

CLIMATE CHANGE TECHNICAL NOTE
Nepal Finance for Growth DPC (2 of 3) (P176881)

Vulnerability Context

Nepal is highly vulnerable to the impacts of climate change. According to the Climate Risk Index, Nepal ranks 10th in the world as a country most affected by past climate hazards.^[1] The country is also ranked the 44th most vulnerable to future climate risks and 64th least ready country to adapt in the world by the ND-GAIN Country Index.^[2] Nepal faces high risks of flooding and landslides, torrential rainfall^[3], and an increased risk of glacial lakes bursting. Heatwaves, droughts, and more erratic rainfall are high and rising risks.^[4] Nepal also faces threats from slow on-set events apart from these disaster events. Mean annual temperatures throughout Nepal are projected to increase between 0.5°C and 2.0°C by the 2030s. At the same time, projections show a three-fold increase in monsoon rainfall and are likely to contribute to more frequent summer floods. The risk of flooding in the river basins of the non-Himalayan region due to higher monsoon precipitation is projected to increase by as much as 14 to 40 percent by the 2030s.

The impact of climate change will be profound across economic sectors. Nepal's climate vulnerabilities emerge from an interaction of climatic factors with a fragile mountainous topography and ecosystems, monsoon-driven hydrology, unplanned settlements and lack of resilient infrastructure, and an economy that has sustained several shocks in the recent past (floods in 2017, as well as landslides, floods and the ongoing COVID-19 pandemic in 2020). Rising mean annual temperatures are increasingly evident^[5] in the high mountains, as permafrost and glaciers have melted, dangerous glacier lakes have formed, and landslides are occurring more frequently. Further, a reduction in winter snow and more significant rainfall variability in Nepal is predicted^[6] to adversely impact water security, hydropower potential, food production, and biodiversity. The frequency of droughts is likely to increase, particularly during the winter months and especially in the western Terai plains, with considerable impact on the primarily (75 percent) rain-fed agriculture. With agriculture comprising around 64 percent of employment, most livelihoods are highly exposed to climate change.^[7] Climate impacts also affect infrastructure, service provision, and economic productivity. Climate change also poses a risk to the financial sector, not only from physical risk arising from increasing severity and frequency of climate and weather-related events affecting economic assets, but also from transitions risk arising from a transition to a carbon-neutral economy.

Prior Actions' Contributions to Climate Objectives

This operation contributes directly to key climate policy priorities in Nepal, including those related to disaster risk financing, reduction and management, low-carbon development, and climate financing. The specific adaptation and mitigation activities under the Program are given in the table below:

Table 1: Prior Action-wise Adaptation and Mitigation Actions

Prior Action	Contribution to climate change adaptation and/or mitigation
<p>Prior Action #2. The Nepal Rastra Bank, to strengthen the effectiveness of supervision towards a risk-based approach, has: (i) adopted a new Offsite Supervision Manual; (ii) has implemented the Supervisory Information System through which banks and financial institutions submit their regulatory returns; and (iii) endorsed a report by the [NRB supervision Department/ Monitoring Unit], building on the institutional risk profile of all Class A Banks and presenting the findings from resultant onsite supervision inspections for at least two banks identified as higher risk.</p>	<p>Before this reform, most financial institutions (FIs) tended to ignore the financial implications of being exposed to environmental risks while making investment decisions. At the same time, an adequate regulatory framework is yet to be created to make climate-informed decisions and incentivize FIs to offer green finance products.</p> <p>This reform strengthens the climate resilience of the financial sector by introducing new climate-related financial risk supervisory practices into the NRB supervisory framework. The reform provides a coherent and essential first step guideline for financial institutions to address and measure climate-related risks using robust metrics and fully incorporate climate dimensions into decision-making. The reform will also enhance Nepal's progress towards the eventual adoption of international standards around climate risk financial disclosure (such as recommendations of the Task Force on Climate-related Financial Disclosure (TCFD))</p> <p>In addition, there is also limited awareness about the green bond market with a shortage of pipeline projects before this reform. The more robust incorporation of climate dimensions in financing decision-making through this reform will pave the way for the GoN to introduce green taxonomy, green loan principles, and incentives for green lending.</p>
<p>Prior Action #3. The Executive Committee, as authorized under "Disaster Risk Reduction and Management Act, 2074", has approved the implementation plan for market-based financial instruments under the DRF Strategy, based on a cost-benefit analysis of financial instruments to reduce the Government's contingent liabilities following a disaster.</p>	<p>Disaster risk reduction and management is one of the eight thematic priorities under Nepal's Second NDC.^[8] This reform contributes directly to diversifying financial solutions for the management of climate-related disaster risks in Nepal. Enhanced access to market-based instruments will promote proactive use of ex-ante risk transfer to the market. This leads to improved efficiency in disaster response, safeguards development progress from climate shocks, and reduces the fiscal impact from ex-post budget reallocation in the aftermath of climate-related disasters.</p>
<p>Prior Action #4. The Council of Ministers has approved an amendment to the "securities registration and issue" regulation (#2073BS) pertaining to listed issuers' disclosure on ESG, focusing on climate change.</p>	<p>Nepal's Second NDC (2020) outlines priority sectors for climate change adaptation and resilience, including industry, transport, and physical infrastructure; rural and urban settlements; forest, biodiversity, and watershed conservation; and disaster risk reduction and management. IFC also estimates a total climate-smart investment opportunity (excluding renewable energy) of US\$ 22 billion in Nepal (from 2018 to 2030). However, Nepal faces a critical financing gap for green and climate-resilience investments in these sectors, which need to be closed by mobilizing financing from various sources, including green finance.</p> <p>However, currently, green financing in Nepal is nascent and limited mainly to</p>

	<p>hydro. While there is a clear need to expand green financing beyond hydro, Nepal faces challenges in mobilizing green and sustainable finance about (1) the need for external capital flows for green investment and (2) the underdeveloped financial system in areas crucial for green investment.</p> <p>This reform will improve the disclosures on their ESG and climate risks and actions to tackle climate change and develop a more climate-resilient economy, taking into account the TCFD recommendations and best international practices and specificities of the local market. Improving market transparency through ESG disclosures is the first step for SEBON before implementing guidelines allowing the need to issue green-labeled securities. It will provide more visibility to investors on the Nepalese companies' overall strategies to address climate change. Improved ESG and climate risk disclosure practices will also prepare Nepal to attract more international capital looking for sustainable, climate-smart investments.</p>
<p>Prior #5. The NIB has revised Directives on Risk-Based Capital and Solvency Framework and Climate-Related Risk Disclosures to strengthen its risk-based approach to assess and monitor all risks, including climate-related ones.</p>	<p>The reform enhances the insurance sector's supervisory infrastructure to address climate change risk. The reform, therefore, contributes to a more stable and climate-resilient insurance system with an ability to help the country better respond to climate shocks.</p>

^[1] https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_1.pdf

^[2] <https://gain.nd.edu/our-work/country-index/rankings/>

^[3] <https://thinkhazard.org/en/report/175-nepal>; <https://climateknowledgeportal.worldbank.org/country/nepal>

^[4] <https://thinkhazard.org/en/report/175-nepal>; <https://climateknowledgeportal.worldbank.org/country/nepal/vulnerability>

^[5] ICIMOD (2019) Hindu Kush Himalaya Assessment Report.

^[6] Asian Development Bank (2014) Assessing the costs of climate change and adaptation in South Asia.

^[7] <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=NP>

^[8] [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nepal%20Second/Second%20Nationally%20Determined%20Contribution%20\(NDC\)%20-%202020.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nepal%20Second/Second%20Nationally%20Determined%20Contribution%20(NDC)%20-%202020.pdf)