

CLIMATE-FRAGILITY RISK BRIEF

NEPAL

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Climate-Fragility Risk Brief: Nepal

AUTHORED BY

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SUMMARY

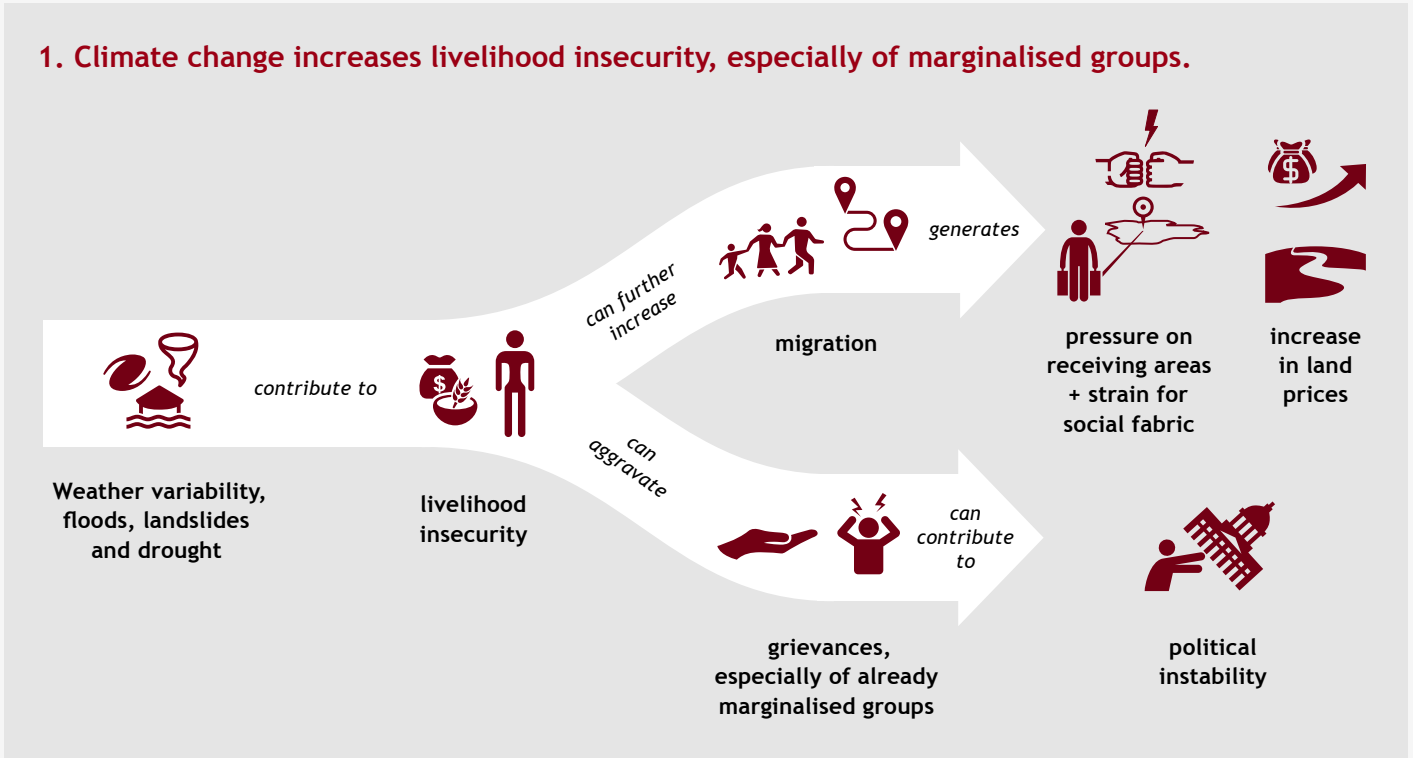
Nepal is slowly emerging from a decade of civil war (1996-2006). Despite the challenges that remain, the promulgation of a new constitution after a devastating earthquake in 2015 and the recent elections in 2017 and 2018 have given cause for optimism that the political process is maturing. However, while the overall security situation has improved considerably and is stable, important underlying drivers and structural causes of conflict still exist.

Nepal's social, economic and political vulnerabilities are accentuated by climate change. Climate change can act as a stressor on the existing drivers and structural causes of conflict, adding an additional layer of risk that exacerbates the challenges of livelihood insecurity, resource and identity conflicts and institutional reform. The new constitution and federalist reform is a risk in terms of conflict relapse and an opportunity for conflict prevention and peacebuilding. In order to succeed, the reform process needs to address the grievances of minority groups and provide certainty over access to natural resources – in particular land rights – to reduce tension between the government and minority groups.

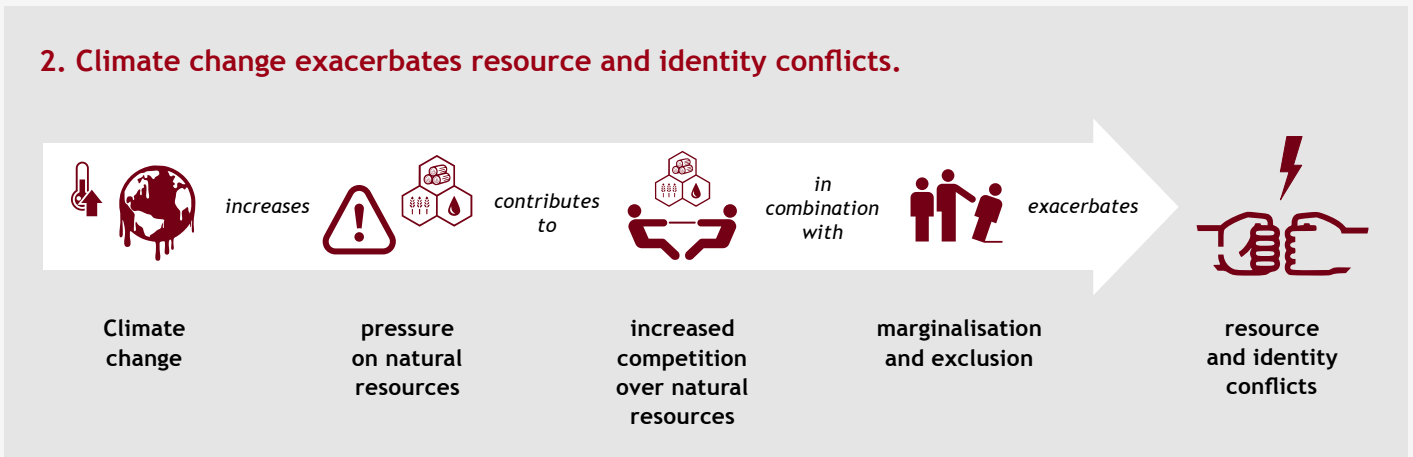
The dependence on agriculture – two thirds of the Nepali population works in the sector – combined with the country's susceptibility to climate change and ongoing issues around natural resources and governance reform present several entry points for addressing climate fragility risks. Broadly, the entry points need to address the environmental effects of climate change on resources such as land and water as well as the impact it is having on governance and society. These impacts are interrelated and need to be approached holistically. At the same time, Nepal needs to be prepared for the new social, political and economic context the COVID-19 pandemic has created and be able to respond to the fragility it has created in a conflict-sensitive manner.

Climate fragility risks in Nepal

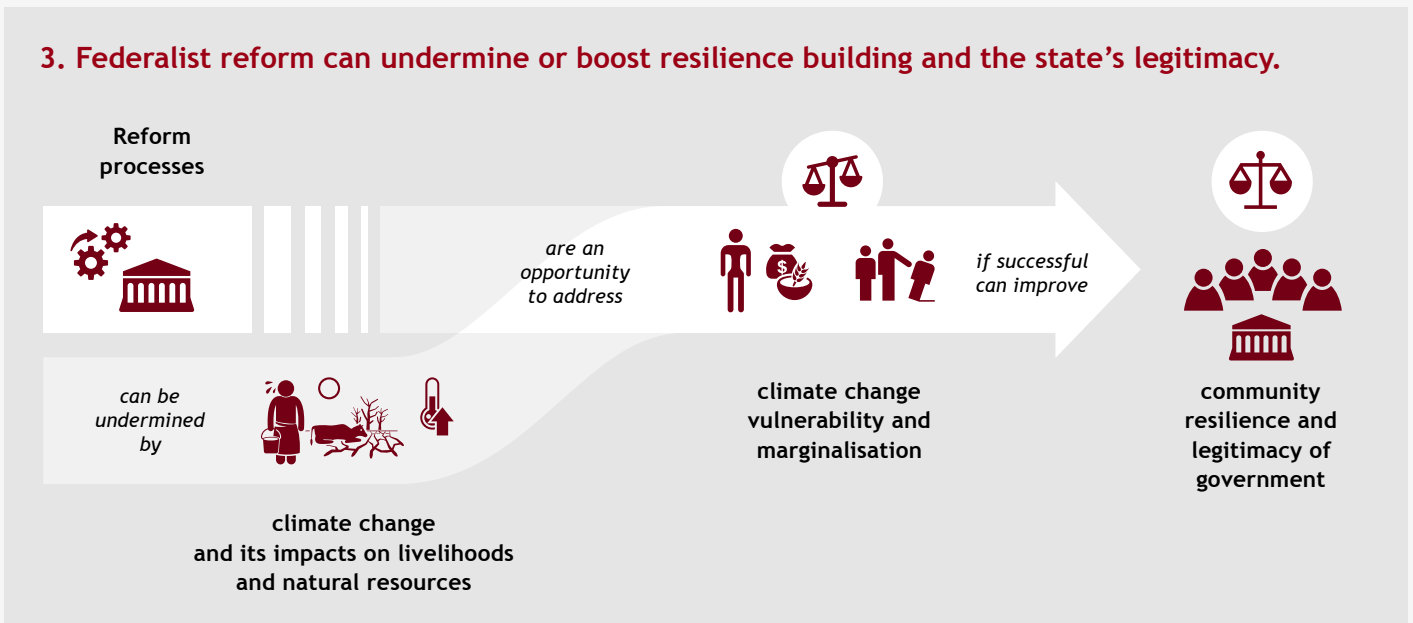
1. Climate change increases livelihood insecurity, especially of marginalised groups.



2. Climate change exacerbates resource and identity conflicts.



3. Federalist reform can undermine or boost resilience building and the state's legitimacy.





SOCIO-ECONOMIC DEVELOPMENT AND POLITICAL CONTEXT

Political context

As Nepal slowly emerges from a decade of civil war (1996-2006), governance remains fragile and government institutions are still young and characterised by a high level of aid dependency. Nepal's political context is highly shaped by its recent history of internal conflict, caste and ethnic divisions, as well as by periods of authoritarian rule interspersed with intervals of multi-party rule.

The signing of the Comprehensive Peace Accord in 2006 between the government of Nepal and the Maoists signalled the end of large-scale violence, the re-establishment of competitive multi-party politics, the end of the monarchy and the beginning of the Maoists' transformation into a political party. Despite this, much of the period from 2006 to the present has been characterised by political instability and frequent civil unrest.

The promulgation of a new constitution after a devastating earthquake in 2015 and the recent elections in 2017 and 2018 have given cause for optimism that the political process is maturing despite the challenges that remain in state-building. Nepal's transition towards a post-conflict democracy means that the national government and international donors are prioritising state-building processes at national and local levels. This includes the federal restructuring of the state.

The transition process has been complicated by the complex inter-ethnic relationships that characterise Nepal. Groups such as the the Madhesis¹; the Dalit 'untouchables' of the Hindu caste system; the Tharu; and Janaiatis (an umbrella term for indigenous people) have argued that they have traditionally faced discrimination from the ruling classes. Indeed, an antagonising feature of the last number of years has been the emergence of political 'ethnic entrepreneurs', who have highlighted the cultural differences between groups and engaged in confrontational politics with the aim of achieving political aims. This development has accentuated differences, and added another complex layer to political processes in Nepal – and it has the potential to undermine the social networks that exist outside ethnic groups (Bhattarai, 2015).

¹ It is difficult to offer a definition of the Madhesis. Broadly they are a people living largely, but not exclusively, in the Tarai, with a diverse range of mother tongues that include Hindi, Urdu, Maithili, Bhojpuri, Bengali, and dialects of these. They have close linguistic, cultural and ethnic ties across the border in India. The 2001 census, this internally heterogeneous group contains 33% of Nepal's population, although the total population of the Tarai comprises almost 50% of Nepal's population. See Strasheim (2018): No 'end of the peace process': Federalism and ethnic violence in Nepal.

An important political milestone was the adoption of a new, but highly contested constitution in September 2015 that defined a transitional period until 21 January 2018. During this period, three successful elections on the local, provincial, and national level were conducted. Nepal held parliamentary elections in two phases, on 26 November and on 7 December 2017. Elections for representatives in municipal and village councils also took place in May, June and September 2017 for the first time in twenty years. The new government came into office on February 15, 2018 (Al Jazeera, 2017; World Bank, 2020; WFP, 2017). The elections were accompanied by some violence, but overall considered a success and another key milestone in Nepal's efforts for federalisation and development.

The electoral alliance formed between the then-Communist Party of Nepal – Unified Marxist-Leninist (CPN-UML) and the Communist Party of Nepal (Maoist Center) [CPN (MC)] won a clear majority in federal parliament and in six of the seven provincial assemblies (Bhattarai, 2018b). These two political parties formally merged in May 2018 to form the Nepal Communist Party (Xinhua News Agency, 2018), and at the time of writing they held a majority in the federal and provincial governments, except in Province 2. (In Province 2, two Madesi based parties form a coalition government (Bhattarai, 2018a).)

The merger of the two communist parties was a major change of the political landscape and brought with it the hope for more political stability. However, there are concerns about the new government's model of development, which seems to follow the Chinese model of replacing progressive values with autocratic tendencies and emphasising physical infrastructure (Kaphle, 2020). In addition, it seems that the government under Prime Minister K. P. Oli largely follows the conviction that the issues of justice and inclusion have been adequately addressed by the new constitution and no further efforts are necessary (Bhattarai, 2018a).

The federalist reforms in the new constitution are the dominant force in Nepalese politics and will shape developments for years to come. The new federal structure, consisting of seven provinces and 753 local governments (6 Metropolitan cities, 11 sub-metropolitan cities, 276 Municipalities and 460 Rural Municipalities), presents both opportunities as well as challenges. This new governance system provides opportunities for decentralisation of development benefits and creates spaces for stronger citizen and state relationships. However, the government's decision to not slowly phase in these changes, but rather opt for a "big bang" reform, has created a lot of chaos and uncertainty as many rules, regulations and processes as well as institutions, personnel and capacities are still absent at a time when powers are already being devolved (Chalise, 2018).

Social and economic context

According to the National Population Census 2011, the annual growth rate was 1.35% with a total population of about 26.5 million (Government of Nepal, 2015). Despite trends showing increased social mobility, Nepal's society is still characterised by its centuries-old caste system. Certain ethnic or caste groups continue to suffer from social, political, and economic exclusion and discrimination.

The international community has been heavily involved in supporting Nepal's democratic transition: in the fiscal year 2018/19, Nepal received US\$1.79 billion in development assistance from both foreign countries and international non-governmental organisations (NGOs) (Government of Nepal, 2019a). The devastating earthquake in spring 2015 was a major setback for Nepal's development. Estimates projected that the earthquake directly pushed an additional 3% of the population, i. e. about one million people, back into poverty. It is estimated that the earthquake led to damage and losses amounting to about US\$7 billion. The reconstruction process is still ongoing and marred by many challenges. After the earthquake and political crisis in 2015, annual GDP growth dropped by 0.8%, but has since rebounded, reaching an estimated growth rate of 7.1% in the fiscal year 2019 (Sapkota, 2015; World Bank, 2019, 2020).

Poverty rates have improved significantly since the end of the civil war, but Nepal is still one of the poorest countries in South Asia (second only to Afghanistan). According to the World Bank, between 2003 and 2010 the percentage of people living on less than US\$1.90 per day fell by nearly 80% from 14% to 3% (World Bank, 2017b). The impressive reduction in poverty rates was attributed to remittance-driven private consumption rather than investments (Tiwari and Uematsu, 2016). The scale and importance of external labour migration for Nepal's economy and stability cannot be overstated. In 2016, almost 50% of all households had at least one member who migrated to other parts of Nepal or abroad within the last ten years (IOM, 2019). In the last census (in 2011), the rate of "absentees" was at 7.3%, of which 87.6% were male and more than three quarters were between 15 and 34 years old (IOM, 2019). Remittances contributed 25% to the GDP in the fiscal year 2018/19 (IOM, 2019), and 55% of Nepalese households receive remittances. These funds are mainly used for consumption, health and education (Thapa and Acharya, 2017). Even before the current economic crisis caused by COVID-19, the World Bank had warned of declining migration rates and remittances (World Bank, 2019).

Services are the most important economic sector in Nepal, accounting for 57% of GDP, mainly driven by increased remittances and tourism in the financial year 2019 (World Bank, 2019). Agriculture is the major occupation for two-thirds of the Nepali population but contributes to only 24% of Nepal's GDP, followed by industrial activities, which are mainly consisting of the processing of agricultural products. Public investment decreased as post-earthquake housing reconstruction slowed down and progress on infrastructure projects came to a halt. The country has considerable scope for exploiting its hydropower potential.

In general, Nepal's economic potential is undermined by institutional weaknesses in legislative, policy making and regulatory bodies combined with political infighting. GDP has grown continuously in the years since the earthquake, but projections expect Nepal's economy to slow down to a growth rate between 1.5 and 2.8% in 2020 as COVID-19 will severely impact remittances, trade and tourism. In addition, delayed monsoons and pests are expected to lower agricultural yields and overall growth in the first half of 2020 (World Bank, 2020).

Peace and security context

Nepal experienced a violent insurgency between 1996 and 2006, followed by a long and unstable peace. The underlying tensions between social and ethnic groups, in particular between those that dominate politics, the economy, administration, judiciary and security forces and those that feel excluded, manifest themselves at the political level in ongoing disagreements about the new federal structure, the political, social and economic exclusion of minority groups, and the relationship between natural resources, ownership and governance. Although peace continues to prevail, these tensions offer openings for flashpoints. In addition, there remain some pockets of fragility due to the presence of armed groups, especially in the central and eastern Terai and the eastern hills (International Alert, 2015).

The end of the Maoist insurgency against Nepal's constitutional monarchy led to the Comprehensive Peace Accord (CPA) in 2006. An interim constitution was promulgated in 2007 and a Constituent Assembly (CA) election followed the next year. The failure of the CA to draft a constitution led to its dissolution in May 2012. Elections were held in November 2013 and a new, fast-tracked, constitution came into effect in September 2015, partly in response to the earthquake earlier that year.

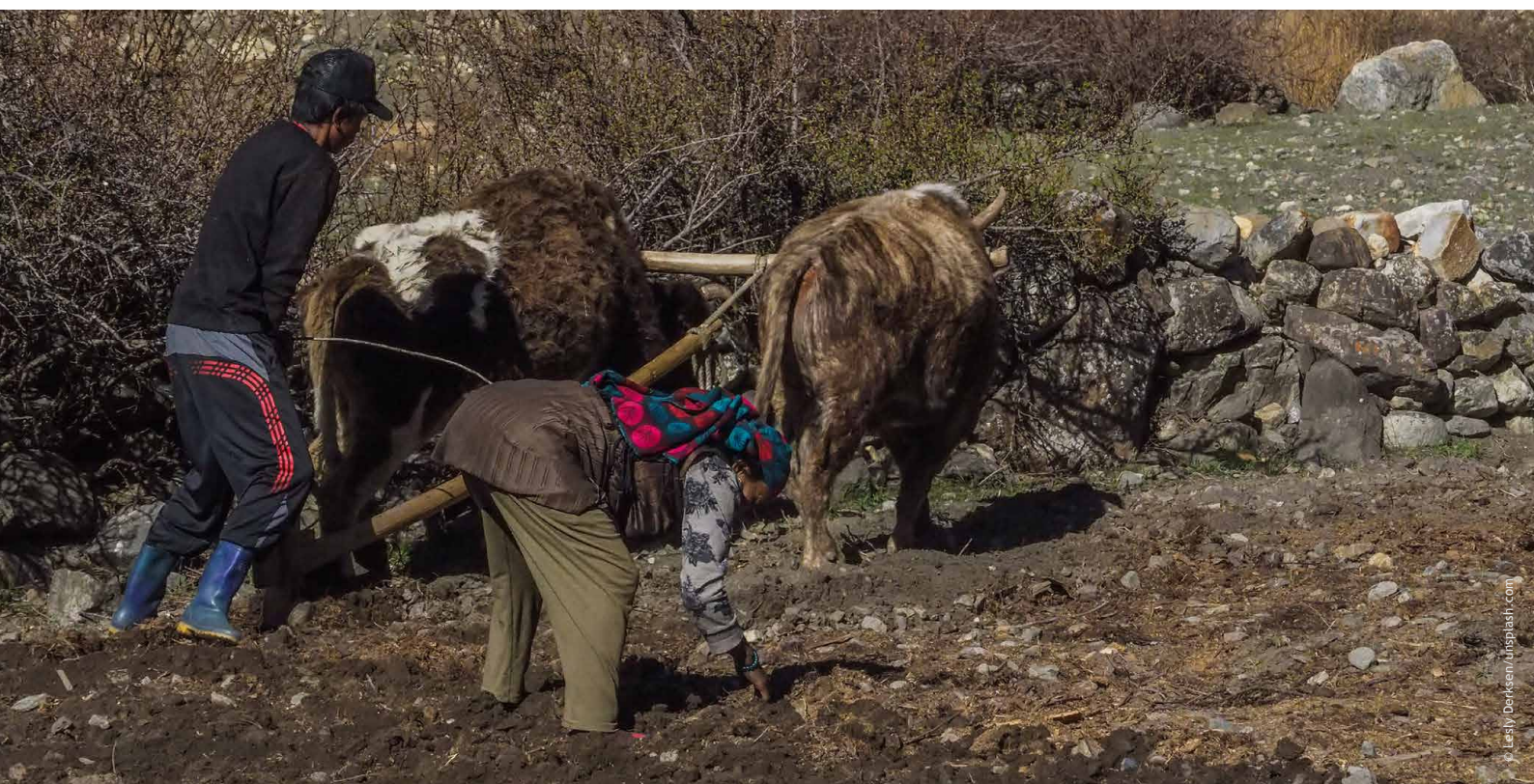
The new constitution of 2015 and the governance structures that it proposed were highly contested and a flashpoint for long-held grievances of many minority groups. Some ethnic groups, including the Madhesi, Tharu, Janajati, Dalit as well as religious minorities and women's groups, felt that the new constitution and the process by which it was created did not meet their expectations across a number of issues including federalism, redress for past structural discrimination and democratic consultation. Following the promulgation of the constitution,

some groups responded with protests and blockades, which in turn were met with violence by the government, especially in the Terai plains. India reacted to the unrest by implementing a blockade, which deepened political and ethnic divides in the country.

Ownership of land and access to natural resources are another flashpoint for tension in Nepal. As well as being a critical source of livelihood and subsistence, land is closely associated with status and power. A quarter of Nepal's population is landless or near landless, and possession is highly unequal, with the richest 7% of households owning about 31% of agricultural land and the bottom 20% owning 3% (United Nations Nepal Information Platform, 2012). The majority of landless are Dalits, Janajatis and women. Landlessness and land ownership issues are often also a legacy of past conflict.

Violence on the community level still erupts regularly, often around protests. The security forces play an important role in escalating conflicts by reacting very heavy-handedly, which results in more aggression and casualties. The conflict potential for communal and intergroup violence remains high as many underlying grievances have not been addressed (International Crisis Group, 2016). The risk of future conflict is highly dependent on how the federalist reform will play out and the ability of minority groups to mobilise their supporters. The federalist reform was meant to be an answer to exclusion and identity politics, but it can be a "source of fragility, given the heightened popular aspirations and expectations" (World Bank, 2020).

It seemed at times during the federalist reform that the establishment had softened its stance on minority groups, and that there would be more space for dialogue and reconciliation moving forward. One example was the government convincing the leader of a secessionist movement from Province 2 to join mainstream politics (The Himalayan Times, 2019). However, more recently spaces for dialogue and free speech seem to be constricted, with increasing arrests made over petty charges and a rush to pass bills that curtail freedom of expression (Nepali Times, 2020). External shocks, such as the COVID-19 pandemic and the government's response towards it, have also raised questions around existing policy failures, government's accountability towards the citizens, and their wellbeing and trust (Varughese and Payne, 2020). The spike in crime during the lockdown period, which affected the most vulnerable population, including the Dalits (The Kathmandu Post, 2020), and women (K. C., 2020), also points to the failure of various laws to ensure social protection.



CLIMATE CONTEXT

Current Climate Situation

Nepal has five physiographic regions: High Himal, High Mountain, Middle Mountain, Siwalik (the Churia Range), and the Terai. Within each of these regions there are different types of climates, varying from sub-tropical to alpine within a lateral span of less than 200 km. Nepal has more than 6,000 rivers and almost 40% of Nepal's total surface area is covered by forests. The climate is influenced by the Himalayan mountain range and the South Asian monsoon, resulting in four distinct seasons: pre-monsoon (March-May), monsoon (June-September), post-monsoon (October-November) and winter (December-February).

Approximately 80% of Nepal is vulnerable to multiple natural hazards (GFDRR, 2016). It is one of the top 20 most multi-hazard prone countries in the world and ranked 4th, 11th and 30th in terms of climate change, earthquake and flood risks respectively (Dangal, n.d.). The main disaster risks in Nepal are earthquakes, flooding and associated risks such as landslides. In addition, the country is also prone to drought. Disaster risks differ widely between the different physiographic regions of Nepal.

While temperatures have increased continuously in the whole of Nepal, changes in precipitation patterns are not as clear and depend greatly on the specific region and season (Government of Nepal, 2010). According to the Ministry of Environment's climate change policy of 2019, "rapid increase in atmospheric temperature for the past few decades and climate-induced disasters like less precipitation, heavy precipitation and drought triggered by it have been causing adverse impacts on Nepal's Himalayan ranges and glaciers, and ecosystems dependent on them. Increased melting of snow has swollen the glacial lakes and put them at risk of outburst. The negative effects of climate change have been directly experienced in forest and biodiversity, energy, human health, tourism, habitation, infrastructure development as well as in the areas of livelihood, while there has been a huge loss of lives and property due to climate-induced disasters such as flood, landslide, and windstorm and wild fire every year" (Government of Nepal, 2019b).

Studies over several time periods have identified the following climate trends for Nepal over the past decades (Government of Nepal, 2010; USAID 2017a):

- Consistent and continuous warming at an annual rate between 0.04°C and 0.06°C
- Average annual temperature between 1960-2015 shows an increasing trend of 0.12°C per decade
- Increase in Himalayan glacier melt and retreat and Glacial Lake Outburst Floods. In the period 2003-2009, water of the Himalayan glaciers decreased by around 174 gigatons of water
- Increase in annual rainfall in eastern, central, western and far-western Nepal
- General decline in pre-monsoon precipitation in far- and mid-western Nepal, increasing pre-monsoon precipitation in the rest of the country
- Decrease in monsoon precipitation in the mid-west and south of western Nepal; general increase in monsoon rainfall in the rest of the country
- Increased occurrence of droughts, with higher frequency during dry season
- Increase in post-monsoon precipitation in most of the mid-western and southern parts of eastern and central/western Nepal and a decline in the far-west and north of western, central and eastern Nepal
- Increase in winter precipitation in the whole of Nepal, except for the northern parts of mid-western, western and eastern Nepal

Projections

Climate projections forecast a general increase in average annual temperatures, especially during winter as compared to the monsoon season and in western and central Nepal compared to eastern Nepal. Moreover, monsoon rainfall is forecast to increase in eastern and central Nepal compared to western Nepal. Projections also suggest that monsoon and post-monsoon rainfall as well as the intensity of rainfall will increase, while winter precipitation will decrease (Government of Nepal, 2010).

The graphic below summarises climate projections for Nepal and key biophysical and socio-economic impacts; the map beneath it shows river flood frequency.

Climate projections: Nepal



Key climate impacts:

Infrastructure

- Damage to water and energy facilities
- Damage to roads and bridges

Ecosystems

- Loss of forest habitats and biodiversity
- Reduced wetlands
- Increased erosion of hillslopes

Agriculture

- Reduced crop yields
- Increased food insecurity
- Damage to crops and livestock

Human Health

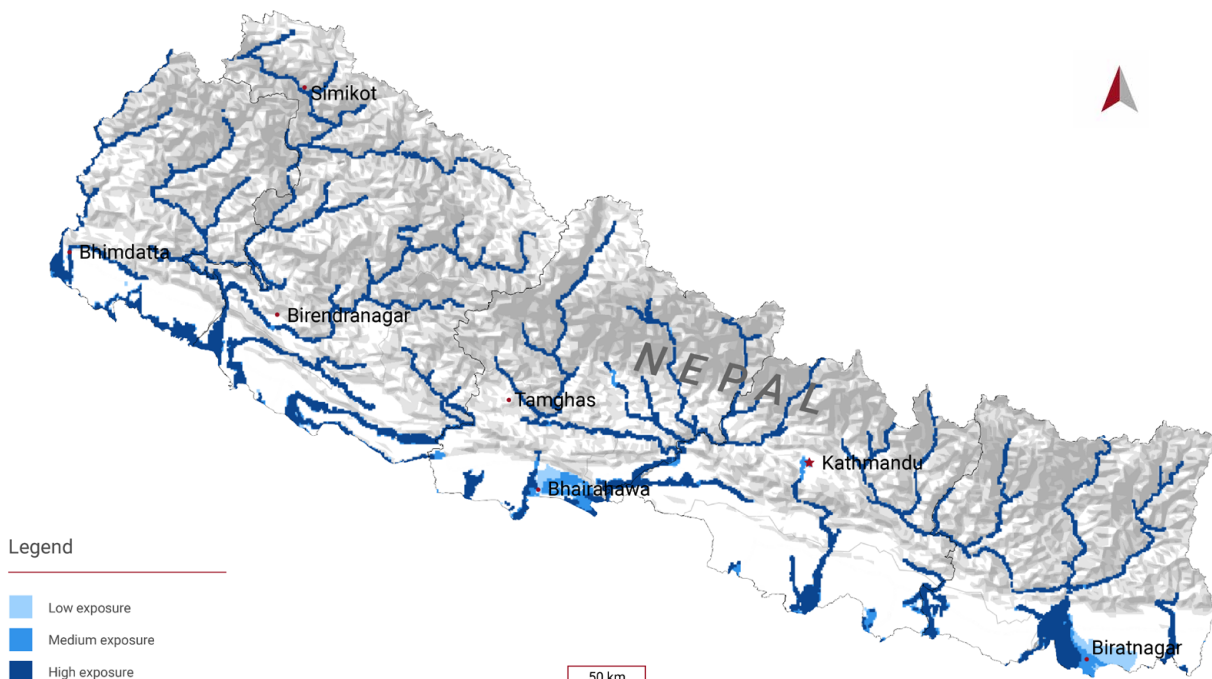
- Increased risk of injury/death
- Increased incidence of diseases
- Increased risk of heat stroke

Water Resources

- Reduced water supply
- Decline in water quality
- Reduced hydropower potential

© adelphi, based on USAID 2017

River-flood frequency (UNEP/GRID-Europe and CIMA Research Foundation, 2019)



© UNEP based on data from UNEP/GRID-Geneva metadata catalogue



Key Climate Impacts

The vulnerability mapping conducted for Nepal's National Adaptation Programme of Action (NAPA) to Climate Change ranks all 75 districts according to various vulnerability indicators – such as flood, drought, landslides and infrastructure adaptive capacity (Government of Nepal, 2010).

Nepal's vulnerability to climate changes mainly stems from changes in precipitation. Too much or too little rainfall will have serious implications for Nepal's biodiversity and forestry, agriculture, and hydropower energy production. Too little rainfall will reduce rice and maize cultivation and threaten food security. Too much rainfall can also destroy crops and increase topsoil erosion. Floods regularly have devastating impacts on population groups living in lowland areas, particularly along river banks, and future floods are expected in new areas. Nepal's electricity system relies heavily on hydropower production, which is vulnerable to both increases and decreases in rainfall. Rising temperatures in northern Nepal could increase the rate of glacial melt, affecting water supply and impacting downstream villages and areas, for example by breaching river banks and influencing the timing when water is available for residents of the Ganges River basin (USAID, 2012). Rising temperatures are expected to contribute to more Glacial Lake Outburst Floods (GLOFs). These can lead to flash floods that destroy infrastructure in lower-lying communities (USAID, 2017).

Climate change will affect different sectors in Nepal (see figure above). To take just one example, river flows will become highly variable due to climatic change. This will affect water availability in downstream areas, impacting agriculture and domestic water use. Nepal's NAPA identifies agriculture as one of the major sectors affected by climate change (Government of Nepal, 2010). Nepal's most productive agricultural lands are in the floodplains of the Terai, which are particularly vulnerable to flooding. 75% of Nepal's agricultural area is rain fed and thus affected by changing rainfall patterns such as the shift in monsoon dynamics and the increasing occurrence of droughts (USAID, 2017).

Estimates vary widely, but based on observed changes and future projections, it is expected that rice yields in Nepal will drop between 4.2 and 30% by the end of the 21st century (Karn, 2014). Rice is an important staple crop in Nepal, accounting for the half of all harvested crops in the country. Given rice's significance and high susceptibility to changes in climatic conditions (USAID 2017a), these projections suggest that food security, particular for poor and marginalised populations, is severely threatened by the impacts of climate change on rice yields. The fact that population and demand for food is rising – and agricultural productivity is generally low – only exacerbates the challenge.

Moreover, climatic change is likely to exacerbate both flooding and droughts, which can affect infrastructure, livelihoods, and hydropower. The impact of such natural disasters could extend to many other sectors like health, urban affairs and tourism. It could also extend across borders: as an example, during the dry season, glacial river discharge from Nepal contributes an estimated 70% of water in the transboundary Ganga river (WWF 2005). Thus, any significant changes in glacier mass in Nepal due to climate change is likely to impact water resources and security at the regional level.

Climate Perceptions

A revealing indicator in terms of the willingness and ability to tackle climate change is public perception. The Nepalese Central Bureau of Statistics carried out a survey of attitudes in 2016 and found that just under 50% of households had heard about climate change. However, most households (99.33%) indicated that they noticed an increase in drought, 97.69% noticed an increase in disease/insects and sporadic rain, and 78.12% noticed an increase in landslides over the last 25 years. 74.29% of people have observed changes in water sources and 84.47% have noticed a decrease in water quality. The survey reveals that households (more often in rural areas), have been adapting to climate change over the last 25 years by using chemical fertilisers, mixed cropping and trying to cultivate improved crop varieties (Government of Nepal, 2017).



CLIMATE-FRAGILITY RISKS

As the analysis of the peace and security contexts shows, the overall security situation in Nepal has improved and is stable, but important underlying drivers and structural causes of conflict still exist. Climate change can act as a stressor on these elements, adding an additional layer of risk that exacerbates the challenges of livelihood insecurity, resource and identity conflicts and institutional reform. The map below shows how climate and fragility risks overlap in Nepal.²

Climate Exposure-Fragility (Bivariate Assessment) (USAID, 2018)



Climate change increasing livelihood insecurity

The paucity of available livelihoods in Nepal and the country's dependence on agriculture makes it especially vulnerable to climate change impacts. Increasing weather variability combined with floods, landslides and drought is threatening the livelihoods of many of the **two-thirds of the population directly dependent on agriculture** (FAO, 2020), as well as increasing food insecurity. The loss of livelihoods in turn can feed a number of dynamics that can increase fragility.

Climate change impacts and livelihood insecurity can contribute and further increase migration movements, in particular international migration (mainly to the Gulf States and Malaysia), seasonal migration to India, and internal migration to the lowlands and cities. The population of the mountainous regions of Nepal in particular has historically used seasonal out-migration to make ends meet because yields from agricultural were often not sufficient. Exact data is scarce, but seasonal migration to India is still crucial for the livelihoods of many Nepalis from both rural areas in the hills and the Terai (IOM, 2019: 44-45).

² This maps shows the combination of climate exposure and state fragility measured with a set of indicators of state effectiveness and legitimacy in four key spheres: political, security, economic, and social. For more information see USAID 2018: *The Intersection of Global Fragility and Climate Risks* https://pdf.usaid.gov/pdf_docs/PA00TBFH.pdf

The last few decades, however, have seen an increasing trend of long-term overseas migration. Younger people in particular increasingly see emigration as the only pathway to employment, and vulnerable groups are especially affected by out-migration. They are often the first to migrate since they often own marginal land (Sugden et al., 2014: 17). In families with the least financial resources available, labour migration of one member to India is more likely than to elsewhere (IOM, 2019), whilst members of wealthier households migrate more often to Malaysia or the Gulf countries.

While these movements can act as important adaptation strategies, they can also undermine resilience if not managed properly. Internal migration from vulnerable rural areas does not always mean that the receiving rural or urban areas are less vulnerable to climate change (Dixit et al., 2014). In addition, international and seasonal migration can strain the social fabric and family relationships and put more responsibilities and burdens on the women left behind (World Bank, 2018a). Remittances have had many positive effects, but have also driven up land prices. In addition, migration to the lowlands and cities has increased competition over local natural resources and public services in the receiving areas, especially in the Terai, and poses significant challenges for public service delivery (Rimal et al., 2020; Siddiqui et al., 2019). At the same time, many mountainous areas have seen massive out-migration that leaves a reduced working population that may struggle to manage agriculture and maintain water sources (Sugden et al., 2014).

From a climate-fragility perspective, the convergence of vulnerability to climate change, livelihood insecurity and marginalisation in many parts of Nepal is particularly worrisome. The most vulnerable to climate change and disasters are often marginalised minority groups. They are often more exposed to natural hazards, for example because they live in less desirable areas such as flood plains and lack coping capacities. They are poorer and have less access to public services such as health and education (Oxfam and HAMI, 2019). At the same time, the government's disaster response in the past has often been marred by corruption and politicisation (Asia Foundation, 2017). These dynamics can further deepen ethnic grievances and feelings of exclusion, thus exacerbating one of the main conflict drivers in Nepal.

The vulnerability of large parts of the economy and the livelihoods of many to climate change also means that there is a risk that the welfare gains achieved over the past years will be lost. The World Bank warns that welfare gains have not been sustained enough to move many people into middle class. This means that many people are vulnerable to falling back into poverty should an income shock occur (World Bank, 2018b).

Climate change exacerbating resource and identity conflicts

Land, forests and water are the livelihood base for 80% of the population (FAO, 2020), and provide 24% of the GDP (World Bank, 2019). Rural populations, particularly the poor, landless, indigenous people and women, rely on forests and natural resources for their livelihoods (USAID, 2020). Natural resources and their ownership are often at the heart of exclusion as well as tensions and conflicts between different social and ethnic groups. They mirror and feed into the larger conflict dynamics between those groups that dominate Nepalese politics, the economy, administration, judiciary and security forces and those that feel excluded. Resource conflicts have a long history in Nepal and indigenous groups are especially affected. Despite their diverse composition, these groups share a “common experience of social, political and economic marginalisation and the appropriation of traditional lands and natural resources” (Castillejo, 2017).

Against this backdrop of exclusion and marginalisation, pressure on natural resources is increasing – and with it the potential for conflict around natural resources. Climate change is one key pressure. By changing access and availability of natural resources, it can contribute to

increase competition and more tensions between different social and ethnic groups. Another key driver is the above-mentioned migration to cities and the low lands, which in turn is increasing urbanisation and the expansion of urban infrastructure. This migration is likely to further increase through climate change and its impacts on livelihoods.

Compounding this, the ongoing reform of state structures and borders creates a complex interaction with implications for land, forests and water governance. New administrative boundaries will affect communities' access rights to these resources. In addition, there is the highly significant but less frequently discussed matter of natural resource distribution among the federal states.

Federalist reform, resilience building and legitimacy

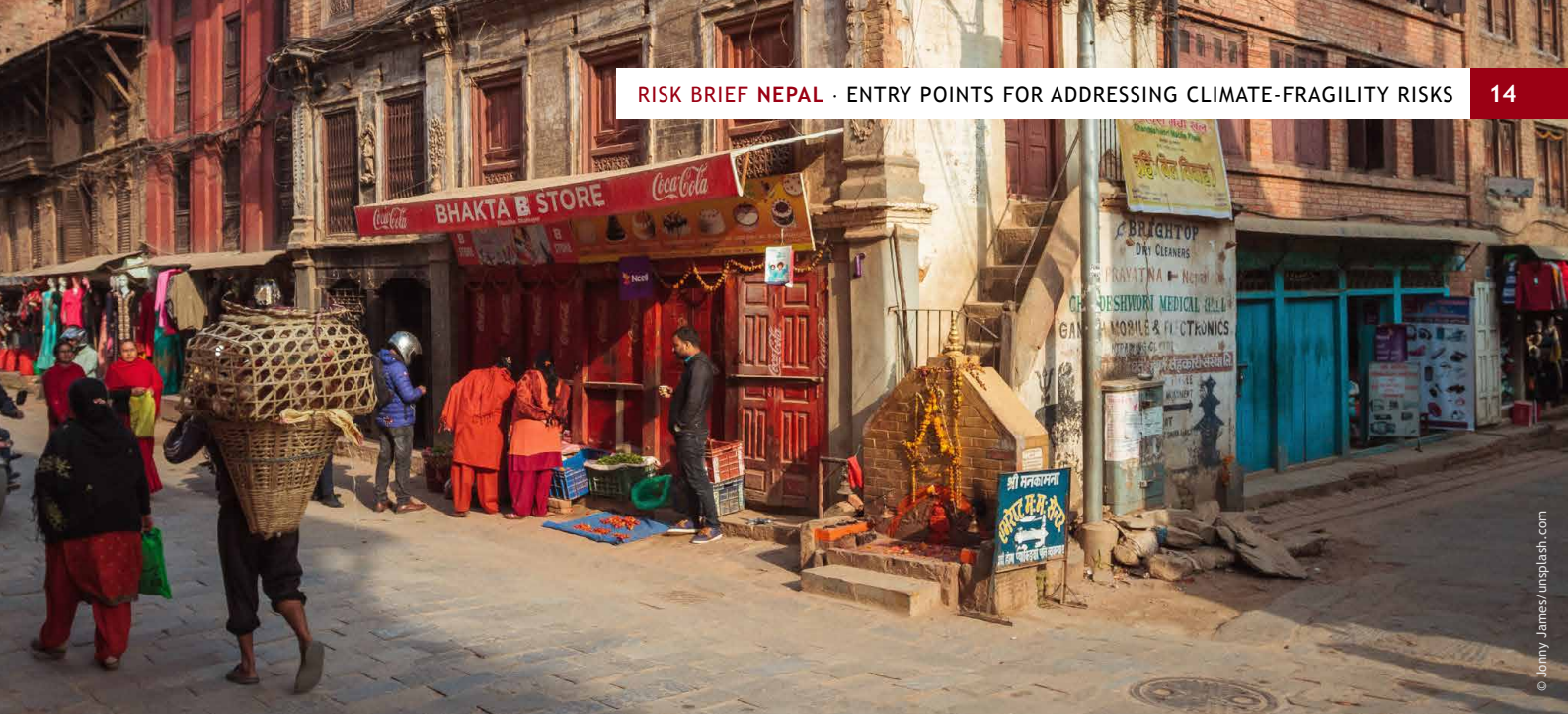
The **new constitution and federalist reform** is a risk in terms of conflict relapse and an opportunity for conflict prevention and peacebuilding. It puts more responsibilities and resources at the local level while at the same time raising local groups' expectations. In order to succeed, the reform process needs to address the grievances of minority groups (particularly in the Madhesi and Tharu dominated regions in the Terai) and provide certainty over access to natural resources – in particular land rights – to reduce tension between the government and minority groups.

Many excluded groups feel that the new constitution and federal structure has not addressed their marginalisation. On the contrary, many feel cheated by the way the constitution was promulgated and is being implemented as part of the federalist reform (Castillejo, 2017). In particular, parts of the Tharu community reject the setup of the provinces and continue to criticise the lack of inclusion and real change that has been achieved since the constitution was passed (Pradhan, 2019). In general, many minority groups have very little trust in the government (Minority Rights Group International, 2016).

At the same time, as outlined above, the federalist reform is creating a lot of uncertainty and new bodies on the local and provincial level face many challenges fulfilling their new roles and responsibilities. Furthermore, the creation of new state capitals will move administrative centres closer to some populations and further away from others, potentially creating new tensions (International Alert, 2015).

Climate change, and the challenges it poses to livelihoods and natural resource management, can play a role in undermining these processes by destabilising the substantial, but delicate, achievements that the country has made. The failure to assist communities to adapt to climate change or respond to disasters has the potential to undermine efforts for political reform. On the other hand, the successful implementation of climate adaptation policies can assist in building relationships between communities and creating confidence in the new federal structure. In other words, the established new federalist structures need to respond robustly to the interlinked pressures of climate change and the government's perceived lack of legitimacy. A failure to do so may lead to the emergence or reinforcement of tensions between certain minority groups and the government.





ENTRY POINTS FOR ADDRESSING CLIMATE-FRAGILITY RISKS

Nepal's social, economic and political vulnerabilities are accentuated by climate change. The dependence on agriculture, with two thirds of the population working in that sector, combined with the country's susceptibility to climate change and ongoing issues around natural resources and governance reform present several entry points for addressing climate fragility risks. Broadly, the entry points need to address the environmental effects of climate change on resources such as land and water as well as the impact it is having on governance and society. These impacts are interrelated and need to be approached holistically. At the same time, Nepal needs to be prepared for the new social, political and economic context the COVID-19 pandemic has created and be able to respond to the fragility it has created in a conflict-sensitive manner.

The particular characteristics of Nepal lend themselves to the following thematic entry points:

➔ Land Governance and Rights

Given the increases in mobility, migration and land competition that are likely to result from climate change, and the fact that the poor and marginalised will be disproportionately affected, there is a need to strengthen the governance arrangements for land-based natural resources on which the poor depend. This is an especially pertinent and timely entry point in light of the new governance arrangements coming about due to devolution. New administrative boundaries will affect people's rights to resources – many of which may already be affected by climate change. New arrangements need to not only pay attention to land issues in climate change adaptation planning, but also ensure that land tenure and land use management have central places in sustained efforts to improve the governance frameworks for both rural and urban development. Entry points include:

- The integration of climate change projections into devolved natural resource governance and land tenure and use arrangements
- Climate-proofing land policies so these can better address climate change risks
- Analysis of how to balance devolved resource governance with national oversight – for example of forests and up- and down-stream water user groups
- Integrated land and water management and opportunities for the poor
- Consultations and stakeholder workshops on state boundaries and federal demarcation to ensure that a multitude of views are gathered and communicated to decision makers

➤ Water

Climate change has an impact on water availability, with excess water present during the wet season and not enough during the dry season—the map below shows baseline water stress in Nepal. This imbalance has a significant effect on agriculture and could potentially destroy crops through floods and drought. Furthermore, water issues are often linked to poor land use at a local level. Transboundary issues are also critical in maintaining water quality and availability. Entry points include:

- Research to understand access to water and water resilience across various regions
- Methods of participatory management of water across federal boundaries to prevent conflict over the resource
- An assessment of the impact that hydropower and irrigation is having on biodiversity and livelihoods
- Climate-smart agriculture programmes to improve water efficiency

Baseline water stress (Aqueduct - World Resources Institute, 2010)



➤ Disaster Risk Reduction and Management

Climate change is further exacerbating Nepal's high vulnerability to natural hazards, in particular flooding and droughts. Marginalised population groups are especially affected. At the same time, the government's response to past disasters has been marred by corruption and politicisation. However, disaster risk reduction and management can also be an opportunity to address marginalisation and improve relationships between affected population groups and the government. Entry points include:

- Development of early warning systems
- Participatory development and implementation of local disaster risk reduction and management strategies
- Addressing corruption and politicisation in disaster response and relief

➔ Migration

Natural disasters, climate change-induced drought and flooding as well as economic factors are all drivers for migration. Programmes and projects can build resilience in areas that are most at risk in these scenarios. Policymakers need to ensure that there is a framework in place to help internal migrants integrate within new communities – this could help minimise tensions over resources. Additionally, the many migrants moving away from Nepal require support in finding work and building networks: indeed, their remittances are vital for Nepal's economy. Migration dynamics are likely to be affected in the short and medium and potentially also long term as a result of COVID-19. Potential entry points are:

- Use the COVID-19 crisis to reset terms between migrant-sending and -receiving states to ensure that migrant workers are better protected in the face of shocks
- Resilience-building programmes in areas that are climate fragile and at high risk for natural disasters
- Stakeholder engagement platforms to work through difficult processes of internal migration
- Pre-emigration training emphasising financial management
- Developing programmes to enable the reintegration of returning emigrants
Entrepreneurship incentive schemes may be useful to grow employment benefiting from the new skills that have been developed by the emigrants (ILO, 2016)

➔ Social Inclusion and rebuilding trust

Social inclusion is the process of improving the ability, opportunity, and dignity of individuals and groups to better take part in society (World Bank, 2013). Given the diversity of ethnicities and religions in Nepal and the perception of marginalisation amongst some groups, a programme of social inclusion would help to address some of the long-standing root causes of instability and conflict, and help to rebuild trust into government institutions. Potential entry points include:

- Collection of data disaggregated by identity factors including gender, age and ethnicity, to provide indicators for social inclusion including economic and social data to understand the link between poverty and social standing
- Programmes to facilitate inclusion through services, markets and spaces
- Integrating and monitoring social inclusion co-benefits in climate change adaptation programming

In addition to these thematic entry points, it is also important to mainstream climate-fragility risks more broadly into existing and relevant policy processes and programmes, for example:

- local implementation of the Nepal Climate Change Support Programme II
- ongoing work on Nepal's national policy on climate change measures, where impacts on livelihoods and conflict sensitivity could potentially become more salient
- ongoing work on Nepal's draft irrigation act
- improving capacity in information provision, e. g. on weather forecasting and on market pricing
- localising national environmental action plans at provincial level – including through Environmentally Friendly Local Governance Framework (EFLGF) and local Adaptation Programme of Action (LAPA) processes
- efforts to systematically link work on SDGs with climate change planning; such as the Nepal Climate Change Financing Framework (CCFF)
- the elaboration of Nationally Determined Contributions
- agricultural investment plans

- integration of climate change and conflict sensitivity into urban construction and planning processes, namely the National Strategy for Urban Reconstruction (e. g. on issues such as regulation of sand mining and gravel extraction)
- post-disaster resettlement policies
- integrating conflict sensitivity into NAP implementation

Although many of the peacebuilding activities already take natural resource management into account, the same kind of integration is also necessary on the climate change adaptation side in order to ensure that efforts to increase resilience against climate change simultaneously strengthen community cohesion and rebuild trust in the government – or at least do not reduce it. This calls for a systematic integration of conflict sensitivity analyses into projects and policies targeted at adaptation.

For example, the draft Water Resource Policy overlaps considerably with the Irrigation Act, the Land Use Policy, and the Water Shed Management Act. Further, there are conflicting interests between hydropower policies and forestry policies from Ministerial level down to the operational level. Planning the projects in an integrated manner rather than individually for every sector could deliver significant synergies between the sectors and avoid friction and duplication between those responsible for the individual sectors.



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