

Refining the Agenda?

Humanitarian Assistance
in Times of Climate Change

Editor:
German Committee for Disaster Reduction (DKKV)



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Preface



Gerold Reichenbach

German Committee for Disaster Reduction,
Chairperson

Climate Change will cause a clear increase in the risks resulting from weather-related disasters in the near future. All forecasts on the impacts of climate change agree on that. An increase in extreme events is already evident, as the frequency of disasters triggered by extreme weather events such as droughts, heavy precipitation, floods, extreme temperatures and storms, has already multiplied over the past 30 years. This tendency has even intensified since the late

1990s. Currently weather-related extreme events are responsible for 75% of disasters. The well-known disaster profiles of

countries all over the globe are changing, leaving behind new uncertainties. In this process the humanitarian system is the first one to be confronted with the challenges arising from this development. Already its financial and operational capacities are stretched thin and recent experiences of a number of major disasters following closely after each other put an enormous stress on the system as a whole. If we do not address these trends right away, it is just a matter of time before the humanitarian system reaches the limit of its capacities.

Humanitarian Assistance is of crucial importance for societies hit by a disaster, as without an effective response the number of victims and the amount of damages would increase drastically.

Therefore it is imperative to develop concepts and strategies to refine the humanitarian system with regard to the complex challenges imposed by the complex combination of climate and global change. Cross-cutting areas like low-elevation coastal zones and growing risks due to urban development – vulnerable to extreme weather events – need to become a focus.

During their work the humanitarians are constantly confronted with the consequences of failed prevention and therefore have sound knowledge of important areas for future protection measures. This makes the humanitarian system also a key player of disaster risk reduction. If well interlinked with recovery, rehabilitation and long term planning, humanitarian assistance can become the starting point to “build back better”. Clearly, humanitarian assistance is primarily a response mechanism and not the solution to the underlying causes of disasters. However, it can provide the basis for the integration of disaster reduction, starting from the first response onwards.

The debate has already started and a number of publications address the interlinkage of the challenges of climate change towards the humanitarian system. The goal of this study is to discuss refinements needed for the humanitarian system in order to be able to address the negative impacts of climate change.

Existing standards for humanitarian assistance need to be revised and enhanced in order to move towards concrete recommendations and comparable standards on how to incorporate climate change effects.

Science might provide necessary information on how to move from empirically based assessments to future oriented – scenario based – strategies.

It is time to take action. We hope that this study contributes to fostering and concretizing a new humanitarian agenda which reflects these burning challenges.

Gerold Reichenbach

German Committee for Disaster Reduction,
Chairperson

Foreword



Jakob Rhyner
Director UNU-EHS
UNU Vice-Rector

Anthropogenic climate change is likely to influence weather-related hazards and increase the risk of extreme events. At the same time, creeping changes such as sea-level rise are emerging pressures which are very likely to seriously affect livelihoods in many regions. Although low elevation coastal zones account for only 2% of the world's land area, they contain more than 10% of the global population. It is likely that the increasing urbanization of coastal zones in combination with sea-level rise and extreme weather events due to climate change will expose more than 20% of the population in developing countries to various hazards, such as

salinization, flooding, coastal storm surges etc. These global trends will also affect the demand for humanitarian assistance, particularly when vulnerable conditions interact with creeping changes and sudden-onset hazards.

Climate-related disaster risk will hit the poorest communities hardest. The dynamic and complex interactions of vulnerable communities and climate-related, sudden-onset as well as creeping hazards very probably increases the risk of crises and disasters and thus affects the humanitarian system. If creeping hazards stress already vulnerable communities, the ability of these communities to cope with sudden-onset hazards and so-called extreme weather events will be reduced.

The cascading effects of complex emergencies resulting from the combination of creeping changes and sudden-onset disasters may cause the international humanitarian system to reach a tipping point in its capacity to provide assistance. If we consider the current financial straits of humanitarian assistance, it is likely that the humanitarian system will need to adjust its funding structure and explore alternative ways to better deal with large-scale and increasingly frequent medium- and small-scale disasters.

The study "Refining the Agenda? Humanitarian Assistance in Times of Climate Change" prepared by the UNITED NATIONS UNIVERSITY – Institute for Environment and Human Security (UNU-EHS) on behalf of the German Committee for Disaster Reduction (DKKV) is intended to be a contribution to strengthen the discourse on the need to amend humanitarian assistance in the light of climate change and other global trends.

In this context, the study "Refining the Agenda? Humanitarian Assistance in Times of Climate Change" builds on the findings of the previous work of Birkmann et al. (2009) on "Addressing the Challenge: Recommendations and Quality Criteria for Linking Disaster Risk Reduction and Adaptation to Climate Change". The new study aims to foster dialogue on specific expectations that humanitarian assistance has concerning climate change. It also focuses on potential tipping points or challenges to the humanitarian system in its current set-up that might limit its ability to deal effectively with new needs in humanitarian assistance that arise in the light of climate change and other global trends. It adopts a meta-level perspective regarding international humanitarian aid, and points out the need to move from the current experience-based learning to forward-looking and science-based models which can produce new ideas to account for climate change. It also points out the need for improved coordination of humanitarian actors, particularly in regard to large-scale disasters, and discusses the potential of the modification and extension of SPHERE standards to better account for climate change-related risks.

The study is intended as a contribution to the multi-faceted debate on climate change and humanitarian aid, and therefore other stakeholders and researchers are invited to contribute to the further enhancement of the discussion and respective research.

Dr. Jakob Rhyner
Director UNU-EHS
UNU Vice-Rector

I. Executive Summary



MALAWI:

Climate-related hazards, such as droughts, have already affected Malawi (e.g. 2002, 2006) and are expected to seriously hamper the livelihoods of most vulnerable population groups.

All scenarios on climate change point to a further intensification of hazard frequencies and magnitudes as well as to the spatial extension of hazard-prone areas. The intensification of risk can be expected owing to the combination of the increase in extreme events and the high number of exposed and vulnerable population. Weather-related hazards, for example cyclones, floods and droughts, hit the poorest and most vulnerable countries hardest and thereby create a need for immediate assistance either because of a sudden-onset hazard or because of severe livelihood impairment and erosion of livelihood assets (GLOBAL HUMANITARIAN FORUM 2009). In the light of climate change, sudden-onset hazards, such as storms and floods, as well as slow-onset hazards, such as sea-level rise are expected to be modified in terms of intensity and frequency. Consequently, humanitarian aid has to address and plan for both hazard types and their interaction in different regions.

Humanitarian assistance¹ or humanitarian aid² is essential in order to reduce suffering in crises and catastrophes and recovery processes. Climate change also affects the work of humanitarian aid agencies in various ways. However, whether climate change will necessitate a qualitative change for humanitarian aid is still controversial. Humanitarian aid will be challenged and might face a new dimension owing to climate change, particularly if weather-related hazards, in combination with the vulnerability of societies or communities, trigger a higher frequency of medium- and small-scale disasters. While international humanitarian aid is particularly effective in large-scale disasters that also receive substantial media attention, this is much less the case for small- and medium-sized crises and disasters, which are often insufficiently addressed. In addition, the creeping changes linked with climate change, such as sea-level rise, might create crisis situations that are new in terms of spatial and temporal scale. These phenomena will automatically also require additional funding sources for humanitarian aid if agencies and people are to respond effectively to these complex crises and emergencies. However, an increase in funding and financial resources in itself is insufficient; the underlying norms and funding schemes also need to be evaluated in the light of climate change. Expert interviews and literature analysis reveal that great disasters get most attention and also disproportionately large funding. Structures and procedures have to be changed if more attention is to be given to a higher frequency of small- and medium-sized crises and disasters. Additionally, modifications in norms and structures are needed in terms

of better bridging between short and immediate humanitarian aid and medium recovery and long-term resilience strategies in development. Consequently, humanitarian aid has to change its primarily shock-driven approach towards including a more medium- and long-term perspective for reducing vulnerability, especially in the light of climate change. Overall, in this study, challenges for humanitarian aid in the context of climate change are differentiated into three broad categories: a) the changing hazard context, b) the norms of humanitarian aid and c) structures, time-frame and information. The challenges identified in some cases would even emerge without climate change; however, in some cases – such as in terms of requirements for additional funding – the increasing trend in small- and medium-sized crises and disasters linked to climate change and increasing vulnerability are other major factors that emphasize the need to address this point with a higher priority in the light of a changing climate.

Changing hazard contexts

Climate change has been recognized as a strong multiplier of risks that arise from weather-related hazards and it has been called the “*greatest emerging humanitarian challenge of our time*” (GLOBAL HUMANITARIAN FORUM 2009:2). There is a general consensus in literature and among the 20 experts interviewed in this study that climate change will impact on humanitarian aid, especially through increasing numbers and intensities of hazards, which will hit the poorest and most vulnerable countries hardest and thus directly influence the number of people affected by disasters.

There seems to be a divide, however, between those experts who see climate change simply as a multiplier or catalyst of known phenomena that are well dealt with and those who expect additional, new types of situations to arise from climate change, such as increasing numbers of migrants due to creeping changes and the need for mitigation of future humanitarian needs that requires anticipatory action.

In this report, it is argued that climate change challenges humanitarian aid by changing the hazard contexts on the one hand and by adding pressure to already problematic issues, such as implementing early recovery or the effective distribution of humanitarian aid in conflict areas in failed and fragile states on the other.

1 The term „Humanitarian Assistance“ is consistently used in this report. Synonymous expressions used in the literature are “Humanitarian Aid” or “Humanitarian Support”. (see UNHCR MASTER GLOSSARY, DEVELOPMENT INITIATIVES, RELIEF WEB 2008)

2 Used synonymously

Norms of humanitarian aid in the light of climate change

Above all, the organizations and agencies involved in humanitarian aid refer to and act upon the humanitarian imperative to save lives and alleviate suffering on the basis of need and regardless of political, social or other distinctions of any kind. It is thus mainly a response to immediate threats to human lives and livelihoods (shock-driven). Nevertheless, not all disasters receive equal attention and are followed by the provision of a comparable amount of aid owing to certain features in the current set-up of humanitarian assistance.

Operational procedures and delivery modes of humanitarian aid are manifold, which reflects the diversity of actors and contextual situations involved. While the plurality of approaches and organizations are often seen as desirable and important to ensure impartiality and independence, it also complicates cooperation and poses a certain threat to the efficiency and accountability of aid. The diversity of structures also fosters competing approaches with regard to fundraising and visibility that may actually be detrimental to the goal of aid. Besides the coordination of various actors and agencies, an even more important factor seems to be a shift in attention from great disasters towards small- and medium-sized disasters, which are likely to increase owing to more frequent weather-related hazards and increasing vulnerability in many regions, particularly in developing countries. Therefore, adjustments of humanitarian aid might be needed to address challenges arising in the context of climate change, such as:

- Establish norms that promote the shift from a primary shock-driven approach towards a stronger focus on vulnerability reduction, before, during and after crises and disasters.
- Improve the detection and management of small- and medium-scale crises that might increase in frequency due to changing environmental conditions as well as further socio-economic destabilization in certain regions, since at the moment large disasters get most attention and disproportionately large amounts of funding.
- The rather short-term involvement of humanitarian aid also limits the ability to develop a stronger focus on preventive measures (before and after a disaster) including climate change adaptation (CCA).
- Improve norms with regard to dealing with secondary impacts and the consequences of cascading effects in the context of climate change, such as forced migration.
- Improve the responsibilities to take action in anticipation of creeping changes are not clarified; there is a need for international dialogue (e.g. with regard to an increasing number of migrants).
- Less visible cases and an increasing number of smaller-scale events necessitate enhanced capacity-building at the local level.

Consequently, an improved common and strategic approach to humanitarian aid and development cooperation is needed that can effectively bridge the existing gap between relief and development and would also allow for the incorporation of climate change adaptation.

Additionally, current standards for humanitarian aid operations and activities, such as the SPHERE standards, should be enhanced in terms of procedural recommendations on how to improve the communication and build synergies between humanitarian aid and climate change adaptation. It should be discussed to what extent the SPHERE standards could be refined towards the use as standards for coordination of the various actors dealing with humanitarian assistance and development cooperation. The standards, which should be enforced by public donors, should also create incentives for bridging the institutional financing gap to allow the implementation of the linking relief, rehabilitation and development approach (LRRD).

Improving structures and information

Financial and institutional structures

- In order to enable longer-term planning and disbursement of funding with regard to linking relief, rehabilitation and development, more flexibility of funding and financial structures in humanitarian aid is needed that would allow money to be saved specifically for linking relief, rehabilitation and development as well as shifting it from large-scale disasters towards small- and medium-scale disaster events, which often get much less public and political attention. In this regard, the predictability of funding should also be increased so that organizations are less dependent on private donors and less vulnerable to donor fatigue, but are instead able to plan for longer timeframes (e.g. through assessed contributions).
- The divide between the communities of practice of humanitarian aid and development cooperation needs to be addressed ever more urgently in the face of new types of situations that will generate new tasks and responsibilities.
- Additionally, national disaster risk reduction platforms should be further encouraged to play a proactive role and to create mechanisms for linking top-down and bottom-up approaches. Anticipatory activities to reduce disaster risk will play a key role for successful adaptation to climate change. More risk reduction tools should thus be applied in humanitarian aid, for example, through a stronger focus on vulnerability assessments. To increase the funding availability for such measures, advocacy work should focus on the promotion of DRR and longer-term measures, for example, to include environmental issues that play a key role in recovery (water, timber), but also to increase awareness of private donors who often expect the rapid disbursement of their money.

Improving information and information sharing

- Humanitarian aid should also create mechanisms to facilitate the use of existing information and data, for example through linking up with national meteorological services or through an international dialogue on the expectations that organizations have concerning climate change impacts. It is crucial to work towards an improved common strategic approach, for example between the agencies and stakeholders involved in humanitarian aid (e.g. Red Cross) and those active in tackling climate change and climate change adaptation (e.g. environmental ministries, meteorological agencies) while limiting additional bureaucratic burdens. Humanitarian aid should improve its existing, well-functioning tools and mechanisms for the emerging challenges. In this regard, evaluation needs to be stronger and more coherent, so that lessons learned can be applied to subsequent aid operations. Much of the evaluation and post-disaster assessment work that is done is underutilized and should in the future also be used by actors involved in development cooperation.
- In this regard, also additional information is needed for strategic global and regional approaches geared towards vulnerability reduction. This means, inter alia, that scenarios about future climate-related hazards as well as scenarios for societal development and vulnerability should be developed in order to allow the identification of potential future hotspots of humanitarian aid. This also requires accounting for both climate change (e.g. sea-level rise) and other global trends, such as rapid urbanization in coastal zones (increasing exposure).
- The improvement of information and the strategic approach would also be a vehicle to strengthen the linkages between relief, rehabilitation and development. In this regard, improving the tracking of funding streams and funded projects would also help to create synergies and support the distribution of funding.

Key Recommendations (please see also chapter III)

- Explicitly address climate change and its impacts on humanitarian aid in key international documents, such as the IASC Contingency Planning Guidelines (2007) and UNISDR's "Disaster Preparedness for Effective Response" (2008).
- Urban focus: Climate change and global trends such as urbanization and increasing population densities in coastal zones, call for improvements in the approaches and tools for the delivery of humanitarian aid in urban areas. Specific recommendations encompass closer cooperation between humanitarian aid organizations, urban planners and providers of critical infrastructure that is essential for effective emergency and disaster management before crises and disasters are occur.
- Make response more predictable (in terms of standards of intervention and funding).
- Improve the use of available mechanisms such as ALNAP evaluations and SPHERE standards and extend SPHERE to coordination issues in order to better account for climate change stakeholders.
- Humanitarian assistance needs adjustment of its shock-driven approach towards a priority focus on vulnerability, strategic interventions and preparedness. This preparedness focus for humanitarian assistance should also account for climate change in all components of preparedness planning (e.g. country priorities).
- Funding mechanisms must become more flexible (e.g. funding for small disasters without an international appeal process) and predictable (agencies need to be able to plan beyond an annual budget).
- Undertake dynamic planning also in terms of temporal scale: differentiate between levels of preparedness for different intensities of sudden-onset hazards; also ensure better use of seasonal forecasts and longer-term trends. Keep the plan dynamic and use it as a continuous monitoring process.
- Humanitarian assistance and development cooperation should jointly lobby for DRR (impact-driven, post-disaster and longer-term vulnerability reducing DRR) to create political dialogue also with regard to creeping changes (e.g. sea-level rise and small island developing states, or Himalayan glacial melting and future water scarcity).
- Use climate risk assessment as basis for recovery and reconstruction and identify logistical and organizational bottlenecks based on scenarios.

1. Introduction



PAKISTAN:

The 2010 Pakistan floods – triggered by very intense monsoon precipitation – led to an extremely large-scale humanitarian disaster.

Flaws and pitfalls of humanitarian aid have been identified, analyzed and discussed in numerous reports and evaluations; these have addressed the *"humanitarian's dilemma"* (RAMALINGAM & BARNETT 2010), *"the growth of aid and the decline of humanitarianism"* (THE LANCET 2010) or, more comprehensively, *"the state of the humanitarian system"* (HARVEY ET AL. 2010). There has also been a growing recognition of the role of climate change as a "multiplier of human impacts and risks [...] making it the greatest emerging humanitarian challenge of our time" (GLOBAL HUMANITARIAN FORUM 2009:2) that will involve increasing needs for humanitarian aid. The comprehensive report of the Inter-Agency Standing Committee (IASC) on *Addressing the Humanitarian Challenges of Climate Change* (SELBY & CABOT VENTON 2010) identifies cross-cutting priorities agencies should address in the upcoming years, but it pays little attention to some upcoming challenges, such as the growing urbanization of risk and disasters (cf. IFRC 2010). In addition, the issue of creeping changes as well as the meta-level, conceptual question of future development of risks and according expectations humanitarian assistance has of climate change is not sufficiently addressed in many reports.

It is well known that weather-related hazards, for example cyclones, floods and droughts, hit the poorest and most vulnerable countries hardest and thereby create a need for immediate assistance either because of a sudden-onset hazard or because of severe livelihood impairment and erosion of livelihood assets (GLOBAL HUMANITARIAN FORUM 2009).

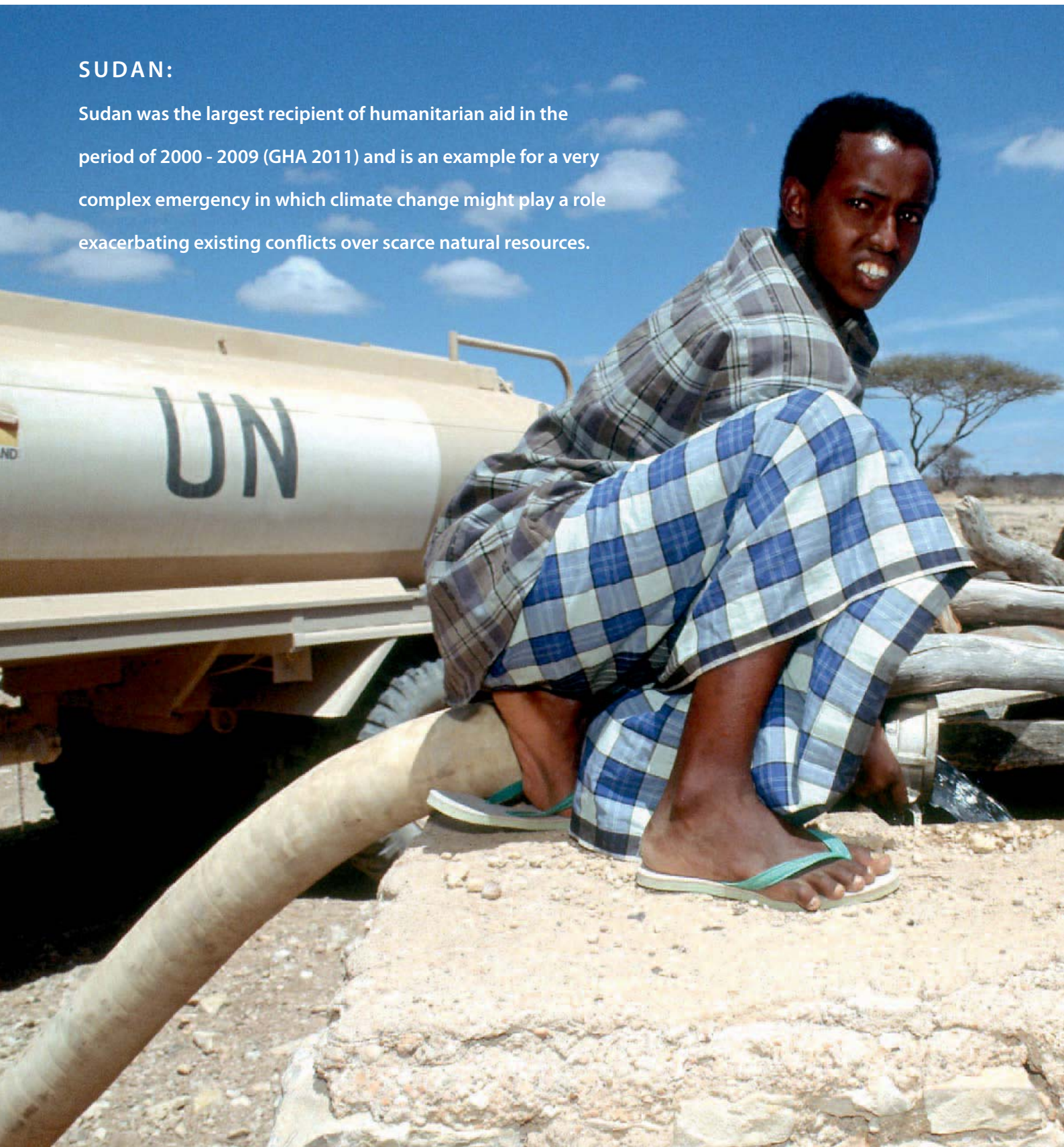
In the light of climate change, sudden-onset hazards, such as storms and floods, as well as slow-onset hazards, such as sea-level rise are expected to be modified in terms of intensity and frequency. Consequently, humanitarian aid has to address and plan for both hazard types and their interaction in different regions.

In this report, it is argued that climate change will be more than a simple "add-on" to humanitarian response but most likely involve a qualitative change that will demand an adjustment of international humanitarian aid in the future. The rationale of this study is to take the assessment of climate change as a risk multiplier a step further to foster dialogue on potential tipping points of the humanitarian system. It is argued that new, unprecedented situations will arise, particularly through cascading effects and complex emergencies that necessitate an international dialogue on what humanitarian actors have to expect and how they can adjust their activities to account for emerging challenges. In particular, the modification of multiple stressors and the various interactions of local and global crises and shocks can generate such new complex emergencies that have to be anticipated in order to provide sustainable solutions for humanitarian aid. An example for such effects could be the occurrence of a flood that requires food import, while at the same time global food prices are rising due to global production losses caused by extreme events and the higher demand of agricultural land for renewable energy.

2. Goals of the study and _____ methodological approach

SUDAN:

Sudan was the largest recipient of humanitarian aid in the period of 2000 - 2009 (GHA 2011) and is an example for a very complex emergency in which climate change might play a role exacerbating existing conflicts over scarce natural resources.



The overall goal of this study is the identification of primary challenges that climate change brings for international humanitarian assistance and the implications of these challenges. On the basis of the findings of Birkmann et al. (2009) it further aims to delineate quality criteria that allow the evaluation of successful humanitarian aid as well as recommendations on how to further enhance humanitarian assistance to better account for climate change. Overall, the study should contribute to the international dialogue on climate change and its impacts on humanitarian assistance.

In order to achieve these goals, the development of different natural hazards and event types in the light of climate change will be analyzed on the basis of a literature review focusing on the fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC) and the ongoing discussion within the IPCC Special Report *“Managing the Risk of Extreme Events and Disasters to Enhance Climate Change Adaptation”* (IPCC-SREX). Respective challenges due to actual and potential changes of hazard types and intensities and their expected impacts on humanitarian aid will then be outlined.

Additionally, an analysis of selected structures, concepts and tools of humanitarian assistance and the ability of actors to consider actual or potential changes in event types and hazard characteristics is carried out on the basis of a literature review and qualitative interviews with selected experts.

As a core part of this study, 20 experts were interviewed, chosen to cover a wide range of different national and international organizations involved in humanitarian assistance, both as direct deliverers of aid and as coordinators or donors. Some of the experts also hold more of an external or reviewer’s position. A full list of the interview respondents is provided in the annex. In order to guarantee privacy and ensure confidentiality, the data were anonymized before use. Furthermore, an expert workshop was conducted where preliminary results of the study were discussed. In particular, the expert workshop contributed to the evaluation of important recommendations and the further sharpening of the focus of the study.

On the basis of these analyses, recommendations on how to further enhance humanitarian assistance in the light of climate change were formulated. This task also encompassed the identification of new opportunities to modify structures, concepts and tools of humanitarian assistance to better account for actual or further climate change-related modifications of hazard scenarios.

The quality criteria and recommendations, based on the expert interviews and literature review as well as the expert workshop, are presented in the following report. They are summarized in chapter 6 and the concluding recommendations (chapter III).

3. Natural hazards in the context of climate change and impacts on humanitarian assistance³

BANGLADESH:

Bangladesh is highly exposed to climate-related hazards, such as cyclones and sea-level rise and has experienced many disasters in the past. It has already made a lot of progress in disaster risk reduction to reduce people's vulnerability and build capacities at local level.



3.1 Trends

The challenges that climate change will most likely bring for society will be twofold as there will be increasingly frequent and intense extreme events (floods, droughts, forest fires) on the one hand and longer-term changes related to the increase in mean temperatures, on the other. These different types of challenges will demand specific societal and geographic responses that have to take into account a modified hazard context due to climate change, as well as increasing exposure of people to these hazards (e.g. in coastal zones) and dynamically changing vulnerability profiles in many regions. Although many people in regions at risk will learn how to adapt to these multiple changes, it is likely that crisis and disaster situations – particularly small- and medium-scale crises – will become more frequent and necessitate help and assistance where societies or communities cannot adapt or only have limited resources to adapt to the more rapidly changing environmental and societal conditions. Longer-term trends in particular may demand fundamental changes among exposed populations in order to build adaptive capacities and secure livelihoods in deteriorating environments. Especially the combination of stress caused by creeping processes (e.g. desertification) with adverse impacts of sudden-onset events can increase the problematic issues of the latter, since it is likely to lead to the depletion of livelihoods and significant erosion of the ability to cope.

³ Unless otherwise noted, the trends and projections of hazards highlighted in this chapter were identified in the contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2007).

3.1.1 Sudden-onset hazards/Extremes

In terms of sudden-onset hazards, the frequency, intensity and the range of hazards will increase, for example, the number of heavy precipitation events and the number of hot days. MIN ET AL. (2011) argue that *“the global climate models [they] used may have underestimated the observed trend, which implies that extreme precipitation events may strengthen more quickly in the future than projected and that they may have more severe impacts than estimated”* (p. 380).

An increase in flood and cyclone risks can be expected, which will of course influence exposed societies. A differentiation between extremely large events, such as the floods in Pakistan or Australia in 2010 and all the more frequent low-intensity, localized events should be made. As stated by the United Nations International Strategy for Disaster Reduction (UN/ISDR), low-intensity events *“add up to a considerable accumulation of loss and an erosion of local development. Such losses, therefore, represent a significant and largely unreported facet of disaster impacts”* (UN/ISDR 2009:10).

3.1.2 Slow-onset hazards

Major slow-onset hazards that are projected to happen in the near future include sea-level rise, which leads to the exposure of many coastal dwellers to increasing risks of regular flooding as well as to coastal erosion and land loss. The risk is expected to be exacerbated by increasing human-induced pressures on coastal areas, such as in the densely populated Asian delta regions that host many millions of people. Salinization and decreasing agricultural productivity will add to the complexity of the situation. Similarly, another major climate-related hazard is the increased risk of drought periods and progression of desertification and land degradation that will very likely cause food security problems and add pressures to already strained livelihoods (see 3.2.1).

Examples: Climate Anomalies 2010 (NOAA 2011)

- Pakistan: All-time temperature record of 53.5°C on 26 May 2010, heavy monsoon rainfall caused worst floods since 1929
- Mexico: Wettest July since 1941 and driest October since 1948
- Atlantic Hurricane Season: Number of named storms and hurricanes was highest since record-setting 2005
- Global tropical cyclone activity: well below average, 65 storms, 35 hurricanes/typhoons/cyclones
- Brazil: Heaviest rainfall event recorded in 48 years (Rio)

3.2 Areas affected

3.2.1 Africa

Africa was identified as “one of the most vulnerable continents to climate variability and change because of multiple stresses and low adaptive capacity” (IPCC 2007:13). It can be expected that up to 250 million Africans will be exposed to increased water stress in 2020 and that rainfall variability and progressive droughts and desertification will severely compromise agricultural production, thereby adding stress to many already fragile livelihoods. South-East Africa has been identified as a particular risk hotspot that will be affected by a combination of floods, cyclones and droughts (EHRHART ET AL. 2009).

3.2.2 Asia

The impacts of the Himalayan glacier melt will differ over time: it will first lead to increased flooding, then reduce slope stability and increase rock avalanches and finally lead to a permanent change in water availability and less resources once the glaciers have vanished.

Many climate change impacts in Asia are water-related. The IPCC (2007) states that “coastal areas, especially heavy-populated megadelta regions in South, East and South-East Asia, will be at greatest risk due to increased flooding” (p. 13) which is in line with EHRHART ET AL. (2009) who identify South and South-East Asia as particular risk hotspots, prone to cyclones, floods and droughts.

3.2.3 Latin America

Latin America is likely to experience a wide range of hazards, both sudden- and slow-onset: the IPCC estimates that the region will undergo salinization and desertification processes and be subject to changes in water availability, but also increasingly exposed to flooding, especially in low-lying areas that are also influenced by sea-level rise. EHRHART ET AL. (2009) additionally predict an increasing number of cyclones in Central America. Given the occurrence of the first ever South Atlantic hurricane that hit Brazil in 2004, the areas exposed to cyclones may be extended to unprecedented levels.

3.2.4 Small island developing states

A particular challenge of climate change is the exposure of low-lying small island states to sea-level rise which will affect them with increased flood hazards in the short to medium term but might lead to the disappearance of entire atolls and islands in the long term.

3.2.5 Other areas

Global climate change will, of course, also have major impacts on North America, Europe, Australia and New Zealand, areas that are not represented in this study; however, since these are also the areas with the largest coping and adaptive capacities, they are least dependent on international humanitarian assistance.

3.3 Sectors affected by climate change

In the following sections, the projected impacts of climate change on some of the sectors that have a direct link to increased humanitarian need will be presented in brief.

3.3.1 Health

Climate change-related hazards will have substantial impact on human health, as they are very likely to lead to increased mortality, disease and injury through the direct impacts of heat waves, floods, storms, fires and droughts, but also to increases in malnutrition (cf. crop/food sector) and the frequency of cardio-respiratory diseases as well as diarrhoeal diseases. The altered spatial distribution of infectious disease vectors will also impact on the numbers of vector-borne diseases.

3.3.2 Fresh water resources

The alteration of fresh water availability will vary from an increase at high latitudes to a decrease in already dry regions at mid-latitudes and in the dry tropics. Drought-affected regions will increase in extent, creating a particular risk hotspot in sub-Saharan Africa. Glacial melting and reduced snow cover will lead to a serious decline in water supplies in the longer term in all regions whose watersheds feed from melt water of major mountain ranges such as the Himalayas.

3.3.3 Crops and food production

The impact that climate change will have on crops and food production depends very much on the amount of warming that the world is going to face. The global potential for food production is, for example, likely to increase if the increase in global average temperature can be kept within the limit of 1 to 3°C, and will only then decrease. Seasonally dry and tropical regions are likely to face a loss of crop productivity, however, and it is very likely that the increased frequency of droughts and floods will affect local crop production negatively, especially in subsistence sectors at low latitudes.

3.4 Climate change impacts on humanitarian assistance

A consensus among the experts interviewed and the literature examined can be seen in the fact that all sources clearly indicate that climate change will impact on humanitarian assistance. However, as will be discussed later, the understanding of the emerging need to adjust humanitarian responses differs among experts.

3.4.1 More people will be in need

In general, there is a certain level of consensus that more people will be in need of humanitarian assistance as disaster-triggering events are increasing in number and magnitude. Statistics on disasters have been improved and more events are being captured. However, the trends seem to

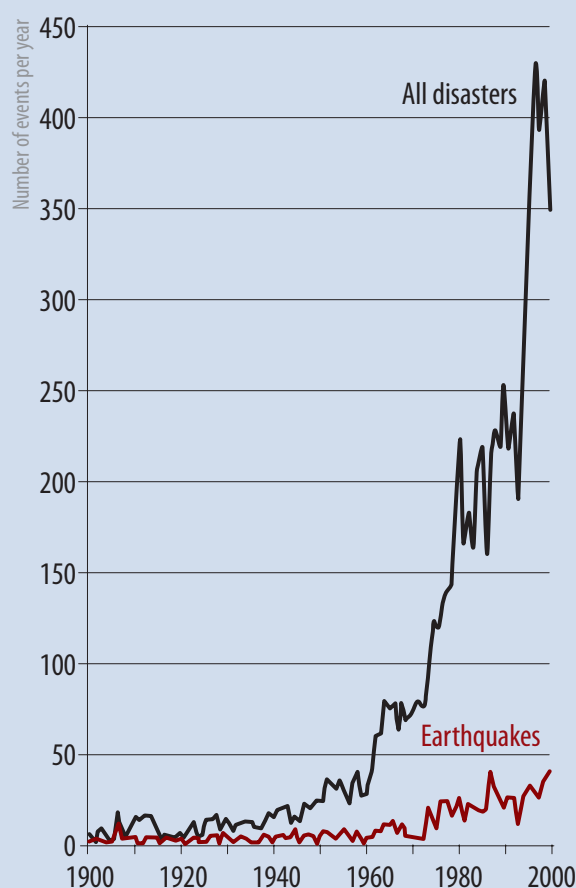
indicate that weather-related hazards, in combination with vulnerable conditions, account for a larger proportion of disasters compared to earthquakes (see Fig. 1).

Most of the experts also agreed that humanitarian assistance already encounters increasing numbers of people in need and a larger proportion of interventions being triggered by natural events, as one of the respondents argued that *“one can see that the number of people that are in need of humanitarian aid and relief these days - as opposed to 15 or 20 years ago - is much more often related to natural events”* (interview no. 1).

This does by no means establish a direct causal link to climate change as there are other socio-economic processes that determine whether a weather-related event and hazard can lead to a disaster and consequently also determine the need for humanitarian assistance. For example, it is very likely that there are many more people living in highly exposed areas today than there were 20 years ago. Nevertheless, in this report, it is argued that the current scientific evidence for climate change combined with socio-economic processes, such as urbanization, point to the emergence of rapidly increasing humanitarian needs that will demand the special attention of international humanitarian agencies and actors

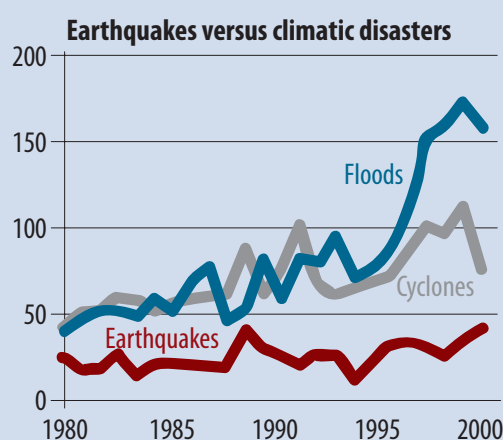
Figure 1

Trends in number of reported events



All disasters include: drought, earthquake, extreme temperatures, famine, flood, insect infestation, slides, volcanic eruption, wave / surge, wild fires, wind storm.

Much of the increase in the number of hazardous events reported is probably due to significant improvements in information access and also to population growth, but the number of floods and cyclones being reported is still rising compared to earthquakes. How, we must ask, is global warming affecting the frequency of natural hazards?



in order to prevent the overwhelming of existing capacities of humanitarian aid. In this regard, an expert stated the following: *"Most of these disasters have an effect at the local level or the national level, not necessarily the international level – but they call for an international response. Therefore, we have to adjust, meaning that we have to be ready to deploy assistance. Climate change seems to be putting out more of these challenges and adding to their complexity"* (interview no. 5).

3.4.2 New types of situations

Apart from the recognition that humanitarian aid will be demanded more frequently in the light of climate change, many experts also acknowledge the emergence of new types of situations that have not yet been faced and that will thus require different types of assistance. New types of situations might occur due to climatic changes, such as sea-level rise and respective negative impacts on exposed populations, however, new types of situations can also emerge when known hazards such as floods intensify and interact

with global trends such as urbanization and socio-economic changes independent of climate change. The new dimension in these complex emergencies might be linked to the number of people who might need humanitarian aid and the size of the areas affected.

On the one hand, changes in climatic patterns may cause new types of hazards to occur in regions that were not previously exposed, for example, through extension of the areas affected by cyclones. As long as it is merely the location that changes, most of the interviewed experts were confident that humanitarian assistance will still be able to address such hazards adequately as the basic knowledge simply needs adjustment to a new location. However, there are also types of situations that are entirely new to humanitarian aid. Urbanization was underlined as a key challenge for humanitarian assistance as it is expected to put a lot of additional pressure on the system through the rapidly increasing number of vulnerable people living in highly

Nigeria: Lagos is likely to face increased disaster risk due to expected sea-level rise impacts in combination with high levels of social vulnerability and rapid urbanization.



exposed, often marginalized settlements, in which most humanitarian and development actors currently have less experience compared with that in rural areas (CF. GRÜNEWALD & BINDER 2010). Combined with new and more intense and frequent hazards in coastal zones due to climate change, for example, in South-East-Asia or Latin America, these urban settings will become a major hotspot for humanitarian assistance in the medium or long term. Changing rainfall patterns have significant effects on agriculture, including for many small-scale farmers who can no longer predict the seasons, who are in desperate need of finding new solutions to sustain their livelihoods, or who must rely on external help. In particular, if these livelihood interruptions and deteriorations reach a tipping point, farmers might then have simply no option other than to migrate. The impacts and indirect consequences of these kinds of events will affect international humanitarian aid by overstressing its already scarce resources and in unprecedented cases for which there is a lack of experience, it might be necessary to find new ways to respond.

Particularly, if certain tipping points and global crises interact, new qualities in disasters and emergencies might occur that make it impossible to meet the humanitarian need of all affected and vulnerable people, for example, in low-lying coastal areas. There will be, on the other hand, new types of rather slowly evolving hazards that demand an international mechanism for addressing them anticipatorily. These hazards include the disappearance of land due to sea-level rise, but also the degradation of land and desertification that will probably trigger migration. Such issues do not fall in the traditional mandate of humanitarian assistance but might cause serious humanitarian needs in the future and should thus also be discussed with actors in development cooperation.

3.4.3 Climate change as a qualitative change

As mentioned above, in this report, it is argued that climate change will constitute a qualitative change to international humanitarian aid, an issue that was discussed at the expert workshop held in Bonn in the beginning of February 2011. It is the increasing complexity of various slow- and sudden-onset hazards that, in combination with other global change phenomena, may eventually cause serious limitations of humanitarian response. One example discussed was the increasing interconnection of several regional phenomena that may lead to global cascading effects, such as the occurrence of an extremely large hurricane hitting Central America at a time of decreased rice production and very high food prices caused by salinization of the Mekong Delta. It was discussed that the increasing uncertainties also of the timing of hazards may overwhelm the capacities of international humanitarian aid at some point. Humanitarian actors should thus engage in an international discussion of expectations and tipping points that have to be addressed sooner rather than later.

3.4.4 Economic impacts and funding opportunity

Finally, climate change may also lead to improved capacities of international humanitarian aid through better funding opportunities and more public awareness of humanitarian needs. Such awareness should reflect to some extent in resources available for disaster risk reduction and climate change adaptation – the United Nations Framework Convention on Climate Change (UNFCCC) adaptation fund might be one source of funding that could also benefit humanitarian actors in bringing much more attention to the topics on which it focuses: *“With climate change the argumentation to undertake certain measures changes. [...] Climate change can also be an opportunity to raise funding for measures that would have been necessary in any case”* (interview no. 3).

4. Humanitarian response

NEPAL:

Weather-related hazards can also contribute to displacement as in the case of this woman's example who was affected by a flood in Nepal Ganj region.



4.1 Current concept and tools of humanitarian assistance

Humanitarian assistance is provided by a variety of different actors, including national authorities, the United Nations (UN), international organizations, non-governmental organizations (NGOs), and the International Federation of Red Cross and Red Crescent Societies (IFRC), so it is difficult to characterize “the” humanitarian assistance as such. There is a certain level of commonality among the different actors, however, as most of the agencies and organizations adhere to the same or very similar principles.

In addition to the IFRC Code of Conduct, many other guiding principles and standards for humanitarian aid exist, such as the OECD-DAC⁴ Criteria, the HAP⁵ Humanitarian Accountability and Quality Management Standard (2007), the SPHERE Project’s Humanitarian Charter and Minimum Standards in Disaster Response or the European Consensus on Humanitarian Aid, to name but a few. Most of the interviewed experts did not criticize the plurality of guiding principles as the bigger and internationally renowned organizations seem to be on the same page when it comes to norms and values of humanitarian aid. There are, however, many smaller and less experienced organizations

Principles of Conduct for The International Red Cross and Red Crescent Movement and NGOs in Disaster Response Programmes

- 1: The humanitarian imperative comes first.
- 2: Aid is given regardless of the race, creed or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone.
- 3: Aid will not be used to further a particular political or religious standpoint.
- 4: We shall endeavour not to act as instruments of government foreign policy.
- 5: We shall respect culture and custom.
- 6: We shall attempt to build disaster response on local capacities.
- 7: Ways shall be found to involve programme beneficiaries in the management of relief aid.
- 8: Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs.
- 9: We hold ourselves accountable to both those we seek to assist and those from whom we accept resources.
- 10: In our information, publicity and advertising activities, we shall recognize disaster victims as dignified humans, not hopeless objects.

Source: <http://www.ifrc.org/Docs/pubs/disasters/code-conduct/code-english.pdf>

4.1.1 Humanitarian imperative and principles

Above all, the organizations and agencies involved in humanitarian aid refer to and act upon the humanitarian imperative, which is “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”. Humanitarian aid is thus intended to save lives and alleviate suffering on the basis of the principle of needs only and regardless of political, social or other adverse distinctions of any kind. The humanitarian imperative and nine other fundamental principles are manifested in the IFRC Code of Conduct (see textbox above).

now involved in humanitarian aid, particularly after extremely large disasters, as was documented for example in the case of the Indian Ocean tsunami in 2004. Therefore, it is argued that increased dialogue and exchange among the different actors could foster a better understanding of the different approaches to humanitarian aid and support smaller organizations in complying with its norms and values. The adherence to clear standards was judged as more problematic, as there is no universal, systematic approach

⁴ Organisation for Economic Co-operation and Development-Development Assistance Committee

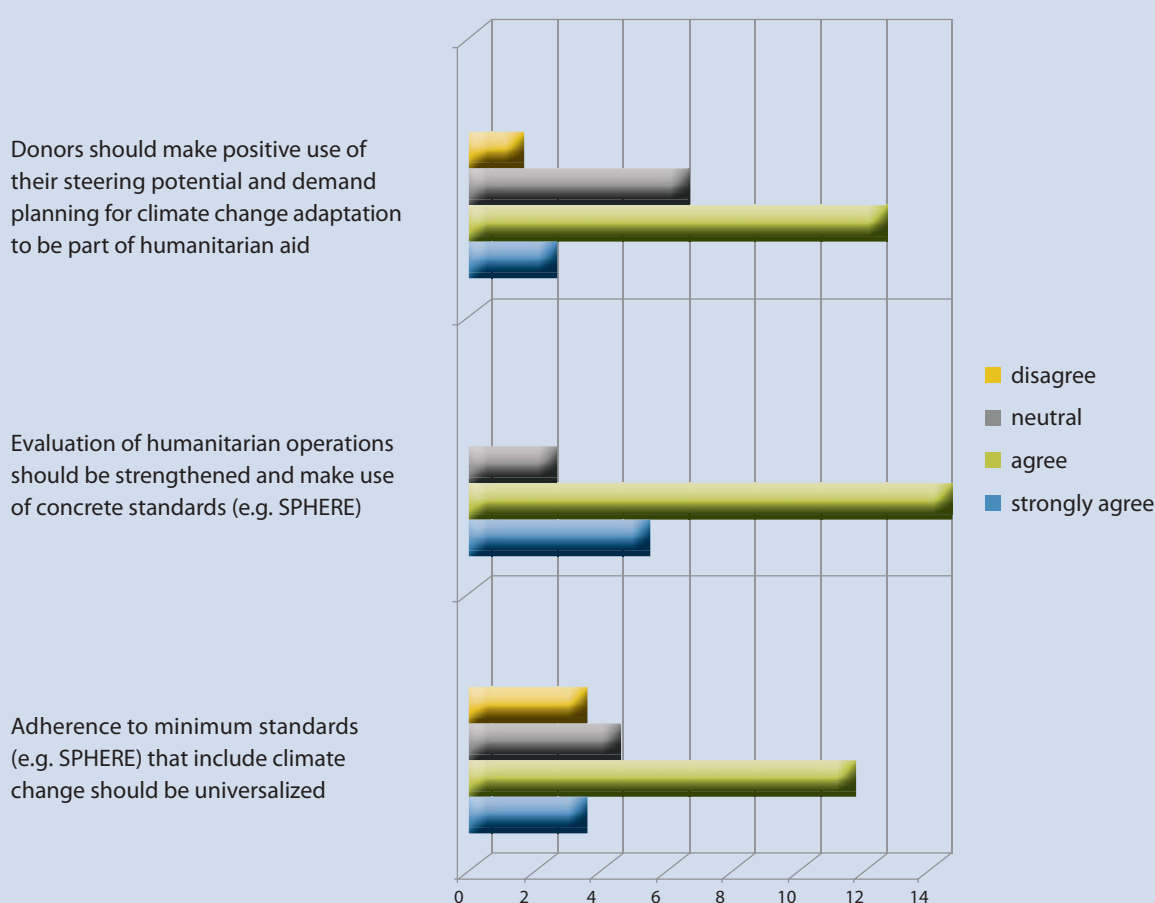
⁵ Humanitarian Accountability Partnership

to evaluation of delivered aid. In addition, the humanitarian imperative implies that aid is given regardless of issues such as good governance or sustainability, which has sometimes led to serious unintended side effects that have been a major source of criticism in the past (e.g. DANIDA 1996, POLMAN 2010). Consequently, and also in the light of climate change and with the goal of climate change adaptation, it will be more and more important to employ such evaluation tools in order to ensure that negative side effects of humanitarian

aid on medium and long term development towards sustainability and climate-proof development are identified and limited. Additionally, the increasing number of events for which humanitarian assistance might be needed also calls for improvements in the systematic evaluation of the effectiveness of the aid and support given to people at risk.

Through its mandate, humanitarian aid is mainly shock-driven and a response to immediate threats to human lives and

Figure 2



Expert opinion on the role of standards and evaluation in humanitarian assistance

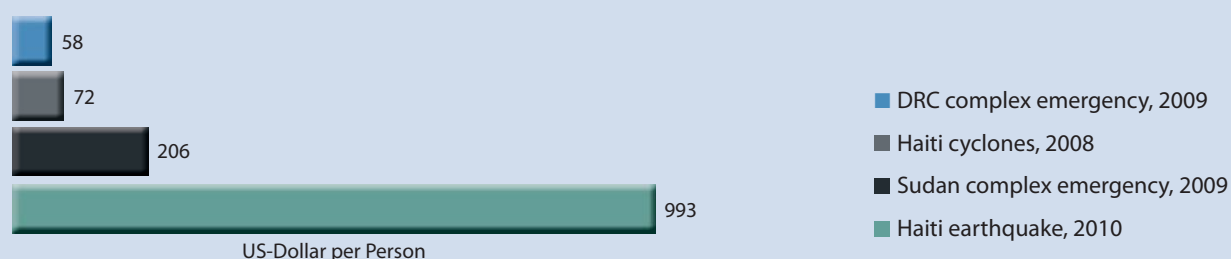
“Standards, such as SPHERE, rely upon the integrity of the individual organization and individuals who want to take it forward, but there is no absolute mechanism to make sure whether different organizations are using it in the same way” (interview no. 2).

livelihoods. Although humanitarian assistance has affiliated itself to the concept of sustainability, for example through the LRRD approach and ideas of “building-back-better”, it does not usually address underlying drivers of vulnerability or has limited options within a short time frame to reduce underlying risk and vulnerability factors effectively, which is usually undertaken by actors in development cooperation.

fact that different events and different hazard types receive different funding levels with a clear tendency towards a better funding of mega-events. Sudden-onset mega-disasters, for example, the Haiti earthquake in 2010 or the Indian Ocean tsunami in 2004, attract the highest levels of public donations. The tsunami example in particular has shown that the financing of humanitarian assistance is event-driven

Figure 3

Comparison of spending per person in humanitarian crises (GHA 2010: 14)



Source: Development Initiatives analysis based on UN OCHA FTS and CRED data

The cooperation of these two communities, especially with regard to increasing humanitarian needs, is thus crucial for effective disaster risk reduction.

4.1.2 Major points of critique

While the plurality of approaches and organizations is often seen as desirable and important to ensure impartiality and independence, it also complicates cooperation and poses a certain threat to the efficiency and accountability of aid. The diversity of agencies and stakeholders involved also fosters competing approaches with regard to fundraising and visibility that may actually be detrimental to the goal of aid. Although the organizations work according to the humanitarian imperative, not all disasters receive equal attention and are followed by a comparable amount of aid owing to certain aspects of the current set-up of humanitarian assistance. Figure 3 gives an example of the different levels of assistance that are delivered in different contexts. Clearly, public attention as well as the factor of shock plays an important role in fundraising for humanitarian assistance. Selected figures regarding the amount of funding for humanitarian aid and assistance (see OCHA FTS⁶) all underline the

(shock-driven) and there is therefore a lack of control on the amounts of funding that go into the different relief operations, which can then result in disproportionately large (or small) amounts of money being allocated. In order to better account for slow-onset and smaller-scale disasters, more money should thus be channeled through pooled funds that are not earmarked.

4.2 Humanitarian financing

Financing of humanitarian aid is rather complex, as there are many donors and recipients involved and numerous actors involved simultaneously. In general, financing of humanitarian aid is short-term oriented as it is intended to support the immediate relief effort after a disaster or crisis. Most of the agencies involved have to allocate the money they have received within a rather short time frame as humanitarian aid is set up to stay, if feasible, three to six months on the ground and then hand over to actors involved in development cooperation. Furthermore, most non-governmental organizations rely to a great extent on private donations and are thus dependent on issues that are hard to influence, such as donor fatigue in the African context (interview no. 10) and overall economic situation. Humanitarian advocacy

⁶ Financial Tracking system of the United Nations Office for the Coordination of Humanitarian Affairs

work thus has to raise greater public awareness for the need of longer term projects and disaster risk reduction in order to receive greater proportions of funding that are not earmarked to short-term disaster response (interview no 12).

According to a recent report, it is currently “not possible to track the aid from the point where it flows out from the donor to the point where it arrives with a recipient” (GHA 2010:22) as the financial tracking system only looks at the disbursement to the first recipient whereas many recipients will act as donors themselves and charge other local organizations with the actual implementation.

the future: as one of the experts outlined: “I think that most agencies have such difficulties in managing what they are now doing, that they have little time and capacities to plan for things that will happen in the future. I think many of them are struggling with what is happening now” (interview no. 4).

Although the need for preventive measures and strengthened disaster risk reduction has been recognized in general, humanitarian aid is already stretched to its limits and chronically underfunded (cf. WEBSTER ET AL 2009).

Key challenges with regard to planning for climate change adaptation are also the short-time frame and a strong post-

” It will always be the large-scale events where we will see the mobilization of international humanitarian actors and governments and so on. This will still be a relatively rare event in comparison with these very frequent, local ones” (interview no. 4).

Although international humanitarian organizations tend not to have a focus on a particular geographic region, but rather act upon the humanitarian imperative and appeals that demand their help, “humanitarian assistance is concentrated on a small number of countries. The ten largest recipients of humanitarian assistance from DAC [OECD-DAC; author’s note] donors accounted for 62.5% (US\$6.4 billion) of the total in 2008. The remaining 37.5% (US\$3.8 billion) was shared between 138 countries” (ibid: 27).

The problem of the different levels of attention that disasters and crises receive has been recognized and is addressed through the promotion of pooled funding mechanisms that are currently gaining importance. These mechanisms have the advantage of providing money that has not been earmarked and that can be accessed rapidly and be used to support forgotten emergencies and underfunded crises.

4.3 Scenario use in humanitarian assistance

In general, there is a consensus that climate change will impact on humanitarian assistance, however, the specific consequences that different levels of climate change will actually imply for humanitarian assistance is far less explored and less clear (cf. WEBSTER ET AL. 2009, EHRHART ET AL. 2009, SAVE THE CHILDREN 2010). For example, deliverers of humanitarian aid have little capacity to strategically plan for

disaster focus of humanitarian assistance as outlined by several experts. “Humanitarian assistance is after the fact, what we need is adaptive planning that reduces risk, and that planning is a development process” (interview no. 4). Although there is recognition that prevention is better and cheaper than cure, scenarios on hazard or societal development are currently not systematically used by most organizations.

4.4 The way organizations respond to climate change and its impacts

The way that organizations deliver humanitarian aid has evolved with time and already shows a lot of improvements compared with that in its early days; there is also a continuous effort to improve its delivery, for example, through the humanitarian reform process. Therefore, in this study, it is hardly possible or intended to detect the underlying causality that drives changes in humanitarian operation. The beginning of a shift towards a greater share of pooled funding mechanisms and the global cluster approach to enhance coordination in disaster response are changes that do not necessarily result from changing hazard contexts but rather from the recognition of flaws and implementation of lessons learned. One of the experts stated that, in his opinion, “the reality of the changes is that there is a better understanding of how you can handle humanitarian situations and that, for example, stockpiling is much better; it works much better if

it is carried out in a way where you have regional centers and hubs, as opposed to a single center" (interview no. 1). Large parts of the changes in response are thus part of a general learning process; nevertheless, such improvements will be all the more necessary with the additional pressures of climate change. However, compared with learning processes based on past experiences, many new challenges that have to be incorporated in humanitarian assistance in the light of climate change, have to be based on scenarios and not on learning from past, experienced processes. The following sections will juxtapose two expert positions that were seen as the predominant expectations of experts regarding climate change.

4.4.1 Much will be the same

While recent literature on the humanitarian implications of climate change tends to underline the new challenges that the humanitarian aid sector will have to face, the interviewed experts agreed that much of the humanitarian response will be the same as *"the humanitarian needs are going to be the same. It's gonna be food, it's gonna be shelter, it's gonna be medical care, it's gonna be sanitation etc."* (interview no. 1) and that *"the way to deal with humanitarian consequences of climate change is going to be very similar to what has been done and is done with the victims of political conflict or war"* (ibid).

There was somewhat of a divide between those experts who acknowledged that humanitarian aid will face greater needs without major implications for its set-up and those who saw new challenges emerging that demand new types of response (see 4.4.2). In general, there was agreement that *"regardless of the cause of natural disasters, you have to have certain basic elements in place. There will be a greater need for them and basically we know the kinds of tools and systems that are needed and they don't change very much in their nature because of climate change, but they need to build the capacity and quality of these tools"* (interview no. 4). Some experts, however, argued that basic humanitarian needs arising in emergencies are well known and that *"climate change makes these needs more numerous but not more complex"* (interview no. 5).

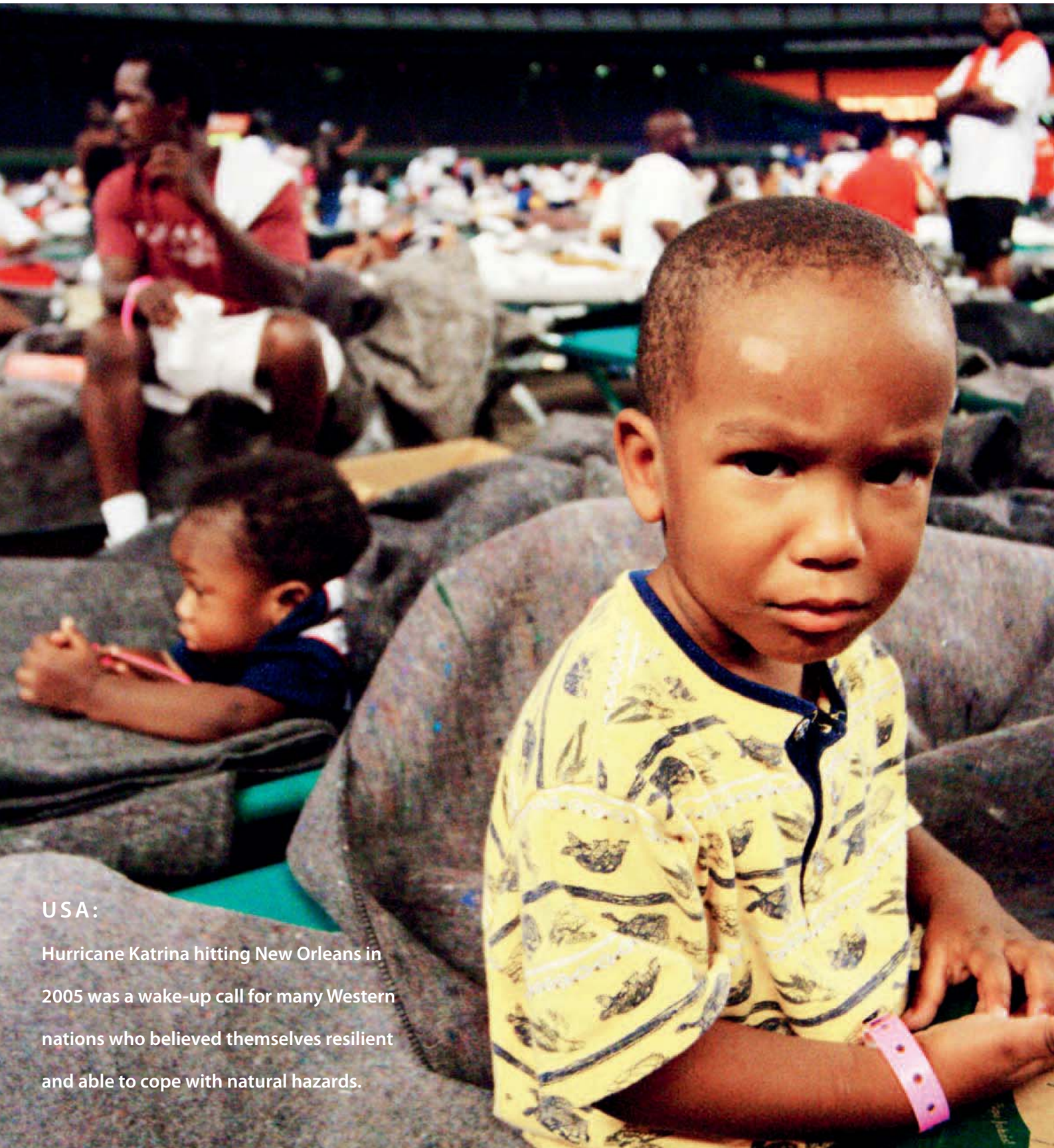
4.4.2 New types of situations

However, other interviewed experts saw major challenges arising for humanitarian aid in the long run mainly through creeping changes that are deemed triggers of large population movements and lead to unprecedented types of situation *"that the international community and international organizations have not been dealing with until now and where they will have to find solutions"* (interview no. 1). Such types of situations were judged as the real challenge as there is not yet a framework that regulates the response. Internal and international migration were mentioned by several experts as the predominant challenges that arise with climate change and slow-onset hazards such as sea-level rise or desertification: *"People will be leaving valleys because there won't be ways of growing food anymore. People will be leaving islands because the land will not be there anymore. People will have to find new locations because their surroundings will not provide them with a livelihood anymore - and those are not humanitarian concerns per se - but if they are not addressed they will lead to humanitarian needs"* (interview no. 1).

In line with the recognition of these very slow processes that were considered to cause humanitarian needs at some point down the road if not addressed beforehand, the experts stated the need for mitigation of humanitarian needs and setting up of some kind of international dialogue to foster an international policy or legal framework that supports the prevention of future humanitarian crises.

Although such long-term planning and processes do not fall into the traditional domain of humanitarian aid, some experts suggested that it will be the humanitarians who will see that there is a problem as they are the ones dealing with the symptoms or consequences of failed prevention. In this regard, the community of practice divide, which will be elaborated below, has also been mentioned as a factor that hinders disaster risk reduction and more sustainable humanitarian aid. It was suggested that humanitarian aid be adjusted as *"we are still pursuing the same objective: we want people to eat and to earn some income and to be free from international aid, but the environment has changed and therefore we have to find new techniques"* (interview no. 5).

5. Emerging challenges for humanitarian assistance



USA:

Hurricane Katrina hitting New Orleans in 2005 was a wake-up call for many Western nations who believed themselves resilient and able to cope with natural hazards.

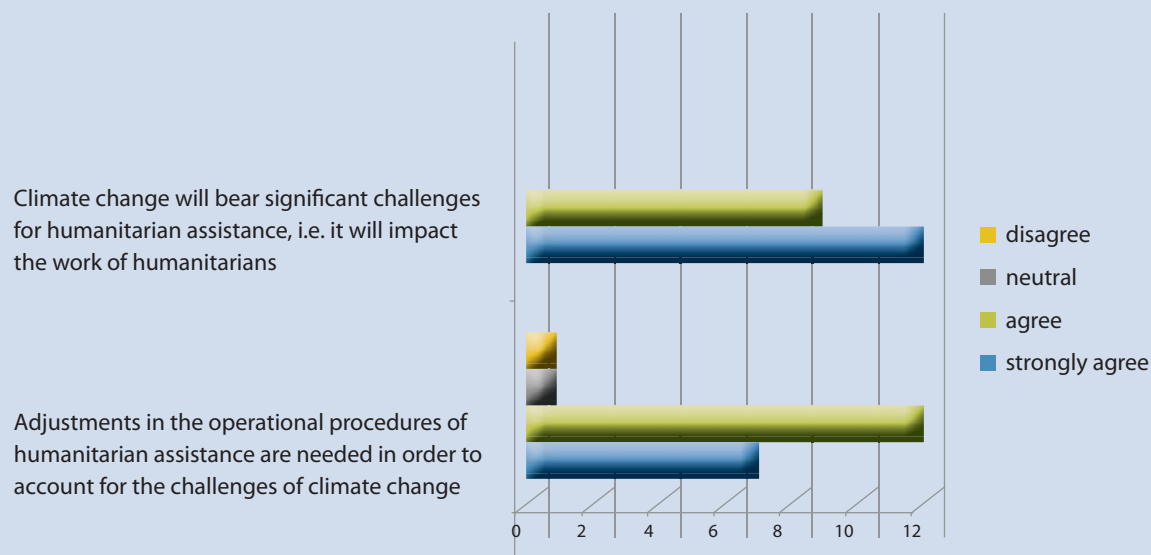
Similar to the ways in which international humanitarian aid agencies respond to disasters, emerging challenges for humanitarian assistance are often linked to more than one cause and not solely limited to climate change. Some of the challenges listed below thus exist with or without climate change but are deemed to be exacerbated by climate change impacts.

5.1 Creeping changes and cascading effects

As already mentioned in section 3.4.2, it is the creeping changes and cascading effects in particular that will lead to entirely new types of situations that the international community will have to deal with and that are judged as particularly challenging. This is because there have not yet

Figure 4

Expert opinions on climate change as impacting factor for humanitarian aid



First of all, it can be stated that all interviewed experts as well as participants of the expert workshop (see list of experts in the annex) agreed that climate change will bring significant challenges for humanitarian assistance and will impact the work of humanitarian. Most experts also agreed that operational procedures of humanitarian assistance need to be adjusted in order to account for climate change (see Fig. 4).

been established standard operating procedures or ways to deal with these types of situations, some of which are much less visible than sudden-onset disasters.

Processes such as desertification, loss of productive areas, and even urbanization were mentioned as being aggravated by climate change, which *"forces us constantly to change our way of operating. We have to change the way we approach things. We want people, for example, to be even if they have been displaced, we would like them to be self-sufficient and sustaining themselves"* (interview no. 5).

” *What we have to remember is that this is not all about the sudden events, it is also about the slowly evolving events, such as droughts and increasing impacts of vector-borne diseases which may not be very visible to the outside. We should not only think of the sudden and sort of spectacular events; there will be lots of things that will be much more gradual and difficult to identify from the outside*”

(interview no. 4).

In addition, the need to find anticipatory solutions was formulated by many of the interviewed experts who considered that *“it’s not so much a problem of not having the early warning signals; it’s more the ability and political will to respond when response should be coming”* (interview no. 4).

Long-term planning and implementation of preventive measures still seem difficult to achieve as the “disasters of the day” already stretch the available capacities – financial as well as human – to their limits and are addressed as the first priority because of normative aspects such as the humanitarian imperative. There is only a slow change in this set-up with a strong regional focus: *“at least in Europe, you see many countries who are now already doing some kind of adaptation planning, so yes, it’s happening you see investments, very large investments in Europe and, obviously, developing countries who are even more at risk have the same need, but they do not yet see the resources coming”* (interview no. 4).

5.2 Livelihoods, local capacities and assets

One of the emerging challenges for humanitarian aid concerns the sustainability of livelihoods, in several regards. On the one hand, with regard to the recovery time and need for early recovery, there is a desire to get people back to sustain their livelihoods independently as soon as possible in order to prevent long-term beneficiary dependence and undermining of livelihood strategies. On the other hand, the increasing number of hazards, particularly small- and medium-scale hazards to which already fragile livelihoods will be exposed, can be expected to erode the low coping capacities that are left and lead to crises that will very likely not draw major international attention or funding: *“If you look at the ISDR Global Assessment Report, you see this increase in small-scale, localized events and these will always be dealt with at the local and national level they will not be subjected to international fundraising, so that we have to seriously look at national capacities and managing these kinds*

of events” (interview no. 4). The issue of low-intensity disasters and the implications for humanitarian aid were also discussed at the expert workshop where several particular challenges were addressed:

- The difficulty of raising international funds for localized events and the associated need to build local capacities.
- Increasing need to be more effective at the local level, as mechanisms established at the national level often do not reach down to the community level (institutional capacities).
- Transition between humanitarian aid and longer-term development is often weak, partly because of separate funding mechanisms.

The following aims were identified:

- National governments prioritize disaster risk reduction
- Better preparedness at community level
- Vertical networks between local, national and international level that support sustainable development are established
- Educational programmes are implemented and awareness-raising is strengthened

Potential approaches to fulfill these aims were divided into two categories that related to the following:

a) General improvement of international assistance

- Increased flexibility in terms of presence in country (temporal) and funding (as limiting factor).
- Funding flexibility – thus improving the option to extend the use of the funding temporally and also in terms of other crises and disaster types.
- Common agenda of humanitarian assistance, development cooperation and governments to ensure that development cooperation works towards natural disaster risk reduction and that humanitarian assistance sets a good basis for longer-term development.
- Improved coordination and efficiency of international aid.

b) Climate change related improvement of international assistance

- Conditional funding (in terms of consideration of DRR and CCA in all projects).
- Political dialogue with governments.
- Better use of evaluation and best practice examples.
- Joint action of humanitarian assistance and development cooperation to use the added values of both communities.
- DRR and CCA checklists in project proposals
- Harmonize good practices through increasing peer pressure, for example, strengthened use of the UNISDR global platform

5.3 Financial overburden

The financial overburden of the humanitarian aid system is already a challenge as enormous funding gaps are a common problem in aid delivery (cf. RELIEF WEB, EC 2007). WEBSTER ET AL. 2009 found that *"far more resources will be required to maintain even the existing levels of preparedness and response. If we know that current levels of contributions are approximately 50-70% of what is actually appealed for, then solely maintaining existing levels would still be considered woefully inadequate"* (p. 20). The increasing frequency and intensity of hazards due to climate change will further exacerbate the situation and the *"traditional humanitarian response - centralised, logistics-heavy, and geared towards big emergencies - will be too expensive and cumbersome to be effective"* (SCHUEMER-CROSS & HEAVEN TAYLOR 2009: 29).

It was recognized in the literature as well as by the interviewed experts that funding regimes should be designed in a way that enables much higher predictability of available resources as well as greater flexibility and operating space. Most experts also agree that the overall amount of funding must increase, whereas some argue that *"increasing the available funds is not necessarily the answer"* (interview no. 2), unless transparency and accountability of resource use are simultaneously improved.

An additional challenge that has been identified is the continuous divide of the communities of practice between humanitarian aid and development cooperation, which is also reflected in separate funding streams and mechanisms that constrain integrative approaches for sustainable recovery and development. The responsibility for this divide in funding mechanisms has to be seen as lying partially with the recipient countries which often see the various organizations as providers of funding; this means that integrated projects might seem less attractive.

Potential ways of overcoming this problem are the strengthening of multi-annual funding streams to enhance predictability and sustainability (SCHUEMER-CROSS & HEAVEN TAYLOR 2009:118) and a stronger focus on disaster risk reduction, which is recognized as saving money in the long term: *"Eve-*

rything that is done for preparedness will save resources in disaster relief" (interview no. 3). Additionally, a cohesive way to address overlapping humanitarian and development issues should be established, also to further promote the LRRD approach.

5.4 Corruption and protection

Corruption is one of the issues that exist very much independently of climate change, but that holds a great challenge for humanitarian assistance in the light of climate change and increasing amounts of money that will be fed into the system. This is because humanitarian aid always involves massive injections of resources into countries with very fragile public institutions already before the emergency, while *"corruption remains a taboo topic among humanitarian agency staff, which inhibits the effectiveness of measures such as whistle-blowing mechanisms and analysis of current control systems"* (TRANSPARENCY INTERNATIONAL 2010: XI). Thus, also in the context of improving the link between humanitarian assistance in the disaster phase on the one hand and medium- and long-term reconstruction and development on the other hand, it is important to address corruption as an issue that is independent of climate change, but that might need more attention, particularly in countries that are classified as failed or fragile states and that receive funding for both climate change adaptation and humanitarian assistance. In line with this, sexual and gender-based violence was mentioned by several experts as highly pressuring issue that needs to be addressed and discussed much more. Representing the worst form of corruption, sexual and gender-based violence and refugee rights remain a crucial problem with the access to aid being used for exploitation (ibid). Although there is, of course, no direct causal link between climate change and violence of any kind, protection issues are particularly relevant in large and crowded camp situations and are deemed to relate, among others, to the available space in such camp situations. It thus requires urgent attention with regard to increasing magnitudes of disasters as well as affected urban areas in which available space for temporary shelter is very limited (interviews no.11 and 17).

5.5 Capacity limits to deal with large-scale (spatial) changes

Recent extreme events that resulted in mega-disasters, such as the Haiti earthquake and Pakistan floods in 2010, have revealed capacity limits of humanitarian assistance (interview no. 13). On the one hand, practical issues such as the accessibility of affected regions and the setting-up of logistics become much more difficult when large parts of a country, including its critical infrastructure, are affected. The breakdown of public services and local markets and

simultaneous inflow of international aid also increase the risk of long-term beneficiary dependence and challenge the coordination and leadership capacities of organizations involved.

In this regard, humanitarian aid agencies employ many mechanisms to address such issues but lack a common strategy that is capable of addressing the challenges of climate change that arise, for example, with the more frequent occurrence of such hardly manageable mega-disasters.

need to be integrated into relief work.

- Volunteers at the local level should be trained for smaller-scale disaster response, for example, in first aid and the maintenance of patient records.
- Strong coordination and good cooperation among stakeholders need to be established.
- Capacities need to be built before hazards turn into disasters.
- International responsibilities must be negotiated (e.g. concerning forced migration due to sea-level rise).

” *You need to tie the different timescales together and also tie together what has I think incorrectly in the current DRR thinking been segmented apart from the longer development - oriented DRR in terms of response oriented DRR: There is an incorrect dichotomy between preparedness for response and real risk reduction in terms of making communities less vulnerable*” (interview no. 20).

5.6 Uncertainty of hazard development and societal development

A particular challenge that becomes ever more important in the face of more frequent weather-related events and gradual climate change is the avoidance of reinstating existing vulnerabilities. This can only be achieved, if future changes and uncertainties in hazard development are accounted for. In particular, the uncertainty of future hazards should lead to a much stronger focus on vulnerability reduction and sustainability already in the direct aftermath of disasters. Humanitarian aid should further “*adapt its response to consequences of climate change, in particular through efficiency in the allocation of funds*” (ECHO 2009: 4f). In addition, it should strengthen the links between relief and development, emergency and reconstruction, and response and preparedness programming (SCHUEMER-CROSS & HEAVEN TAYLOR 2009:118).

Evaluation should be undertaken much more systematically and then be used for planning and exchange of lessons learned.

With regard to unprecedented situations and new hazards that may arise with climate change the following additional challenges will emerge:

- Lack of experience on how to handle disasters that occur for first time in a region.
- Well-trained staff (with experience from other regions)

5.7 Contingency planning and logistics

Contingency planning is a key element of humanitarian aid that largely determines the preparedness for response. It is thus a key tool for a successful and timely response that should account for the changing needs with regard to climate change. As the plans usually cover a period of five to ten years, the changes in climate in that time are relatively small, so a “*real forward-looking model-based scenario development is not really needed in our case*” (interview no.20). Nevertheless, there is a strong need to use existing climate information at various timescales, such as seasonal forecasts and El Nino/La Nina-related climate variability that can lead to a much better climate risk assessment. The following points have been identified as critical for successful planning:

- Include climate information.
- Improve vulnerability mapping.
- More dynamic contingency planning needed: there is a need to be prepared for the worst case scenario but also for smaller events. Contingency plans should not be kept static for the planning period, but rather be seen as continuous monitoring on various time-scales to better deal with uncertainties.
- Use information on all hazards and combine it with vulnerability information on which parts of the population are at risk to assess what measures need to be taken at various timescales to be better prepared.
- Decentralized stockpiling at secure places needed.

” *Humanitarian actors need to provide assistance in such a way that it really helps people in their recovery process, and development actors need to become much more aware of the elements of risk and how you can reduce risk through a development process. This is something both those communities need to work on*” (interview no. 4).

- Provisioning of enough materials in the case of simultaneous disasters, contingency planning for simultaneous catastrophes (what if stocks are exhausted and a second emergency happens?).

5.8 Communities of practice divide

Although the origins of the LRRD approach reach back to the late 1980s and the need for a better integration of approaches in development cooperation and humanitarian assistance have been clearly postulated, e.g. by the European Commission (EC 1996; see also BUCHANAN-SMITH & FAB-BRI 2005, VENRO 2006) the communities of practice often remain separated. This is largely due to separate funding streams and the divide of development cooperation and humanitarian assistance and the respective responsibilities at (international) policy level rather than due to operational challenges. Several of the interviewed experts expressed the feeling that the transition between the phases of recovery and reconstruction are still the weakest link in the LRRD chain because responsibilities are not clearly distributed (e.g. interviews no. 7, 8, 13).

It was also stated that the differentiation between relief and development does more harm than good (interview no. 13) and that the divide remains an institutional, systematic problem that still needs to be worked on.

One issue that was brought up as a general matter with a need for mainstreaming was DRR that is still undertaken

mainly by humanitarian assistance (which also funds the majority of current DRR activities), usually in the aftermath of disasters. A good starting point for better integration of humanitarian assistance and development cooperation to foster sustainable development and reduce future humanitarian needs could thus be the integration of DRR agendas with regard to climate change and climate change adaptation. Humanitarian assistance should hint local structures and development-oriented partners at looming changes and risks. This should then be followed by an adjustment or complementation of the portfolios of activities undertaken at local level to reduce existing and emerging disaster risks. One could also discuss the potential to prepare the locally experienced and development-oriented partners for undertaking humanitarian interventions regarding lower-level disasters that will not be followed by an international appeal.

5.9 Limitations of humanitarian aid

It is important to also account for the limitations of humanitarian aid which are not meant as mere shortfalls of humanitarian interventions here, but also as systematic limitations and the acknowledgement that there are boundaries to the responsibilities of humanitarian assistance. Accordingly, the demands made on humanitarian assistance should by all means be very high, but also consider the complexity of humanitarian situations and difficult circumstances under which it operates. Humanitarian needs often arise in unfavorable contexts with high levels of preexisting vulnerabilities that require careful and longer term development plan-

” *I think you could take any country and look at the humanitarian work that has been carried out and then have a look at what the development organizations are doing and very often you will see that they are not working in the same areas and the recipient countries often have some responsibility in that you know because recipient countries look at organizations as providers of funding*” (interview no. 1).

“We’ve had a situation for many years where the humanitarian assistance deals with symptoms and sees the effects of what happens when development has not taken disaster risk reduction issues into account. And we will never get anywhere on these issues unless we really manage to integrate them truly” (interview no. 4).

ning and cooperation. The adjustment of humanitarian aid should thus focus on the improvement of its effectiveness and efficiency as well as the greater need to link humanitarian work with development cooperation and create synergies. It can and should not be made accountable for solving all kinds of societal challenges, but:

- It should set a sound basis and keep the window of opportunity for fostering positive change and achieve sustainable development open as long as possible and ensure that early recovery⁷ can then be achieved, through joint action with development cooperation.
- DRR and CCA should be included where feasible, but the addressing of underlying vulnerability factors falls into the mandate of development cooperation, it should thus aim for “climate smart humanitarian assistance” but not for taking over the whole range of development activities.
- It should further strengthen disaster preparedness activities, for example, through shelter programming, social mobilization, climate risk assessment, and training and empowerment of the local population.
- It should work on a conceptual approach to climate change adaptation of humanitarian assistance.

“You will easily find statements from humanitarian actors, such as the thing that was coined during the tsunami “to build-back-better”. I think we have almost never seen this happen, I think it’s completely unrealistic to expect that the humanitarian actors are able to fundamentally change these things that cause vulnerability. This can only be achieved through a very deliberate and carefully planned and designed development process” (interview no. 4).

⁷ “Early recovery is a multidimensional process of recovery that begins in a humanitarian setting. It is guided by development principles that seek to build on humanitarian programmes and catalyze sustainable development opportunities. It aims to generate self sustaining, nationally owned, resilient processes for post crisis recovery. It encompasses the restoration of basic services, livelihoods, shelter, governance, security and rule of law, environment and social dimensions, including the reintegration of displaced populations.” (IASC 2008)

6. Quality criteria for successful humanitarian assistance in the light of climate change

BURKINA FASO:

Burkina Faso is already experiencing many drought situations, as for example in July and August 2010.



The following quality criteria are criteria and recommendations identified through the expert interviews, the expert workshops and the literature analysis. The criteria are meant to illustrate priority areas and tools as well as procedures where humanitarian assistance can actively take into account climate change-related issues. This means that the criteria provide a kind of preliminary checklist of issues that can be considered when aiming to address different aspects of climate change in humanitarian assistance as well as when aiming to examine which topics might be particularly relevant in the light of climate change adaptation. Some of the criteria clearly also refer to standards and issues which should be addressed anyhow, but which might also offer a mechanism to incorporate challenges of climate change into humanitarian aid systematically. The list is not comprehensive and therefore serves as a first entry point.

6.1 Overview of existing quality criteria

In general, there are many different criteria to account for the quality of humanitarian assistance. The VENRO⁸ quality criteria that represent a combination of principles of the IFRC Code of Conduct, international humanitarian law, SPHERE project criteria and ALNAP publications are listed in the textbox below and give an overview of criteria that are currently used to evaluate humanitarian aid.

In the subsequent section, the criteria mentioned by the interviewed experts are presented and those particularly relevant for climate change and climate change adaptation are marked in bold.

VENRO quality criteria based on 11 principles

Humanitarian imperative

Neutrality

- Humanitarian mandate of actors
- Need as the basis of selecting target groups
- Rights-based approach

Independence

- Needs assessment as a decision-making basis to conduct humanitarian aid measures
- Independence of decision-making regarding project design and implementation

Competence

- Sectoral and regional strategies of aid organization
- Briefing preparatory measures for staff, staff care
- Subject competence of staff
- Accountability and transparency in the employment of resources
- Developing competencies and the ability to learn in an organization

Coordination

- Humanitarian aid measures are coordinated with other actors
- Local structures to coordinate humanitarian aid measures are made use of
- Supra-regional/ international structures are made use of to co-ordinate humanitarian aid and enhance its quality

Coherence

- Considering overarching strategies and programmes of international aid organizations, local government/local authorities and the international community

Effectiveness

- Attaining the goals set

Efficiency

- Cost-benefit ratio of humanitarian measures that is appropriate to the situation

Relevance/Appropriateness

- Appropriateness of activities in terms of the context of humanitarian needs

Participation

- Orienting measures on partners
- Promoting self-help capacities

Avoidance of negative side effects

- Only a very slight or no occurrence of negative impacts of project activities

⁸ VENRO is the association of German development non-governmental organisations (NGOs) and consists of around 120 organizations (see www.venro.de)

6.2 Quality criteria underlined in expert interviews

Looking for ways to integrate climate change into humanitarian interventions, it seems crucial to make better use of existing standards and quality criteria with regard to being “climate-smart”, namely, most experts suggested building on the existing standards and approaches rather than creating new mechanisms for several reasons. Overall, it is important to acknowledge that there will always be humanitarian needs independent of climate change or weather-related events, in which cases assistance should be able to build on the same standards and criteria. Adding an entirely new set of standards or inventing a climate-specific mechanism for humanitarian assistance would thus lead to a further diversification of the humanitarian system and also add bureaucratic burden that should be avoided. Furthermore, several experts shared the opinion that climate change will not result in the need to fundamentally change humanitarian assistance.

Commitment of governments

- Aid organizations increasingly see themselves as cooperation partners and are dependent on the commitment of national and local governments, especially when it comes to enhancing disaster management and coping capacities of local communities. Particularly small- and medium-size crises – that are expected to increase in frequency in the context of climate change – will require a stronger involvement of local and national governments in crises detection and management.

Mode of operation of humanitarian aid

Response speed

- Response speed is highest after large, sudden-onset disasters, such as earthquakes, that receive a high level of international visibility.
- Discuss whether the response speed can also be increased for other events and how creeping changes should be addressed.

Key criteria for climate-smart humanitarian aid

- Response speed
- Early recovery
- Contextualization
- Commitment of governments
- Evaluation and lessons learned
- Transfer of knowledge
- International dialogue on future needs

The following criteria were derived from the expert interviews and should give a first insight into important points that should be considered in planning for adapting humanitarian aid in the context of climate change.

Context of humanitarian aid

Contextualization

- Many experts underlined that contextualization of any activity is crucial to ensure success. Aid should thus be adapted to the socioeconomic and cultural context on the one hand and on the environmental context and to expected hazard scenarios (linked also to climatic changes) on the other. Adaptation of strategies, methods and tools of humanitarian assistance to the changing hazard context will thus be an important factor for sustainable aid.

Early recovery

- Early recovery should be stressed in humanitarian aid as its aim is the early restoration of livelihoods in order to reduce the negative impacts that aid may have on local markets and conditions. Such restoration might also mean the creation of incentives to transform current livelihood activities in crisis-affected communities in some regions that are highly exposed to future climate change.
- Foster livelihood protection and understand longer term impacts on livelihoods.
- Stabilize livelihoods through social protection measures, for example, increasing the use of cash where local demand for goods can be created.

Quality of people who deliver aid, management and leadership

- Assuring high quality of people who deliver aid is a key challenge that will be of special concern for extreme disas-

ters that stretch the capacities of the humanitarian system.

- Staff trainings should be strengthened, also to enhance staff welfare in disaster contexts.

International dialogue on future needs

- Although climate change is generally acknowledged by the actors involved in humanitarian assistance, more concrete formulation of what humanitarian aid needs to expect from climate change and what the effects will be on the system as such need to be discussed.
- International support for vulnerability and risk maps and risk scenarios linked to climate change in order to strengthen the anticipative focus of humanitarian assistance.
- Identification of future needs based on a careful assessment of global, regional and local trends in terms of hazards, vulnerability and risks.

Standards in the field

- Universalized adherence to standards, which of course need to be contextualized, is seen as a chance of progressing towards a more common and accountable approach that enables learning processes and improvement of aid to account for climate change.
- Level of universalization and potential of institutionalization of standards should be discussed.

Evaluation and lessons learned

- Stronger mechanisms should be built up that allow the evaluation of aid against concrete criteria (promote, for example, the use of ALNAP evaluation guidelines).
- Post-disaster analysis should be used as a planning tool.
- Improve the financial tracking system to strengthen synergies, joint lessons learned and information exchange between different stakeholders.

Transfer of knowledge

- Knowledge and experiences need to be exchanged and brought to newly exposed regions or areas.

Improve institutional set-up

- Emergency management should be maintained in a key institution or ministry that has the capacity to take important decisions fast and can influence other ministries and sectors.
- Combine centralized and decentralized approaches.

A key criterion mentioned to ensure the integration of climate change in humanitarian planning was the need “to have some form of international dialogue on what the expectations, what the risks are, based on the scientific evidence and how the international community is going to cope with these things” (interview no. 1). Existing platforms such as the UNISDR Global Platform for Disaster Risk Reduction should be used to foster such dialogue and also discussions on the way forward for a “more cohesive, a more comprehensive approach of what the issues are that organizations in the development world and in the humanitarian world consider” (interview no. 1).

Those in the international humanitarian system need to discuss their expectations for climate change and start adjusting their contingency planning to broaden the planning horizon of humanitarian aid and increase its preparedness for future disasters and complex emergencies. Such planning should be matched with post-disaster assessments and identification of current bottlenecks of humanitarian assistance to make better use of humanitarian evaluation and improve response. The criteria outlined above provide an important input for this discussion and might also contribute to a better understanding of how humanitarian aid can account for climate change and climate change adaptation.

III. Recommendations



CHILE:

Alejandro Sanchez, a farmer from Chile, had to give up his land as it became too dry for cultivation.

The following recommendations are focusing on key aspects and are listed in bullet point format. They are based on the in-depth discussion of various relevant factors mentioned above. Consequently, the recommendations provide a basis to enhance quality criteria for humanitarian assistance in the light of climate change; however, owing to the complexity of different crises and disasters, the recommendations remain in a more general format that might be applicable to various regions and crisis contexts. The recommendations are systematized into issues related to a) the changing hazard context, b) the norms of humanitarian assistance and c) the structures and information needs.

Changing hazard context

- Explicitly address climate change and its impacts on humanitarian aid in key international documents, such as the IASC Contingency Planning Guidelines (2007) and UNISDR's "Disaster Preparedness for Effective Response" (2008)
- Humanitarian assistance in the context of climate change needs to establish mechanisms that allow for a better identification of medium- and small-scale crises that are likely to become more frequent. Mechanisms have to be put in place to inform donors and the media about the need for additional funding to effectively serve people at risk from small- and medium-scale crisis situations in various places around the world.
- Urban focus: Climate change and global trends such as urbanization and increasing population densities in coastal zones, call for improvements in the approaches and tools for the delivery of humanitarian aid in urban areas. Specific recommendations encompass closer cooperation between humanitarian aid organizations, urban planners and providers of critical infrastructure that is essential for effective emergency and disaster management before crises and disasters are occur.

Norms of humanitarian assistance

Make response more predictable (standards of intervention, funding)

- Improve the use of available mechanisms such as ALNAP evaluations and SPHERE standards and extend SPHERE to coordination issues in order to better account for climate change stakeholders.

Focus on vulnerability

- Humanitarian assistance needs adjustment of its shock-driven approach towards a priority focus on vulnerability, strategic interventions and preparedness. This preparedness focus for humanitarian assistance should also ac-

count for climate change in all components of preparedness planning (e.g. country priorities).

- Coordinate with development cooperation agencies on the need to address capacity-building and vulnerability reduction at the local level by using scenarios
- Explore the potential to also prepare local development-oriented partners to undertake smaller humanitarian interventions (regarding the increasing frequency of lower-level disasters).

Donor-driven adherence to standards

- Funding based on quality criteria (e.g. use of DRR and CCA checklist).
- Funding mechanisms must become more flexible (e.g. funding for small disasters without an international appeal process) and predictable (agencies need to be able to plan beyond an annual budget).
- Umbrella for DRR and CCA funds.
- Tracking system that allows identification of what money is spent on to promote potential synergies between DRR and CCA, currently funded and implemented by different donors or stakeholders.

Structures and information needs

Adjust contingency planning

- Be prepared for different-sized disasters that will need different kinds of equipment.
- Undertake dynamic planning also in terms of temporal scale: differentiate between levels of preparedness for different intensities of sudden-onset hazards; also ensure better use of seasonal forecasts and longer-term trends. Keep the plan dynamic and use it as a continuous monitoring process.
- Address the potential of shared access to resources and stocks.
- Foster volunteerism to strengthen local-level preparedness, particularly in order to promote anticipatory action towards climate change-related hazards.

Start conceptual discussion and create a sound information base for what humanitarian assistance needs to expect from climate change:

- Use the UNISDR global platform for strategic discussions on the development of humanitarian needs.
- Climate risk assessments (see also below) – Identify potential tipping points of communities at risk as well as limits of humanitarian aid with regard to cascading effects and complex emergencies.
- Move from experiential planning and learning processes to a forward-looking approach and scenario-based planning.

Governance and advocacy work

- Humanitarian assistance and development cooperation should jointly lobby for DRR (impact-driven, post-disas-

ter and longer-term vulnerability reducing DRR) to create political dialogue also with regard to creeping changes (e.g. sea-level rise and small island developing states, or Himalayan glacial melting and future water scarcity).

- Promote vertical networks: Governments need to be aware of local needs and priorities and vice versa.
- Dialogue with governments on how to best put adaptation money to use to protect the most vulnerable.

Climate risk assessment

- Use climate risk assessment as basis for recovery and reconstruction; use the post-disaster window of opportunity and awareness of people to foster change and implement training activities.
- Identify logistical bottlenecks based on scenarios.
- Use participatory approaches to incorporate local knowledge and sensitize the local population to climate change-related challenges.
- Communication: Communicate through locally respected people or organizations to ensure that people trust the received information and build climate change awareness to enable people to assess their own risk.

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ANNEX

A) Experts interviewed for the study

John Horekens | Independent Consultant

SPHERE Project | John Damerell, Project Manager

Dieter Farrenkopf | Independent Consultant

Swedish International Development Cooperation Agency | Johan Schaar, Director, Department for Policy Support

United Nations High Commissioner for Refugees (UNHCR) | Jean-Francois Durieux | Director, Division of Programme Support and Management

United Nations Office for the Coordination of Humanitarian Affairs(OCHA) | Roy Brooke | Emergency Preparedness Section

European Commission Humanitarian Aid & Civil Protection Department (ECHO | Sandro Cerrato, Policy Officer

German Federal Foreign Office | Volker Erhard, Arbeitsstab Humanitäre Hilfe

World Vision Germany | Hans-Peter Zervas, Team Leader Technical Advisory Group, International Programmes

Swiss Agency for Development and Cooperation | Franz Stössel, Focal Point Disaster Risk Reduction

Transparency International | Roslyn Hees, Senior Advisor

Diakonie Katastrophenhilfe | Peter Rottach, Project Coordinator, „Disaster Prevention in the Context of Climate Change“

Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP) | John Mitchell, Director

German Federal Ministry for Economic Cooperation and Development | Martina Vatterodt, Department of Development-oriented Emergency and Transitional Aid

Caritas International | Jürgen Lieser, Vice-Head of Department

CARE Germany | Peter Runge, Director of Programmes

International Federation of Red Cross and Red Crescent Societies | Yvonne Klynman, Senior Officer, Community Based Disaster Preparedness

Asian Disaster Preparedness Center | Aslam Perwaiz, Program Manager, Disaster Management Systems

World Food Programme, | Carlo Scaramella, Coordinator Climate Change and Disaster Risk Reduction

Red Cross/Red Crescent Climate Centre | Maarten Van Aalst, Associate Director

B) Workshop

Programme

9:00 - 9:15	Welcome Coffee
9:15 - 9:30	Welcome <i>K. Zentel / DKKV</i>
9:30 - 9:40	Research challenges and questions: Humanitarian Assistance and Climate Change <i>J. Rhyner / UNU-EHS</i>
9:40 - 10:10	Introduction to Study Results: Climate Change and its implications for humanitarian assistance <i>J. Birkmann, D. Krause / UNU-EHS</i>
10:10 - 10:30	Discussion <i>Moderation: K. Zentel / DKKV</i>
10:30 - 10:50	Case Study Pakistan <i>A. Durrani / Pakistani Red Crescent Society</i>
10:50 - 11:15	SPHERE Standards: Revision of the Standards <i>J. Damerell / The SPHERE Project</i>
11:15 - 11:30	Coffee Break
11:30 - 12:00	Discussion <i>Moderation: T. Klose / German Red Cross</i>
12:00 - 13:00	Creeping Changes and Humanitarian Assistance (IPCC discussion) <i>J. Birkmann / UNU-EHS + A. Perwaiz / ADPC</i>
13:00 - 14:00	Lunch
14:00 - 15:45	Break out groups Climate Change and increasing number of events (frequency and challenges for local capacity building) <ul style="list-style-type: none"> • How to deal with accumulation of effects of smaller events (erosion of coping capacities) that - singled out - do not receive international attention? • Whose responsibility is the strengthening of local capacities? Need for greater integration of humanitarian assistance and development cooperation? <i>Moderation: T. Klose / German Red Cross</i> Magnitude of disasters under climate change (challenges for the capacities of humanitarian organizations) <ul style="list-style-type: none"> • How can humanitarian assistance improve contingency planning/be prepared for several large-scale disasters that may happen at the same time? • Can humanitarian assistance contribute to disaster risk reduction and climate change adaptation and, if yes, by which means? <i>Moderation: F. Stössel / DEZA</i> Financial mechanisms of humanitarian assistance – weaknesses and opportunities <ul style="list-style-type: none"> • What needs to change in humanitarian funding for the actors to be able to cope with more frequent and intense disasters in the future? • How can greater flexibility (for disbursement) as well as predictability (for longer-term planning purposes) of funding be achieved? <i>Moderation: J. Birkmann / UNU-EHS</i>
15:45 - 16:30	Presentation of break out groups <i>Moderation: A. Perwaiz / ADPC</i>
16:30 - 16:45	Follow up activities and closure <i>K. Zentel / DKKV</i>

Questions for discussion

- What is the role of trend analysis to support a proactive, vulnerability-focused approach?
- Does humanitarian aid have to prepare for increasing number of extreme magnitude events?
- Are we entering a phase of unmanageable crises?
- Are there simply limitations to humanitarian aid that have to be accepted?
- Can humanitarian aid achieve more than all eviation of symptoms?
- What can be expected from humanitarian aid?
- Are there ways to enhance capacities of the humanitarian system?
- What information can science provide to the humanitarian system to enable strategic planning decisions?
- Can humanitarian aid move towards a better preparedness/anticipatory approach?
- How can one create windows of opportunity before hazards turn into disasters?
- Do theoretic concepts and the rhetoric of humanitarian aid need a reality check?
- Concepts for sustainability in humanitarian aid exist and are not particularly new, e.g. "building back better", what hinders their successful implementation?
- LRRD debate originated in the late 1980s, why has it not come further?
- How can the institutional financing gap be closed?
- How can incentives be set that improve/enhance the commitment of national governments to follow an integrated approach?

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