

Nepal

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Introduction

Nepal is a landlocked multiethnic, multilingual, and multireligious country situated north of India in the Himalayas. The people of Nepal, particularly the rural poor, are directly dependent on natural resources for survival, with a significant portion of the economy coming from climate-sensitive industries such as agriculture, forestry, and ecotourism. More than half of the population lives in remote hill and mountain regions where government support and access to resources are poor.¹

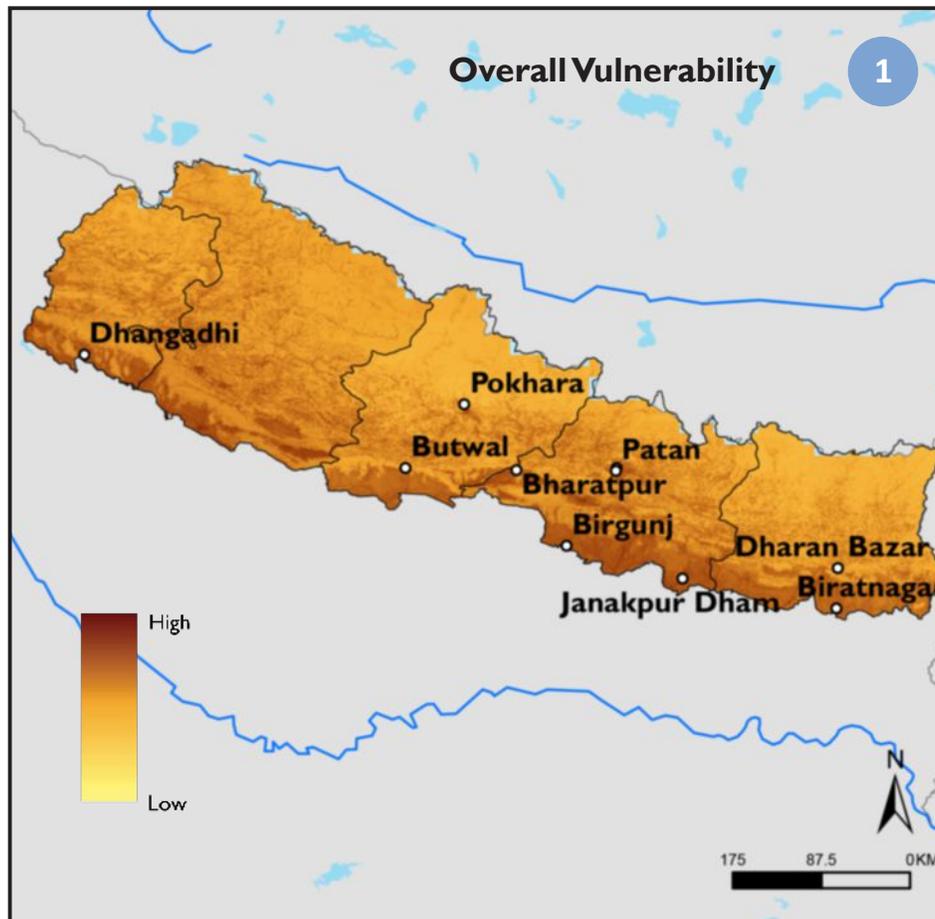
After being struck by a devastating 7.8 magnitude earthquake in 2015, Nepal received large inflows of aid. However, poor government organization and political infighting have impeded reconstruction efforts, leaving many remote communities vulnerable to future climate change related weather events. As figures 1-5 suggest, Nepal's overall climate change vulnerability mostly results from poor governance (see figure 2) and low household resilience in the far to mid west region (see figure 4). Though CEPSA data includes the historic incidence of floods, CEPSA figures do not include the future risk of glacial lake outburst floods (GLOFs), hence the climate vulnerability is lower than may be expected (see figure 1).² Calculations under the CEPSA program indicate that approximately 43 million people or 13% of the country's population faces above average exposure.³

Natural Disasters and Climate Change Vulnerability

Climate change mostly impacts Nepal through glacial lake outburst floods, landslides, droughts, and wildfires. Since 2000, Nepal has experienced 23 separate flooding events as well as 10 landslides.⁴ Floods and landslides are common in Nepal during the southwesterly monsoon season which runs from June to September with a death toll that runs into the hundreds every year. Along with regular monsoon floods, the country also experiences GLOFs which are floods created when water dammed by a glacier or a moraine is released.⁵

In 2016, floods and landslides left 64 people dead after heavy and steady monsoon rains hit Pyuthan district in western Nepal. Furthermore, thousands of others have been forced to leave their homes. The floods were particularly harmful in 2016 since millions of Nepali were still living in tents or makeshift huts after the devastating 2015 earthquakes.⁶

In addition to floods, climate research predicts increased seasonal variability of rainfall, that suggests agriculture in Nepal will face immense challenges as seasonal drought increases. Droughts during the winter of 2008-2009 severely affected farming and local food security. During that period, monitoring stations

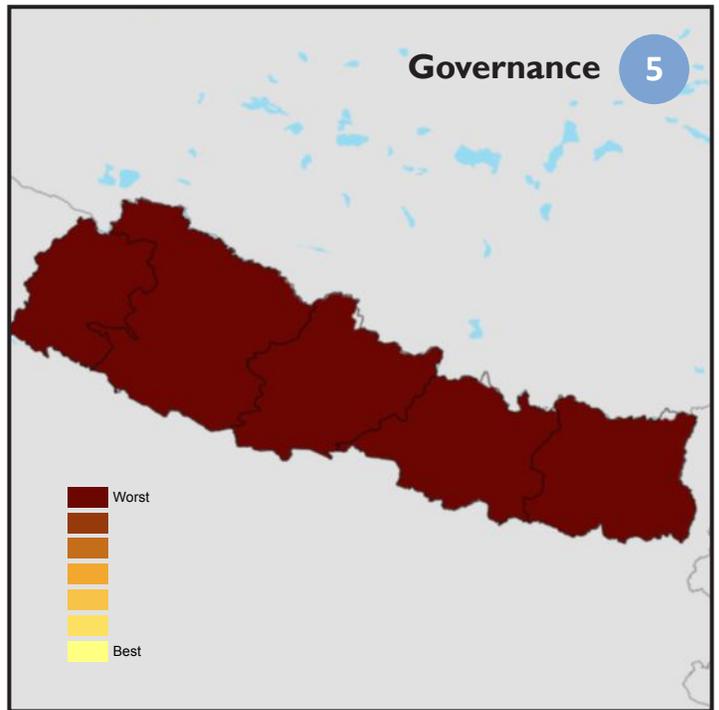
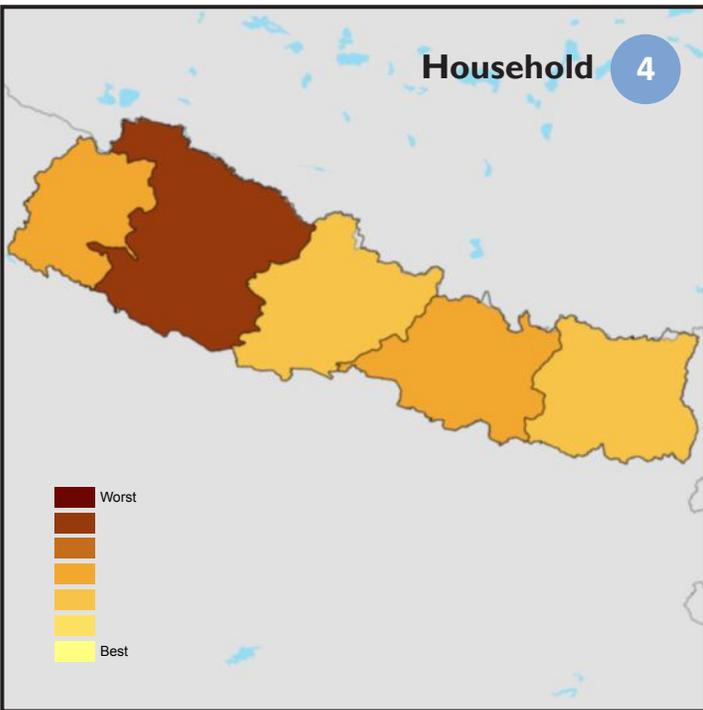
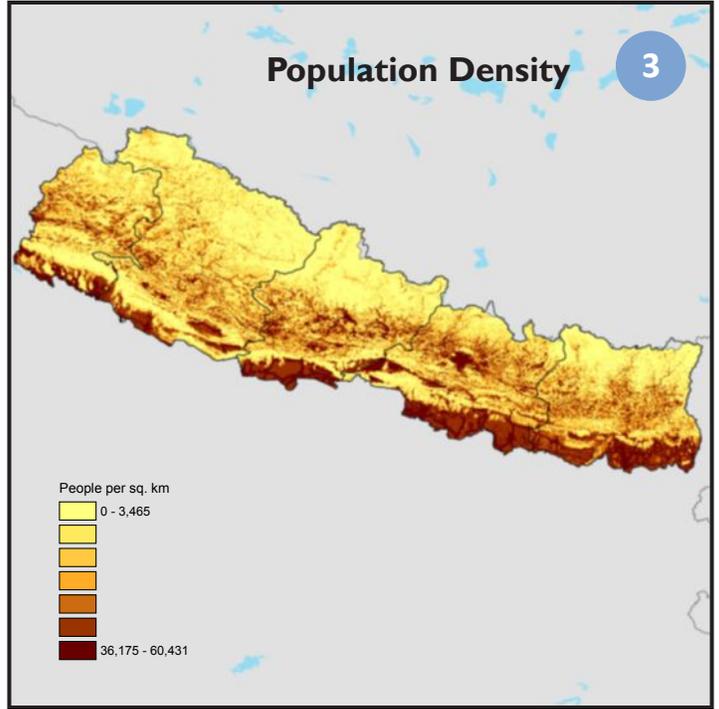
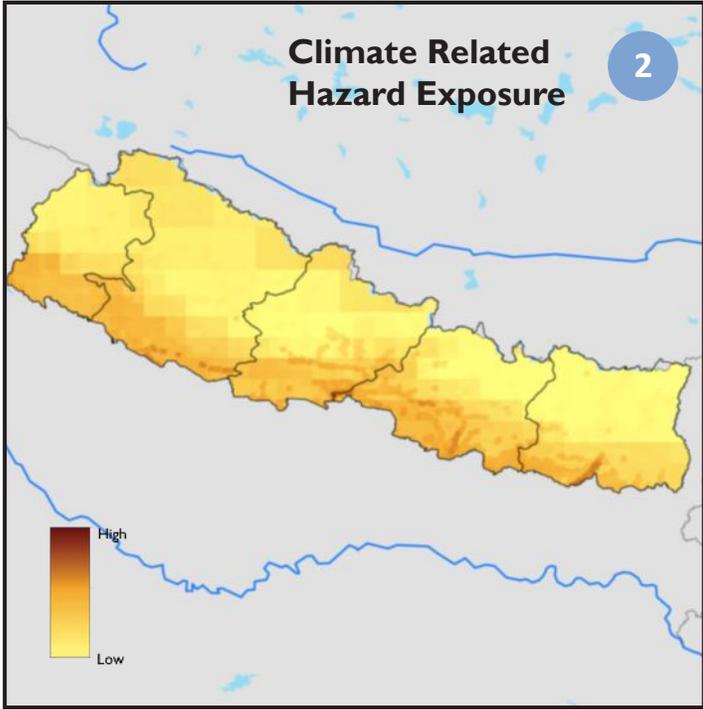


Data Sources: KOF Index of Globalization; World Bank World Governance Indicators; Political Instability Task Force (PITF); Polity IV Project; World Bank World Development Indicators; USAID Demographic and Health Surveys; UNICEF Multiple Indicator Cluster Surveys; Center for International Earth Science Information Network; UNEP/GRID-Europe; Viewfinder Panoramas; LandScan; Princeton University Terrestrial Hydrology Research Group

recorded less than 50% of the normal rainfall the Northwest region usually receives.⁷

Drought conditions have also increased the risk of forest fires in the lowland southern region of Nepal. Every year, forest fires destroy hundreds of hectares of forests and cause huge economic loss in the country. For example, during May 2016, Nepal battled the worst forest fires in years. Eleven people lost their lives while trying to fight fires that burned 280,000 hectares (692,000 acres) of forest.⁸ Nepal came up with a forest fire management strategy in 2011 but failed to formulate a suitable action plan to implement it on the ground. At the community forestry level, only 67 of the total 19,000 community forestry user groups across the country are equipped with fire-fighting tools and the training required to mitigate the risks.⁹

In 2010, the Government of Nepal approved the National Adaptation Programme of Action (NAPA) to access funding from the United Nations' Least Developed Countries Fund (LDCF). These programs are designed to help the poorest and most vulnerable communities in Nepal adapt to the effects of climate



change. In 2015, the United Nations Development Programme was able to implement 873 of the most urgent actions listed in 100 local adaptation plans for action benefiting 78,717 vulnerable people.¹⁰

External Assistance

As one of the world's poorest countries, Nepal's economy relies heavily on aid and tourism to fuel its economy. Between 2000 and 2013, Nepal received US \$13.8 billion with \$318 million going towards climate change and disaster climate change adaptation and disaster risk reduction.¹¹ Nepal is also a focus country for the U.S. Global Climate Change (GCC) Initiative. Building on a successful community forestry program that engages 35 percent of Nepal's total population, USAID is working to strengthen the ability of local communities to take ownership of their resources and manage them according to international standards.¹² Net official development assistance constitutes 5.6 percent of Nepal's total Gross National Income in 2015.¹³

As noted above, on April 25, 2015, an earthquake with 7.8 magnitude struck the capital city of Kathmandu and surrounding regions. According to the United Nations, more than eight million people were affected by the earthquake -- almost a quarter of the country's population. The earthquake and following aftershocks destroyed the homes of nearly 650,000 families across Nepal forcing them to abandon their home for tented relief camps.^{14,15} Billions of dollars of aid have been pledged to the rebuilding effort in Nepal from foreign countries and international organizations such as the U.S., India, and the United Nations; however, political infighting and fraud has delayed much of the reconstruction efforts.¹⁶ Millions of reconstruction dollars have disappeared, hampering the reconstruction efforts and leaving tens of thousands of victims to endure multiple monsoon seasons living in temporary shelters.¹⁷

Governance

After decades of civil conflict between the Communist Party of Nepal (Maoist) and the constitutional monarchy, Nepal signed a peace treaty in 2008 beginning its transition to a federalist structure. Then, in the same year, in a historic vote by the constituent assembly, Nepal's monarchy was abolished. Nepal became a federal republic and was formally renamed the Federal Democratic Republic of Nepal, ending the 200 year old Shah dynasty. After years of political fighting, in 2015 the official constitution establishing federalism was passed. The constitution establishes three tiers of government; however, politicians have been unable to reach a consensus on the name, geographic boundaries, power structure, and resource distribution for each level of government.^{18,19} General political instability and lack of effectiveness make Nepal one of the most poorly governed countries in the region. Government must play an important role in coping with natural disasters but as seen in the response to the 2015 earthquake, Nepal's government is unprepared to deal with a variety of hazards not just climate-related ones.

Endnotes

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- ¹³ World Bank. Net ODA received (% of GNI). Available at: <http://data.worldbank.org/indicator/DT.ODA.ODAT.GN.ZS>
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- ¹⁸ Policy Forum (2016). Nepal's Slow Shift to Federalism. Available at: <https://www.policyforum.net/nepals-slow-shift-to-federalism/>
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The Strauss Center's program on Complex Emergencies and Political Stability in Asia (CEPSA) explores the causes and dynamics of complex emergencies in Asia and potential strategies for response. In doing so, the program investigates the diverse forces that contribute to climate-related disaster vulnerability and complex emergencies in Asia, the implications of such events for local and regional security, and how investments in preparedness can minimize these impacts and build resilience. CEPSA is a multi-year initiative funded by the U.S. Department of Defense's Minerva Initiative, a university-based, social science research program focused on areas of strategic importance to national security policy.

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