



National Adaptation Plans in focus: Lessons from Nepal

Nepal is a mountainous landlocked country in South Asia. The Himalayan mountain range runs across Nepal's northern and western parts with ten of the world highest mountains including mount Everest laying within its borders. With a population of about 28 million, it has an area of 147,181 square km, making it one of the highest population densities of all developing countries.ⁱ About one-quarter of its population lives below the poverty line.ⁱⁱ Nepal is socially diverse, with approximately 125 caste and ethnic groups and as many as 123 mother tongue languages spoken.ⁱⁱⁱ Nepal is bordered by the People's Republic of China to the north and by India to the south, west and east.

The economy of Nepal is heavily dependent on remittances, which amounts to around 30% of its Gross Domestic Product (GDP).^{iv} Agriculture is the mainstay of the economy, providing a livelihood for

almost two-thirds of the population but accounting for less than a third of the GDP.^v

In 2006, a 10-year armed conflict came to an end. Since then, Nepal has gone through lengthy and complex transitions from an absolute monarchy, to a constitutional monarchy and finally, a new constitution in 2015 set a federal structure into place. The new federal system is comprised of seven federal provinces, 77 districts and 753 local governments (municipalities and Gaunpalikas) in principle and provides opportunities for decentralized development benefits and allows service delivery to be more effective and accountable.^{vi} While many social economic challenges lay ahead, there is a newfound optimism in the country for greater stability, inclusion, good governance and sustainable growth.

Climate change risks

Nepal ranks fourth in the global climate risk index of the most vulnerable countries.^{vii} This is largely due to the country's low level of development, agrarian economy, along with its challenging mountainous topography and its abrupt ecological and climatic transitions that make it particularly vulnerable to climate change. Tens of millions of people rely on the region's ecosystem services for their livelihoods. Observed and modelled warming climate trends predict a threat to these livelihoods. Nepal's annual maximum temperature has increased by 0.056°C between 1971 and 2014.^{viii} The mean annual temperature is expected to continue to increase in Nepal over the remainder of the

century. Recent projections indicate that mean annual temperatures could increase by 1.3–1.8°C.^{ix}

Due to the current warming, there is particular concern to the flow and quality of water derived from glaciers, snowmelt and rainfall^x. At certain times of the year, erratic rainfall and flash floods lead to excess water, causing crop failure and topsoil erosion. In other times, prolonged dry periods and extreme drought effect hydropower energy production, reducing rice and maize cultivation, which is the main source of food for much of the country's population.^{xi}



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Groundwork for supporting the NAP process



Policy, planning and budgeting

Nepal's 2019 National Climate Change Policy provides the overarching policy guidelines on climate change for the country. Its aim is to create a climate resilient society by reducing the risks associated with climate change by mainstreaming climate change into all levels of government and within thematic policy areas, strategies, development plans and programs.^{xii} The Policy notably mentions that the implementation of all policies, strategies and plans related to climate change will be at the local level. This has been supported by the policies commitment to establishing a climate change fund and allocating at least 80 percent of the total climate change fund to field level activities in order to address adaptation needs of vulnerable communities and ecosystems.^{xiii}

The Local Adaptation Plans for Action (LAPA) initially developed in 2011 has currently been updated to adjust to the new federal structure and its new climate change policy. To this effect, LAPA is a bottom-up approach to adaptation planning aimed towards mainstreaming of adaptation and disaster risk reduction development into local development planning process.^{xiv} LAPA aims to capacitate local governments to better manage and address climate change impacts at their level and assists them in identifying, prioritising, planning, implementing and monitoring community-based adaptation actions and plans as per the mandate of the Environmental Protection Act. The LAPA also provides ample opportunities to integrate adaptation options into local to national planning processes. In 2013, the Government of Nepal introduced a dedicated climate change budget code to channel funding for climate change activities from the centre to the local levels.

Building on existing policies, NAPA experiences and on LAPA, Nepal successfully launched its National Adaptation Plan (NAP) process in September 2015. It also became one of the first countries to receive approval for NAP Readiness funding from the Green Climate Fund (GCF) through UN Environment Programme's (UNEP) support. Working groups were established for the NAP process and some are under process of formulation, focusing on eight themes and four cross-cutting areas identified in National Climate Change Policy 2019:

	1. Agriculture and food security
	2. Forests, biodiversity and watershed conservation
	3. Water resources and energy
	4. Rural and urban settlements
	5. Industry, transport and physical infrastructure
	6. Tourism, natural and cultural heritage
	7. Health, drinking water and sanitation
	8. Disaster risk reduction and management
Cross cutting areas:	
	1. Gender equality and social inclusion, and livelihoods and governance
	2. Awareness raising and capacity development
	3. Climate change finance management
	4. Research, technology development and expansion

Preparing for adaptation planning

Climate change impacts assessments and analyses to inform medium- to long-term adaptation budgeting and planning are planned to be carried out at both national and sub-national levels.

Furthermore, the working groups established for the NAP process have produced a stocktaking report that reviews available information on climate change and linkages to the eight thematic areas and identifies major stakeholders and key gaps and needs. The report also includes recommendations for the way forward. In addition, capacity gap assessments were produced for each theme and cross-cutting issues.^{xv}

Sector-wise information on the vulnerability, impacts and adaptation were collected from the peer reviewed scientific articles, documents and reports from sector ministries and departments. Information was obtained for different sectors including; agriculture, water resources, forests and biodiversity, public health, climate-induced disasters, human settlement and infrastructures, and gender and social inclusion.

Implementation of adaptation actions

The government of Nepal, together with national and international partners, has implemented various climate change-related projects and programmes. A short selection includes:

- Climate Change Support Programme (NCCCSP): strengthen institutions and build climate resilient infrastructure, GLOF and flood, and ecosystem- based adaptation projects in 14 of the most vulnerable districts;
- Community-based flood risk and GLOF risk reduction programme: long term interventions aimed at enhancing climate resilience in quantity and quality of water, (ii) food security, and (iii) eco-system health;
- Ecosystem-based Adaptation Programme (EbA): to enhance ability of decision makers to plan and implement EbA of mountain ecosystems in Nepal strategies and measures at national and ecosystem level;
- Resilience to Climate Related Hazards Project for Nepal: to enhance government capacity to climate related hazards by improving the accuracy and timeliness of weather and flood forecasts and warnings for climate-vulnerable communities.



Challenges and successes

Philosophy and guiding principles of the Nepal NAP

- Adopt a craft of 'Ecosystem first', 'people-first' and 'development-first' discourses supplemented by adaptation actions; Targeted mitigation co-benefits;
- Balanced Ecosystem-based and Community-based Adaptation approaches; Priority on ecosystem restoration;
- Adaptation services through the conservation, management and utilization of natural resources like forests, biodiversity, water resources and mountains in green job creations, fostering agriculture, promoting nature-based tourism;
- Link with existing relevant processes, Sendai framework (DRR) and 2030 SDGs including National Climate Change Policy 2019;
- Ensure gender responsive, participatory and inclusive process [no one is left behind];
- Ongoing discussion: How and where the adaptation services (including nature-based) are generated, how it could serve the resilience of systems at risk, and how it can be transported to the most vulnerable households. (For eg. electricity from reservoir)

Support programmes

The Nepal Climate Change Support Programme (NCCSP) implemented local adaptation plans (known as LAPAs) to address the most urgent and immediate needs in 100 villages covering 14 districts from 2013 to 2017. Under the GCF Readiness and Preparatory Support Programme, Nepal with UNEP as its delivery partner are currently working towards formulating and implementing NAP activities.

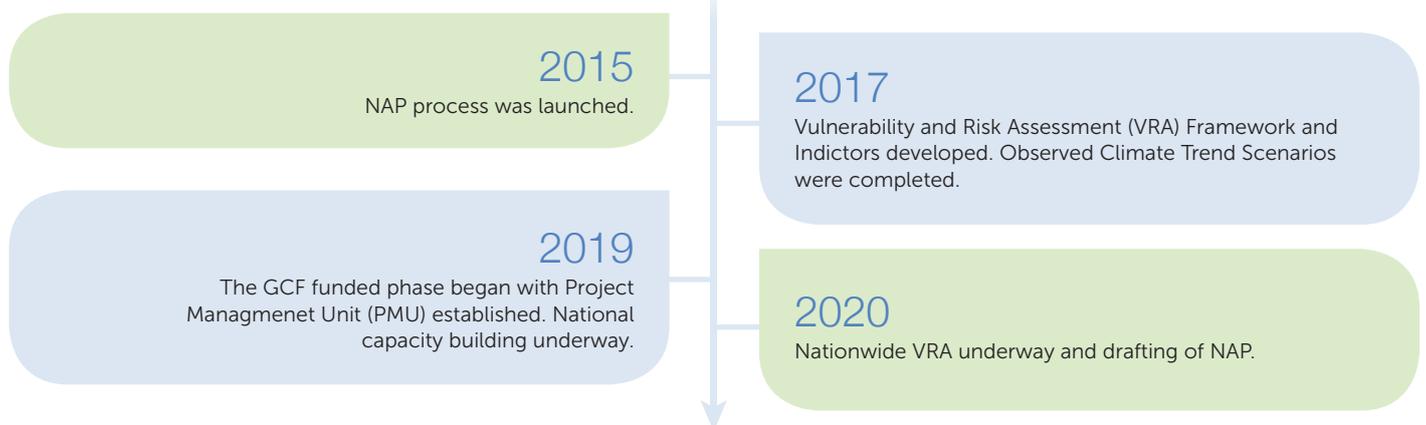
Challenges

The federal restructuring of the government has resulted in the lack of clarity of roles and institutional capacity to coordinate the NAP process. The lack of appropriate technology and financial

resources seriously impeded Nepal's ability to implement adaptation options, which limits the range of possible responses. The representation and engagement of women and vulnerable groups in the NAP working groups continues to remain limited.^{xvi} The country's complex geographical setting also makes climate projections difficult. There is an absence of consistent climate data and climate change scenarios, and examining climate risk in livelihood sectors with confidence is challenging.

Successes

Nepal has successfully established dedicated climate change coordination mechanisms at political and administrative levels since NAPA preparation and implementation to ensure better coordination at all governance levels. In addition, the National Planning Commission jointly with the Ministry of Finance developed a dedicated climate change 'budget code' to channel climate finance for field level activities. Most importantly the formulation of the NAP has been successful in contributing towards the process of implementation of climate change adaptation practices into all sectors of development. Identification of concrete adaptation pathways and objectives for each of the themes/sectors has been one of the major successes of NAP formulation.



The process to formulate and implement NAPs

Several institutional changes took root in Nepal following the new 2015 constitution. A new National Climate Change Policy was formulated in September 2019 setting out the provision of an Inter-Ministerial Climate Change Coordination Committee (IMCCCC) that will supersede the previous Multi-Stakeholder Climate Change Initiative Coordination Committee (MCCICC) and be reflective of the new federal governance system of the country. The committee will serve as the key national platform on climate change coordination. The overall objective of the IMCCCC is to serve as a national platform for ensuring regular dialogue and consultations on climate change related policies, strategies, plans, financing, programmes/projects and activities. The Ministry of Forests and Environment (MoFE) will make the necessary logistical arrangements for meetings and mobility of the Committee.



Opportunities and next steps

There are new entry points available for ministries and sub-national authorities to access climate finance and integrate adaptation across all sectors due to the Green Climate Fund Readiness and Preparatory Support Programme, as well as new climate-oriented structures and policies shifting from short- to long term adaptation needs. There are still additional steps needed to further the implementation of NAP, including: i) to systematically compile and provide climate risk, vulnerability knowledge and information available for informed decision making; ii) coordinate, clarify roles and responsibilities of provincial and local governments on NAPs and expand stakeholder engagement to ensure broad and inclusive participation, including mechanisms that ensure functional linkages between sub-national and federal governments; iii) identify resources for the implementation of the NAP, in terms of financial and human resources; and iv) establish a system to monitor and evaluate results of adaptation interventions, as well as establish the status of integration of climate change into development planning.

Key documents

- [Initial National Communication to the UNFCCC \(2006\)](#)
- [National Adaptation Programme of Action \(2010\)](#)
- [Local Adaptation Plan for Action Framework \(2019\)](#)
- [Intended Nationally Determined Contributions \(2016\)](#)
- [Observed Climate Trend Analysis of Nepal 1971-2014 \(2017\)](#)
- [GCF readiness Adaptation Planning support programme through UNEP \(2016\)](#)
- [GCF readiness NDA strengthening and country Programming support through UNDP \(2018\)](#)
- [Nepal's National Adaptation Plan \(NAP\) process: reflecting on lessons learned and the way forward \(2018\)](#)
- [National Climate Change Policy 2019](#)

Notes

- ⁱ World Bank. Country Data: Nepal. URL: <https://data.worldbank.org/country/nepal>
- ⁱⁱ Ibid
- ⁱⁱⁱ Central Bureau of Statistics (2011). Nepal Living Standard Survey 2010-2011, Third. URL: <http://cbs.gov.np/nada/index.php/catalog/37>
- ^{iv} World Bank. Country Data: Nepal. URL: <https://data.worldbank.org/country/nepal>
- ^v Ibid
- ^{vi} Ministry of Population and Environment (2017). Synthesis of Stocktaking Report for National Adaptation Plan (NAP) Formulation Process in Nepal. Ministry of Population and Environment, Government of Nepal. URL: <http://climatenepal.org.np/main/index.php?research&sp=onlinelibrary&opt=detail&id=1028>
- ^{vii} German Watch (2019). Global Climate Risk Index 2019. Briefing paper. URL: https://germanwatch.org/sites/germanwatch.org/files/Global%20Climate%20Risk%20Index%202019_2.pdf
- ^{viii} Department of Hydrology and Meteorology (DHM). (2017). Observed climate trend analysis in the districts and physiographic zones of Nepal (1971-2014). Government of Nepal, MoPE, DoHM, June 2017
- ^{ix} International Centre for Integrated Mountain Development (ICIMOD). (2018). Climate change scenarios of Nepal for NAP Process: Main Findings. Presentation by Santosh Nepal on behalf of National Adaptation Plan Team. January 17, 2018 x ACT & Practical Action. (2017). Experience of Supporting Nepal's National Adaptation Plan (NAP) Formulation Process. URL: <http://napglobalnetwork.org/wp-content/uploads/2018/07/napgn-en-2018-nepal-nap-process.pdf>
- ^{xii} Bartlett, R., Bharati, L., Pant, D., Hosterman, H., & McCornick, P. (2010). Climate change impacts and adaptation in Nepal (Working Paper 139). International Water Management Institute. URL: http://www.iwmi.cgiar.org/Publications/Working_Papers/working/WOR139.pdf
- ^{xiii} Government of Nepal. (2019). National Climate Change Policy of Nepal. Government of Nepal, Ministry of Forest and Environment, Singh Durbar
- ^{xiv} Government of Nepal. (2011). National Framework on Local Adaptation Plans for Action. Government of Nepal, Ministry of Forest and Environment, Singh Durbar
- ^{xv} MoFE, 2019. Framework of National Adaptation Plan for Action (LAPA). Ministry of Forests and Environment, Singhdurbar, Kathandu.
- ^{xvi} WWF Nepal (2016). Preparing for Change: Climate vulnerability assessment of the Chitwan-Annapurna Landscape. WWF Nepal Hariyo Ban Program. URL: http://d2ouvy59p0dg6k.cloudfront.net/downloads/preparing_for_change___climate_vulnerability_assessment_of_the_chal_1.pdf
- ^{xvii} ACT & Practical Action. (2017). Experience of Supporting Nepal's National Adaptation Plan (NAP) Formulation Process. URL: <http://napglobalnetwork.org/wp-content/uploads/2018/07/napgn-en-2018-nepal-nap-process.pdf>

Cost of current climate variability and extreme events equivalent to **2% of current GDP/year**.

During 1998-2017, an average of **235 annual fatalities** were related to climate change in Nepal.

More than **80%** of property loss is due to disasters attributable to climate hazards, particularly water-related events (floods, landslides and glacial lake outburst floods).

Water related disasters claim more than **300 lives** a year.

Agriculture employs more than 66% of the population (>70% of women population) and contributes more than **27.6% to the GDP**.

70% of crop production is determined by climatic variability, and rain deficit, drought and floods cause significant (between 10% and 30%) decline in crop production.

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and opportunities for knowledge exchange on NAPs.



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