

Climate Adaptation Governance in Nepal: A society centered approach



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Flood washes away Nepal–China border bridge at Rasuwagadhi

Several electric vehicles at the dry port were swept away; security personnel rescued; rescue efforts continue amid bad weather.



210 people killed in natural disasters across Nepal since June 10

KATHMANDU, Aug 29: A total of 210 people have died in various disasters such as floods and landslides triggered by the monsoon rains in various parts of the country since June 10

Share

Resize

Food crisis looms large as drought hits Madhesh districts

The data tells a grim story: Sarlahi has managed 56% plantation, Mahottari 35%, Siraha 38%, Dhanusha 35%, and Saptari just 37%. Only Bāra and Parsa districts have reported satisfactory plantation rates, at 80% and 81% respectively.

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From drought to deluge: Madhesh battles back-to-back climate extremes

Fortunately, the region, officially declared drought-hit by the government, finally has been hit by heavy rains—offering farmers some relief. But that relief seems uncertain.

Listen

Floods and Landslides in Nepal Worsen Woes of a Nation in Flux

Last month, nationwide protests ousted the government. Nepal's interim leaders are dealing with heavy rains that have worsened the situation.

Nepal faces a double whammy—dry spell in Tarai, floods in mountains and hills

The country is reeling from an economic crisis and political instability, and farmers are unable to plant paddy.



Nepal floods deliver US\$127 million blow to country's economy amid climate challenges

September's floods caused millions in damages, displacing thousands and threatening economic growth, as climate change exacerbates future risks

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Between droughts and deluges

Nepal has of late witnessed deluges, unseasonal flash floods and landslides, and avalanches.



Govt declares Madhesh Province a disaster-affected zone amid severe drought

A meeting held at the Prime Minister's office confirmed that the declaration was prompted by the severe drought in the province, which has led to a food crisis.



South China Morning Post



Climate Adaptation landscape in Nepal

Nepal's climate and adaptation policy— NAPA, NAP, LAPA — was shaped by UNFCCC processes and int'l organizations
(Ojha et al., 2016)



Planned Adaptation

Conscious public policy
Guided by UN/donors policy frameworks
Brings needed finance and technology
growing discourse on community-based adaptation
Still insufficient



Autonomous Adaptation

Community led and practiced predominant esp. where state's presence is weak
Rooted in traditional knowledge, local resources, collective action
Small-scale but contextual
Lacks scaling capacity and adequate resources

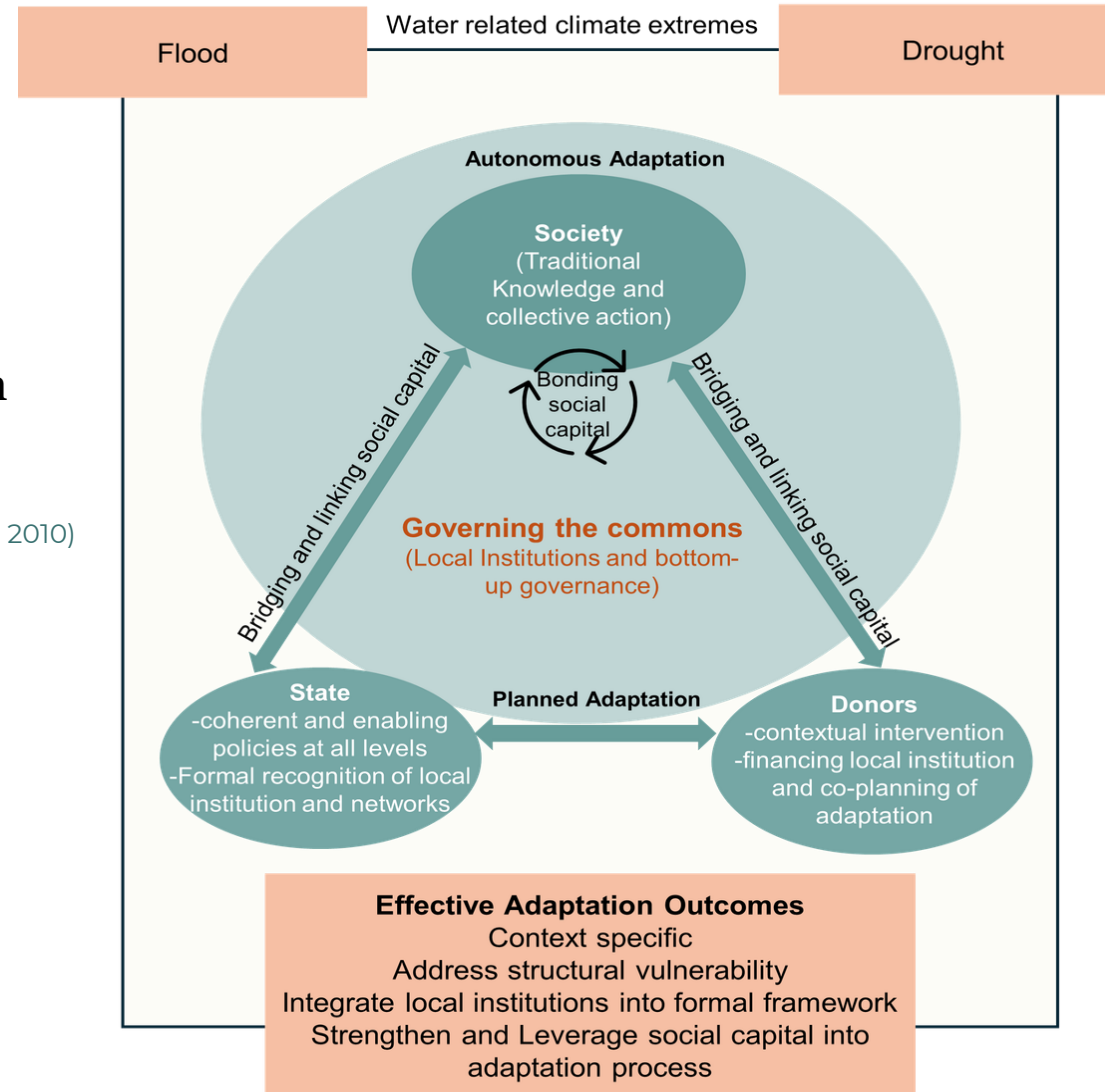
community efforts are constricted due to the limited top-down support, financial resources, and technical capacity
(Regmi et al., 2016; Gentle et al., 2024)

(IPCC, 2022; Eriksen et al., 2015; Craig-Scheckman et al., 2025; McDowell et al., 2019; Adger et al., 2010)

limited understanding of interaction of state, donors and society; how grassroots communities and institutions navigate planned interventions

(Maskell et al., 2025; Bryant et al., 2000; Thornton & Manasfi, 2010)

Conceptual Framework



Governing the commons

Communities can manage common-pool resources through self governance

(Ostrom 1990, Pelling, 1998; Agrawal, 2008; Adger, 2010)

- The theories converge as a central mediating mechanisms

Social Capital

- Facilitate collective action, resource & information sharing
- trust, norms & networks

(Putnam, 1993; Coleman, 1988; Bordieu et al., 1980; Woolcock & Narayan, 2000)

- Community Adaptation is as strong as the institutions within which they operate

Research Questions

(How) are local institutions and community knowledge reflected or marginalised in the planned adaptation to floods and droughts?

(How) does the local institutions and social capital influence community level adaptation to flood and drought?

Study Approach

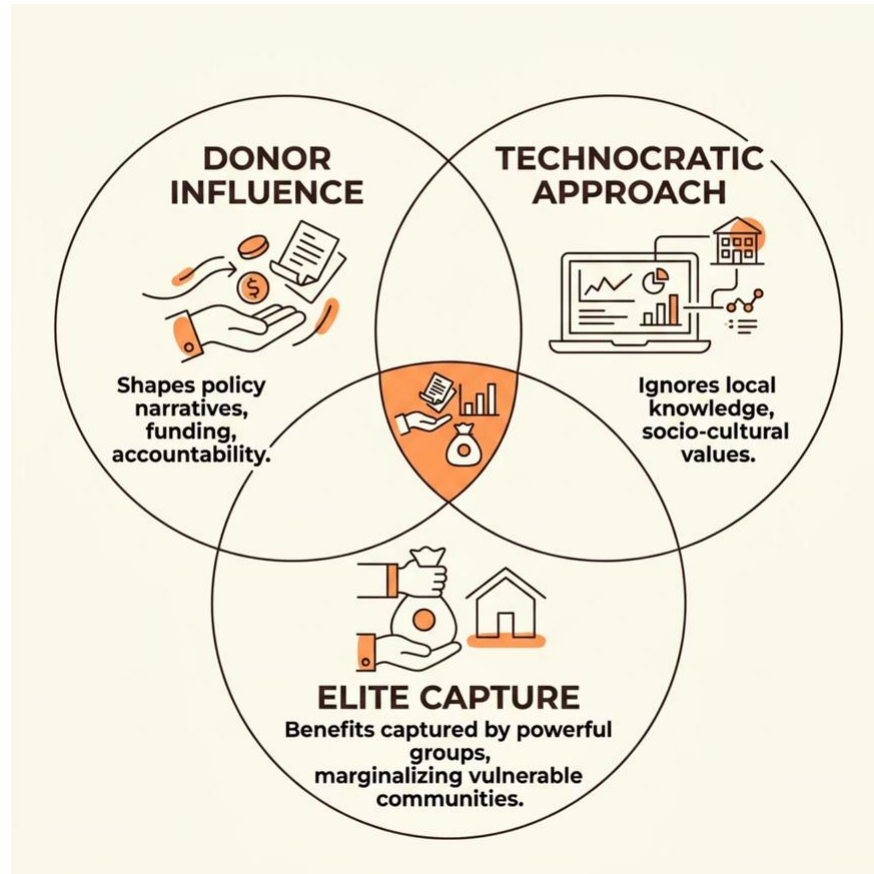


A. Systematic Literature Review B. Preliminary field work

- Selected Case (Purposive sampling):
Kemalipur community forestry user group, Ward -7, Mithila Municipality, Dhanusha District, Madhesh Province, Nepal
- Semi structured In depth Interviews – 8 (Purposive sampling)
- Focus Group Discussion

Case Site	Region	Water Extremes	Adaptation approach	Donor Presence	Local Institutions	Local Government
Kemalipur, Dhanusha District	Terai, Southern plains	Floods & Drought	Autonomous, CFUG-led	Limited	CFUG, farmers group, cooperatives	Ward no. 7, Mithila Municipality

The Dominant Adaptation Paradigm



(Regmi et al., 2016; Ojha et al., 2016; Vij et al., 2017; Chaudhary et al., 2016; Nightingale et al., 2020; Pandey and Basnet, 2023)

Highly top-down governance

- International framing, state's focus on policy and international finance
- Applied through Blanketed and projectized approach

- External interventions have increased donor dependency, weakened collective action through short-term approaches and top-down design

Early Warning Systems

- **fragmented, unreliable**
- **low community trust**
- **poor local tailoring**



Nature-Based Solutions

- **can fail without local context**
- **benefits captured by elites**



(Acharya, 2025; Bishwakarma & Roongtawanreongsri, 2025; Nagoda and Nightingale, 2017; Dulal, 2014; Sahani et al., 2023; Bajracharya et al., 2021; Shrestha et al., 2021)

The Neglected Front: Local Institutions & Collective Action

- In Nepal, communities have a long **history of adapting through local knowledge, resources and social networks**

Eg: century old community irrigation canals 'rajkulo', 'perma' a labor sharing practice in agriculture, seed savings, storage and exchange, local nature-based solutions

community user groups, micro cooperatives, and local institutions are central to resource management

(Acharya et al., 2022; Schnegg, 2018)



often overlooked in formal, top down plannings

(Wolf 2011; Ojha et al., 2016)

Adaptation is equally a governance process shaped by social relations and networks. Truly transformational adaptation requires collaboration and trust across multiple levels

(Nightingale et al., 2020; Tompkins and Adger, 2004; Adger et al., 2009)

Case Study: Preliminary Findings

Adaptation outcomes are equally determined by both physical water risks and access to local institutions, resources and social capital

Eg: - access to groups ex: collective ginger and turmeric farming for livelihood enhancement
- landless people's limited access to drinking water

→ Strong linking social capital allows communities to leverage state programs and negotiate for appropriate interventions

Eg: funding support from the province for recharge pond in Kemalipur

→ Social capital based on caste systems influenced participation but also marginalization of lower-caste and landless groups in some cases



Community institutions (CFUGs, farmers' groups) are central to adaptation where formal interventions are absent

- Adaptation surpasses the institution's scope of work/the boundaries become blur
Example: micro-cooperatives, forestry user groups
- While the institutions with right scope but weak institutional and bottom-up governance can become irrelevant
Example: water user groups



Looking Forward: Fit for Future

- Transformational adaptation: state supported local agency, institutional trust building and co-production of knowledge/action between communities, state actors, and international partners
 - How can we achieve this?
- local institutions, social capital, and cooperative actions is an invisible thread that can accelerate effective adaptations in the community
 - How can it be made visible through top-down frameworks?

Next step: Comparative case study analysis

4 cases : presence and absence of donor's intervention, community groups, formal institutions

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