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Humanitarian Policy and Practice in a Changing Climate

Guiding Principles for Practitioners

By: Sigrid Nagoda, Marianne Mosberg and Siri Eriksen

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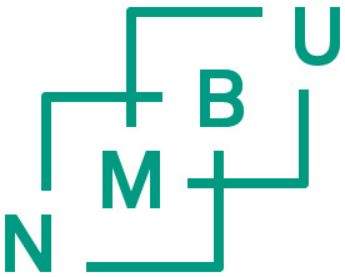

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EXECUTIVE SUMMARY

Humanitarian policies and practices unavoidably have both positive and negative impacts on various aspects of the vulnerability context it aims to address; hence, how we design and implement humanitarian interventions has an impact on future vulnerability to climate change. On one hand, humanitarian interventions risk reinforcing existing vulnerability patterns by increasing the gap between those who benefit from different programmes and those that remain marginalized. On the other hand, addressing climate change may provide new opportunities for transforming the development pathways that create vulnerability in the first place. While the main objective of humanitarian assistance is – and must be – to save lives and alleviate suffering, it makes a lot of sense to do so in a way that also reduces longer-term vulnerability and prevents the recurrence of humanitarian crises.

This report outlines a framework for integrating climate change adaptation concerns into humanitarian policy and practice. Building on case study research from seven different countries in Asia and Africa, including Nepal, Bangladesh, Pakistan, Ethiopia, Zambia, Malawi and Kenya, the report sets out a set of guiding principles for efforts to reduce longer-term vulnerability and limit the recurrence of humanitarian crises. Research for the report was conducted between 2012 and 2016 as part of the international research project '*Courting Catastrophe? Humanitarian Policy and Practice in a Changing Climate*'.

Research findings highlight that climate change intersects with humanitarian crises and how they are managed in four main ways. *First,* many disasters are climate-related and climate change may exacerbate the frequency and intensity of extreme weather events. *Second,* climate change may contribute to social changes such as poverty patterns that influence the nature of humanitarian crises. *Third,* how a non-climatic disaster is handled is critical for how vulnerable a community may be to future climate events, and *fourth,* humanitarian actions influence any move towards climate resilient development pathways. These insights are fundamental for understanding how to better incorporate climate change concerns into humanitarian policy and practice.

«Humanitarian interventions risk reinforcing existing vulnerability patterns»

Comparing findings from across the seven case studies further reveals five key 'lessons learned' that need to be taken into account if humanitarian aid is to contribute to transformative and sustainable climate change adaptation:

1. Vulnerability is complex and its root causes are often multidimensional,
2. Lasting solutions to humanitarian crises require that root causes of vulnerability are identified and addressed,
3. Power relations are important drivers of differential vulnerability patterns at the local level and shape policy processes and their outcomes,
4. Poorly designed humanitarian interventions risk enhancing local vulnerability patterns and exacerbating inequity,

5. Preparedness and planning is key for avoiding protracted crises and ensuring appropriate early response and recovery.

With these realizations in mind, this report suggests five guiding principles for how humanitarian actors can ensure their efforts contribute to climate resilient development pathways, building on the five principles of sustainable adaptation described in Eriksen, et al. (2011) and Eriksen and Marin (2015):

Principle 1: Recognize the context for vulnerability, including multiple stressors

- *Objective:* Gain a thorough understanding of the root causes of differential vulnerability and strive to address these through humanitarian actions.
- *Potential action(s):* In the event of a disaster; review previous vulnerability assessments (internal and external) from the affected location, and conduct a rapid contextual vulnerability assessment that focus on social, political, cultural, economic and physical causes of vulnerability, including marginalization processes and power relations. Focus specifically on patterns of differential vulnerability.

Principle 2: Acknowledge that differing values and interests affect adaptation outcomes

- *Objective:* Gain a nuanced understanding of differences in interests, needs and viewpoints of key stakeholders and actors and recognize how certain humanitarian actions might favor certain interests over others.
- *Potential action(s):* Incorporate a stakeholder mapping into the contextual vulnerability analysis, and focus specifically on identifying the needs, views and interests of the most vulnerable people vis-à-vis the most powerful.

Principle 3: Integrate local knowledge into humanitarian policy and practice

- *Objective:* Ensure that the knowledge and interests of the most vulnerable are taken into account in the design and implementation of humanitarian policies and actions.
- *Potential action(s):* Facilitate bottom-up flows of information: Develop a strategy for how to incorporate local knowledge and ensure meaningful participation of the most vulnerable in decision-making, design and implementation of activities - also in emergency situations - and include the strategy in contingency/disaster management plans.

Principle 4: **Consider potential feedbacks between local and global processes**

- *Objective:* Recognize that humanitarian actions may directly or indirectly influence - and be influenced by - processes that shape vulnerability at other temporal or geographical scales, including contributing to greenhouse gas emissions. Strive to avoid reducing vulnerability for some at the expense of others.
- *Potential action(s):* Develop comprehensive contingency/disaster management plans that are harmonized with, and contribute to, broader climate change and development objectives.

Principle 5: **Empower vulnerable groups in influencing development pathways and their climate change outcomes**

- *Objective:* Strengthen the ability of marginalized people and vulnerable groups to influence decision-making processes before, during and after emergencies.
- *Potential action(s):* In addition to ensuring the meaningful participation of vulnerable and marginalized people in the design and implementation of humanitarian activities, ensure that the strengths and capacities of 'vulnerable groups' in humanitarian action are supported and demonstrated through, for instance, giving them specific roles in emergency response or recovery activities.

The observations made and questions posed in this report are intended to inspire reflection within adaptation and humanitarian communities about how we support transformational change through our daily decision-making and practices. Deliberate transformations towards more just and equitable development pathways do not, however, imply the top-down imposition of livelihood changes on vulnerable groups in the name of climate change (or humanitarian crises). On the contrary, deliberate transformation means opening up space for contesting current development pathways, and questioning our assumption about what constitutes 'good development' (and for whom), in order to empower vulnerable groups in decision-making and strengthening their livelihood options. It may also mean transforming the way that aid – including humanitarian aid – operates.

Perhaps the starting point needs to be to create space for reflection within our own organizations – research and practitioner alike – regarding the need to question our own assumptions, practices and processes underlying how we understand and do development. Supporting transformational adaptation towards more just and sustainable adaptation is more about transformation of our own organizations than about transforming the practices of 'vulnerable populations'. Importantly, such transformative change means going beyond thinking about a particular practical action – to thinking about the process behind that particular action.

CHAPTER 1. INTRODUCTION

Humanitarian aid[1] unavoidably have both positive and negative impacts on various aspects of the vulnerability context it aims to address; hence, how we design and implement humanitarian interventions have an impact – sometimes a substantial impact – on future vulnerability to climate change. On the one hand, humanitarian interventions risk reinforcing existing vulnerability patterns by increasing the gap between those who benefit from different programmes and those that remain marginalized (Wisner 2001; Mosberg et al. 2017; Nagoda et al. 2017). On the other hand, addressing climate change may provide new opportunities for transforming the development pathways that create vulnerability in the first place. While the main objective of humanitarian assistance is – and must be - to save lives and alleviate suffering, it makes a lot of sense to do so in a way that reduces longer-term vulnerability and prevents the recurrence of humanitarian crises.

Humanitarian actors have over the past few years increasingly engaged in addressing vulnerability from a long-term perspective, as demonstrated by the increasing focus on resilience, disaster risk management and disaster preparedness, as well as the growing emphasis on the transition from immediate disaster response to recovery and long-term risk reduction (Marin and Næss 2017). However, considerations about how

[1] See definitions of key concepts used in this report in the Glossary in Annex 1.
* Photo credits: see page iii

humanitarian action may support transformational climate change adaptation are often missing. There are still a number of barriers that prevent many humanitarian organizations from developing policies and implementing activities that contribute to more sustainable and climate resilient development pathways, such as the predominance of uni-sectoral interventions and top-down decision-making processes, rigid funding mechanisms, complex political contexts, confusions regarding key concepts and a lack of understanding of how to reduce longer-term vulnerability in practice.

This report outlines a set of guiding principles that aim at supporting practitioners and policy-makers in their efforts to integrate longer-term climate change adaptation concerns into humanitarian policies and practices. A great number of guidelines already exist within the field of humanitarian assistance, and these guiding principles do not aim to replace these, nor the more general humanitarian principles. Rather, the guiding principles described in this report constitute a set of key principles explaining the significance of climate change for humanitarian policy and practice, that aim to help organizations understand how their existing approaches and guidelines link with climate change adaptation, where gaps or barriers exist, and what opportunities and potential entry points there are for humanitarian interventions to help drive transformative types of adaptation. As such, the principles aim to offer guidance on how humanitarian actors at different levels can better address the root causes of vulnerability. The principles aim to facilitate reflection around the questions: What are we already doing that contributes to adaptation, what do we need to do differently, and what are we not doing that we need to be doing?

This report builds on research conducted on various types of humanitarian interventions - and the institutional and policy context within which they take place - in seven countries in Asia and Africa. Various types of humanitarian interventions – including food aid/food for work, resilience and integrated food security and livelihood building, livelihood recovery, participatory games, forecast based financing, productive safety net/social protection, disaster risk reduction/disaster risk management and preparedness – were studied in Ethiopia, Kenya, Zambia, Malawi, Nepal, Pakistan and Bangladesh. Empirical findings from the case studies are further described in a special issue of IDS Bulletin (2017)[2] as well as in a documentary[3] and multiple research briefs[4].

The research was designed and conducted in collaboration with humanitarian organizations, and the guiding principles described in this document emerged from on-going discussions with practitioners and policy makers, as well as interviews with different humanitarian organizations. Through an iterative process, research findings have been reviewed and analyzed in the context of daily challenges in humanitarian work. We hope this document addresses some of the questions and needs practitioners and policy makers have in terms of incorporating climate change concerns into their humanitarian efforts.

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[2] IDS Bulletin volume 48, issue 4, 2017: "Courting Catastrophe? Humanitarian Policy and Practice in a Changing Climate", URL: http://bulletin.ids.ac.uk/idsbo/issue/view/226

[3] Courting Catastrophe Documentary, URL: https://www.youtube.com/watch?v=2cqteAMdbek

[4] Courting Catastrophe Research Briefs, URL: https://www.nmbu.no/en/faculty/landsam/department/noragric/research/clusters/chsd/projects-and-activities/courting-catastrophe/policy-briefs

1.1 Humanitarian Assistance and Climate Change Adaptation

Humanitarian assistance and climate change adaptation are often regarded as two completely separate sectors carried out by different actors, governed trough different policies, funded through different mechanisms and serving as different solutions to different problems. However, the growing recognition that climate change plays a role in exacerbating the scale, scope and frequency of current and future disasters has led to calls for smarter and more integrated approaches to reducing climate vulnerability as part of humanitarian efforts. This report takes as a premise that although there are fierce debates regarding whether or not humanitarian aid should focus its attention only on the saving of lives in times of crisis (Bennett and Pantuliano 2016), the humanitarian sector unavoidably needs to engage in broader and longer term concerns like climate change in order to effectively save lives in the short term, as further explained in Eriksen et al. (2017).

Indeed, the humanitarian and development communities of practice have for decades struggled to bridge short-term reactive measures with longer-term development approaches, a challenge that is becoming even more pressing in the face of climate change. Climate change adaptation is a young and rapidly developing field of enquiry that offers new approaches to improving the way climate risk is managed in humanitarian interventions, and can contribute with insights regarding how to tackle the challenge of responding to acute humanitarian needs while simultaneously addressing longer-term vulnerability concerns. At the same time, humanitarian organizations have a wealth of experience and knowledge in understanding vulnerability that the adaptation field can draw on and learn from. Vulnerability to climate events manifests itself in its most extreme form in humanitarian crises, and such disasters may often serve as a good starting point for understanding which groups are the most vulnerable, and what social and environmental processes lead to their vulnerability.

In this research project, we find that climate change intersects with humanitarian crises and how they are managed in four main ways: *First,* many disasters are climate-related; *second,* climate change may contribute to social changes such as poverty patterns that influence the nature of humanitarian crises; *third,* how a non-climatic disaster is handled is critical for how vulnerable a community may be to future climate events; and *fourth,* humanitarian aid can either support or undermine transformations towards climate resilient development pathways pathways.

«Disasters may often serve as a good starting point for understanding which groups are the most vulnerable, and what social and environmental processes lead to their vulnerability»

a) Many disasters are climate-related

First, there is concern that climate change will lead to an increase in humanitarian crises linked to extreme events such as cyclones, droughts and

floods (Challinor et al. 2016*)*. Since climate variability and change can play an important role in triggering more severe and frequent humanitarian disasters, climate change adaptation needs to be integrated in various dimensions of humanitarian policy and practice. However, research and prior experiences have demonstrated that disasters, or humanitarian crises, are seldom caused by extreme weather events or shifts in weather patterns alone. Instead, they are caused by the interaction between a hazard and an exposed and vulnerable population. A natural hazard is thus not a disaster in itself, but the hazard may result in one if it occurs within a vulnerable socio-environmental context characterized by for example conflict and political instability, socio-economic marginalization patterns, fragile institutions, poor infrastructure and inadequate social welfare provision (Eakin and Lemos 2006; Reid and Vogel 2006; O'Brien et al. 2007; Twigg 2015). In line with this, the Intergovernmental Panel on Climate Change defines a 'disaster' as "(s)evere alterations in the normal functioning of a community or a society due to hazardous physical events interacting with vulnerable social conditions, leading to widespread adverse human, material, economic, or environmental effects that require immediate emergency response to satisfy critical human needs and that may require external support for recovery" (IPCC 2012: 5).

Economic losses from weather- and climate-related disasters have increased over the last few decades, but with large spatial and inter-annual variability (IPCC 2012). Although the general knowledge of climate change based on prediction and projections has increased, the exact future consequences of global trends on particular geographical areas or climate extremes are difficult to predict. According to IPCC (2012), a mean warming in global temperatures will have differential impacts on temperatures across seasons and geographic areas, with the highest warming projected for inland and polar areas. This, in turn, has implications both for precipitation and wind patterns, including shifts in the monsoon and other weather systems. A shift in mean temperatures also leads to a shift in climate variability, with the potential for an area experiencing more (or less) intense climate events, more (or less) frequent events, or new types of extreme events not experienced in an area before (see table 1).

«A natural hazard is thus not a disaster in itself, but the hazard may result in one if it occurs within a vulnerable socio-environmental context»

Table 1: Some trends in climate extremes, from IPCC (2012: 7).

Phenomenon and direction of trend	Assessment that changes occurred (typically since 1950 unless otherwise indicated)	Assessment of a human contribution to observed changes	Likelihood of further changes in the early 21st Century	Likelihood of further changes in the late 21st Century
Warmer and/or fewer cold days and nights over most land areas	Very likely	Very likely	Likely	Virtually certain
Warmer and/or more frequent hot days and nights over most land areas	Very likely	Very likely	Likely	Virtually certain
Warm spells/ heat waves. Frequency and/ or duration increases over most land areas	Medium confidence on a global scale	Likely	Not formally assessed	Very likely
Heavy precipitation events. Increase in the frequency, intensity, and/ or amount of heavy precipitation	Likely more land areas with increases than decreases	Medium confidence	Likely over many land areas	Very likely over most of the mid-latitude land masses and over wet tropical regions
Increases in intensity and/ or duration of drought	Low confidence on a global scale	Low confidence	Low confidence	Likely (medium confidence) on a regional to global scale
Increases in intense tropical cyclone activity	Low confidence in long term (centennial) changes	Low confidence	Low confidence	More likely than not in the Western North Pacific and North Atlantic
Increased incidence and/ or magnitude of extreme high sea level	Likely (since 1970)	Likely	Likely	Very likely

b) Climate change forms part of socio-environmental change and influence the nature of humanitarian crises

Second, climate change may contribute to social changes and conditions that influence the nature of humanitarian crises and what types of humanitarian interventions are required. In addition to any direct effect of climate change increasing the incidence of extreme events that may trigger humanitarian crises, climate change may also intersect with social changes such as poverty generation, changes in food production, spread of diseases, ecological changes, and altered settlement and migration patterns.

Climate change is increasingly understood as forming part of multiple socio-environmental stressors that shape patterns of vulnerability (Leichenko and O'Brien 2008). In particular, climate change may contribute to the emergence of new groups of people living in poverty, including in non-poor countries, and contribute to plunging transient poor groups into chronic poverty (Olsson et al. 2014). Figure 1 below shows how poverty traps may emerge where multiple social and environmental stressors intersect, climate change acting as a threat multiplier rather than a direct cause of poverty.

In the case of highland Bolivia, which the figure below illustrates, three stressors (including water shortages (numbered 1), market uncertainties (2) and flash floods (3)) all at high intensity at the same time caused a downward livelihood trajectory for many households (thick line, numbered 5), amplified by policies that made land access difficult for the poor (4) (Olsson et al. 2014). When households are unable to recover from repeated shocks, livelihoods may be trapped in a downward trajectory of poverty. Poverty patterns exemplify social conditions and changes that are critical for the severity of humanitarian crises, as well as the nature of vulnerability, and the distribution of vulnerable groups. Hence, poverty and vulnerability patterns generated by multiple stressors including climate change determine how humanitarian emergencies develop and the types of measures required to tackle them. Ideally, humanitarian aid should form part of potential policy responses (7) that set vulnerable households on a positive livelihood trajectory towards increased resilience.

«Poverty and vulnerability patterns generated by multiple stressors including climate change determine how humanitarian emergencies develop and the types of measures required to tackle them»

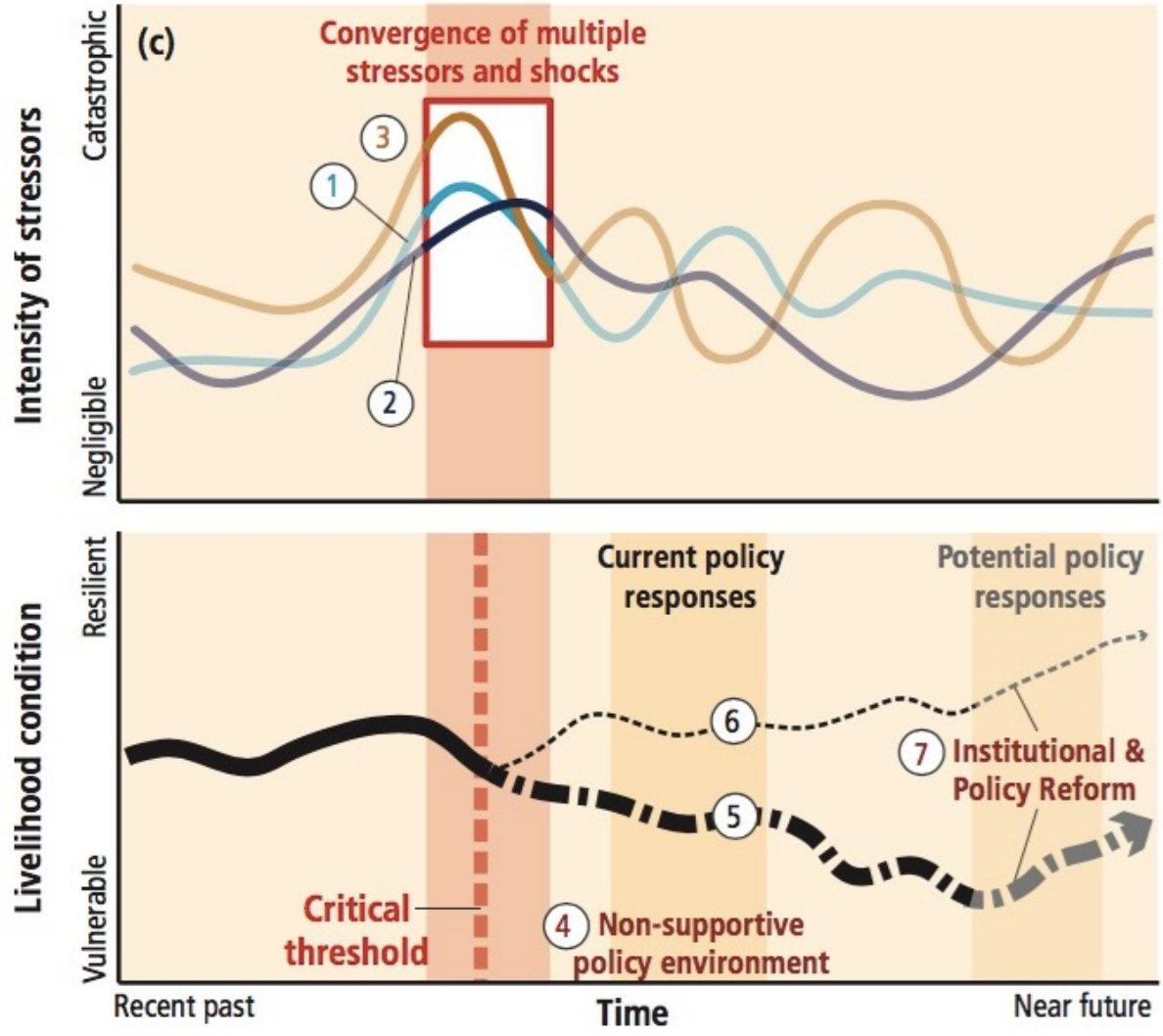

Figure 1: Illustrative representation of a case study from Bolivia that describes livelihood dynamics under simultaneous climatic, environmental and socioeconomic stressors, shocks and policy responses leading to differential livelihood trajectories over time, taken from Olsson et al. (2014).

c) How non-climatic disasters are handled influences vulnerability to future climate events

Third, and related; how a non-climatic disaster is handled may be critical in determining how vulnerable a person or population may be to future climate events. Humanitarian assistance provided to relieve suffering and save lives in the aftermath of non-climatic disasters such as earthquakes, volcanic eruptions or nuclear accidents, will also contribute to either reduce, consolidate or exacerbate vulnerability, and should take into consideration longer-term implications of the emergency response for issues such as power relations, inequities, livelihoods and food security. As pointed out by Wisner (2001), a climatic event that comes on top of or after a disaster, such as an earthquake or conflict, often intensifies a humanitarian crisis. For example, the earthquake in Nepal in 2015 killed around 9000 and destroyed several hundred thousand buildings (Reuters 2015). According to the Red Cross, four million people were still living in sub-standard temporary shelters a year after the disaster, making them very vulnerable to climatic events (IFRC 2016).

In the case study from Nepal, Nagoda (2017) found that humanitarian crises – and food aid responses aiming to tackle them – contribute to entrenching dependencies between rich and poor, thus fueling patterns of vulnerability. Non-climatic humanitarian crises can thereby form part of the multiple stressors exemplified in Figure 1 above and hence contribute to the generation of diverging livelihood trajectories and greater inequity. However, even in a situation where many households are negatively affected by a crisis, some households may also take advantage of the situation (such as through their ability to sell food at higher prices, enhanced access to particular resources), capitalize on others' losses and improve their own livelihood situation (Olsson et al. 2014). Policies and interventions, while helping some groups, may actually serve to exacerbate downward livelihood trajectories.

d) Humanitarian actions influence the emergence of climate resilient development pathways

Fourth, humanitarian interventions influence development pathways more generally, and may support development trajectories characterized by sustainability, justice, equity and climate resilience, *or* pathways characterized by high greenhouse gas emissions, pervasive vulnerability and inequity. Humanitarian life-saving actions, while they often have short-term objectives, necessarily form part of the actions that comprise development pathways and risk reinforcing or altering practices, social structures and norms. Emergency response and post-disaster recovery activities may on one hand exacerbate existing vulnerability patterns and create new risks, or on the other hand serve as an opportunity to trigger societal transformations that prevents the recurrence of future disasters.

There is increasing recognition that climate change is a fundamental development problem generated by development pathways that produce emissions, inequity and vulnerability. Since people's vulnerability to climate change is the result of a complex interaction of various social, political, economic and environmental conditions, transformational change to systems, structures and practices towards climate resilient development pathways are required to reduce vulnerability (Denton et al. 2014; O'Brien et al. 2015; Pelling et al. 2015). Hence, incremental adjustments to current practices and structures is not enough in the face of climate change; there is a need to turn the policy focus not only to the underlying causes of vulnerability and risk (Ribot 2011; IPCC 2012) but also the development pathways themselves that create these risks. Just how we frame the normative goals of adaptation is critical because it can both serve to reinforce particular development paradigms (St. Clair and Lawson 2013) or drive social transformation (O'Brien et al. 2015). Humanitarian assistance may as such contribute to support or undermine transformations towards climate resilient development pathways, here understood as development trajectories that combine mitigation of emissions, equitable development and reduced vulnerability (Denton et al. 2014). This will be discussed further in the next section.

1.2 Humanitarian Action and its Transformative Potential

While there are shifts at the international policy level towards linking humanitarian assistance with longer-term development efforts and to integrate longer-term perspectives into disaster management, this shift seldom explicitly considers the transformational potential of humanitarian aid in a climate change context. Emergency situations can represent an opportunity for systemic transformation and dramatic changes to socio-environmental structures, but they can also serve as an opportunity for powerful actors to consolidate their positions and promote their own interests over the less powerful without critical resistance or public attention. Disasters can thus lead to either a transformation or entrenchment of vulnerability patterns and power structures in a society. A critical question to ask is then; under what conditions or through which approaches do humanitarian actions contribute to either transformation or entrenchment of inequity?

Transformative change can be generally represented through three interacting spheres of transformation – referred to as the *practical, political*, and *personal* spheres [figure 2] (O'Brien and Sygna 2013). These spheres capture the way that beliefs, values and worldviews interact with political decision-making and governance, as well as with on-the-ground practices that contribute to sustainable systems. According to O'Brien et al. (2015), transformation in practice is contingent on a political sphere, which includes the systems and structures that create the rules, norms, and incentives for different types of behaviors and practices. These in turn are influenced by subjective views of systems and relationships that are represented in a personal sphere. Indeed, individual and shared beliefs, values and worldviews often drive political priorities and goals and influence framings of problems and solutions, which can lead to conflicts and tensions in decision-making processes that often impede transformative change.

«Emergency situations can represent an opportunity for systemic transformation and dramatic changes to socio-environmental structures, but they can also serve as an opportunity for powerful actors to consolidate their positions and promote their own interests over the less powerful without critical resistance or public attention.»

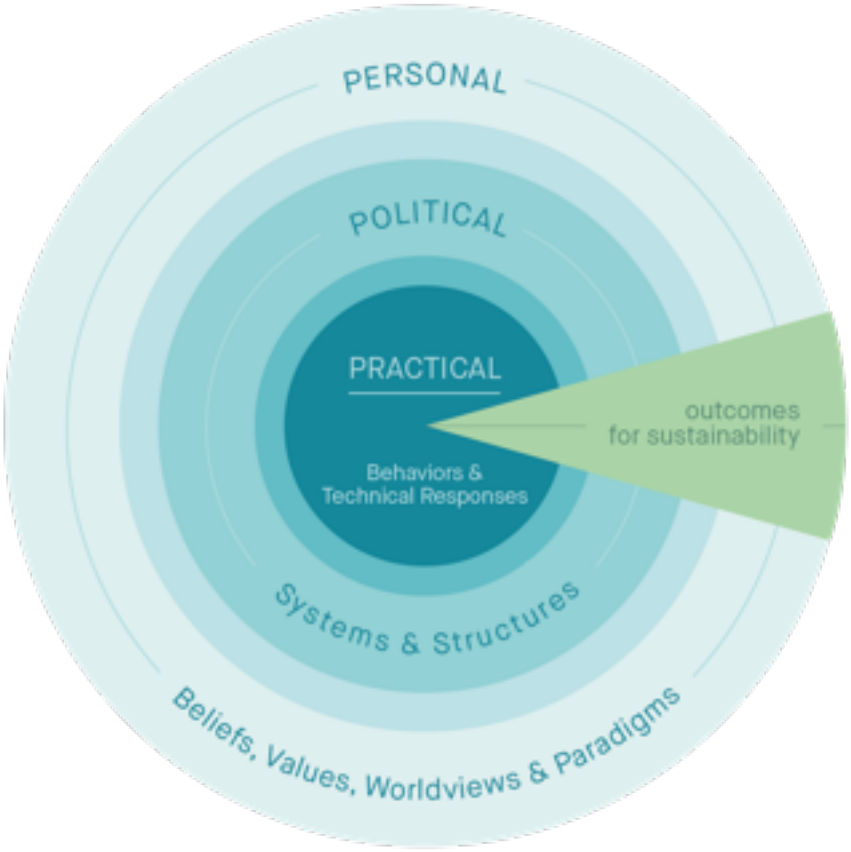

Figure 2: The three spheres of transformation (O'Brien et al. 2015).

Following O'Brien et al. (2015) and Nelson et al. (2007), we here distinguish between two major types of transformation: 'outcome transformation' and 'deliberate transformation'. The first refers to how current development trajectories and greenhouse gas emissions are causing systemic change that shape the ability or inability of people to cope with climate related risks, while the second is about contesting rather than accommodating structural change and deliberately altering development pathways towards more socially and environmental sustainability and justice (O'Brien et al. 2015). This report calls for deliberate transformation as an approach to making humanitarian action and adaptation more closely aligned in tackling short and long term challenges brought about by a changing climate. This means going beyond current humanitarian efforts to strengthen coping or protect livelihoods, while placing attention on addressing root causes of vulnerability. Critically, deliberate transformations towards more just and equitable development pathways do not imply the top-down imposition of livelihood changes on vulnerable groups in the name of climate change (or humanitarian crises). On the contrary, deliberate transformation means opening up space for contesting current development pathways, questioning our assumption about what constitutes 'good development' and for whom, in order to empower vulnerable groups in decision-making and strengthening their livelihood options. It may also mean transforming the way that aid – including humanitarian aid – operates (Eriksen et al. 2017).

What constitutes opportunities to support potential transformational adaptation (adaptation that changes the fundamental attributes of a system in response to climate and its effects, as opposed to incremental adjustments) (IPCC 2014) is, however, context specific. There is no 'blueprint' for 'good adaptation' in humanitarian actions. What may make sense in one context may not be practically possible or may even exacerbate vulnerability in another (Eriksen et al. 2011). This is because, *firstly;* vulnerability in itself is context specific. It depends on social, political, economic and environmental conditions, structures and change processes as well as inequitable social and power relations generating vulnerability for a group or individual at a particular point in time and space. *Secondly,* the way that a humanitarian organization interacts with donors and other development actors frames what actions are possible within a particular vulnerability context, and *thirdly,* what might constitute more climate resilient development pathways – as well as the political spaces for challenging current pathways – varies between contexts. Rather than proposing a certain set of guidelines for how to promote transformational adaptation through humanitarian action, this report suggests a set of generic normative guiding principles that humanitarian actors should keep in mind and reflect on when designing and implementing humanitarian efforts. The principles will be discussed in greater detail in section 5.

1.3 Towards Sustainable Adaptation

When climate change adaptation first appeared on the global agenda in the 1990's it was mostly regarded as a matter of developing and implementing technological solutions to the negative effects of global warming. However, more recent academic literature argues that adaptation has to be understood as an inherently political process - rather than a set of technical measures - that is being shaped by the decisions made by multiple actors (including humanitarian agencies) and negotiations between diverging interests and asymmetric power relations (Eriksen and Lind 2009; Barnett and O'Neill 2010; Eriksen et al. 2011; Inderberg et al. 2014; Taylor 2014).

It is also increasingly recognized that not all adaptation efforts have positive long-term impacts. Interventions aimed at reducing vulnerability to climate change frequently have unintended socio-political implications – also referred to as 'maladaptation' (Barnett and O'Neill 2010). For example, our research findings from Nepal, Kenya, Pakistan and Ethiopia reveal that when some people in a community lose out from measures that benefit others, the gap between very poor and better off people in the village (or between villages) may increase, and local power relations and vulnerability patterns may be exacerbated (see Mosberg et al. 2017; Nagoda 2017; Nyborg and Nawab 2017). The Sustainable Adaptation Approach has been developed to promote adaptation with the normative goals of reduced poverty and inequality as well as enhanced environmental integrity. Eriksen et al. (2011) and Eriksen and Marin (2015) propose the following five normative principles for sustainable adaptation:

1. Recognize the context for vulnerability, including multiple stressors (stressors other than climate change)
2. Acknowledge that differing values and interests affect adaptation outcomes
3. Integrate local knowledge into adaptation responses (every local vulnerability context is unique)

4. Consider potential feedbacks between local and global processes.
5. Empower vulnerable groups in influencing development pathways and their climate change outcomes

The guiding principles presented in this report (section 5) build on these principles for sustainable adaptation, in order to elaborate how humanitarian actions may contribute to climate change adaptation towards enhanced social and environmental sustainability. Our guiding principles focus on the poorest and most vulnerable people in chronic and acute emergency situations in line with the principles of humanitarian assistance.

Climate change – or just climate variability?

"Last year, in Madagascar, it was raining tremendously, causing a humanitarian crisis claimed to be the result of climate change. This year, there was no rain in Madagascar. Does it mean that climate change has stopped?" (Humanitarian worker, interview).

Even as climate change is becoming part of most people's everyday vocabulary, we do not always distinguish between what is climate change and what are regular shifts in weather variations. When do we in fact have climate change and when are we just experiencing climate variation? And to what extent are such differences important to take into account when planning development and humanitarian work in complex humanitarian emergency situations?

The main distinction between the concepts 'climate variability' and 'climate change' is commonly understood to be their differing timescales. While climate variability usually refers to variations in climatic conditions in the short- to medium-term (beyond individual weather events), climate change typically refers to longer-term changes in the mean and/ or the variability of climate properties over decades or more (IPCC 2014). Another commonly referred to distinction concerns 'causality'. Whereas variability is often seen as a natural component of the climate system, climate change is often defined as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods" (UNFCCC 1992: 7).

Climate change is however expected to exacerbate variability in weather patterns, as well as lead to more frequent and intense extreme weather events (IPCC 2012). It is therefore important to prepare for both longer-term changes in weather conditions, as well as more variable and extreme weather events, when planning development and humanitarian activities.

CHAPTER 2. KEY LESSONS FROM CASE STUDIES IN ASIA AND AFRICA

This report builds on findings from research on the interface between vulnerability, climate change and humanitarian interventions in seven African and Asian countries, including Nepal, Bangladesh, Pakistan, Ethiopia, Malawi, Zambia and Kenya (further described in Costella et al. 2017; Haug and Wold 2017; Mosberg et al. 2017; Nagoda 2017; Nawab and Nyborg 2017; Nyborg and Nawab 2017; and Courting Catastrophe documentary). The case studies included an analysis of root causes of vulnerability and implications of on-going or past humanitarian interventions patterns of vulnerability. An analysis of findings across cases reveals a wide range of similarities, which can be grouped together as five key 'lessons learned':

1. Vulnerability is complex and its root causes are often multidimensional
2. Lasting solutions to humanitarian crises require that root causes of vulnerability are identified and addressed
3. Power relations are important drivers of differential vulnerability patterns at the local level and shape policy processes and their outcomes
4. Poorly designed humanitarian interventions risk enhancing local vulnerability patterns and exacerbating inequity
5. Preparedness and planning is key for avoiding protracted crises and ensuring appropriate early response and recovery

Vulnerability is complex and its root causes are often multidimensional. This key lesson highlights the importance of understanding vulnerability as shaped through the interactions of multiple socio-environmental processes, including economic and political changes, marginalization and inequity. Vulnerability is dynamic, specific to each situation and may vary greatly between individuals and groups within the same location. In the case study from Nepal, for example, the most vulnerable, often women and people from low castes, would highlight oppression and social inequality as causes of their entrenched vulnerability. High caste people from the same villages, on the other hand, would point to a lack of physical infrastructure such as irrigation channels as the main reason for their climate change vulnerability (Nagoda 2017). Hence, humanitarian approaches needs to integrate a sound understanding of the environmental, social and political factors shaping vulnerability in the particular context that we are addressing.

Lasting solutions to humanitarian crises require that the root causes of vulnerability are identified and addressed. Too often, life-saving humanitarian interventions address only the symptoms and not the root causes of a crises, while we need to be doing both. This lesson implies that humanitarian interventions must be conceived as a part of, and contributing to, ongoing development processes, and that this must be reflected in the planning and design of humanitarian programs and interventions. This is a strong argument for a holistic and coordinated approach between development and humanitarian actors and programs.

Power relations are important drivers of differential vulnerability patterns at the local level and shape policy processes and their outcomes. The third lesson underscores the importance of socio-political factors in determining local vulnerability and how these shape humanitarian interventions and their outcomes. In the short term, understanding how socio-political dynamics shape local vulnerability patterns is essential for humanitarian actors to ensure that the aid benefits the most vulnerable households and individuals. In the longer term, it is necessary to design programs that directly address the dynamics that contributes to vulnerability. Our case study from Isiolo, Kenya, for example, shows that those with higher social and economic status and power have more opportunities to influence local level decision-making processes through social and political networks with local leaders and governmental representatives, and also benefit more from humanitarian interventions, than those with low social and economic status. We refer to this as the 'power of know-who' (Mosberg et al. 2017).

Poorly designed humanitarian interventions risk reinforcing local vulnerability patterns and exacerbate inequity. Humanitarian interventions are never entirely neutral as they are implemented within the frame of existing social and political structures where some people may benefit more than others. Even if do-no-harm approaches are high on the agenda among humanitarian organizations (IFRC 2013; Sphere Project 2011), this lesson highlights that poorly designed interventions may nevertheless unintentionally 'do harm' by enhancing the vulnerability of already marginalized groups and individuals, and may even contribute to prolonging a humanitarian crisis. In consequence, also programmes that are primarily designed to respond to acute humanitarian needs, need to take into consideration possible implications of humanitarian interventions on longer term vulnerability patterns.

Preparedness and planning is key for avoiding protracted crises and ensuring appropriate early response and recovery. With some exceptions, a crisis does not appear entirely out of the blue. Experience and research tells us that investing in crisis prevention and preparedness pays off, and knowledge about the local vulnerability context before the crises hits is invaluable for planning and designing an appropriate humanitarian response and buys time in the event of an emergency. A well-designed humanitarian response that take the above recognitions into account already in the planning phase is more likely to address the root causes of climate vulnerability well and reduce the long-term impact of the crises.

«Experience and research tells us that investing in crisis prevention and preparedness pays off, and knowledge about the local vulnerability context before the crises hits is invaluable for planning and designing an appropriate humanitarian response and buys time in the event of an emergency»

These five key findings have implications for what is required for humanitarian aid to be more transformative, that is, contribute not only to saving lives in the short term, but also supporting transformative adaptation. The findings support the insights provided by other studies (see for example IASC 2009; IFRC 2014a; Bennett and Pantuliano 2016; Oxfam 2016) that highlight the need for more cross-disciplinary approaches to vulnerability, greater coordination within and more collaboration between organizations. The findings also suggest a need for more financial and administrative flexibility, in particular on the part of institutional donors, that allow for more focus on risk reduction and preparedness measures, as well as allocations to long-term development in the aftermath of a disaster. Crucially, there must be a fundamental understanding that no interventions are neutral, nor can any community be seen as homogenous – interests are diverse, and there are both positive and negative effects of an intervention on different people. Bearing the key findings described in this section in mind, we next explore barriers and potential entry points for linking humanitarian assistance and climate change adaptation.

CHAPTER 3. BARRIERS TO LINKING HUMANITARIAN ASSISTANCE AND CLIMATE CHANGE ADAPTATION

The challenges met by policy makers and practitioners intending to integrate climate change adaptation concerns into humanitarian policies and practices are to some extent similar to the barriers facing those that attempt to merge humanitarian and development efforts more broadly, most of which are well-known and widely recognized. Recent international agreements and statements, such as the Sendai Framework for Disaster Risk Reduction, the Paris agreement on climate change, the Sustainable Development Goals agenda and the World Humanitarian Summit (WHS) all stress the need for removing artificial barriers between short term and longer-term interventions. An important outcome of the WHS for example was the 'Grand Bargain' that aims to reform the system for humanitarian funding, simplify reporting requirement, increase support to local partners and bridge the gap between humanitarian and development interventions (WHS 2016). While recognizing, and welcoming, these global efforts geared towards reforming the humanitarian system, we will here briefly outline some of the key barriers to integrating climate change adaptation concerns into humanitarian policy and practice, as identified in this research project. These barriers merely accentuate the importance of introducing more flexible systems that allow for holistic and proactive – rather than fragmented and reactive – approaches.

Barrier 1: Sector-based approaches

Humanitarian interventions tend to follow a fragmented, uni-sectoral approach. Each sector, 'silo' or cluster, (e.g. health, nutrition, education, protection, food security, water, sanitation and hygiene) is normally associated with different sources of funding, policies and reporting formats, and often operates (more or less) in isolation from each other. Although classification into sectors can be useful in order to deconstruct a complex problem into more manageable components, a focus on single sectors prevents a focus on how different issues interact with each other to shape vulnerability. Rather than designing interventions according to how the main drivers of vulnerability are interlinked in the everyday life of beneficiaries, sector wise approaches can lead humanitarian agencies to define interventions according to "what can be fixed" within particular sectors. The result is often an emphasis on technocratic measures that does not address the more complex root causes of vulnerability, and that may even reinforce local vulnerability patterns.

Barrier 2: Predominance of top-down approaches

In spite of a growing emphasis on bottom-up, participatory approaches, beneficiary accountability and the role of local actors within the humanitarian system (ALNAP 2015), our case studies suggest that humanitarian policies and practices are still characterized by top-down processes. Donor interests and priorities, and organizations' own mandate and expertise tend to influence the types of humanitarian intervention that are implemented in emergency situations rather than necessarily the needs and interests of affected populations. The ODI report "Time to let go - Remaking humanitarian action for the modern era" from 2016 highlights how an oligopoly of donor countries and humanitarian organizations leave the sector highly vulnerable to the political interest of the donors and of the large humanitarian agencies. Even if policies state otherwise, the weak governance of the global humanitarian system tend to result in a predominance of top-down approaches, leaving little space for adapting programs to local conditions and the needs of the most vulnerable (Bennett and Pantuliano 2016).

Many organizations unilaterally or jointly conduct rapid loss and damage or post-disaster needs assessments to guide their relief efforts (see for instance European Commission, World Bank and United Nations 2013), however, these do not necessarily look into underlying, root causes of differential vulnerability. Furthermore, many organizations lack resources to conduct such assessments prior to implementing activities. This problem was reflected in the State of the Humanitarian System 2015 report, which stated that 44 % of surveyed recipients of humanitarian aid reported that they had not been consulted on their needs prior to commencement of the aid programming, and only 19 % of those who said that they had been consulted argued that the agency had actually acted on their input and made changes to the programme (ALNAP 2015).

Barrier 3: Rigid funding structures

Several interviews with staff in various NGOs and UN agencies conducted as part of their research project highlighted the limited flexibility embedded in humanitarian funding as a key barrier to incorporating climate change concerns into emergency efforts. Funding for short-term emergency response and longer-term development programmes are usually completely separate, making it difficult to spend emergency funding on measures that would reduce vulnerability in the longer-term. Development funding on the other hand, is pre-determined by project documents and donor agreements, and it may be difficult to re-direct funds from an existing development project in order to complement humanitarian efforts in the aftermath of a disaster. The question then remains; how do you finance measures that not only save lives, but also reduce vulnerability during and after disasters?

Current funding mechanisms also tend to reinforce sector wise approaches to vulnerability (see above), as they follow their own systems for monitoring and reporting. Hence, organizations need to spend a lot of resources in order to satisfy these different requirements. Furthermore, donors often focus on measurable results vis-à-vis indicators (Results Based Management) and short-term results, which favors technical, 'simple' approaches at the expense of more complex interventions that address the root causes of vulnerability. Many key informants in aid organizations expressed that the available funding mechanisms do not allow them to work as much with preparedness (pre-disaster) and longer term recovery (post-disaster) that is necessary to address longer-term vulnerability concerns.

Barrier 4: Complex socio-political contexts

In most cases, humanitarian agencies only play a small part in a large and dynamic system within which vulnerability is shaped, created and sustained. In many emergency situations, humanitarian actors are confronted with extremely complex political, security, economic and cultural issues. Sometimes, national institutions have collapsed or are inefficient. Other times, local authorities may undermine efforts to reach the most vulnerable people for political or economical reasons. Local humanitarian staff often have high understanding of these dynamics. Nevertheless, when humanitarian actors and local authorities do not share the same interests, it can be challenging for external agencies to address the dynamics that drive local vulnerability patterns. Again, the result is often a focus on technocratic interventions that tend to set aside the complexity of the local vulnerability situation and ignore the root causes of vulnerability. Emergency response may as such contribute to maintaining status quo and consolidating, rather than challenging, existing power imbalances and marginalization processes.

Barrier 5: Humanitarian principles

Humanitarian assistance is generally accepted to mean the aid and action designed to save lives, alleviate suffering and maintain and protect human dignity during and in the aftermath of natural disasters and man-made crises, as well as to prevent and strengthen preparedness for the occurrence of such situations (GHD 2003). As agreed

by 16 donor Governments and the European Commission, the OECD, the International Red Cross and Red Crescent Movement, NGOs, and academics at the Good Humanitarian Donorship meeting in Sweden in 2003 (GHD 2003), what distinguishes humanitarian assistance from other forms of aid and foreign assistance is that it should be guided by the principles of:

- *Humanity:* saving human lives and alleviating suffering wherever it is found,
- *Impartiality:* acting solely on the basis of need, without discrimination between or within affected populations,
- *Neutrality:* acting without favoring any side in an armed conflict or other dispute where such action is carried out,
- *Independence:* the autonomy of humanitarian objectives from the political, economic, military or other objectives that any actor may hold with regard to areas where humanitarian action is being implemented.

The broad endorsement of the humanitarian principles by most humanitarian actors has led to the term "humanitarian exceptionalism" as a means to distinguish humanitarian actions from interventions that may have political and security objectives. This distinction is particularly important for humanitarian actors that engage in conflict zones, in order to reach victims from different sides of the conflict.

Adherence to the humanitarian principles can however to some extent pose a challenge or barrier to addressing the root causes of vulnerability in emergency situations and ensuring that humanitarian aid supports more climate resilient development pathways. This is also linked to the challenge identified above and the (in)ability of humanitarian actors to address drivers of vulnerability directly in challenging socio-political contexts, especially in conflict situations. In practice, the humanitarian principles might thus involve certain trade-offs (Bennett and Pantuliano 2016).

Barrier 6: Different interpretations of key concepts

Variations in discourses within academia and among humanitarian actors reveal how key concepts related to climate change adaptation can be understood differently. This is likely to make communication and cooperation less effective, in particular when the various actors are not conscious about the differences in interpretation of key concepts such as vulnerability, adaptation, resilience and community. How these concepts are understood also shape the interventions that are designed by humanitarian actors (for an example from the case study in Pakistan, see Nyborg and Nawab 2017). We will here discuss some key differences in interpretations of important concepts, while noting that definitions of key terms used in this report are also included in the Glossary in Annex 1.

3.6.1. Vulnerability

How we understand 'vulnerability', both its causes and effects, shape the way we address it in humanitarian policy and practice. If we see vulnerability in terms of physical exposure to harm, our interventions will likely be different than if we consider vulnerability to be multidimensional and resulting from interacting social, political, cultural, religious, economic *and* physical conditions and processes.

O'Brien et al. (2007) highlight that there are two main approaches to vulnerability in the context of climate change: contextual vulnerability and outcome vulnerability. An outcome vulnerability approach focuses on impacts and considers vulnerability to be a consequence of climate change. Outcome vulnerability approaches are usually associated with a scientific framing of climate change projections, which tend to lead to apolitical and technical adaptation responses. A contextual vulnerability approach, on the other hand, regards climate change as one out of several stressors that may contribute to vulnerability through complex socio-environmental processes that influence people's adaptive capacity (O'Brien et al. 2007). It refers to vulnerability as a starting point based on the rationale that only when we understand how vulnerability is produced and sustained - and why some people are more vulnerable than others - can we develop targeted programs to strengthen their adaptive capacity. This understanding calls for a much broader approach to addressing vulnerability, that places special attention on the role of socio-political power relations (mechanisms of exclusion) in legitimizing (or delegitimizing) people's access to resources and decision-making processes and thereby their capacity to adapt to changes.

According to the contextual vulnerability approach, a vulnerability analysis is only complete when it considers the structural causes of vulnerability that lead to social, economic and political marginalization, in addition to the possible environmental (physical) causes (such as recurrent droughts, floods or the prevalence of pests and diseases). With a comprehensive understanding of the vulnerability context as a starting point, humanitarian actors may begin planning and designing programs and interventions that better strengthen the adaptive capacity and resilience of individuals and groups of people.

3.6.2. Adaptation

'Climate change adaptation' is generally understood to be "(t)he process of adjustment to actual or expected climate and its effects" (IPCC 2014: 1758). There are, however, different interpretations of what adjusting practices, technologies and systems entails and what adaptation should look like. Some see adaptation as a matter of developing and implementing technological solutions to the negative effects of global warming, while others see it as a complex societal change process aiming to reduce vulnerability in both the short and long term. And again – how you see 'adaptation' will influence the type of measures you choose to implement. If you consider climate change to be an external challenge to society that can be solved by technical fixes for example, your intervention will likely focus on structural measures such as the construction of river embankments or irrigation schemes. On the other hand, if you see climate change as an integral part of development processes that requires fundamental changes to resource

management and social relations, your intervention will likely be more cross-sectorial and aimed at empowerment and enhancing equity, for example. IPCC's fifth assessment report (2014) illustrate these two approaches well in their distinction between incremental versus transformational adaptation. 'Incremental adaptation' refers to "actions where the central aim is to maintain the essence and integrity of a system or process at a given scale", while 'transformational adaptation' point to "adaptation that changes the fundamental attributes of a system in response to climate and its effects" (IPCC 2014: 1758).

In line with the transformational view of adaptation, the concept 'sustainable adaptation', introduced earlier in this report, emerged out of the realization that not all measures aimed at supporting adaptation to climate change have desirable outcomes; instead, they might have (often unintended) negative social and environmental impacts (Eriksen et al. 2011; Eriksen and Marin 2011). Defined by Eriksen et al. (2011: 8) as "adaptation that contributes to socially and environmentally sustainable development pathways, including both social justice and environmental integrity", sustainable adaptation is an approach that focuses on the need to consider both current and future generations. Adaptation measures employed today must not compromise the ability of individuals and communities within the current generation and in future generations to adapt to climate change. Sustainable adaptation also builds on the contextual understanding of vulnerability to climate change (O'Brien et al. 2007).

«Adaptation measures employed today must not compromise the ability of individuals and communities within the current generation and in future generations to adapt to climate change»

3.6.3. Resilience

The 'resilience' concept emerged within ecological sciences to describe a system that is able to "bounce back" to its previous form after a disturbance, and has later been adopted by social scientists and actors within the field of humanitarian and development aid as an approach to bridge short term reactive measures with longer term reduction in vulnerability. Defined by UNISDR (2009) as the ability of an individual, group or a system "to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions", the resilience concept is attractive in that it appeals to the ability of a system to do well against the odds, and being able to recover after crises. Some actors see resilience as a desirable situation where the (human-ecological) system manages to cope with crises. Resilience can thus be understood as an overriding concept with the potential to encompass all work at local, national and international levels to improve people's capacity to respond to stress (IFRC, 2014a; WFP, 2014).

However, the resilience approach is also criticized for being too vague, or for idealizing the "status quo" and not challenging the root causes of vulnerability. UNEP (2013: 47) illustrates this with an example: "addressing food insecurity risks among subsistence farmers by introducing them to drought-resistant crops might make them more resilient to drought, but will not change the fact that subsistence farmers are always one failed harvest away from hunger, and need opportunities to diversify their livelihoods and earn cash."

Resilience is often understood as either the opposite of vulnerability or as something 'more'. This again influences the set of actions that you decide to implement. If you consider resilience to be the opposite of vulnerability, and your understanding of vulnerability is based on an outcome vulnerability approach, you are likely to focus on technical, incremental measures that reduce physical exposure to harm. If you consider resilience to be a broad concept that spans the disaster risk management-continuum, from the pre- to the post-disaster phase, and moves beyond merely being the opposite of 'vulnerability', your intervention will likely look quite different. For instance, your intervention may focus on strengthening social cohesion, empowering marginalized people and groups to participate in decision-making processes, and strengthening adaptive capacities and skills (e.g. IFRC 2014a).

Reducing vulnerability may contribute to strengthening resilience to shocks and stressors – but greater transformations are often needed. Recognizing that climate change is fundamentally a development issue, any efforts aimed at adaptation should support a move towards more climate resilient development pathways – meaning development trajectories that combine mitigation of emissions, equitable development and reduced vulnerability (O'Brien et al. 2015; Pelling et al. 2015). Hence, and following from a contextual vulnerability approach, building resilient societies/systems is a complex undertaking that involves various institutions across sectors and levels, that needs to be based on a 'before, during and after' emergency approach that takes into account risk reduction, preparedness, response and recovery, with an emphasis on climate change and other vulnerability drivers (Twigg 2009; IFRC 2014a).

3.6.4. Community

The word "community" is often used in humanitarian discourses to describe a village or group of households that are targeted by policy and humanitarian actions. However, research has increasingly demonstrated the ambiguity related to the term "community", as it tends to simplify our understanding of the local as a homogenous place where people with common interest and needs work together for the equal benefit of everyone (IFRC 2014b). In reality, most communities are highly heterogeneous, constituted by people and groups of people with conflicting interests, needs and ideas. In the World Disasters Report 2014, for instance, Cannon and Schipper cautions against the uncritical application of the concept of 'community participation', and highlights that; "(b)ecause of internal divisions and power relations, participation is almost always likely to be distorted in favor of some people or groups and may not enable poor and vulnerable people to be fully represented" (IFRC 2014b: 100).

Climate change tends to reinforce existing vulnerability patterns within and between villages. Likewise, interventions aimed at reducing vulnerability to climate change frequently have local level socio-political implications. In some cases, when the local vulnerability dynamics are poorly understood, interventions may exacerbate processes of marginalization and vulnerability in the villages. Thus, humanitarian interventions to reduce vulnerability is a matter not only of reaching the beneficiaries but also of making conscious choices about who within a village should not be harmed and what harm, to whom, can be tolerated. It is therefore critical that a region or village is not treated as a homogeneous unit, but as consisting of different groups and interests (see IFRC 2014b). Interventions need to be planned, implemented and evaluated on a scale that is sufficiently detailed to capture and take such intra-'community' vulnerability dynamics into account.

«Climate change tends to reinforce existing vulnerability patterns within and between villages. Likewise, interventions aimed at reducing vulnerability to climate change frequently have local level socio-political implications. In some cases, when the local vulnerability dynamics are poorly understood, interventions may exacerbate processes of marginalization and vulnerability in the villages»

CHAPTER 4. OPPORTUNITIES AND POTENTIAL ENTRY POINTS

Lessons learnt from the case studies in Asia and Africa help us identify potential opportunities or entry points for improvement in the humanitarian system, with an objective to better address vulnerability to climate change and other stressors through humanitarian policies and practices. In the following, we consider some of the implications of the five key findings and the barriers/challenges outlined in section 2 and 3 respectively, as we take on the dual challenge of alleviating acute suffering and reducing longer-term vulnerability to climate change and other stressors.

4.1 Reducing vulnerability: A common goal

Climate change adaptation and humanitarian assistance share the common ultimate goal of reducing vulnerability to shocks and stressors in order to prevent loss of lives and human suffering. These two 'approaches' do, however, commonly focus on different timescales – while climate change adaptation efforts emphasize the long-term perspective, humanitarian assistance is usually more geared towards the short term. There is a need to bridge these two perspectives and also consider implications of longer-term change processes, as well as consequences of actions taken today, in short-term planning. Understanding the shorter term vulnerability manifested in humanitarian emergencies is crucial for developing sound longer term adaptation policies. There is a wealth of experience within the humanitarian sector that climate change adaptation policy making can draw upon. Both for climate change adaptation to be more effective and for humanitarian aid to respond better to longer-term vulnerability concerns, there is a need to understand and address the root causes of differential vulnerability. We do, however, need to look beyond a technocratic approach

to vulnerability, and include an emphasis on social dimensions and power relations if we want to avoid potentially exacerbating existing marginalization processes and reducing vulnerability of some at the expense of others.

4.2 The 'resilience agenda' and growing emphasis on preparedness

Faced with the challenge of bridging short-term life saving action with longer term vulnerability reduction and prevention of future disasters, several humanitarian agencies have embraced the 'resilience' approach, as exemplified by the IFRC-led global movement 'One Billion Coalition for Resilience' (IFRC 2014c). As discussed above, the resilience concept has been both hailed and criticized, but regardless of its shortcomings it has arguably contributed to a greater emphasis on the need to think about human needs and disaster risk management more holistically, and to focus on prevention and preparedness, breaking down the silos and linking development and humanitarian efforts. The resilience agenda can thereby also contribute to better incorporation of climate change concerns and the need for greater flexibility in the system to meet future insecurities.

4.3 'Leaving No-One Behind'

The 2030 Agenda for Sustainable Development states a commitment to ensure that "no one will be left behind" in the sustainable development process, and maintains that; "(r)ecognizing that the dignity of the human person is fundamental, we wish to see the Goals and targets met for all nations and peoples and for all segments of society. And we will endeavor to reach the furthest behind first" (UN 2015). This pledge seem to be contributing to a greater emphasis on the needs and rights of the most vulnerable in humanitarian policy debates – opening up space for the transformational changes needed for more socially just development pathways.

4.4 Financial reform processes

Many humanitarian actors interviewed through this research project pointed to a lack of financial flexibility and independence from donor interests as barriers to addressing root causes of vulnerability through their humanitarian efforts. However, calls for reforms in humanitarian and development donor funding structures are increasingly gaining traction at the global level. For instance, in order to improve humanitarian financing mechanisms, the former UN Secretary General Ban Ki Moon in 2016 called for a 'High Level Panel on Humanitarian Financing (HLPHF)'. Some of the suggestions presented in the panels' report included a call for greater flexibility from the donors' side, more multi-year funding, less earmarking, simplification and harmonization of reporting mechanisms and more cash based assistance. Furthermore, the panel highlighted the "recognition of the comparative advantages of local, national and international implementing organizations for delivery of services (HLPHF 2016: vi). In order to improve transparency from the part of the aid organizations, the panel also suggested a global data platform that would increase effectiveness and reduce transaction costs.

In addition to these calls for reforms, innovative efforts have already been made by various donors to increase the flexibility of the humanitarian financing mechanisms, such as 'Forecast-Based Financing' mechanisms implemented among others by the Red Cross/Crescent movement (Costella et al. 2017) and the USAID and ECHO 'Crisis Modifier' systems (Mosel and Levine 2014).

4.5 Partnerships and the role of local actors

Another key issue in the global debate on humanitarian reforms include the growing emphasis on the importance of partnerships and the role of local actors in not only development efforts, but also in humanitarian assistance. The World Disasters Report 2015 emphasized the important role of local actors as first responders in emergency situations, and highlighted that "(l)ocal actors are uniquely placed to find solutions that reduce underlying risks because of their understanding of local contexts – of weather patterns, of community leaders, of vulnerabilities and of sources of strength" (IFRC 2015: 8). Although this is an important and positive development, findings from this research project suggest that an 'idealistic' or 'romantic' view of local actors should be balanced with the acknowledgement that 'communities' are not heterogeneous, and local institutions and actors are not necessarily representative of wider interests and needs (IFRC 2014b). Working with local actors needs to be done with a careful attention to local power and politics. Who are the local actors we are supporting? Do they represent the needs and interests of the most vulnerable? Are we leaving anyone behind?

«'Communities' are not heterogeneous, and local institutions and actors are not necessarily representative of wider interests and needs»

CHAPTER 5. GUIDING PRINCIPLES FOR HUMANITARIAN ASSISTANCE IN A CHANGING CLIMATE

Findings from our research in Asia and Africa highlight that humanitarian policy and practice unavoidably have positive and/or negative impacts on the vulnerability context it aims to address; hence, how we design and implement humanitarian interventions has an impact on future vulnerability to climate change. Rather than reinforcing existing vulnerability patterns by increasing the gap between those who benefit from different programmes and those that remain marginalized, humanitarian assistance should support transformative adaptation that leads to more climate resilient development pathways. However, how do we do this in practice? How do we make sure we reduce rather than exacerbate differential vulnerability and open up space for transformation?

Based on research findings and discussions with humanitarian practitioners, we here propose a set of 'guiding principles' for how to take into take climate change adaptation into consideration in humanitarian efforts. The guiding principles outline questions to be posed at various stages of planning, implementing and evaluating humanitarian interventions, using the five principles of sustainable adaptation described in Eriksen, et al. (2011) and Eriksen and Marin (2015). Sustainable adaptation was selected as an approach because these are explicit normative principles developed to help adaptation efforts address poverty, inequality and environmental integrity. The normative

principles are intended to provide explicit criteria for identifying the positive and negative impacts of adaptation processes, helping actors within the humanitarian sector to critically examine and reflect on their own measures and processes. Below, we explain the principles and exemplify some potential actions that may support sustainable adaptation. In Table 2, we draw on the barriers and opportunities identified in section 4 in order to exemplify some important entry points within humanitarian aid for supporting the five principles of sustainable adaptation. The implications of these entry points – cross-disciplinarity/cross-sectorial approaches, flexibility, contextual understanding and inclusiveness – are context specific; hence, there can be no blueprint or 'one size fits all sustainable solutions'. The entry points are exemplified in terms of questions that can be posed in the planning and implementation of actions. As such, these are questions that can usefully be adopted beyond the humanitarian sectors, including in development and climate change programming more generally.

Table 2: Potential entry points within humanitarian aid for supporting sustainable adaptation.

Sustainable adaptation principles	**Cross-disciplinarity/ cross-sectorial approaches (within organizations)**	**Flexibility (funding structures and institutional structures)**	**Understanding of socio-political context (understanding of context and development discourses)**	**Inclusiveness (Heterogeneous communities and outcomes)**
1. Recognize multiple stressors and the vulnerability context	How are various stressors addressed by different sectors within humanitarian and how can they be better linked?	What reforms are needed to funding structures to address multiple (rather than single) stressors?	How does the socio-political context contribute to marginalization and vulnerability?	How may an intervention contribute to address multiple social, environmental and political stressors and diverse outcomes for people within a community?
2. Acknowledge differing interests	How are the needs of different target groups addressed?	What reforms are needed to allow space within humanitarian organizations for reflections on different interests and knowledges?	How does the socio-political context lead to conflicting and converging interests?	How may an intervention ensure the interests of the most vulnerable and marginalized are prioritized?

3. Integrate local knowledges into humanitarian decision-making	How can one integrate local and indigenous knowledges from diverse sectors in gaining a comprehensive understanding of vulnerability?	How can one allow for 'flowing up' of information from vulnerable groups and learning, rather than dissemination of expert knowledge?	What are different perceptions of the causes of vulnerability, who is 'vulnerable' and 'capable', and what is 'good development'?	What knowledges and practices are legitimized through an intervention? How can humanitarian actions give space to vulnerable groups to contest dominant discourses?
4. Consider cross-scalar linkages (local-global feedbacks) – Development pathways, emissions and environmental change	How can one link environmental and social expertise within and between humanitarian organizations?	How are vulnerability reduction and emissions concerns linked in interventions? How can linkages to development plans be made explicit?	Does an intervention or approach contribute to a particular development pathway or emissions trajectory?	Does an intervention lead to particular environmental changes elsewhere or in the long term? Do the changes impact some more than others?
5. Empower-ment of vulnerable people/groups	How can one draw on governance, gender, diversity and human rights insights in other sectors in order to empower vulnerable groups in an intervention?	What is required to allow for less measurement of quantitative results to emphasis on longer-term social achievements?	How does humanitarian aid form part of the political economy of development decision-making?	Does an intervention entrench inequitable power structures, or create space for vulnerable in decision-making?

Principle 1: Recognize the context for vulnerability, including multiple stressors (stressors other than climate change)

Given that humanitarian actions should be sensitive to the wider vulnerability context, including multiple stressors, humanitarian actors should conduct power, vulnerability and risk assessments that provide a thorough understanding of the root causes of differential vulnerability and strive to address these directly or indirectly.

Questions for reflection:

- ~ What are the main reasons for being vulnerable in the targeted location (caste, ethnicity, gender, age, poverty, disability etc.)?
- ~ What factors other than climate change (political, social, economic and environmental), contribute to their vulnerability? How do these processes interact and influence people differently?
- ~ What are the historical, cultural and political processes that have shaped the vulnerability of individuals or groups?
- ~ Which interventions have been carried out before? Which projects/programmes have been considered successful? Why and for whom?

Potential actions:

* In the event of a disaster; review previous vulnerability assessments (internal and external) from the affected location, and conduct a rapid contextual vulnerability assessment that focus on social, political, cultural, economic and physical causes of vulnerability, including marginalization processes and power relations.
    - The analysis should assess reasons for vulnerability across scales to take into account both local (within villages) and regional/national processes that contribute to vulnerability (Cross sectoral programming).
    - Special attention should be paid to how social and political processes of marginalization and power relations may contribute to vulnerability.
    - The analysis needs to take into account that every context is unique. Special attention to vulnerable groups may include, but not be limited to, marginalization based on ethnicity, gender, age, caste, wealth, and disabilities or similar. At the same time, it is important to focus on people in vulnerable *situations,* rather than focusing on vulnerable *groups* per se.
    - Given the importance of power and social relations at different levels as key factors shaping vulnerability context, a vulnerability assessment should include a power analysis (see for ex. Sida, 2013).
    - The analysis should build on information from a variety of sources, including in-house experience from the area, official institutions, partner organizations, and it should include organizations and institutions working within social, economic, political, environmental etc. as well as academic literature.
* Include a focus on contextual vulnerability in Loss and Damage or Post-Disaster Needs Assessments.

Examples from the case studies - Principle 1

The case studies in this research project revealed that, despite good intentions, many humanitarian agencies have a narrow understanding of the vulnerability context and focus primarily on single stressors (floods, drought, tsunami etc.) and the physical exposure of people to these, rather than the underlying socio-environmental root causes of more general vulnerability. This understanding translates into humanitarian interventions that target the physical aspects of vulnerability only, while social, political, economic, religious and cultural factors are effectively ignored.

For instance, the case studies in Kenya, Pakistan and Nepal found that power and marginalization processes – often with deep historical roots – are key components of vulnerability contexts, and ignoring these in humanitarian (or development) activities risks exacerbating differential asymmetric power relations and strengthening the power of some over others. In Kenya, for instance, research found that pastoralists with large herds are commonly the most well off and powerful within Borana society, and humanitarian interventions that target pastoralists through schemes such as livestock off-take, de-stocking and re-stocking benefits those that already have the most and may widen the gap between rich and poor (Mosberg et al. 2017). A measure to promote transformational adaptation could in this case be to distribute livestock to the most vulnerable and marginalized people instead, giving them a chance to establish a herd over time and gain a higher status and power in their society.

Vulnerability assessments that do not take into account how socio, political and economic processes shape the vulnerability situation of individuals and groups of people at village level differently, will not provide the necessary information to aid organizations, donors and government on how to best respond to vulnerability patterns at the local level and increase the adaptive capacity of the people in the long term.

Principle 2: Acknowledge that differing values and interests affect adaptation outcomes

Humanitarian actors should gain a nuanced understanding of differences in interests, needs and viewpoints of key stakeholders and actors and recognize how certain humanitarian actions might favor some interests over others.

Questions for reflection:

- Which are the main groups/ actors with an interest in adaptation programs and their outcomes in the region?
- What are the main differences in needs/interests between different groups?

~ How/to what extent are the views/interests of the most vulnerable groups taken into account in national/international CCA policies and approaches?

Potential actions:

* Incorporate a stakeholder mapping into the contextual vulnerability assessment, and focus specifically on identifying the needs, views and interests of the most vulnerable people vis-à-vis the most powerful.
    - The mapping should be based on a wide variety of sources, including in-house expertise, external sources as well as relevant academic literature. If possible, representatives of key groups should be interviewed, in particular informants of the most vulnerable and marginalized groups.
    - Important to map different interests *within* communities.
    - Important to take into account that partner organizations/local contact persons are not neutral but may have interests in certain outcomes.
    - Important to be conscious that interests may be related to broader development priorities (depending on the vulnerability context) rather than climate change specific (see an example in box 2).
    - Important to understand which knowledge is used in policy documents and the reasons for the use of one type of knowledge at the expense of others.
* Create arenas for collaboration, information exchange and knowledge building between research, practitioners and the Government. Create such forums also at the district/local level.

Examples from the case studies - Principle 2

All the case studies undertaken in the project show (perhaps unsurprisingly, yet often insufficiently addressed in interventions) that different people in the villages have different interests and needs. These interests and needs are weighted differently in village councils and community based groups in regard to the social status of the individuals and the households at local level. Those who are most influential at the local level are also likely to be the ones that see their interests and needs taken into account in regional and national and international processes thanks to networks and social relations these elites have with local, regional and national government representatives and aid organizations. The Nepal case study, for example, shows that aid organizations have planned their interventions based on community user groups formed by the local partners of the aid organizations to plan and implement the interventions. Although all people are invited in the formation of these groups and efforts are undertaken so that the most marginalized people are also represented, an analysis of these community user groups shows that decision-making processes are dominated by men belonging to better off households, high castes or specific ethnic groups. These often have better access to local traders, better productive lands and/or irrigation channels and are often more interested in drought prone varieties or irrigation systems than institutional transformational changes that would open for more deliberative strategies for the poorest and most marginalized (Nagoda, 2017).

Principle 3: Integrate local knowledge into humanitarian policy and practice

Given that successful responses need to have a conscious approach towards which knowledge is recognized and how it is used in project design and decision-making, humanitarian actors should ensure that the knowledge and interests of the most vulnerable are taken into account in the design and implementation of humanitarian policies and actions.

Questions for reflection:

- What are the different interests and needs at local level and what are the reasons for this diversity of "local" knowledge (also note the different conflicts and how these are negotiated at local, regional level)?
- How can programs ensure that the different types of local knowledge are integrated with other sources of knowledge when planning projects and formulating policies?
- And in particular, what can be done to ensure that the voices of the most vulnerable are taken into account within the formulation and the implementation of policies and programs at both local and national levels?

Potential actions:

- Develop a strategy for including the knowledge of the most vulnerable in policies and program design.
    - The strategy should build on the vulnerability context analysis and mapping of actors' interests (above), and should be included in any disaster response/contingency plans.
    - It should take into account that different actors may diagnose both problems and solutions differently.
    - It should in particular take into account that the most vulnerable may be marginalized from influencing policies and programs, including on the local level and within communities.
    - It should include a critical assessment of the type of knowledge that dominate the policy spaces and decision making processes used to design and implement programs and policies.
    - It is important that the organization has clear criteria and transparency procedures for the analysis of different types of knowledge and why those chosen are given priority in policy processes.
- Make sure that local knowledge is included in Risk/Hazard/Vulnerability and Capacity Assessments and that these take up different local understandings of causes of vulnerability and adaptation practices, across different socio-economic groups (intra-community).

* Create forums for interaction with beneficiaries with real inclusion of different vulnerable groups.

Examples from the case studies - Principle 3

Research findings from several of the case studies reveal that most humanitarian interventions are designed and implemented through top-down approaches informed by 'expert' or scientific knowledge at national or international level, while local or indigenous knowledge is seldom consulted and tapped into in the process – especially in emergency situations. This can have important implications for the sustainability and impact of the interventions. An example of this is provided by the case study in Isiolo, Kenya, where a humanitarian agency was said to have supported the reconstruction of a bridge that had collapsed in a flood. The local villagers knew that the pathway of the seasonal river changed slightly from year to year, so if advised, they could have told the agency not to construct the bridge in the exact same location as the previous one, but pointed them to where it would be more appropriate to put up a bridge. However, the bridge was constructed without consulting the local community, and a few months later, the rainy season came, the flow of the river changed direction and the new bridge was rendered useless.

Principle 4: Consider potential feedbacks between local and global processes

Given that responses to reduce vulnerability do not happen in isolation but may directly or indirectly influence and be influenced by larger scale socio-environmental processes, humanitarian actors should strive to avoid reducing the vulnerability of some at the expense of others across space and time.

Questions for reflection:

- What are the potential effects of national and international programmes on local level vulnerability as well as natural resources on which people depend?
- How do organizations work across scale? What are the other ongoing processes addressing development and adaptation in the region and how do these processes coordinate at national, regional and local level (see different actors/ministries/lines agencies involved etc…)?

Potential actions:

* Develop comprehensive disaster response/contingency plans that are harmonized with and contribute to broader climate change and development objectives.
    - The contingency plan should be based on findings from the contextual vulnerability assessments and stakeholder mappings identified above, and incorporate local knowledge, especially that of the most vulnerable people.

- The plan should be cross sectorial and include activities that not only alleviates suffering in the immediate term, but also address root causes of vulnerability. Considerations for future changes in risk profiles should be considered, and ideas in terms of how to strengthen adaptive and anticipatory capacity needs to be included in the plan.
- The plan should outline who is responsible for what, when, and how beneficiaries will be included in the process.
- The contingency plan needs to be costed (have a budget) and be linked to a pre-defined financing mechanism and early warning system (e.g. Forecast-Based Financing schemes).
- The plan should outline how emergency response and recovery activities will limit environmental impacts and avoid making people dependent on high emission (and soon redundant) practices and technologies (e.g. prepare environmental criteria to be included in purchase orders/tenders for the procurement of goods and services).

Examples from the case studies - Principle 4

Humanitarian interventions are commonly linked to host governments' wider political priorities. In the case studies in Nepal, Kenya, Ethiopia and Pakistan, findings suggest that humanitarian efforts support broader development pathways characterized by economic growth, market liberalization, modernization and intensification of food production, that may have socio-environmental impacts across space and time. For example, measures that support irrigation infrastructures often benefits the better off who have access to the required land and labour, and supports a development pathway that requires more input, may lead to higher emissions, and may represent a risky livelihood in the face of climate change. Humanitarian practitioners should therefore critically reflect on how their efforts contribute to support certain political priorities.

Principle 5: Empower vulnerable groups in influencing development pathways and their climate change outcomes

Given that marginalization and social exclusion are important drivers of vulnerability, humanitarian actors should not only ensure the meaningful participation of vulnerable and marginalized people in the design and implementation of humanitarian activities, but also contribute to supporting and demonstrating the strengths and capacities of 'vulnerable groups' through for instance giving them specific roles in emergency response and recovery activities. It is important that measures open up – rather than close down – space for vulnerable groups to contest knowledges and decision making authorities that contribute to current marginalization and inequities.

Questions for reflection:

- Who are the most vulnerable and what is the context/situation that make them vulnerable?

- ~ How do different vulnerable groups perceive their own resilience and what constitutes 'good or desirable' development?
- ~ What are the political, economic, cultural and social processes that hinder the most vulnerable to influence decision making processes at local, regional and national level?
- ~ What are the opportunities that exist within the humanitarian action in question to support their active participation in influencing development pathways?

Potential actions:

* Ensure meaningful participation of marginalized people and vulnerable groups (such as e.g. children, women, people with disabilities, elderly and very poor households) in planning processes and implementation of activities, and make sure that they have access to adequate information.
    - Reserve seats for groups that through the contextual vulnerability assessment have been identified as the most vulnerable, e.g. two female representatives, two youth representatives etc. in boards, committees and user groups. These representatives should reflect the diversity in the target community, and balance ethnic background, age, religion, wealth level, occupation etc.
    - Make sure these representatives have an equal say in meetings and encourage their active participation.
* Include marginalized people and vulnerable groups in disaster- and climate-related trainings, volunteer networks and capacity building programmes, and give them specific roles in emergency response and recovery activities whenever it is possible, relevant and safe to do so.

Examples from the case studies - Principle 5

Humanitarian actors (governmental and non-governmental) often need to liaise with local leadership/user groups/committees, which are usually dominated by economically and politically powerful people. However, the physical/formal participation of vulnerable groups in such committees is not necessarily enough to secure that their interests are actually heard and taken into consideration. For instance, the Nepal case study found that even though the names of women and Dalits appear on committee-lists, they complain they are not heard during meetings (Nagoda 2017). Similarly, in the Pakistan case, Arifeen (in preparation) found that local formal or informal institutions are usually dominated by better-off men. There are usually separate women's groups, but they do not have the same level of influence and power as the male village leadership and are not always consulted in every case. The Kenyan case study found similar patterns of marginalization (Mosberg et al. 2017), thus demonstrating how vulnerable the 'community participation' process is to local power dynamics and social inequities that may be reproduced or exacerbated if not addressed properly.

CHAPTER 6. CONCLUDING REMARKS

Integrating adaptation concerns into humanitarian responses represents an opportunity to address humanitarian needs while simultaneously reducing the risk of recurring crises. The growing recognition of the need to integrate humanitarian assistance with longer-term development has generated a number of policy recommendations for humanitarian actors, including better coordination between organizations, more focus on preparedness, better inclusion of local actors in decision-making, better understanding of the local context and enhanced financial flexibility and transparency (e.g. WHS 2016). Yet, the scale and intensity of current and recurring humanitarian crises in different parts of the world suggest that much more must be done to address entrenched vulnerability patterns. In this report we have demonstrated how insights from climate change adaptation theory and practice can contribute with additional perspectives as we take on the challenge of responding to acute humanitarian needs while at the same time addressing longer-term vulnerability concerns.

It is however important to note that any 'longer term humanitarian efforts' does not in itself constitute 'climate change adaptation'. Transforming the conditions that cause

vulnerability will often require changes in the way humanitarian interventions are planned and designed. It is often *how* a measure is implemented, in terms of reinforcing or challenging inequities and environmental change, that determines whether outcomes are transformative or not. This implies a need for a better understanding of the processes that shape local level vulnerability patterns and a more holistic financial and administrative approach for humanitarian aid that allows organizations to address the conditions that entrench vulnerability. Widening the scope of existing vulnerability assessments is one such opportunity. There is rich knowledge of the drivers of vulnerability at the local level, but this information is usually not systematically incorporated into the decision-making processes of the government, humanitarian and development organizations when designing adaptation activities. Most emergency response efforts focus on addressing physical risks and pay little attention to the underlying societal drivers of vulnerability (Nyborg and Nawab 2017).

The case studies in Kenya and Nepal (Mosberg et al. 2017; Nagoda 2017) highlight that there is an urgent need, in adaptation and humanitarian actions alike, for a deeper understanding of the socio-political context in which these actions are deployed, or they risk entrenching power structures and the processes creating vulnerability in the first place. Practical ways to enhance such understanding is to give space within planning and implementation for multiple vulnerability knowledges and problem understandings to emerge. Furthermore, the influence of vulnerable groups in decision-making processes can be strengthened, such as ensuring participation at the village level of people of diverse social, economic and ethnic background, such in committees administering food aid, in local disaster risk reduction groups and the governing of preparedness and anticipatory actions.

«Transformative adaptation demands moving from a mode of delivering expert advice and solutions to vulnerable populations, to taking up multiple vulnerability knowledges and making space for contestation of current development pathways»

This report describes the development of a framework to facilitate the application of our accumulated knowledge and best practices within climate change adaptation in humanitarian interventions. Every crisis is unique and the framework does not pretend to be a blue print that can be applied to all situations. Rather, it proposes a set of guiding principles and questions that have been formulated with the joint purpose of i) avoiding the risk that humanitarian actions reinforce entrenched vulnerability patterns and ii) identifying opportunities for humanitarian actions to contribute to transformative adaptation. Importantly, the framework is not a static document, but a contribution to the continuing process of enhancing the ability of humanitarian action to alleviate human suffering in the short as well as in the long term.

As such, the observations made and questions posed in this report are intended to inspire reflection within adaptation and humanitarian communities about how we go about transformational change through our daily decision-making and practices. Perhaps the starting point needs to be to create space for reflection within our own organizations – research and practitioner alike – regarding the need to question our own assumptions, practices and processes underlying how we understand and do development. Supporting transformational adaptation towards more just and sustainable adaptation is more about transformation of our own organizations than about transforming the practices of 'vulnerable populations'. Importantly, such transformative change means going beyond thinking about a particular practical action – to thinking about the process behind that particular action. Transformative adaptation demands moving from a mode of delivering expert advice and solutions to vulnerable populations, to taking up multiple vulnerability knowledges and making space for contestation of current development pathways. As argued by Eriksen et al. (2017), it is by illustrating alternative pathways locally and practical ways to support such alternatives, and the critical debates around them, that humanitarian actions can most usefully contribute to transformation.

7. ANNEX

7.1 Glossary

Climate Change
"Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use" (IPCC, 2014: 1760).

Climate Change Adaptation
"The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects." (IPCC, 2014: 1758).

Climate-Resilient Development Pathways
Development trajectories that combine adaptation and mitigation to realize the goal of sustainable development. More generally, climate-resilient pathways are defined by IPCC (2014: 1761) as: "Iterative processes for managing change within complex systems in order to reduce disruptions and enhance opportunities associated with climate change".

Disaster
"A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources" (UNISDR, 2009: 9).

Disaster Risk
"The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period" (UNISDR, 2009: 9).

Disaster Risk Reduction
"The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced

exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events" (UNISDR, 2009: 10).

Disaster Risk Management

"The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster" (UNISDR, 2009: 10).

According to the Global Assessment Report on Disaster Risk Reduction 2015, the DRM approach can be divided into three main components (UNISDR, 2015):

- *Prospective risk management:* which aims to avoid the accumulation of new risks;
- *Corrective risk management:* which seeks to reduce existing risks and
- *Compensatory risk management:* which supports the resilience of individuals and societies in the face of residual risk that cannot be effectively reduced.

Humanitarian assistance

Generally accepted to mean the aid and action designed to save lives, alleviate suffering and maintain and protect human dignity during and in the aftermath of man-made crises and natural disasters, as well as to prevent and strengthen preparedness for the occurrence of such situations (GHD, 2003).

Resilience

"The ability of individuals, communities, organizations or countries exposed to disasters, crises and underlying vulnerabilities to anticipate, prepare for, reduce the impact of, cope with and recover from the effects of shocks and stresses without compromising their long-term prospects." (IFRC, 2014a: 6).

Sustainable Adaptation

"Adaptation that contributes to socially and environmentally sustainable development pathways, including both social justice and environmental integrity" (Eriksen et al., 2011: 8).

Vulnerability

"The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts including sensitivity or susceptibility to harm and lack of capacity to cope and adapt" (IPCC, 2014: 1775).

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