

Nepal Climate Change Risk in Nepal

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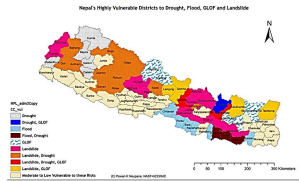
Scientific evidence for warming of the climate system is unequivocal- IPCC

Vital Signs of Climate Change in Nepal

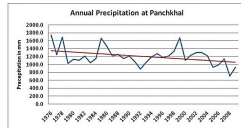
Nepal, a mountainous country (147,181km² & 26.6 million people, HDI:0.558, 144th)

- 0.04° C rise in mean temperature/year (1975 to 2005), Projected to increase between 1.3-3.8° C by 2060s and 1.8-5.8° C by the 2090s
- Mean rainfall decreased by 3.7 mm per month per decade, annual precipitation projected to reduce by 10 to 20%
- Number of days with rainfall of more than 100mm is increasing

Climate Change Impacts



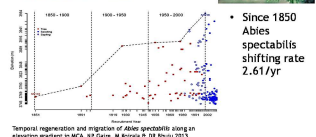
Drought



Landslide Dams in Sunkoshi River, 2014



Treeline Shifting

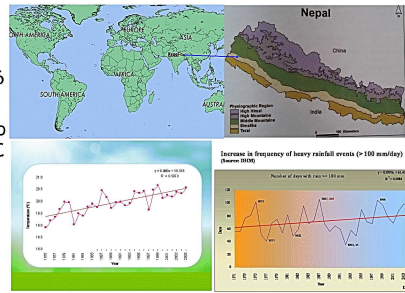


Terrace regression and migration of Abies spectabilis along an elevation gradient in NCA, NP, Garo, & Annapurna © DR Bhujju 2015

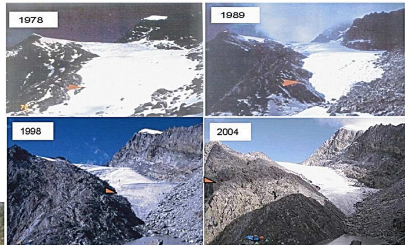


7.3% people live in high hills & Rear Himalayan Goats (3254365), Yak & Chauris (95,446), Sheep (348000)
Treeline shifting may affect rangeland productivity effecting the peoples livelihood living in Himalaya

Direct cost of current climate variability & extreme events ~1.5 to 2% of current GDP/year (approx.USD 270-360 million/year)



Ice reserve between 1977 and 2010 decreased by 29% (129 km³)
X10 Glacier retreating at the rate of 10 meter per year (Source: GEN/DHM)



Flood in Narayani River, 2016



Water Scarcity in Ramechhap District, Nepal



Small mammals in threat of their habitat loss

Key Challenges

- Financial Constraints and Lack of Technology
- Separate Frameworks for Disaster Risk Management and Adaptation Planning
- Lack of meaningful inter sectoral coordination
- Research and Data Gaps
- Political Interference during development planning process
- Perplexity of local level policy makers in implementing policies and plans

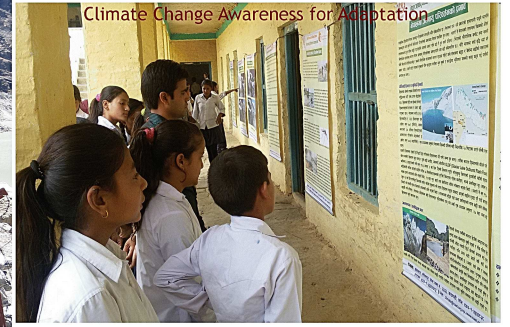
Some Adaptation Practices



Rainwater Harvesting at Timal Region , Kavreplanchok, Nepal, 2017



Establishment of Weather Stations



Climate Change Awareness for Adaptation

Adaptation Strategies

Policies and Plan

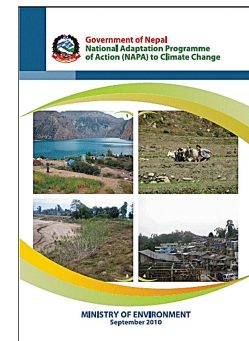
- Climate Change Policy 2011
- National Adaptation Plan of Action (NAPA) 2010
- Local Adaptation Plan of Action (LAPA) 2012
- Climate Change Budget Code- 2012
- Climate-resilient planning tools - 2011
- Sectoral Guidelines, Acts, Strategy on CCA and DRM
- Framework for Environmental Friendly Local Governance
- Low carbon economy strategy
- National Adaptation Plan
- 375 Local Adaptation Plans & 2200 Community Adaptation Plans

Institutional Arrangements

- Climate Change Council (CCC)
- Climate Change Management Division within the Ministry, 2010
- Climate Change Knowledge Management Centre -2011
- Climate Change Network Nepal
- Red Implementation Center

Programs

- Nepal Climate Change Support Program
- Community-based Flood Risk & GLOF Risk Reduction Program
- Ecosystem-based Adaptation Program



National Framework on Local Adaptation Plans for Action



Government of Nepal
Ministry of Environment
Climate Change Management Division