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Global Environmental Change

journal homepage: www.elsevier.com/locate/gloenvcha

New discourses but same old development approaches? Climate change adaptation policies, chronic food insecurity and development interventions in northwestern Nepal



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ARTICLE INFO

Article history:

Received 28 January 2015

Received in revised form 31 August 2015

Accepted 31 August 2015

Available online 19 September 2015

Keywords:

Vulnerability

Climate change adaptation

Humanitarian aid

Qualitative content analysis

Nepal

Power relations

ABSTRACT

The study investigates whether Nepal's Climate Change Adaptation (CCA) policies represent new conceptualizations and approach to address local vulnerability, compared to the country's food security policy and local level perceptions of vulnerability in four villages in the region of Humla, northwestern Nepal. The study finds that Nepal's National Adaptation Programme of Action, NAPA, and Local Adaptation Plans, LAPA, consistently address "outcome vulnerability" at the expense of "contextual vulnerability", and that they offer little new in terms of challenging the structural root causes of vulnerability compared with "development as usual" approaches. Because these CCA policies build on an apolitical analysis of vulnerability, they not only promote one-dimensional technocratic solutions that ignore the drivers of local vulnerability, they also run the risk of reinforcing existing vulnerability patterns and even reducing the adaptive capacity of the most vulnerable. This article argues that – in order to effectively respond to the impacts of climate change on local vulnerability – adaptation policies need to integrate a contextual vulnerability analysis and promote responses that contribute to change the conditions that create vulnerability in the first place.

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Introduction

There is growing recognition that traditional development approaches are insufficient to address the challenges posed by climate change in food insecure farming communities (Ribot, 2010; Pelling, 2011; Eriksen et al., 2015b). Various scholars, including post-developmentalists such as Escobar (1994), have criticized "development as usual" approaches for focusing too much on short term, technocratic approaches and economic growth as a means to reduce vulnerability without responding to social and political drivers of poverty and vulnerability (Gardner and Lewis, 1996; Hughes and Hutchison, 2012; Best, 2013). Recently, increased attention and resources devoted to climate change adaptation (CCA) have created expectations that it will herald new and more efficient approaches to reducing vulnerability (IPCC, 2014). However, criticism is increasing that CCA offers no real alternative to "development as usual" pathways (Cannon and Müller-Mahn, 2010; Tanner and Allouche, 2011; Oppermann, 2011; Nightingale, 2015), as it merely responds to the outcomes of vulnerability but does not take into account the social and political contexts within

which vulnerability is created and sustained (Eriksen and O'Brien, 2007; Marino and Ribot, 2012). More specifically, power relations have been identified as important drivers of differential vulnerability patterns, since these influence peoples' access to resources and decision making, thus enhancing or hindering their capacity to adapt to stress in the long term (Adger and Kelly, 1999; McLaughlin and Dietz, 2008; Eriksen et al., 2011). By ignoring local, national and international structures and power relations that systematically contribute to the marginalization of individuals and groups, CCA policies and interventions may even run the risk of reproducing the type of development currently contributing to vulnerability (Manuel-Navarrete, 2010; Eriksen et al., 2011; Waghmore, 2012; Marino and Ribot, 2012).

To ensure that the most vulnerable households do benefit from CCA, recent policies often emphasize the importance of social inclusion and locally based adaptation programs (such as community based adaptation (CBA)) (Ayers and Forsyth, 2009; Schipper et al., 2014). Nepal is a case in point. The country's National Adaptation Programme of Action (NAPA) was adopted in 2010 after a "genuinely consultative and inclusive processes" (MoE, 2010a, p. 3), and Local Adaptation Plans of Action (LAPAs) are being developed to ensure that CCA projects take into account local level concerns and vulnerabilities (GoN, 2011a). However, there is a gap in our knowledge when it comes to the potential of current CCA

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approaches in addressing the local social dynamics that lead to differential levels of vulnerability between people and over time. The Nepal case provides an opportunity for examining the extent to which CCA policies address the structural root causes of vulnerability at the household level.

Several studies show that vulnerability to climate change and food insecurity mutually enforce one another (Bohle et al., 1994; Downing et al., 2003; Yaro, 2004). This is confirmed for the research area by a recent study which shows that households often regard food insecurity as a main outcome of their vulnerability situation (Nagoda and Eriksen, 2015). Moreover, Nepal's NAPA and LAPA framework strongly focus upon the impact of climate change on food insecurity in rural areas. This study therefore pays particular attention to the relationship between climate change and food security when investigating how vulnerability is addressed in policies and the implications of policies on household vulnerability.

This article fills an empirical gap by investigating the extent to which the adaptation policies conceptualize and address social and power relations as drivers of household's vulnerability in food-insecure farming communities within the district of Humla in northwestern Nepal. By comparing these aspects of Nepal's CCA policy with the country's food security policy, the paper also contributes to the broader discussion about inherent limitations in the concepts of adaptation and development when faced with complex local vulnerability contexts, and how current adaptation approaches are related to and limited by prevailing development paradigms. The district of Humla is particularly appropriate for investigating how interventions following from national level policies interact with local level vulnerability patterns. Indeed, Humla has been classified as one of the most food insecure district in Nepal (DFSN, 2010; NPC, 2010), and is part of a region where marginalisation and social exclusion based on caste, gender and class have been presented as important causes of poverty (Levine, 1987; Nightingale, 2011; UNFCO, 2013). Humla is also vulnerable to climate change (MoE, 2010a) and has been the target of food security interventions for decades (Adhikari, 2008).

The paper undertakes a two-fold analysis: First, through a qualitative content analysis of the NAPA and LAPAs, it investigates to what extent CCA policies in Nepal conceptualize and address outcome versus contextual vulnerability, and compare CCA policy documents with the country's main food security policy, the Agricultural Development Strategy (ADS) (MOAD, 2014). Second, based on a qualitative analysis at the household level, it studies to what extent the NAPA and LAPAs and the type of interventions they propose, reflect contextual vulnerability as perceived locally, and discusses the possible implications of these interventions on differential vulnerability patterns at the household level. The paper concludes with a discussion of the importance of a contextual vulnerability approach in order for CCA policies to promote the transformational changes necessary to address the root causes of local vulnerability.

Study approach: from CCA policy to projects—a novel approach or “development as usual”?

Addressing vulnerability has proven difficult. Despite decades of effort and billions spent, governments and aid agencies still struggle to provide development interventions that effectively reduce the vulnerability of the poorest (Watts, 1983; Escobar, 1994; Eriksen et al., 2015b). But our understanding of vulnerability is constantly evolving and vulnerability is increasingly understood to be driven by complex and multidimensional elements that include environmental, social, political, economic and historic factors (Ribot, 1995; Füssel and Klein, 2006; Smit and Wandel, 2006; O'Brien et al., 2007). The dynamic nature of vulnerability both conceptually and empirically makes it a much debated concept,

and since reducing vulnerability is a central aim of both development and climate change adaptation, CCA, (Adger, 2006; Eriksen et al., 2015b) how we choose to interpret and measure vulnerability has important implications for the design and scope of development and CCA policies.

Indeed, contrasting ideas of development promote different approaches to reducing vulnerability. Interpretations of development vary greatly and may include economic growth, technological advancement/change, cultural change and improvement in social conditions, and are driven by a multitude of conflicting ideologies and interests that over time have been subject to intense negotiations by different actors (Mosse, 2005; Li, 2007; Desai and Potter, 2014). Development and adaptation efforts are implemented simultaneously in many developing countries (McGray et al., 2007) and research has demonstrated that the prevailing processes, projects and discourses of development influence how CCA is translated into policies and practices (Pelling and Manuel-Navarrete, 2011; Tanner and Horn-Phathanothai, 2014; Eriksen et al., 2015b). Thus, understanding how CCA relates to the concept of vulnerability and how different interpretations of vulnerability in development processes and discourses influence current CCA approaches is essential in order to analyze if CCA provides novel approaches capable of addressing the drivers of local vulnerability in poor farming communities.

Many of the theories that have dominated the development debate since the second world war, particularly modernization and dependency theories, have been widely criticized for not being able to respond to the root causes of vulnerability and for focusing too much on macro-economic processes at the expense of understanding how local contexts contribute to marginalization and poverty, including people's role in influencing this context (Long, 1992; Gardner and Lewis, 1996). In part as a response to such criticism, new approaches and concepts have been introduced within development discourses over the last few decades, such as sustainable development, local participation, social inclusion, rights-based, bottom-up and community based approaches (Potter, 2014; Binns, 2014). CCA, after its integration into the development debates in the 90s, has been influenced by these approaches that share a focus on grassroots action and enhancing livelihood strategies as a basis for reducing vulnerability more effectively (Reid and Schipper, 2014).

However, although new ideas and approaches have enriched the development debate, they have not necessarily replaced the old ones (Peet and Hartwick, 2009; de Haan, 2009; Potter, 2014). On the contrary, several scholars argue that the neoliberal approaches that are supported by modernization theories' belief in a reduced role for the state, economic growth and technocratic solutions still dominate most development practices, whether under the guise of enhancing food security, improving livelihoods or poverty reduction (Cowen, 2007; Peet and Hartwick, 2009; Murray and Overton, 2011; Best, 2013). Taking this criticism a step further, some scholars including post developmentalists like Escobar (1994) and Esteva (1992), argue that new concepts are in fact arbitrarily introduced in development discourses to rationalize development in its current form, what Escobar termed the “repetitive reality of development” (Escobar, 1992, p. 25). On this backdrop, one may ask if CCA is able to go beyond the prevailing development framework to generate a novel approach to reducing vulnerability, or if it is only a new twist in the development vocabulary used to justify “development as usual” approaches.

CCA is a field under constant development, and from focusing on managing climate change as a physical threat on the economy of countries and communities, the debate has broadened to also include experiences and concepts from the fields of food security, risk management and sustainable development, among others.

However, the nature of climate change with its unpredictability, speed and scale of change presents new social-ecological challenges that demand CCA approaches move beyond existing development approaches in more profound ways (Ribot, 2010; Pelling, 2011; Tanner and Allouche, 2011; Eriksen et al., 2015b). In this regard, Pelling (2011) states that today's climate change debate represents a new opportunity to question the dominant forms of development, and asks whether CCA can reinvigorate a much needed debate about political and economic processes that create conditions for marginalization and vulnerability at the local level. In this study, I draw upon the definition of adaptation used in the introduction to this volume as "a social-political process that mediates how individuals and collectives deal with multiple types of simultaneously occurring environmental and social changes" (Eriksen et al., *this issue*). I use Adger (2006) definition of vulnerability as "the state of susceptibility to harm from exposure to stresses associated with environmental and societal change and from absence of capacity to adapt" (p. 268); and take household food insecurity as an entry point to analyze the impacts of policies on local vulnerability dynamics. These analytical choices allow for a multi-dimensional analysis of CCA as a way to adapt to a future characterized by multiple external changes that influence people's vulnerability.

Several scholars have shown that our orientation towards reducing vulnerability depends on whether we regard vulnerability as an end point (outcome) of the effects of climate change or as a starting point where certain pre-existing conditions make some people more vulnerable than others (see Kelly and Adger, 2000; Füssel and Klein, 2006). Building on this, and to guide our understanding of the implications of different conceptualizations of vulnerability in policies, O'Brien et al. (2007) have developed a diagnostic tool that distinguishes between "outcome vulnerability approaches" and "contextual vulnerability approaches". Outcome vulnerability on the one hand, is associated with a scientific framing of CCA where vulnerability is considered "a linear result of the projected impacts of climate change on a particular exposure unit (which can be either biophysical or social)" and tends to lead to apolitical and technical approaches in addressing the consequences of climate change (O'Brien et al., 2007, p. 75). A typical outcome oriented approach may for example focus on improving irrigations systems or distributing drought resistant seeds in order to support economic growth in a community experiencing water shortage.

A contextual vulnerability approach on the other hand, can be understood as being "based on a processual and multi-dimensional view of climate society interactions" (O'Brien et al., 2007, p. 75). Thus, a contextual vulnerability approach will typically be based on a broader analysis, in which climate change is regarded as one among several causes of vulnerability and where vulnerability is generated and influenced by the continual interaction of environmental, political, economic and social factors (Tanner and Mitchell, 2008; O'Brien et al., 2007). Within a contextual vulnerability approach, social and power relations are seen as important drivers of vulnerability as they define the entitlements of groups or individuals by legitimizing (or delegitimizing) their access to resources and decision-making (Adger and Kelly, 1999; McLaughlin and Dietz, 2008; Ribot, 2010). For CCA policies to address contextual vulnerability effectively these inherent complexities must be conceptualized and addressed when designing programs and implementing interventions (Adger et al., 2009; Agrawal et al., 2012; Eriksen et al., 2013).

This paper builds on previous studies that have highlighted the need for greater focus on contextual vulnerability in CCA (Ribot, 2010; O'Brien, 2012; Pelling, 2011; Eriksen et al., 2015b). This does not suggest that outcome oriented and technocratic CCA approaches are necessarily wrong. Rather, it highlights that they

often prove to be insufficient in effectively reducing vulnerability in the long term if the local and historical contexts of socio political processes behind inequity and marginalization are not taken into account. Investigating to what extent CCA in Nepal conceptualizes and addresses social and power relations as drivers of household vulnerability and food insecurity as compared to the country's food security policies, provides an opportunity to discern whether Nepal's CCA policies are able to go beyond the prevailing development paradigms when addressing the complex dynamics of vulnerability.

Research approach and methodology

In this study I undertake a qualitative analysis of the content of selected CCA and food security policy documents in Nepal in order to understand how the concept of vulnerability is interpreted and addressed. Indeed, several scholars have shown how qualitative policy analyses are particularly useful in shedding light on the broader political interests and ideologies hidden behind problem and solution framing, and why specific approaches and interventions are prioritized by some policies and not by others (Escobar, 1994; Apthorpe and Gasper, 1996; O'Brien et al., 2007; Pieterse, 2010; Ireland, 2012). Considering the importance ascribed to social and power relations as key drivers of vulnerability within local dynamics, I pay particular attention to how the policies regard social and political structures and relations (such as historical, social, cultural and political contexts leading to social exclusion, gender, caste and class differences, and access to power to control resources and/or decision making processes) as intrinsic parts of the vulnerability context that they intend to address.

The main policy documents chosen for this study are the National Adaptation Programme of Action (the NAPA) (MoE, 2010a) and the framework for the Local Adaptation Plans of Action (the LAPA) (GoN, 2011a) including its highlights for the Mid-Western and Far-Western Regions (HTSPE, 2012). Supported by the Climate Change Policy (GoN, 2011b), these documents constitute Nepal's main CCA policies, and they are for the purpose of this analysis jointly referred to as 'Nepal's CCA policies'¹. The NAPA was endorsed by the Nepali government in 2010, under the lead of the Ministry of Science, technology and environment, MOSTE, and by 2014 more than 70 LAPAs were being developed countrywide, including five in the district of Humla. The analysis of the country's food security policy is based on the final report of the Nepal's Agricultural Development Strategy (the ADS) (MoAD, 2014). Although the selected policy documents may not be fully representative for how vulnerability is understood and addressed by development and CCA policies in general, they do reflect important tendencies in a Least Developed Country that in spite of decades of intense development efforts is struggling to enhance food security and reduce vulnerability in poor farming communities. As such, the Nepal case can contribute to a larger debate about whether CCA addresses vulnerability differently than development efforts aiming at enhancing food security.

The CCA policies and the ADS were developed around the same time and represent the most recent national level policies within their fields in Nepal. However, the NAPA, the LAPAs and the ADS have been influenced by different institutions and national and international processes. The NAPA is regarded a product of Nepal's commitment under the United Nations Framework Convention on Climate Change (UNFCCC), funded by bilateral donors and its formulation has been largely guided – and constrained – by global

¹ The NAPA was developed in parallel with the Pilote Programme for Climate Resilience, PPCR, that was facilitated by the Asian Development Bank. At the time of the fieldwork, discussion was ongoing on how to integrate the PPCR into the NAPA.

level and pre-defined guidelines and processes (see for example Hardee and Mutunga, 2009; Ayers et al., 2011). It is the first policy of its kind in Nepal, thus limited national and local experience was available during its formulation. While the LAPAs are also largely funded by external donors, they are conceived and implemented locally in a policy process coordinated by district government (GoN, 2011a). The ADS, on the other hand, was facilitated by the Asian Development Bank (ADB) under the lead of the Ministry of Agricultural Development, MOAD, and funded by various international aid agencies. The ADS replaces the Agriculture Perspective Plan (APP) from 1995, which had been heavily criticized for, among other, not actively involving key stakeholders in its formulation (MOAD, 2014). In contrast to the NAPA, the formulation of the ADS was nurtured by the national and local experiences from previous policies.

Data for the study were collected over a five-year period from 2009 to 2014 and are analyzed using a two-fold approach. First, I analyze the NAPA, the LAPA and the ADS with regard to how vulnerability is conceptualized on an outcome versus contextual vulnerability axis, based on the diagnostic tool developed by O'Brien et al. (2007), presented in Table 1. Document contents were coded into the five levels of analysis suggested by the tool and compared for similarities and differences between each other. These five levels are the *diagnostic* level (how is vulnerability explained and understood?); the level of *focal issues* (what are the main concerns?); the level of *methodology* (what kind of analysis is used to assess the impacts of climate change?); the identified *results* (what are the actual and projected impacts of climate change?); and the level of *policy responses* (what kind of measures are proposed to reduce vulnerability?). I regard outcome and contextual vulnerability as constituting a continuum where a

policy may be characterized by elements of both approaches, and I use the guiding questions provided by the tool to place each of the interpretations on this continuum.

In order to enrich the understanding of the political context in which the NAPA, LAPA and ADS were developed, I undertook 74 qualitative interviews with policy makers, donors, United Nations, Non-Governmental Organizations and government officials on different levels in Kathmandu and in the district headquarters in Humla. The interviews centered on how the different actors understand concepts such as vulnerability, adaptation, resilience, climate change and food security and were coded for the same themes as the analysis of the policy documents.

Second, I analyze the extent to which the policies reflect contextual vulnerability as perceived locally. My previous research showed the influence of local power relations on livelihood strategies and how these impact on differential vulnerability patterns using in depth qualitative interviews at household level in four villages in the study area (Nagoda and Eriksen, 2015). This provides an opportunity to identify disconnections between policy discourses and local narratives, and to analyze the possible implications of the type of interventions proposed by the NAPA/LAPA and the ADS on differential vulnerability patterns on the household level.

The vulnerability context and effects of food security projects on differential vulnerability patterns

Understanding how adaptation is conceptualized in policies and put into practice locally is particularly relevant in a country like Nepal. Even after the 10-year civil war ended in 2006, the country has been through constant political turmoil, with unstable

Table 1
Diagnosis tool from O'Brien et al. (2007) (www.tandfonline.com).

	Outcome ←	→ Contextual
Diagnosis	Are human activities contributing to dangerous climate change? Who is negatively affected by climate variability and change? Which sectors are likely to be negatively affected?	Is climate change a relevant problem? Why are some regions and groups affected more than others?
Focal points	Future climate change Sectoral sensitivities	Current Climate Variability Political Economy Livelihood and coping strategies
Methods	Scenario-Based approaches Dose-Response Models Integrating Assessment Models	Agent-based Modeling Household Surveys Case studies Indicator approaches
Identified results	Measurable Gains and Losses Sectoral impacts Inappropriate Practices	Relative winners and losers Key Interacting Processes Institutional and socio-economic constraints to local responses
Policy responses	Reduce Sectoral sensitivities Technological adaptations Reduce GHG Emissions	Capacity building Adaptive management Address local constraints to responses Reduce inequities Alternative development pathway Address power structures

national governments and shifting political alliances. There has been no local elections since 1997; thus the country lacks legitimate local political and administrative structures and bodies. Political marginalization and social exclusion have been highlighted as main barriers in the fight against poverty in a country where access to resources, livelihood options and decision making processes is defined to a large extent by one's caste, class, ethnic group and gender identity (Bista, 1994; Khadka, 2009; Nightingale and Ojha, 2013). The recent earthquakes in April and May 2015 have shown how devastating natural disasters can be in a country that lacks essential political, administrative and technical capacity to reach the poorest. Such contemporary and historic processes of marginalization are no less important in shaping the vulnerability context in the district of Humla in the far northwestern corner of Nepal.

The northwestern region of Nepal has experienced centuries of economic and political marginalization under the government based in Kathmandu (Bishop, 1990; Adhikari, 2008). Humla, a mountainous district bordering Tibet in the North, is also characterized by its physical remoteness – the nearest road begins about one week's walk south of the district headquarters, Simikot – and by a weak and only sporadic state presence, especially outside Simikot. The people of Humla are diverse and may be divided roughly into two social groups: the Buddhist Tibetan-speaking people in the north and the Hindu Nepali-speaking people in the south. The latter are categorized according to the Hindu caste system; the most common castes in Humla are the Brahman, the Thakuri and the Chhetri representing high castes, and the low castes Dalits who are still socially and politically marginalized in Nepal (Levine, 1987; Cameron, 2007; Nightingale, 2011).

Humla is classed among Nepal's most food-insecure districts, with subsistence farming being the main livelihood strategy among its approximately 50,000 inhabitants (UNFCO, 2013). The District Food Security Network (DFSN) estimated that around 80% of the inhabitants suffered from food insecurity in March and April 2010, based on a set of 12 indicators developed by the Nepal Food Security Monitoring System, the NeKSAP (DFSN, 2010). Recently, climate change and variability, most commonly manifested by less frequent but heavier rainfall during summer, leading to more landslides and less rain and snow during winter, is adding stress to these already fragile farming systems (GoN, 2011a).

In a previous study in the same area, I found that local socio-political and environmental factors interact and lead to differential vulnerability patterns at the household level (Nagoda and Eriksen, 2015). This is in line with other studies in neighbouring regions that have observed how gender, caste, and class shape access to, control over and distribution of resources, as well as participation in community decision making (Nightingale, 2005, 2006). As a consequence, the impacts of climate change on local vulnerability vary greatly between households within the same communities. Food insecure households, mostly belonging to low castes and low income families, were found to be more vulnerable to external stressors including climate change than food secure households (Nagoda and Eriksen, 2015). In addition, my work in Humla showed that local level perceptions of vulnerability can broadly be divided into two main narratives, which are closely associated with caste, gender and wealth status identity. The better-off households that are the least food insecure and have the greatest adaptive capacity, often identified technological and physical constraints as the main reasons for their vulnerability, including drought, lack of irrigation, lack of manure, and lack of technical assistance from research institutions. The most food-insecure households, on the other hand, explained their vulnerability mostly by referring to social barriers such as oppression which limits access to land and water, no access to political networks, lack of education, and exclusion from development initiatives and decision-making processes

(Nagoda and Eriksen, 2015). As a consequence, the measures suggested by these two broadly defined groups also differ, with the most food insecure households calling for efforts to reduce social inequality and oppression and the better off households asking for more technical assistance.

Furthermore, interviews and observations reveal that past food security interventions in the study area were often insensitive to the local contexts and in some cases reinforced existing inequities and interdependency relations. For example, new irrigation systems facilitated by World Food Programmes, WFP, were in one village found to benefit the better-off farmers at the expense of the poorest whose lands were too poor and/or too far from the river. When affected by food shortage, the poorest households have to turn to the better off to borrow food or money, thereby increasing their financial and social debt and dependency on their creditors. To ensure that food security projects take local level interests and priorities into account, humanitarian actors have facilitated the formation of user committees (UCs) at the village level. However, these committees were found to largely reflect the local power dynamics, where those excluded from decision-making processes at the village level, that is women, low castes and very poor, are also marginalized in the UCs (Nagoda and Eriksen, 2015). Similar findings related to elite capture and under-representation of marginalized groups in local level decision-making bodies were also observed by scholars as Thoms (2008) and Nightingale (2005, 2006) in other regions of Nepal, and by Du Toit (2004) and Hughes and Hutchison (2012) in South Africa, Cambodia and the Philippines.

Interpretations of vulnerability in Nepal's CCA and food security policy documents

The section above describes a region with complex, dynamic and highly differential vulnerability patterns, where the impacts of climate change as well as of humanitarian interventions vary greatly between households within the same communities. On this background, the following sections analyze how vulnerability is interpreted in Nepal's NAPA/LAPA and ADS, according to the five levels of the diagnostic tool developed by O'Brien et al. (2007). The main findings are summarized in Table 2.

At the diagnostic level, the NAPA/LAPA view climate change as an external physical threat to the country's development goals caused by excessive emissions from developed countries. The stated goal of the NAPA is to reduce poverty (MoE, 2010a, p. 3), thus recognizing the links between poverty and vulnerability. However, the influence of socio-political processes on vulnerability is only referred to on a general level in a paragraph that states "climate vulnerability is also aggravated due to socio-cultural and institutional arrangements" (MoE, 2010a, p. 14). Gender is presented as a cross-cutting issue, but not used as a point of departure to address the consequence of the exclusion of women on local vulnerability. Weak governance structure and that the country finds itself in an unstable post-conflict phase are listed only as limiting factors, and statements such as "NAPA recognizes that the dire situation facing agriculture and food security is, to a great extent, a result of climate change" (p. 25) illustrate a linear and apolitical understanding of vulnerability and how climate change contributes to it. These findings are supported by Ojha et al. (2015) and Nightingale (2015) who also point to an outcome and apolitical oriented understanding of vulnerability in the NAPA.

In contrast, the ADS shows slightly more characteristics typical of policies with a contextual understanding of vulnerability at the diagnosis level, in which problems related to social exclusion, marginalization, inequity and poverty are highlighted, and weak governance is seen as an important reason for food insecurity

Table 2
Summary of main findings of the vulnerability analysis based on the diagnostic tool developed by O'Brien et al. (2007)

	Outcome ←————→ Contextual
Diagnosis	<p>NAPA/LAPA: Climate change is a serious problem caused by emissions in developed countries with grave consequences for vulnerability in Nepal.</p> <p>ADS: Climate change is one of several factors creating food insecurity and vulnerability in a context of poverty and weak governance.</p>
Focal issues	<p>NAPA/LAPA: The actual and potential impacts of rising temperatures and unpredictable precipitation is understood as a linear causal relationship to vulnerability.</p> <p>ADS: Issues related to low agriculture production as well as social exclusion, marginalization and weak governance are seen as contributing to food insecurity.</p>
Methods	<p>NAPA/LAPA: Vulnerability is quantified as a function of exposure, sensitivity and adaptive capacity; supplemented by transect appraisals of vulnerability, meetings and workshops at national and local level.</p> <p>ADS: Vulnerability to food insecurity is assessed through a sector approach including various meetings and workshops at national and local levels. However, vulnerability to climate change is mostly limited to scenarios developed by the NAPA.</p>
Identified results	<p>The ADS refers to the results of the NAPA/LAPA, namely that an increase in temperature and variation in precipitation will cause more extreme events including droughts, and incidences of pests and diseases. Likely impacts include too much and/or too little water affecting agriculture, health, more floods and landslides, changes in agro-biodiversity, more forest fires and disasters affecting infrastructure such as roads, bridges, water supply and schools.</p>
Policy responses	<p>The focus of the NAPA/LAPA is on enhancing agricultural productivity and linking communities with markets to minimize negative impacts of climate change on the local economy. Measures include promoting crop varieties and animal breeds adaptable to climate uncertainty, early warning systems, flood management and irrigation systems. They suggest actions to enhance environmental protection through integrated watershed management, on-farm soil and water conservation, and sustainable forest management.</p> <p>The ADS recalls the climate change measures that focus on agricultural productivity and economic growth proposed by the NAPA.</p>

(MOAD, 2014). Although references to socio political causes for vulnerability had been weakened compared to earlier drafts (see ADB 7762-NEP, 2011, 2013), the final version of the ADS still recognizes that socio political conditions may contribute to vulnerability and the importance of gender equity and social and geographic inclusion in decision making processes (MOAD, 2014).

On the level of focal issues, the NAPA highlights six areas where actual and projected temperature increases are expected to have the greatest impact. These are agriculture and food security, water resources and energy, climate-induced disasters, forests and biodiversity, public health, and urban settlement and infrastructure (MoE, 2010a). The stated objective of the NAPA is that CCA activities should become mainstreamed into the national development agenda. The priority is for the six named areas to be organized nationally within nine combined profiles framed by Nepal's national development programs, with a strong emphasis on community based adaptation measures (MoE, 2010a). While the focus of the ADS is to reduce food security by agricultural sector

growth, it also points to the need for improved governance, and social and geographic inclusion (MOAD, 2014).

On the level of methodology, however, the discourses in both the NAPA/LAPA and the ADS can be placed somewhat closer to the centre of the outcome versus contextual vulnerability axis. Both policies claim to be the result of inclusive and participatory processes and the LAPA framework is especially designed to ensure that the process of integrating CCA into local planning is “bottom-up, inclusive, responsive and flexible” (GoN, 2011a, p. 3). The NAPA/LAPA employed a “special vulnerability assessment mapping” exercise following the framework developed by the Intergovernmental Panel on Climate Change, IPCC (MoE, 2010b, p. d), using both quantitative and qualitative measures of climate change and human indices related to gender, development, poverty and empowerment developed by UNDP (2004). Since the ADS tends to present climate change as only one among several factors influencing food security, it bases its methodology on a broader thematic approach that may affect the agricultural sector in Nepal, including references to migration, globalization and trade. Both the

NAPA/LAPA and ADS documents are based on consultations through policy roundtables, national and regional workshops, thematic group meetings, expert assessments and focus group discussions at district and village levels, as means to include local level analysis, at least in a perfunctory sense.

Nevertheless, when it comes to the projected consequences of climate change on food security (i.e. the identified results level), the NAPA/LAPA and the ADS share a strong emphasis on the technical and physical impacts on crop and livestock production—an approach that is typical of an outcome interpretation of vulnerability. At this level, the ADS simply refers to the results of the NAPA, and provides no independent analysis based on its own methodology. Both the NAPA/LAPA and the ADS describe vulnerability to climate change in rural farming communities as a result of reduced agricultural production due to too much or too little rain, more floods and landslides, changes in agro-biodiversity, more pests, an increase in forest fires and disasters affecting infrastructure like roads, bridges, water supply and schools. While both policies acknowledge that the poorest and women are likely to be more affected by climate change, they make only weak attempts to elaborate on the mechanisms by which gender inequity and poverty influence local vulnerability patterns. Although efforts are made under the LAPA framework to collect household level data, interviews at policy level reveal that the reasons why certain households are more vulnerable than others are not specifically assessed.

At the policy response level, and consistent with the view that vulnerability in farming communities is a direct outcome of a projected drop in local food production, the NAPA/LAPA and the ADS promote very similar outcome-oriented types of interventions. They propose technocratic and apolitical measures aimed at enhancing economic growth through increased agricultural productivity and linking communities with markets, rather than measures that would address the social causes of inequality and vulnerability. The NAPA/LAPA specifically promote environmental conservation through on-farm soil and water conservation activities, enhanced irrigation systems, crop varieties and animal breeds adaptable to climate change, early warning systems, and integrated natural resources management. Although the ADS emphasizes the need for improved governance in the agricultural sector in addition to increased productivity, competitiveness and commercialization, none of the policies provide specific tools or approaches to challenge social and political processes leading to marginalization in the face of climate change.

Although neither policy is only outcome nor contextual in all respects, the above shows that the NAPA/LAPA policy tends to be placed on the outcome side of the diagnostic tool. The ADS, on the other hand, is found to have a more contextual approach on the levels of problem understanding, focal issue and methodology, but this is not reflected on the levels of identified results or proposed solutions, both of which tend to remain technocratic with a strong belief in market forces and very similar to those proposed by the NAPA/LAPA. Furthermore, the measures for addressing vulnerability to food insecurity when faced with climate change are found to offer few if any novelties when compared with current food security projects implemented in Humla by WFP. Existing food security projects in Humla and the NAPA/LAPA focus both on increased market access and technological solutions to increase food production, for example, through building irrigation systems or distributing improved seeds of plants with economic value.

To explain this orientation towards outcome oriented approaches, development workers and donors involved in the NAPA/LAPA and ADS policy processes stated during interviews that addressing local social structures and power relations was regarded as too controversial, and that organizations lack the tools and mandate to do so. Furthermore, rather than conducting a

separate assessment of the impacts of climate change on food security, the ADS integrates the NAPA findings into its analysis. The result is a mismatch between a relatively contextual understanding by the ADS of the problems creating vulnerability, and the outcome oriented types of solutions that it proposes.

The mismatch is even more striking when the outcome oriented responses proposed by the NAPA, LAPA and the ADS are compared with the contextual and highly differential perceptions of vulnerability among households in Humla. Indeed, the understanding of vulnerability within the ADS and the NAPA/LAPA tends to converge with the better off households' perception that vulnerability is caused by a lack of technical assets, at the expense of addressing the concerns of the most food-insecure households that social inequities and oppression inhibit their access to resources and/or decision making processes.

Importantly, the risk that interventions may influence negatively on unequal power relations or contribute to elite control, is not considered in the policy documents. These findings underwrite observations by [Nightingale \(2015\)](#) and [Ojha et al. \(2015\)](#) that Nepal's CCA policies are facing difficulties in reaching the most vulnerable in a society where access to political processes is largely dictated by one's caste and group identity. While the policies explicitly refer to the formation of community user groups (for the LAPAs) or farmers' cooperatives (for the ADS) as a means to ensure that interventions respond to local needs, these fora are not problematized as spaces defined by pre-existing power and social relations, in which exclusion and repression of certain groups and individuals influence decision making. Hence, by not taking into account the important differences in perceptions of vulnerability among households within communities, the policies fail to capture the complex and highly dynamic state of vulnerability at the local level, and even run the risk that such policies contribute to reinforcing rather than diminishing household level vulnerability patterns by sustaining unequal power relations.

Implications of the outcome vulnerability focus

This study has shown that Nepal's CCA policies remain firmly rooted in current development paradigms that focus on economic growth and market development, thus confirming the claim made by others that neoliberal development approaches still prevail ([Murray and Overton, 2011](#); [Best, 2013](#)) and may not be challenged by current CCA policies ([Manuel-Navarrete, 2010](#); [Pelling et al., 2011](#)). While the policy documents give importance to participatory processes, social inclusion and good governance, this has not resulted in interventions that address contextual vulnerability locally. The case of Nepal also demonstrates the influence an outcome vulnerability CCA approach may have on limiting other development approaches when integrated into national development strategies. Indeed, while the ADS has a more contextual understanding of vulnerability at diagnosis level compared to the NAPA, since the ADS refers to the NAPA when assessing the impacts of climate change on food insecurity, its proposed interventions turn out to be very similar.

A major methodological difference between outcome and contextual vulnerability approaches is that the former tends to view communities as homogenous entities, while the latter seeks to identify reasons for differential vulnerability at the household level as part of a context influenced by various factors (social, economic, political and environmental) at different levels. An adaptation policy (or development policy for that matter) that disregards the processes leading to differential vulnerability within communities has several implications: First, it effectively disguises local vulnerability patterns and ignores local drivers of vulnerability ([Ribot, 2010](#); [Pelling, 2011](#)). Second and as a consequence of the first, the policy is likely to be unable to

address these root causes of local vulnerability. Third, such a policy is unable to assess the consequences of its interventions on local vulnerability patterns, including the risk of elite capture or reinforcing existing power relations when forging local partnerships with political and/or development organisations. Other studies have shown that power relations operate as much at the household as at the village, district and national levels, therefore showing how social relations and networking with elites, political parties and/or development organizations that influence decision making outcomes operate across all levels (Fergusson, 1994; Mosse, 2005; Nightingale and Ojha, 2013; MacKinnon, 2011; Yates, 2012). Thus, any analysis of differential vulnerability within communities and households needs to include qualitative information at a sufficiently detailed scale and take the exercise of power between levels into account. Also, to avoid reinforcing local inequality, mechanisms must be developed that ensure effective involvement of the most vulnerable when designing and implementing interventions.

However, because the NAPA conceptualizes CCA as being limited to operating within the boundaries of the existing development framework (MoE, 2010a), CCA is effectively constrained from reaching beyond current development approaches when addressing vulnerability. This observation underwrites findings by Cannon and Müller-Mahn (2010) who point out that while a development policy aims at reducing vulnerability in order to permanently improve the situation for the beneficiaries (i.e. fighting poverty), an outcome oriented CCA policy runs the risk of focusing only on minimizing negative impacts of climatic events and changes. Clearly, if adaptation is not understood as a tool for identifying and addressing the multiple causes of local vulnerability, it is unrealistic to expect that CCA policies shall bring about innovative and transformative approaches to reducing vulnerability in the long term. This is particularly true when CCA is framed within the rigidity of a development framework that continues to view economic growth as supreme over environmental and social justice, local people as objects rather than subjects, and decision-making processes and humanitarian interventions as external rather than as part of the context of vulnerability processes they try to influence.

It is noteworthy that on the global level, Nepal's vulnerability to climate change is described in the NAPA as a product of unequal global power relations and international historical injustice that developed countries have a moral responsibility to compensate for by financing the costs of adaptation (MoE, 2010a). This view is shared by many Least Developed Countries (LDCs) and grassroots organizations and appears consistent with the dependency theory that regards poverty as a result of unequal power relations between rich and poor countries (see Frank, 1972; Wallerstein, 1979). This perception is, however, in great contrast to the NAPA's technocratic and apolitical discourse of causes and responsibilities on the national and local levels, in which the CCA policy is more consistent with modernization theorists who argue that technological solutions will create economic growth that will eventually "trickle down" to the poor (Eriksen et al., 2015b). By using these discourses alternately, development and government actors are seemingly distancing themselves from dealing with the root causes of vulnerability while arguing for increased funding for CCA.

The CCA debate is constantly evolving, however, and the NAPA in Nepal, which was finalized in 2010, has not incorporated the findings from the most recent literature such as IPCC's fifth Assessment Report with its greater focus on how social processes contribute to vulnerability (IPCC, 2014). The second generation CCA policies will also have the opportunity to build upon a wealth of national and local experiences with CCA that may contribute to a shift towards conceptualizing adaptation as a political process to transform the power and social relations that drive differential

vulnerability patterns at the local level. However, this analysis has shown that even when a policy includes elements of a contextual vulnerability approach, such as in the case of the ADS, measures still may remain mostly technical and apolitical. Hence, it is not only the conceptualization of vulnerability that determines the types of interventions, also the politics that lie behind the prioritization of certain measures are important to understand. Further analysis related to political processes within development and adaptation policies are required to investigate why current CCA policies and practices tend to ignore important root causes for vulnerability, and if and how CCA can become a tool for broadening, rather than limiting the way the development community addresses vulnerability. This is a challenge, of course, not only for the climate change community, but for everyone committed to reducing the vulnerability of the poorest and most marginalized.

Conclusion

The paper argues that Nepal's CCA policies, the NAPA and the LAPA, do not challenge the existing development paradigm in Nepal and provides few, if any, new approaches to reducing local vulnerability in poor farming communities compared to the country's food security policy. The NAPA/LAPA have an outcome oriented and apolitical understanding of vulnerability and when compared with the country's Agricultural Development Strategy, ADS, the adaptation policies even represent a step backwards in terms of being narrower and less sensitive to how social, economic and political processes on different levels shape the vulnerability context of households in rural farming communities.

This observation supports Pelling and Manuel-Navarrete (2011) argument that CCA has only "opened up policy space for environmental reform within the existing development discourse without challenging existing structures . . . The result is a sense of lock-in with the institutionalized status quo" (p. 9). Paradoxically, rather than widening our understanding and providing the development community with new insights and tools that can reduce vulnerability more efficiently, it can be argued that the contribution of CCA to the development agenda has been to narrow its approaches to reducing vulnerability and adapting to climate change. The case of Nepal clearly shows that CCA is not understood as a new opportunity that questions the dominant forms of development which give priority to market forces and economic growth at the expense of looking at the root causes of inequity and marginalization. Based on this, I argue that as long as CCA literature and policies are conceptualized within existing national and international development policies and dominated by approaches that narrowly address vulnerability, they will continue to promote responses to the symptoms rather than the causes of vulnerability, and may exacerbate inequities and power asymmetries that hinder or delay local adaptation efforts.

Building on previous work (Ribot, 2010; O'Brien, 2012; Eriksen et al., 2015a), I advocate for a better balance between approaches addressing outcome and contextual vulnerability. At the same time, I stress that a shift in policy discourse from an outcome to a context focus will be insufficient in itself to address contextual vulnerability, if such a change is not followed through on all levels of the policy process and implementation. My findings support the argument that CCA needs to be re-defined as a political process wherein the economic, social, political, cultural and environmental causes of vulnerability are addressed (Eriksen and Lind, 2009; Pelling, 2011; O'Brien, 2012; Eriksen et al., 2015b). This requires, however, that CCA cannot continue to be limited conceptually by the existing development framework, but must be understood as a tool to challenge and broaden this framework in order to address the contextual causes of vulnerability.

There may be political reasons why CCA becomes depoliticized in policy processes. For example, O'Brien (2012) points out that a reorientation of CCA is unlikely to be prioritized by policy makers and elites who currently benefit from maintaining the status quo. Indeed, this analysis serves to illustrate how vulnerability interpretations and measures land in a local political context to converge with the interests of local elites at the expense of addressing the concerns of the most vulnerable households. Further studies are needed to understand how CCA can contribute to transformational change in the conditions creating household level vulnerability, and to disentangle the myriad of interests, negotiations and resistances that constitute power and social relations between actors at different levels of the policy process.

Acknowledgement

The paper is part of the project “The politics of climate change adaptation: An Integrative Approach of Development and Climate Change Interventions in Nepal and Mongolia”, funded by the Norwegian Research Council. I am thankful for the comments I received from four anonymous reviewers as well as people I met in Nepal and Humla that have been keen in sharing their experiences and ideas.

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