and the many individuals of which it consists.

Since disaster risk reduction has been created as a separate and autonomous sector, its links with other kinds of risk, ranging from financial and economic to social and technological risk, has been lost, if it had ever been found in the first place. The root causes of the global financial crisis that erupted in 2007-2008 and the causes of disaster risk accumulation both can be found in the dominant logic of economic growth. The disaster risk reduction discourse touches on economic impacts and on livelihood security but the links to how cycles of capital production and accumulation generate different kinds of risk has not adequately or thoroughly been made.

Disaster risk reduction is even more removed from economic policies and from debates on economic futures than it is from the different development sectors. Where risk analysis looks at the impacts of extreme events, the analysis is

generally restricted to the immediate effects and impacts rather than to identification of how economic processes generated the risk in the first place and how direct and indirect impacts then run through the economy affecting future development in diverse ways.

Despite the now well-established premise that disaster risk and disaster are manifestations of the everyday risks that characterize low-income urban and rural households around the world, the links between disaster risk reduction and poverty alleviation and reduction are still tenuous.

Education and public awareness programmes on disaster risk reduction are still dominated by the role of preparedness and emergency management and therefore again tend to obscure and hide processes of risk construction and accumulation. Predictably, popular music, novels, film and song continue to predominantly highlight the dramatic and exotic nature of extreme events rather than the underlying conditions of risk that characterize unsustainable development: there just isn't any sex appeal in working hard to have nothing happen.

The organization of disaster risk reduction implementation around short-term projects again reflects a vision of disasters as events to be handled rather than risk accumulation processes to be engaged and actively curtailed. The project based approach leads to repetition and unsustainability, while the lack of monitoring and empirical evidence of success or failure further reinforces the lack of buy-in and commitment for all but the most conservatively conceived of projects.

5. Looking forward: towards a new imaginary of disaster risk management

The complexity of the contemporary world and the velocity of the interconnected economic, social and territorial drivers that are transforming it are too great to be captured in a specialized knowledge domain called disaster risk reduction.

As highlighted in the previous section, the construction of a sector called disaster risk reduction on the basis of an imaginary of disasters as exogenous shocks has in itself guaranteed that risks will continue to accumulate.

The increasingly evident contradiction between, on the one hand, increasing progress towards achieving the HFA and, on the other hand, growing levels of disaster risk and losses looms heavily on the conventional disaster risk reduction paradigm. This does not of course mean that the corrective and compensatory approaches have not produced benefits or should not be continued, especially given existing levels of risk and the impossibility of reducing many to reasonable levels. It does however mean that such projects must be dramatically complemented with more fundamental approaches that directly influence risk drivers derived from skewed development processes.

Once the notion that disasters are exogenous shocks affecting normally functioning economies becomes ingrained in concepts and imaginaries, anything that flows from that notion will be flawed from origin. Investing additional

efforts and resources through an unreconstructed HFA2 will only reinforce that failure.

Getting rid of both the “disaster” connotation as well as the “reduction” paradigm would therefore seem to be essential preconditions towards moving towards a more integrative risk management practice. An understanding of disaster risk as a holistic and endogenous characteristic of particular development pathways and practices, and which is constructed through day-to-day decisions by those who have stakes in those pathways and practices, implies a very different approach to disaster risk management. Disaster risk management then becomes a question of development choices and its relationship to the values, ethics, morality and equity that underpin those choices. Similarly, the measurement of development gains through, for example the Human Development Index, should be complemented by ways of adequately capturing the advantages of a reduction in disaster losses in development indices.

The starting point for change, therefore, must begin with the establishment or acceptance of a structurally sound and widely applicable conceptual paradigm and a fresh imaginary of risk and its management. **The recognition that disaster is predominantly an indicator of unsustainable development should be taken as the starting point.** This implies a shift in focus from reducing existing risks to addressing the development based drivers and processes that lead to the accumulation of disaster risk in the first place. Sustainability implies the construction and accumulation, not of risk but of resilience and transformative capabilities in society and its communities. It also suggests a series of values and aspirations, such as inter-generational solidarity. Managing current disaster risks better will probably be the best way to address future risks.

The major goal of disaster risk management, therefore, should not be the reduction of disaster loss per se, measured in cold economic terms, but rather in terms of encouraging sustainable development and human welfare and well-being. Put another way, disaster risk management could generally be understood as a series of risk-sensitive development processes. This implies making development choices explicit and how investment decisions, by the private, public sector and households are made in the context of an economic and social development processes that generates chronic/every-day risk, extensive risks and accumulations of intensive disaster risk.

It also means explicitly recognizing the links between privatized economic benefits, on the one hand, and socialized risks, including disaster risk, on the other hand and the different channels through which risks are accumulated, shared and transferred, between sectors, in space and in time. Disaster risk, as with other types of risk, is constructed as much on the resource, capital and output side of the development equation as on the hazard and potential loss side. Understanding this would also help to address how one sector’s adaptation or risk management, could be another sector’s bane or heightened risk. This is and has been relevant as a conclusion in many cases from different types of economy from free market capitalism, through mixed economies to communist.

Understanding risk also means understanding the sustainability and opportunity embedded in resource use and locational choice. Risk and risk taking are natural

to human existence and risk is an inevitable construct where human growth and development are to be found. This implies that a new paradigm should be structured around managing rather than reducing risks and identifying trade-offs between the benefits that accrue from assuming certain risks, the potential price to be paid for taking these risks and the external and shared benefits and costs. And, ecosystems' dynamics, needs and "priorities" must also be taken very much into account, not just human needs and priorities.

This implies that instruments and strategies deriving from multiple other areas of public policy such as poverty reduction (and the need to rethink the meaning of "poverty" and "wealth"), land use planning, environmental management, provision of clean water, adequate wastewater and drainage facilities, etc. will be the primary instruments for managing developmental disaster risks. Rather than having to mainstream disaster risk reduction into development, disaster risk management then becomes *inside* development. Managing risks becomes seen as a "normal" co-benefit of day-to-day development planning, human development and investment, rather than as a stand-alone sector.

Many of the concepts required to underpin such a change already exist. But the adoption of concepts depends on values and imaginaries. Reality is arbitrary, it is what we allow ourselves to see. We create the world. The imaginary of extreme, exogenous events needs to be replaced by an imaginary of managing risks in day-to-day development processes. Disaster risk management then ceases to be about managing disasters but rather about the sustainable and equitable management of land and water resources, energy efficient building and other such development choices. We should perhaps cease to speak of "developed" or "developing" countries and start to speak of "sustainable or adaptable" or "unsustainable and non-adaptable" countries or countries whose "sustainability depends on the unsustainability of others". This also requires indicators that allow us to measure these things, including a modification and amplification of the Human Development Indicator.

Whether or not such a new imaginary can take root depends on the values that underpin those development choices. If economic values continue to prioritize short-term gain over longer-term sustainability and the privatization of gains and the socialization of risks, then the prospects for such an approach to disaster risk management are slim. But if those values shift towards human centered development based on equity and sustainability then managing risks can become an integral part of development decisions.

6. Embedding risk governance

So-called risk governance is essentially a component of development governance, related to issues of social justice and equity (which include environmental justice and environmental equity, for which real risk management is a tool). A new approach to risk governance must closely consider how to holistically integrate the frameworks for the promotion of development goals at the national and international levels, including the Sustainable Development Goals- SDGs, HFA2 and the UNFCCC. The fact that

different and largely separate frameworks are currently being developed for sustainable development, disaster risk reduction and climate change adaptation reinforces the silos in which these paradigms are currently evolving.

This implies a responsibility of the international community, given that these frameworks tend to be imitated at, and thus reinforce silo-based approaches at the national level. No one model of risk governance can exist that is appropriate for contexts as different as Somalia, Small Island States or large states such as India or the USA. But some general principles can be put forward.

Rather than specific disaster risk reduction institutions, legislation, policies and programmes, disaster risk management should be seen as part of the normal business of sector ministries and territorial (local and city) government. In other words, building safe schools should be second nature to the ministry of education. Ensuring a sound waste management system (which, as a co-benefit leads to less localized flooding typically caused by garbage blocking storm drains) should be second nature to a municipal government.

The figure of a government chief risk officer or risk ombudsman that is responsible for providing a holistic vision of risks in a country (or at the sub-national scale) and overseeing compliance across sectors or territorial governments could be a way of ensuring a level of accountability that is currently not achieved through disaster risk reduction systems.

This in turn requires awareness of the impact on sectors or territories of any other given sector's policies and/or changes in strategy. This is analogous to the Rubik cube, where no matter how one rearranges the blocks, the centre block of each phase can turn on its axis but should not be moved out of place: without understanding the inherent limitations of the different stakeholders, it will be difficult to solve the puzzle. There will always be tradeoffs: attracting foreign direct investment often goes in parallel with loosening employment regulations and tax regimes. Strengthening environmental rules may have impacts in short-term economic gain etc. However, as in the centre piece of the Rubik cube there are unnegotiable or non-moveable priorities which are those that guarantee the sustainability and viability of any territorial unit, its population and resources.

Such an approach to risk governance requires the development of instruments that increase accountability and responsibility for risk construction and addresses the general lack of compliance with laws, professional norms, guidelines and standards. This requires the development of transparent and applicable methods to put a price on risk generation activities, so that risk ownership and transfers can be made explicit and enforced. Mandatory or voluntary certification may provide another vehicle for making risk ownership explicit. Decision makers require tools to make the right decisions. But, households and communities also require tools to impel their decision makers to adequately manage risks, or risk removal from office themselves.

Risk governance would have to embrace and work more from the reality of informality than it does today. While conventionally an "informal" sector is considered to be outside of the "formal" sector, much of what occurs in the formal sector is actually informal and vice versa. For example, activities such as badly planned urbanization and environmentally damaging mining may have

fulfilled certain legal requirements. However, they are not “legal” from the perspective of the ecosystems and communities that are negatively affected.

This requires rethinking risk governance through lenses such as citizenry, human and children’s rights and developing mechanisms where partnerships between civil society, business and government become the norm rather than the exception. The human rights paradigm may provide a mechanism so that citizens can demand protections for both the present and future generations. And also be guided by principles, such as *in dubio pro-natura*, which underpins most environmental law, and by which when there is a doubt as to the impacts of development on nature, always favor nature.

Risk governance cannot be only a governmental responsibility. Households and communities need to develop a culture and framework of risk governance that can allow them to manage risks according to their own specific needs and reality. This could include a more social approach to the enforcement of regulations as well as a move towards approaches based on experiential learning and endogenous actions.

From that perspective risk governance needs to be thought of as a development “practice” rather than just as a set of governmental policies, rules and regulations. Currently, there is a momentum in a number of areas, ranging from green building and organic agriculture to new approaches in utility provision highlight the potential of innovative alliances between civil society groups, communities, businesses, and local governments.

These new forms of governance, structured around partnerships and networks which include ecosystems, watersheds, rivers and creek, slopes, etc., rather than hierarchies and technocracy, and based on social demand and business opportunity, echo and take advantage of transformations in the structure of communication and information flows, through social media, mobile devices and other new technology. Visualizing risk governance as a development practice would also facilitate a transition from the current segregation of research from practice in favor of a more integrated and horizontal approach to generating and sharing knowledge.

Such an approach requires open source risk information at a scale and in a format that enables dialogue on risk and its ownerships directly between stakeholders. The combination of new communication technologies together with open access risk information can empower networks of citizens, households and communities. This can in turn facilitate dialogue with business and government around risk management priorities and strategies. Within such a vision, good governance would be redefined in terms of how well risk is managed for all.

Finally, there is a need for new educational approaches and methodologies, from basic school to post-graduate studies. For transformative adaptation to be possible all careers and professions must be redefined in terms of their responsibility as risk-creators or successful risk managers.

7. Building a political and economic imperative for disaster risk management

The separation of disaster risk management and adaptation for global change from development along with the fact that most so-called stakeholders do not have clearly identified or defined stakes in how risks are managed, has conspired against political and economic commitment to disaster risk reduction. The fact that prospective risk management is a co-benefit of sound development has not been widely understood or exploited. The reduction of losses and impacts is not attractive in terms of political kick back. And conversely, post disaster reconstruction opportunities provides a perverse incentive for inaction.

Very few politicians, nationally or locally, have won an election on a platform of reducing future disaster losses and risks (but they have on the basis of promises to increase security and reduce crime, decrease the incidence of disease and traffic accidents). If an imperative for disaster risk management is to take root it has to not only be defined in cold, quantifiable economic terms but must also take into account considerations of political opportunity and political risk, human welfare and well-being, justice and equity.

The imperative for disaster risk management should therefore be defined primarily in terms of positive development benefits (which is also a call for new and sensitive/sensible indicators), rather than strictly and uniquely in terms of the avoidance of negative consequences. Local elections can be won by providing clean and plentiful water, clean cities, reliable transport and infrastructure and a safe and healthy environment. Disaster risk management should in a sense be considered a normal co-benefit of good development practices. In essence, the imperative is for good development, and good development must necessarily internalize, compensate, resolve or manage the risks it generates.

Reframing the disaster risk management paradigm in this way shifts the stakeholder focus from specialized technocratic agencies to those involved in everyday development processes, at all levels. Incentives for sustainable development are already increasingly in place as the values that underpin our economic system change as a result of the increasingly visible consequences of four decades of neoliberal-inspired development. Educating the young on this paradigm is therefore a critical strategy for achieving the elusive incorporation of prevention in prevailing cultural norms (as opposed to the incorrectly constructed notion of creating a separate “culture of prevention” which as with disaster risk reduction creates the image of exogenous risks and disasters) we would all like to see. User-centric design and social marketing strategies should be used to help spread the relevance and ubiquity of thinking in a sustainable manner, as much about recycling as about minimizing risk.

The disaster risk reduction paradigm implies that governments increase their investments in corrective and compensatory risk management. The lack of resources for disaster risk reduction then becomes a critical limiting issue in many states. In contrast, a more integrative disaster risk management paradigm focused on anticipatory or prospective risk management and sustainable development does not necessarily require significant additional financial

resources and can in fact be promoted as a way to reduce the cost of development. Again, instead of being constructed as a separate sector, disaster risk management then becomes a normal characteristic of sound development practices.

By linking disaster risk holistically to other kinds of risk, including those of financial and economic origin, any macro-economic policy would also take into account the potential macro-economic impacts deriving from latent disaster risks. Once again managing disaster risks would become a normal part of managing a country's economy and finances.

Fundamentally the imperative of resilience and its implication of protecting or strengthening existing social and economic structures, needs to be replaced with an imperative of transformative development that the impact of processes like climate change may accelerate. Disaster risk management would then become a characteristic of the transformation of development pathways and practices based on principles of equity, efficiency and sustainability.

8. The implications for HFA2

The discussion presented above has several obvious and direct implications for the successor arrangements to the HFA currently under discussion.

Firstly, it is clear that an HFA2 that represents a direct continuity from the approach taken in the existing HFA will only reinforce a paradigm that has been inconclusive at best and a driver of institutional risk at worst. Strengthening the disaster risk reduction paradigm will not lead to reduced risks or losses or more sustainable and equitable development. It will simply reinforce the status quo.

However, the current HFA does leave scope for change and innovation. Priority Area 4 of the HFA on Underlying Risk, points towards the new development-centric paradigm of risk management that needs to be adopted. If an HFA2 can be turned inside-out so that Priority Area 4 becomes the overarching goal and objective, then it may become an instrument for a much needed paradigm shift. If, in addition, HFA2 stresses the holistic nature of risk and rather than stressing governmental legislation and institutions is supportive of the more organic, networked initiatives of citizens, businesses and local governments towards equitable and sustainable development, then it can very well have a transformative effect on our societies.

Such an HFA would require a monitoring framework that measures outputs and outcomes rather than just inputs. And closer scrutiny should also be afforded to the accountability of risk reduction policies. The limitation of the current HFA Monitor is that it measures inputs, such as legislation and risk assessments, rather than whether risks are actually being reduced.

Another implication is that the new HFA should be *inside* the SDGs. A specific SDG on disaster risk reduction that links to a specialized HFA2 would again highlight the separation of risk from development. On the contrary, disaster risk management should be implicit in all the SDGs.

Whether or not the considerations expressed in this document can influence the negotiations around HFA2, the SDGs or a new climate change protocol is unclear. The current momentum in these negotiations is still anchored on a notion of disasters as exogenous events and disaster risk reduction as a sector. The ambiguous way concepts such as resilience have now been woven into the discourse of both disaster risk reduction and climate change adaptation, has further muddied the conceptual waters. Resilience is implicitly or explicitly presented as protecting the development processes and forms that constructed risk in the first place, a schizophrenic construct that has now become a mantra at all levels.

Imagining a new conceptual framework for risk management, developing governance arrangements that bridge and integrate holistically rather than isolate risk, and which emphasize accountability and responsibility, identifying transformative development practices that can attract political and economic support and using social networks, education and design as paradigms for making risk management sexy and attractive must become priorities if disaster risk is not to reach critical levels. HFA2 will only be useful to the extent that it leaves space for innovation in these areas.