

Nepal's Climate-Change Cultural World

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This chapter explores national-level climate-change policies as they pertain to the everyday lives of Himalayan people at the local level. It focuses on the 2011 *Climate Change Policy*, the National Adaptation Program of Action (NAPA), the National Framework for Local Adaptation Plans of Action (LAPA) and the National Planning Commission's (NPC) 'Climate Resilient Planning' document that form the core climate policies on which other policy documents are based. It reviews and builds on recent literature to unravel the ways in which adaptation programmes currently operate and to underscore how the omission of nonclimatic factors and context-specific vulnerabilities from adaptation programmes has caused them to fail in meeting their stated goals. It also draws from ethnographic fieldwork in the Mount Everest region in northeastern Nepal between 2009 and 2012, among conservation and development practitioners in Kathmandu in 2014 and in Humla, northwestern Nepal, in 2016.

It employs the 'cultural world' (Bodley 2003) as a conceptual framework for exploring national actors involved in the design, preparation and implementation of climate-change policies. The national climate-change cultural world is understood as an extensive social environment, where entities routinely interact to secure their existence and where, in spite of their operational differences, they share understandings about the global climate-change phenomenon and the institutional roles, rights and obligations to respond to it.

The chapter reveals that biophysical, technomanagerial and apolitical approaches to climate change are extant in Nepali climate policies. It discusses biophysical understandings of climate change in the policies that

focus on predetermined adverse effects for different regions. It shows that human systems are considered separate from natural systems and that people are treated as apolitical passive recipients who primarily live in rural regions. Policies depict climate change solely as a problem, limiting the understanding of its multidimensionality.

While climate-change policy-making initially emerged as a possible transformative opportunity to reach the most vulnerable, assessments have shown that, as conceived within the donor-recipient culture, they privilege Western scientific understandings of climate change over local knowledge and pursue technomanagerial approaches to dealing with climate-change effects that fail to consider the intersectionality of factors that produce context-specific vulnerabilities. Although discrete cases of indigenous knowledge are recognized during LAPA¹ preparation, there is no recognition of the multiple knowledge systems, institutions and worldviews in which they are embedded.

Everyday Reality

Humla, a northwestern district of Nepal, was dry when I visited in the spring of 2016. Drought is not unusual in this food-insecure mountain region. However, Ram Dai² believed this was the driest it had been in the last forty plus years of his life. He pointed to the fields with plants struggling to emerge from the dry soil and repeated his worrying observation as if he could not get it out of his mind. Dai and I were walking to his village, a few hours of downhill hiking from Simikot, the district headquarters, and across the raging Karnali River. After an hour, we came across some of his fellow villagers resting on the edge of a fresh road they had just dug. A few men sat next to a rock above us and continued to break it with their hand tools. Road-building offers supplemental income to the villagers. 'It is a hard job with little pay', Dai claimed. In the village, I met a lone grandmother sitting on the roof, looking helplessly at her field and wondering aloud if there would be enough to eat later in the year. Seasonal streams that originate on mountain tops are the traditional source of drinking water. Development projects had previously invested in bringing stream water to the village, but the lack of sustained assistance rendered these efforts fruitless in the long run. As we left the village, I asked Dai: 'Why not use water from the river? It is so close to you.' He explained that it would be costly and require special expertise, investment and machinery, all of which are difficult to acquire in this remote rural region. The lack of infrastructure to bring water makes irrigation impossible, and villagers continue to rely on

rainwater. Several hours later, just before we reached Simikot, there was a heavy downpour. I saw signs of relief on Ram Dai's face, which quickly disappeared when we both realized we were not prepared for the rain. We ran from one house to the next, trying to stay dry.

Climate-change effects are an everyday reality for mountain people in the central Himalayas. The challenge of coping with food insecurity in Humla remains painful to the Humli villagers, regardless of whether it is perceived as a World Health Organization (WHO) issue, as it has been for the past several decades, or a NAPA issue, as it has been since 2012 (Nagoda 2015). Life continues. The scale at which food insecurity affects villagers every year, and the lack of local resources – social and economic – to allow villagers to overcome this challenge makes sustained external institutional support crucial. The need to facilitate successful adaptation and enhancing adaptive capacities within the context of sustainable development is clear, as the effects of climate change become increasingly apparent (Jones and Boyd 2011). The availability of institutional support on its own, however, does not necessarily solve the problems. It may instead cause further exclusion of the most marginalized, who are often illiterate, from access to institutional benefits (Nagoda and Nightingale 2017; Nightingale 2017; Regmi, Star and Filho 2016), even when the local participation of specific social categories, such as 'women' or 'dalits', is emphasized in the institutional design. Differential power dynamics in the governance structure prohibit meaningful participation of the most marginalized in the decisions regarding what policies are put in place, and where, when and how policies are implemented (Nagoda and Nightingale 2017; Nightingale 2017). Vulnerability to climate change is often due to nonclimatic factors such as socioeconomic situation or caste-based discrimination (Nagoda and Eriksen 2015; Pandey and Bardsley 2015). Sociocultural, economic and political stressors intersect with climate-change effects, and contribute to different context-specific vulnerabilities among heterogeneous members of local communities (Puschiasis 2015; Nagoda and Eriksen 2015; Sherpa 2014). Lack of consideration of such vulnerabilities in climate policies can lead to the failure of adaptation programmes that supposedly target those most in need of assistance. The diversity of the milieu, the high variability of climatic features and the multiplicity of factors of change in the Nepali Himalayas call for very detailed multiscale temporal and spatial analyses (Smadja et al. 2015). Discussions of climate change need to avoid generalizations (Smadja et al. 2015) so as to remove uncertainty in adaptation responses.

Recent publications examining climate-change policies (Khatri et al. 2015; Nagoda 2015; Nagoda and Nightingale 2017; Nightingale 2017;

Ojha et al. 2015; Vij et al. 2017, 2018), the process of policy-making (Helvetas and RRI 2011; Nightingale 2015) and their implementation at the local level (Bhattarai, Beilin and Ford 2015; Pandey and Bardsley 2015; Regmi, Star and Filho 2016; Sherpa 2015) show that climate-change adaptation activities in Nepal have been ineffective, failing to meet their stated objectives or contributing further to vulnerabilities at the local level. In particular, Nepal's climate-change policy analyses conducted by Helvetas and RRI (2011), Nagoda (2015), Nightingale (2015, 2017), Nagoda and Nightingale (2017), and Ojha et al. (2015) allow this chapter to further discuss national-level climate-change cultural world. I also draw upon my previous research on Sherpa perceptions of, and institutional responses to, climate-change effects in the Everest region between 2009 and 2012, and the interviews conducted in Kathmandu with conservation and development practitioners in 2014 and with local villagers and climate-change adaptation officers in Humla in 2016.

This chapter recognizes the significance of institutions at the local, national and international levels, as well as institutional links between them, in operating adaptation programmes, as has been demonstrated by several studies (Ojha et al. 2015; Nagoda and Nightingale 2017). It concurs that a proper appraisal of climate-change challenges and opportunities in Nepal requires investigation across all levels. Understanding the local or the national in relation to others in the 'chain of policy development' (Nagoda and Nightingale 2017) is imperative. Therefore, this chapter investigates climate-change policies and policy-making at the national level in relation to the local and the international. Government agencies as part of the national climate-change cultural world are one of the many actors that are significant partners to international donors and play the role of key planners of local climate-change responses.

The National Climate-Change Cultural World

In *The Power of Scale*, Bodley (2003) compares cultural worlds that illustrate characteristics of human organization and the unintended consequences that arise as scale increases. He describes cultural worlds as 'the most extensive social environments where people routinely interact to secure their existence, and where in spite of linguistic or ethnic differences, people share understandings about the nature of the world, and about the common human rights and obligations' (Bodley 2003: 7). The most striking aspects of the different cultural worlds are the scale and scope of human activities that each permit, the distinctive ways in which *imperia*³ are constructed in each, and how social power

is organized and distributed (Bodley 2003: 7). Bodley argues that contemporary human problems – environmental deterioration, poverty and human rights abuses – are unintended consequences of the operation of personal power networks that have become too big and too dangerous to be safely controlled (2003: 3).

Bodley's cultural-world perspective affords multiscale analysis of heterogeneous actors – their diverse worldviews, agency and relationships – and the consequences of their actions. It offers a lens through which a national-level complex, consisting of governmental climate-change agencies and their policies in relation to other relevant institutions, can be examined. In the national climate-change cultural world, entities routinely interact to secure their existence in this most extensive social environment. In spite of their operational differences, these entities share understandings about the global climate-change phenomenon, and institutional roles, rights and obligations to respond to it. This perspective offers a pathway to cultural analysis that asks a set of questions about meaning and relationships as seen from actors' perspectives (Campbell 2013: 355). It opens up conceptual space for us to consider governmental agencies as important national actors and to situate them in relation to other groups and institutions. The international is distinguished from the national as the site from which climate-change ideas and resources currently flow and the local is distinguished as the site where national climate-change policies are implemented. This cultural-world perspective does not require the exclusion of nonhuman actors or indigenous cosmologies or multiple epistemologies, just as it does not exclude policies and the policy-makers. This perspective is complementary to seeing cultures in the Himalayan environment as 'vantage points on the diverse ways and contexts in which people bring community into being, on the assembling of actors and localities, on the inclusions and exclusions, the bringing closer and the rendering distant, that vitalize the possibilities of social interaction and subsistence in a part of the world characterized by transition and intermediacy' (Campbell 2013: 355).

In Nepal's climate-change cultural world, government agencies are powerful bodies of national authority that interact with each other and with international nongovernmental organizations (INGOs), nongovernmental organizations (NGOs) and civil society groups with varying degrees of institutional capacity at different levels. However, cross-institutional engagements are not without contestation and conflicts of interests. Development agencies can heavily influence climate policy-making via financing and privileging Western and scientific worldviews on climate change (Ojha et al. 2015).

According to Dixit (2010: 5), Nepal's institutional landscape is constituted by governmental and semi-governmental organizations, multilateral and bilateral donor agencies, educational institutions, international and local NGOs, and federations of user groups. These organizations work on issues of development, environment, climate and poverty alleviation, with specific activities focusing on 'drinking water, irrigation, hydropower and energy system development, community empowerment, capacity-building in disaster preparedness and response, and national resource management' (Dixit 2010: 5). Dixit groups institutions into three solidarities – the state, market and civil society – each of which is described as 'a social carrier of a different type of knowledge, one that reflects the needs of its particular world view and filters out other points of view' (Dixit 2010: 5).

Similarly, Vij et al. (2018: 77) recognize climate policy paradigms (CPPs), the comprehensive set of prevailing and institutionalized ideas and strategies of policy actors. Building on the work of Hall (1993) and Howlett (2009), Vij et al. (2018) argue that policy paradigms influence the ways in which actors respond to particular issues, as they set the prevailing ideas about what is considered logical, acceptable, appropriate and desirable. They argue that underlying the design and implementation of climate policies and plans are CPPs. They identify four CPPs in Nepal: (1) disaster response and relief (since 1997) (2) disaster risk reduction (DRR) (since 2003); (3) climate change adaptation (CCA) (since 2009); and (4) localized actions towards CCA and DRR (since 2012). They argue that there has been a 'layering' of CPPs, a process of adding new frames, goals and instruments to existing institutions without replacing pre-existing ones. In comparison, they argue that Bangladesh has 'layering', 'drift' and 'conversion' of CPPs. Drift and conversion refer to changes in existing institutions or elements due to the external environment or the redeployment of existing institutional elements for new purposes (Hacker 2004; Hacker and Pierson 2010). While layering can be advantageous in providing support for new CPP to build upon the experience of the older ones, Vij et al. (2018) conclude that it can also cause fragmentation of policy efforts due to overlaps and the introduction of new actors and instruments that create confusion and competition within various paradigms.

Climate-Change Adaptation in Nepal

The government of Nepal signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and designated the Ministry of Environment (MoE)⁴ as the focal point to implement

relevant provisions. In 2005, Nepal ratified the Kyoto Protocol. In 2010, the NAPA was prepared with support from the United Nations Development Programme (UNDP) followed by the 2011 *Climate Change Policy* with support from the World Wildlife Fund (WWF). These major climate-change policy documents were prepared at the national level through different coalitions of policy-makers without political deliberations among the affected people (Ojha et al. 2015).

The government of Nepal recognizes that the country is affected disproportionately by climate change although it accounts for only 0.4 per cent of the total global population and is responsible for only 0.025 per cent of total greenhouse gas (GHG) emissions (MoE 2010). The government of Nepal identifies adverse impacts of climate change on a sectoral basis that includes agriculture, food security, water resources, forests, biodiversity, health, tourism and infrastructure (MoE 2010). It expects climate change to increase occurrences of natural disasters that undermine Nepal's development efforts and its overarching goals of reducing poverty and enhancing economic wellbeing (NPC 2011). Extreme events are highlighted, especially in the context of disaster planning and risk reduction. The melting of Himalayan glaciers and glacial-lake outburst floods (GLOFs) in particular have been stressed when depicting negative climate-change impacts internationally (Sherpa 2015). Instances of premature and overblown alarmist attention to GLOFs in the Everest region have been called out by glaciologists in favour of systematic studies of the cryosphere (Ives 2013; Watanabe, Lamsal and Ives 2009).

As a least developed country (LDC) vulnerable to climate change,⁵ Nepal receives funding from international donors for climate-change adaptation activities. The National Climate Change Support Programme (NCCSP) is the first significant intervention on climate-change adaptation in Nepal financed by the UK government's Department for International Development (DFID), the European Union (EU) and the UNDP. The first phase ran from 2013 to 2017 with financial support from all three donors. The second phase (2017–22) is supported financially by the DFID with technical assistance from the UNDP. The NCCSP is guided by the NAPA, the *Climate Change Policy* and the National Framework on LAPA. The NCCSP corresponds to combined priority 1 of NAPA, which is to 'promote community-based adaptation through integrated management of agriculture, water, forest and biodiversity sectors'. It is also in line with the objectives of the Nepali government's Three-Year Plan (2010/11–2013/14) to promote green development, making development activities climate friendly and resilient, mitigating the negative impacts of climate change and promoting adaptation. The NCCSP in its first phase prepared and implemented 100 LAPAs in fourteen climate-vulnerable districts identified during the

NAPA preparation process (NCCSP 2018). It is continuing its efforts in the second phase.

Climate-Change Policies

Core climate-change policies in Nepal include the *Climate Change Policy*, the NAPA and the National Framework on LAPA (Dhungana et al. 2013; Nagoda 2015; Ojha et al. 2015). The Reducing Emissions from Deforestation and Forest Degradation (REDD) Preparedness Plan (RPP) and climate-related legislation that supports Nepal's climate-change policies (Helvetas and RRI 2011), the 'Climate Resilient Planning' document of the NPC, the Village Development Committee (VDC)⁶ level LAPA documents, and other policy documents prepared at the ministerial, district and local levels, further constitute Nepal's climate-change policies. The Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) strategy framework produced by the Ministry of Forest, Soil and Conservation (MoFSC) is not included in this list because the REDD+ process, while related to climate change, operates separately (though not exclusively) from climate-change adaptation at the local level. National climate-change discussions, including the NPC documents, do not highlight REDD+ as a climate-change activity, although as Nightingale (2015: 220) points out, the 'readiness' efforts of the REDD+, aimed at sequestering carbon in forests, emphasize benefit sharing, the diversification of livelihood opportunities and other social programmes that can easily be classified as 'adaptation'.

The Ministry of Population and Environment (MoPE), the MoFSC and the Ministry of Science, Technology and Environment (MoSTE) serve as the primary governmental agencies working on climate-change issues. The MoPE, as the NCCSP implementing agency, has partnered with the Ministry of Federal Affairs and Local Development (MoFALD), the District Development Committees (DDCs) and the District Energy, Environment and Climate Change Sections (DEECCS) for the implementation of LAPA. In addition to institutional partnerships, governmental agencies have also created operational units for climate-change-related activities. The Climate Change Council within the MoPE, for example, was constituted on 23 July 2009 and had the Prime Minister as its chair, along with representatives from several ministries and the NPC to provide high-level coordination, guidance and direction for the formulation and implementation of climate-change-related policies. However, such operational units get 'layered' (Vij et al. 2018) as new units in various ministries are formed. Within the MoFSC, the REDD Implementation

Centre (IC) works on REDD+ programmes. The REDD IC coordinates the REDD+ readiness process, under the auspices of the World Bank's Forest Carbon Partnership Facility (FCPF), along with other REDD+-related projects (MoFSC 2017).

The National *Climate Change Policy*

The *Climate Change Policy* (Government of Nepal (GoN) 2011a: 5) envisions 'a country spared from the adverse impacts of climate change, by considering climate justice, through the pursuit of environmental conservation, human development, and sustainable development – all contributing toward a prosperous society'. It identifies local communities as the main stakeholders and earmarks 80 per cent of the Climate Fund, made available after the Kyoto Protocol, for the local communities (Helvetas and RRI 2011). The main goal of this policy is 'to improve livelihoods by mitigating and adapting to the adverse impacts of climate change, adopting a low-carbon emissions socio-economic development path and supporting and collaborating in the spirit of country's commitments to national and international agreements related to climate change'. Its stated objectives include (GoN 2011a):

1. establishing a climate change centre as an effective technical institution to address issues of climate change and also strengthening existing institutions;
2. implementing programmes related to climate adaptation and maximizing the benefits by enhancing positive (and mitigating adverse) impacts;
3. reducing GHG emissions by promoting the use of clean energy such as hydroelectricity, and other renewable and alternative energies, increasing energy efficiency and encouraging the use of green technology;
4. enhancing the climate adaptation and resilience capacity of local communities for optimum utilization of natural resources and their efficient management;
5. adopting a low-carbon development path through pursuit of climate-resilient socioeconomic development;
6. developing capacity for identifying and quantifying the present and future impacts of climate change, and adapting to climate risks and adverse impacts of climate change; and
7. improving standards of living through the maximum utilization of the opportunities created from conventions, protocols and agreements related to climate change.

The National Adaptation Programme of Action (NAPA)

The Nepal NAPA report was produced following the guidelines contained in the Decision 29/ CP.7 of the UNFCCC, which established a least developed countries expert group in 2001. The UNFCCC template for the preparation of the NAPA involves climate vulnerability assessments and identification of adaptation measures to systematically address climate change adaptation issues. The Nepal NAPA document stated:

Nepal's NAPA is set within the country's development objectives. These objectives have been articulated in the national planning strategies and are aimed at addressing the specific economic and socio-political conditions prevailing in the country. Nepal's development goals, and therefore the NAPA framework, are set under the overriding goal of reducing poverty in the country ... A series of National Five-Year Plans and Three-Year Interim Plans aimed to achieve poverty reduction by providing a policy framework that encourages investments in primary sectors that form the backbone of rural development and poverty reduction. (MoE 2010: 3)

The NAPA is 'a strategic tool to assess climatic vulnerability, and systematically respond to climate change adaptation issues by developing appropriate adaptation measures' (MoE 2010). The NAPA project identifies six thematic working groups with two cross-cutting themes. The remits of the thematic working groups include: (1) agriculture and food security; (2) climate-induced disaster; (3) urban settlement and infrastructure; (4) public health; (5) forests and biodiversity; and (6) water resources and energy. Livelihoods and governance, and gender and social inclusion are the two cross-cutting themes identified by the NAPA project, which identifies nine urgent integrated projects as immediate priorities for the national adaptation programme. The implementation of these adaptation measures is estimated to be about US\$350 million. According to the document, these nine projects aim at:

1. promoting community-based adaptation through the integrated management of the agriculture, water, forestry and biodiversity sectors;
2. building and enhancing the adaptive capacity of vulnerable communities through improved systems and access to services related to agricultural development;
3. community-based disaster management for facilitating climate adaptation;
4. GLOF monitoring and disaster-risk reduction;
5. forest and ecosystem management in support of climate-led adaptation innovations;

6. adapting public health services to face climate challenges;
7. ecosystem management for climate adaptation;
8. empowering vulnerable communities through the sustainable management of water resources and the provision of clean energy supplies; and
9. promoting climate-smart urban settlement.

The Nepal Climate Change Knowledge Management Centre (NCKMC) was created in 2008–10 under the NAPA preparation process (Nepal Academy of Science and Technology (NAST) 2017). NAST, an autonomous top-level body that promotes science and technology in the country, runs the NCKMC as a knowledge-management centre for the production and dissemination of climate-change knowledge in order to strengthen the capacity of stakeholders. Five years after its inception, the full potential envisioned for the centre remains unrealized.

The National Framework for Local Adaptation Plans of Action (LAPA)

The National Framework for LAPA document (GoN 2011b) was designed to encourage consultation with local communities and to produce projects relevant at that level. It emphasizes a ‘bottom-up, inclusive, responsive and flexible’ approach to climate adaptation (Helvetas and RRI 2011: 14). The LAPA framework is a manual for adaptation planning and implementation that: (1) describes the key steps involved in integrating climate change into development planning; (2) provides a list of tools that could be used to facilitate the process; and (3) explains the key concepts that are relevant to the process of adaptation planning. The LAPA framework is designed to support the following:

1. The development of local adaptation plans, which reflect location- or region-specific climate-change hazards and impacts. The plans support adaptation options that are available locally and that are accessible to the most vulnerable communities and households, including women.
2. The integration of local adaptation priorities into village-, municipality-, district- and sectoral-level planning processes in accordance with the Local Self-Governance Act.
3. The implementation of local adaptation plans by supporting the timely and sustainable delivery of adaptation services to the most climate-vulnerable, including women.

4. Iterative adaptation planning, through constant monitoring, evaluation and feedback.

LAPA supports the 'operationalization of the policy objectives outlined in the NAPA, the *Climate Change Policy* and Climate Resilient Planning by facilitating the integration of climate change resilience into local-to-national development planning processes and outcomes' (GoN 2011b: 2).

Climate Resilient Planning

The NPC is the apex advisory body of the government of Nepal for formulating a national vision, periodic plans and policies for development. The NPC assesses resource needs, identifies sources of funding and allocates budgets for socioeconomic development. It serves as a central agency for monitoring and evaluating development plans, policies and programmes. It also serves as 'an intellectual hub for the exchange of new development ideas and proposals from scholars, the private sector, civil society and development partners' (NPC n.d.).

The 'Climate Resilient Planning' document of the NPC was prepared with the intention 'to facilitate ministries, departments and development organizations in analysing sector-specific climate issues with a greater understanding of climate variables at the local level and in adopting measures to reduce the emerging and anticipated climate threats which ... development plans and programmes [face]' (NPC 2011: 4). The proposed tools in the document are expected to help integrate climate concerns into the implementation of development plans and programmes. The document emphasizes that in order to make development plans climate-resilient, the government needs to increase '[its] level of awareness about the inter-linkages among climate variability, climate-change hazards, vulnerability, and development', which is also a prerequisite to recognizing climate risks (NPC 2011: 11). The document promotes a conceptual framework and systemic approach that isolates natural and human-constructed systems for analysis as a way to simplify the complexity entailed in the evaluation of risk (NPC 2011: 11). If a development action is assessed to be at risk, the document suggests that the systemic approach would allow for the identification of the nature of the hazard(s), an assessment of the extent of the risk, a working out of response options and the identification of appropriate intervention(s). The climate framework presented by this document envisions achieving a society and economy that is resilient to a changing climate. In a resilient society, the document suggests that:

All people, including the poor and vulnerable, have the capacity to respond in an adaptive (as opposed to reactive) way to current and future climate risks. They will have many choices, feel secure, and will be willing and able to invest in improving their livelihoods. Formal and informal institutions will reinforce the abilities of individuals to predict, prepare for, and recover from climate shocks. They will learn to monitor and respond to changing conditions in a timely, flexible and efficient manner. Practitioners and policy-makers will be equipped with the knowledge, tools, enabling policies and sustained funding needed to implement decision in a manner that increase resilience. (NPC 2011: 24)

The Approach Paper to the NPC's Thirteenth Plan (Fiscal Year 2013/14–2015/16) that set the development agenda and approach mentions that the objective of pursuing 'environment and climate change' by the NPC is to 'adapt to the adverse impacts of climate change as called for under the principles of green development' (GoN 2013: 115). Climate change is presented as an agenda item separate from (though alongside) the environment.

Climate Change through the Lens of National Policy

Nepali climate-change policies reveal biophysical understandings of climate change that focus on predetermined adverse effects, in which human systems are considered separate from natural systems, and people are treated as apolitical passive recipients and primarily as if they lived in rural regions (Nightingale and Rankin 2014). The policies consider adaptation activities that are resistant to adverse climate-change effects, including green development, as solutions to the problem of climate change. Adaptation is defined in terms of development interventions that target the most vulnerable, who live in rural regions. Although vulnerability in urban centres has been well documented (Shrestha et al. 2015), climate-change policies ignore them in favour of the 'more vulnerable' as defined in terms of residence, a perspective in which those who live in rural Nepal are presumed to be homogeneously poor. This approach to climate change has underpinned the formulation of climate policies 'pre-empting the space for democratic representation of vulnerable groups' and 'avoid[ing] meaningful debates over what it might mean for Nepal to adapt to climate change' (Ojha et al. 2015).

The case of Nepal, as Nagoda and Nightingale (2017) highlight, is one in which the voices of the most marginalized, whose participation is mandated in the institutional design of adaptation programmes, are

excluded at the local, district and national levels, revealing the inherent challenges of participatory development in climate-change adaptation. 'Women' in climate policies appear as a separate vulnerable area for adaptation intervention (Nightingale 2015; Nightingale and Rankin 2014) rather than as effective members of society with complex lives.

Climate-change vulnerability assessments conducted during the NAPA preparation process were instrumental in guiding the development of the NAPA and subsequent climate policies and programmes (MoE 2010; NCCSP 2018). These policies have focused on what Nagoda (2015) sees as 'outcome vulnerability approach', where vulnerability is regarded as an outcome of climate-change effects rather than of pre-existing contextual factors that affect some people more than others (O'Brien et al. 2007). Social dynamics that cause differential vulnerabilities between people and over time (Nagoda and Eriksen 2015) remain unheeded in climate policies.

While vulnerable social categories such as 'women' and 'dalits' are targeted (GoN 2011b), the intersectionality of the various factors that contribute to the differential vulnerability of individuals within these categories remains unexplored. In the southern part of the Mount Everest region, for example, the ways in which individuals perceive climate change, and how vulnerable a household is to the effects of climate change, is determined by gender, age, occupation and residence on or off the main tourist trail (Sherpa 2014). An older male Sherpa farmer living off the main trail could be more vulnerable than a young female Sherpa hotel owner living on the main trail. National climate-vulnerability assessments and policies currently do not consider such intersectional positioning of individuals.

Furthermore, vulnerability has also been defined in terms of predetermined risks for different regions by policy-makers, making the assessment remiss of a variety of climate risks (Ojha et al. 2015). In Dolakha, where the threat of Tsho Rolpa GLOF was identified as a climate risk, recent experiences had caused local people to consider landslides to be the primary climate-change-induced hazard (Khadka 2011). Similarly, despite Humla being listed as having no or very low GLOF risk, villages in northern part of the district were affected by a devastating GLOF in 2011 and continue to face such threats today (Hovden 2012). This approach of attending only to predetermined risks comes at the expense of exploring present and future climate risks and preparing for them. Climate risks for Humla continue to be narrowly defined in terms of food insecurity, and for the Dolakha and Solukhumbu (where Mount Everest lies) districts, it is conceived in terms of potential GLOFs.

Local Vulnerabilities and International Influence

Biophysical, technomanagerial and apolitical approaches to climate change are extant in Nepali climate policies (Helvetas and RRI 2011; Nagoda 2015, Nightingale 2015; Ojha et al. 2015). The second national communication to the UNFCCC (GoN 2014) presents a case in point. It follows the Intergovernmental Panel on Climate Change (IPCC) Assessment Report-3 (AR) definition of vulnerability, which refers to the degree a system is susceptible to, or unable to cope with, the adverse effects of climate change, including climate variability and extremes. It thereby considers vulnerability as a function of the character, magnitude and rate of climate variation to which a system is exposed. This communication document recognizes agriculture, crop productivity and livestock production as areas where the adverse impacts of climate change are experienced. It highlights awareness raising, capacity-building and technology transfer as useful adaptation and vulnerability reduction measures, without disclosing what these would entail or how the objectives would be met.

Ribot points out that 'adaptation' and 'vulnerability reduction' seem synonymous but hide great differences in the way the relation between risk and response is understood. He observes that the climate-change community emphasizes adaptation that focuses on the present, and how we adjust to it, without sufficiently attending to the causes of vulnerability and their correction (Ribot 2017). Studies (Nagoda 2015; Nagoda and Eriksen 2015) have shown that ignoring the drivers of local vulnerability risks reinforcing existing vulnerability patterns and may even reduce the adaptive capacity of the most vulnerable. Climate-change adaptation forms part of the broader vulnerability context that determines the options that people have in the process of adapting to change. Adaptation can even produce new sources of vulnerability, as unintended consequences, when project benefits go mostly to those who are already well connected or when new projects are exploited through political means (sometimes through threats of violence), resulting in further exclusion of the poorest (Nagoda and Nightingale 2017: 91).

Within the documents, Nepal's climate-change policies (GoN 2011a, 2011b) recognize the most vulnerable and intend to seek their input. The ideal of 'working with representative bodies and insisting that these bodies incorporate local needs and aspirations into the design of projects and policies' (Ribot 2017: 239) is pursued, so as to ensure the influence of those most in need. However, in practice, it has been revealed that even when the most vulnerable are targeted, powerful actors are still able to assert their interests within climate programmes (Nagoda

and Nightingale 2017: 86). Local politics expressed through unequal social (and power) relations play a dominant role in determining how climate-change adaptation will unfold (Nightingale 2017). Adaptation projects, knowledge flows and institutional interventions into livelihood dependencies can encounter attempts at control from networks of powerful elites and well-connected political actors (Nagoda and Eriksen 2015; Regmi, Star and Filho 2016; Sherpa 2015; Yates 2012) that push the most marginalized even further from being able to access institutional benefits. Thus, Nagoda and Nightingale aptly ask 'how are ambitions to promote local participation and to incorporate the needs of the most vulnerable into policy formulation and project implementation at different levels limited by pre-existing power relations across scales?' (2017: 85).

The institutional design for LAPA was novel in that it created spaces for local communities to assess their vulnerability and identify climate risks and adaptation measures. The effort involved in localizing global climate science and improving representation through the mandated participation of specific categories of vulnerable people in adaptation processes has been lauded as an important innovation (Ojha et al. 2015). However, assessment of LAPA implementation in several VDCs in Nepal has made it clear that despite the emphasis on local participation, those most in need of institutional support for climate adaptation and vulnerability reduction remain under-represented and little heard. The influence of donor agencies in largely aid-driven LAPA preparation and implementation has been observed (Ojha et al. 2015). Ojha et al. contend that the process of moving down from NAPA to LAPA has not been straightforward and 'the politics of science and aid continues to undermine the politics of representation in the adaptation policy cycle' (2015: 421). The framework for local-level institutional climate-change activities designed at the national level has failed to understand the political questions surrounding implementation across different levels (Nagoda and Nightingale 2017). The treatment of LAPA and other climate policies as if they were immune to ongoing political changes in the country (Adhikari 2014; Jha 2014; Lawoti 2014), and the lack of political debate surrounding the preparation of climate policies have been described as depoliticization (Ojha et al. 2015). Since power and politics are embroiled in all aspects of the climate-policy chain, 'making power constitutive of adaptation rather than an externality that requires post-implementation management' (Nightingale 2017: 12), depoliticized climate policies are limited in terms of their capacity to make adaptation programmes available to all.

The technomanagerial approach to climate policies and programmes has its roots in donor-recipient development culture. The availability of

the Climate Fund after the Kyoto Protocol served as an impetus for the national government to formulate core climate policies in 2010 and 2011, after three to four years of preparation (Helvetas and RRI 2011; Ojha et al. 2015), and to subsequently bring climate-change policies into the mainstream. In western Nepal, LAPA programmes are supported and run by district government offices under the donor-funded NCCSP (Nagoda and Nightingale 2017). In other parts of Nepal, different sets of donors and service providers are implementing climate-change-related projects either jointly or in parallel with district governments (Khatri et al. 2015: 41). Similarly, the national-level climate-change activities are funded by international donor agencies. The donor-recipient culture emphasizes intervention (identifying and solving problems within a given period), the continuance of which depends on the donors' confidence in the process. The impact of this culture on climate-change adaptation processes has been that it has limited focus on the long-lasting effects and transformational changes in social and power relations that would support those most in need (Nightingale 2015). Nagoda and Nightingale (2017: 91) mention that some NGOs want to work on long-term projects, but that they are frustrated by the institutional limitations deriving from the short timelines LAPA imposes in order to produce quick and measurable results. As Nagoda and Nightingale (2017: 91) discovered, issues of power and politics⁷ are also inadvertently abandoned when humanitarian INGOs and donors avoid promoting social inclusion in climate-change adaptation processes so as to sidestep the thorny issues of 'imposing Western values' or 'interfering in international affairs'.

Conclusion

A couple of days after my visit to Ram Dai's village, I went to the LAPA office in Simikot. My research associate and I walked into a dimly lit corridor full of villagers waiting for their turn to speak with the LAPA officers. Each of them had walked for hours, some even days, to submit assistance requests or ask questions about adaptation activities. After exchanging pleasantries, the officers informed me about the climate-change adaptation activities they had been overseeing in 'highly vulnerable' villages. Based on the LAPA framework, the limited agricultural productivity and economic capacity of the villagers were used as indicators of their vulnerability. The officers recounted that the lack of road and transportation facilities have created an additional challenge for their programme, making it difficult to reach its constituents regularly

and operate smoothly. The year I visited Humla coincided with the end of the first phase of the NCCSP and it was unclear at that point if and when the second phase would begin. Humla had just begun to see the results of their adaptation activities after years of hard work in developing and implementing LAPA.

The next day, I met a group of villagers from a LAPA implementation site. These villagers had come to Simikot to receive their share of subsidized rice. In the meeting, a man described regretfully that his big family would not have enough to eat later in the year. While LAPA adaptation activities to increase agricultural productivity were active in their village, the benefits had been limited and were not sufficient to reduce their vulnerability to food insecurity. The man was particularly frustrated that day about the artificial shortage of subsidized rice in the market. He explained that he would now have to buy the same rice at a higher price with money he did not have. 'It would be better if there were no subsidized rice', he claimed. At least then he would not have to come all the way to Simikot only to return empty-handed and humiliated one more time. His fellow villagers agreed.

Considering the everyday lives of people at the local level, researchers have asked whether the institutional climate-change response in Nepal is a 'missed opportunity' (Wong 2020) for governmental policies to address climate change effectively or if it represents an emergence of new discourses but the same old development approaches (Nagoda 2015) that fail to bring transformational changes to assist the most marginalized. The guiding principle for climate-change adaptation in Nepal resembles Ribot's suggestion of 'moving people away from the threshold of destitution by building their assets, livelihoods, and options [to] dampen their sensitivity, enhance their flexibility, and enable them to flourish in good times, sustain through stress, and rebuild after shocks' (2017: 239). However, people are treated as one homogeneous apolitical block. Instead of benefiting from the lessons learned through decades of development projects engaging with local communities (Bista 1991; Whelpton 2005), climate-change programmes continue to use traditional development practices of: (1) treating local recipients as a rural, passive and homogeneous unit (Pigg 1992); and (2) using the knowledge of stakeholders at the national and international levels to define institutional priorities, with virtually no meaningful participation at the local level. At the same time, climate change is positioned as a new field in the development industry. The goals and tools of climate-change policy documents and programmes set them apart from other environmental issues. The local implementation of climate-change programmes, for

instance, is conceived differently from the pre-existing cross-scale institutional models, such as forestry and conservation programmes (Ojha et al. 2014).⁸

An exploration of the national climate-change cultural world reveals how certain aspects of climate change have gained prominence at the expense of others. The way in which policies depict the problem of climate change limits our understanding of its multidimensionality (Barnes and Dove 2015). The availability of new livelihood opportunities as a result of climate-change effects, and indigenous adaptation measures to the changing climate, remain unexplored within the policy context. Predetermined climate-change effects for different regions, selected at the national level without consulting robust local-level science (Nightingale 2015), leave Nepali climate-change programmes unable to understand the full range of climate-change effects (Devkota 2016; Gentle and Maraseni 2012; Smadja et al. 2015). This limits the state's capacity to deal with disasters and makes the country more vulnerable to climate change (Khatri et al. 2015: 40). While climate-change policy-making initially emerged as a potential transformative opportunity to reach the most vulnerable, assessments have shown that, conceived within the donor-recipient culture, it privileges biophysical understandings of climate change over local knowledge and pursues technomanagerial approaches as found in the policy documents explored here.

Finally, a stunted conception of 'human dimensions' (Castree et al. 2014: 764), which posits that people and the biophysical world can best be analysed and modified using similar concepts and protocols, is reflected in Nepal's climate-change policies. Such a conception risks intellectual partiality and political complicity (Castree et al. 2014). Partiality arises because key concerns of environmental social sciences, and of humanities disciplines more generally, pertaining to human dimensions are absent, and complicity arises when the full range of values, means and ends that might guide human responses to environmental change are refused, and questions about societal status quo are neglected and thereby implicitly endorsed (Castree et al. 2014). Adaptation efforts would have to involve more understanding across epistemological differences instead of including selected cases of indigenous knowledge, which in turn would require explicit discussion of what those differences are (Yeh 2015). However, before indigenous knowledge can have any significant influence, the validity of indigenous knowledge in general would require greater recognition at the national level (Tanner and Allouche 2011: 11). In its existing form, Nepal's climate-change policies fail to recognize how Nepalis have already been adapting to the everyday

realities of climate change or how they (re)produce vulnerabilities. If inclusion is to be promoted, as Nepal's climate-change policies claim to do, scale politics and mismatch between scales of knowledge (Ahlborg and Nightingale 2012) need to be addressed. Nightingale (2018) points out that it is not climate change that poses the greatest risks to Nepal as external observers believe, but the socionatural entanglements and boundary-making processes that shape who governs change and with what consequences for inclusion, exclusions, and state transformation. This spotlight on Nepal's climate-change cultural world shifts our analytical gaze from the local people on to the risks Nepalis face.

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Acronyms

- AR: Assessment Report
- CCA: Climate Change Adaptation
- CPP: Climate Policy Paradigms
- COP: Conference of the Parties
- DDC: District Development Committee
- DEECCS: District Energy, Environment and Climate Change Section
- DFID: Department for International Development
- DRR: Disaster Risk Reduction
- EU: European Union
- FCPF: World Bank's Forest Carbon Partnership Facility
- FY: Fiscal Year
- GHG: Greenhouse Gas
- GLOF: Glacial Lake Outburst Flood
- GoN: Government of Nepal
- INGO: International Nongovernmental Organization
- IPCC: Intergovernmental Panel on Climate Change
- LAPA: Local Adaptation Plan of Action
- LDC: Least Developed Country
- MoE: Ministry of Environment
- MoFLAD: Ministry of Federal Affairs and Local Development
- MoFSC: Ministry of Forest, Soil and Conservation
- MoPE: Ministry of Population and Environment
- MoSTE: Ministry of Science, Technology and Environment
- NAPA: National Adaptation Program of Action
- NAST: Nepal Academy of Science and Technology
- NCCKMC: Nepal Climate Change Knowledge Management Center
- NCCSP: National Climate Change Support Programme
- NGO: Nongovernmental Organization
- NPC: National Planning Commission
- REDD: Reducing Emissions from Deforestation and Forest Degradation
- REDD+: Reducing Emissions from Deforestation and Forest Degradation in Developing Countries

- REDD IC: REDD Implementation Center
RPP: REDD Preparedness Plan
RRI: Rights and Resources Initiative
SfAA: Society for Applied Anthropology
UNDP: United Nations Development Programme
UNFCCC: United Nations Framework Convention on Climate Change
VDC: Village Development Committee
WHO: World Health Organization

Notes

1. The National Framework on LAPA is also referred to as simply LAPA. The LAPA documents created at the local level generally have the name of their site, usually Village Development Committee (VDCs), attached – for example, the Khumbu LAPA.
2. Ram is a pseudonym for the person I call *dai*, an elder brother.
3. 'Imperia' (the plural of *imperium*, the Latin word for command over others) is used to refer to rule by an individual or rule by an elite few (Bodley 2003: 4).
4. The MoE is now the Ministry of Science, Technology and Environment (MoSTE).
5. 'Country Index', Notre Dame Global Adaptation Initiative. Retrieved 16 March 2021 from <https://gain.nd.edu/our-work/country-index/rankings>.
6. The VDC is a governmental administrative unit in Nepal.
7. Nagoda and Nightingale (2017: 86) consider 'politics' not just as the work of politicians, but as expressed in everyday activities and struggles that are shaped by social and power relations and through contestations and negotiations between actors to influence decision-making processes.
8. That is, community forestry (CF) and CF user groups (CFUGs).

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