NATIONAL SUMMIT OF HEALTH AND POPULATION SCIENTISTS IN NEPAL

Health Research Governance for Evidence Informed Decision Making and Implementation in Nepal

Applying Systems Thinking in Health and Climate Change Policy Making in Nepal

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Alliance for Health Policy and Systems Research

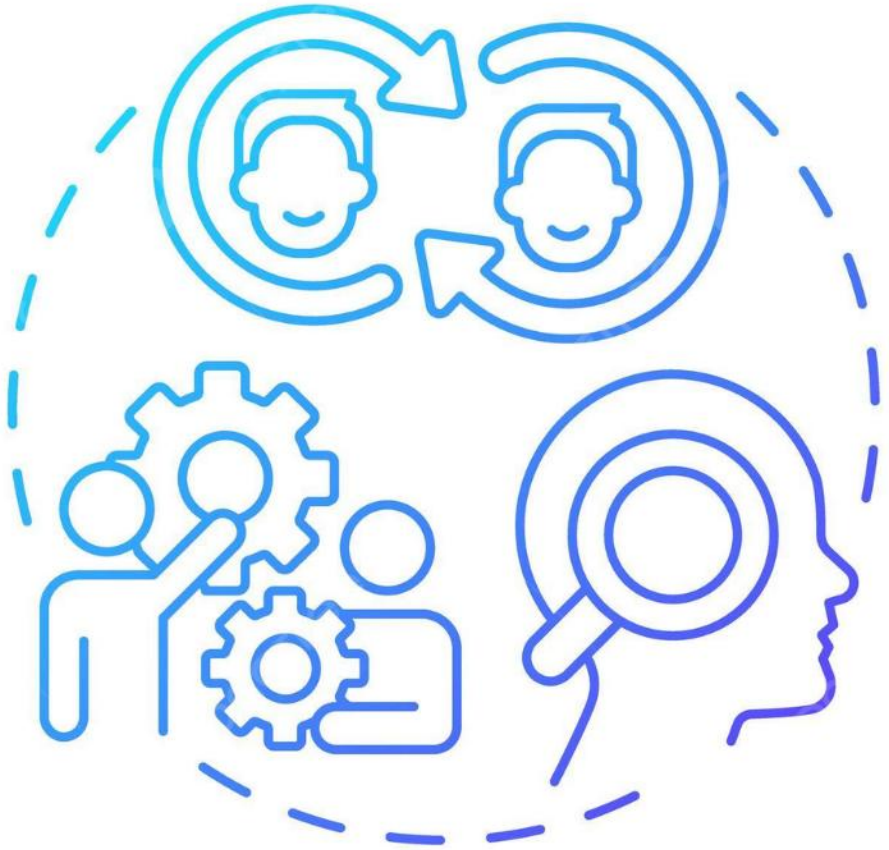
HERD International

Introduction

- Nepal is one of the most climate-vulnerable countries, facing significant climate hazards, economic challenges, and political instability.
- Nepal has various policies, strategies, action plans and initiatives to tackle climate-related health risks.
- There is substantial fragmentation among climate and health actors and their interventions, with limited spaces and mechanisms in place to promote multi-sectoral dialogue, debate, and solution ideation and design.

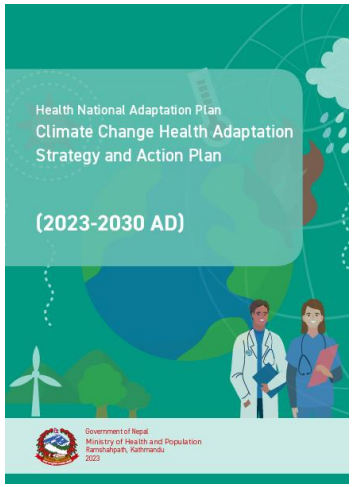
Why Systems thinking?

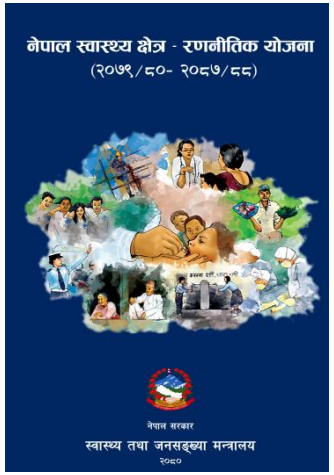
- Systems thinking is an emerging approach for qualitative research and guiding policy development proccess.
- Systems thinking enriches the process by fostering participatory approaches, strengthening partnerships, and refining policy development processes.
- To examine Nepal’s policy development processes and pathways through systems thinking approaches, with the aim of advancing climate resilience in health systems.

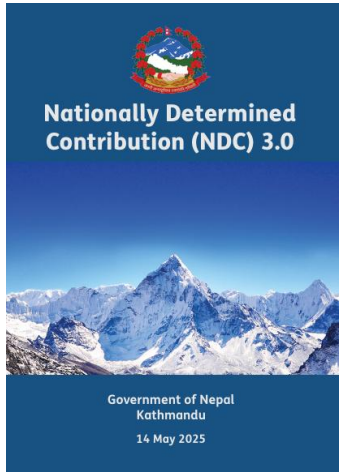


Objectives

This study assessed stakeholders' understanding of systems thinking concepts and tools, and reviewed the development process and implementation status of selected climate-health policies in Nepal.





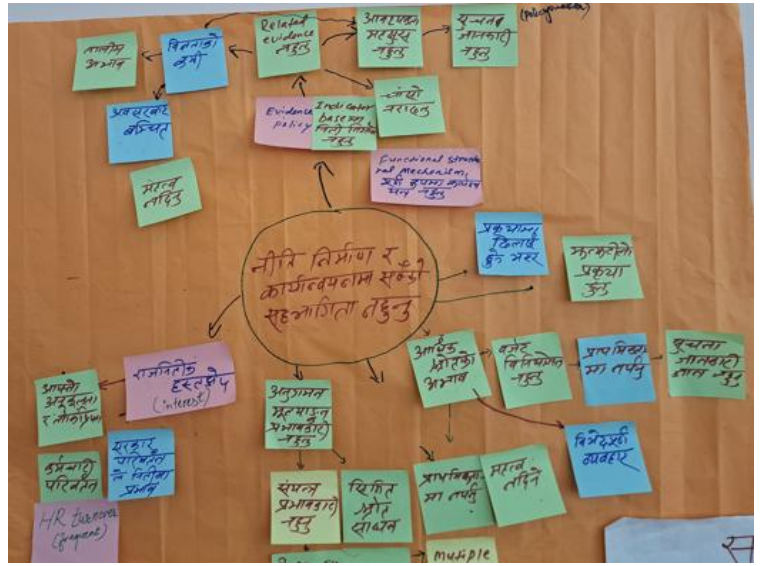


Methods

- Critical systems thinking approach
- Use of systems thinking tools:
  - Boundary Critique,
  - Group Model Building, and
  - Policy Blueprinting
- Methodological plusralism to diagnose the problem and suggest approaches to enahce climate health resiliency.
- Stakeholder consultations through local (4), provincial (1) and federal (1) workshops, and Key Informannt interviews (n=31)

Methods (2)

- Ethical consideration
  - Informed consent
  - Confidentiality and anonymity
  - Approval from the Ethical Review Board (463/2025)
- Use of software and AI
  - NVivo 15
  - Vensim PLE
  - Microsoft co-pilot
- Funding
  - WHO’s the Alliance for Health Policy and Systems Research



Findings (1)

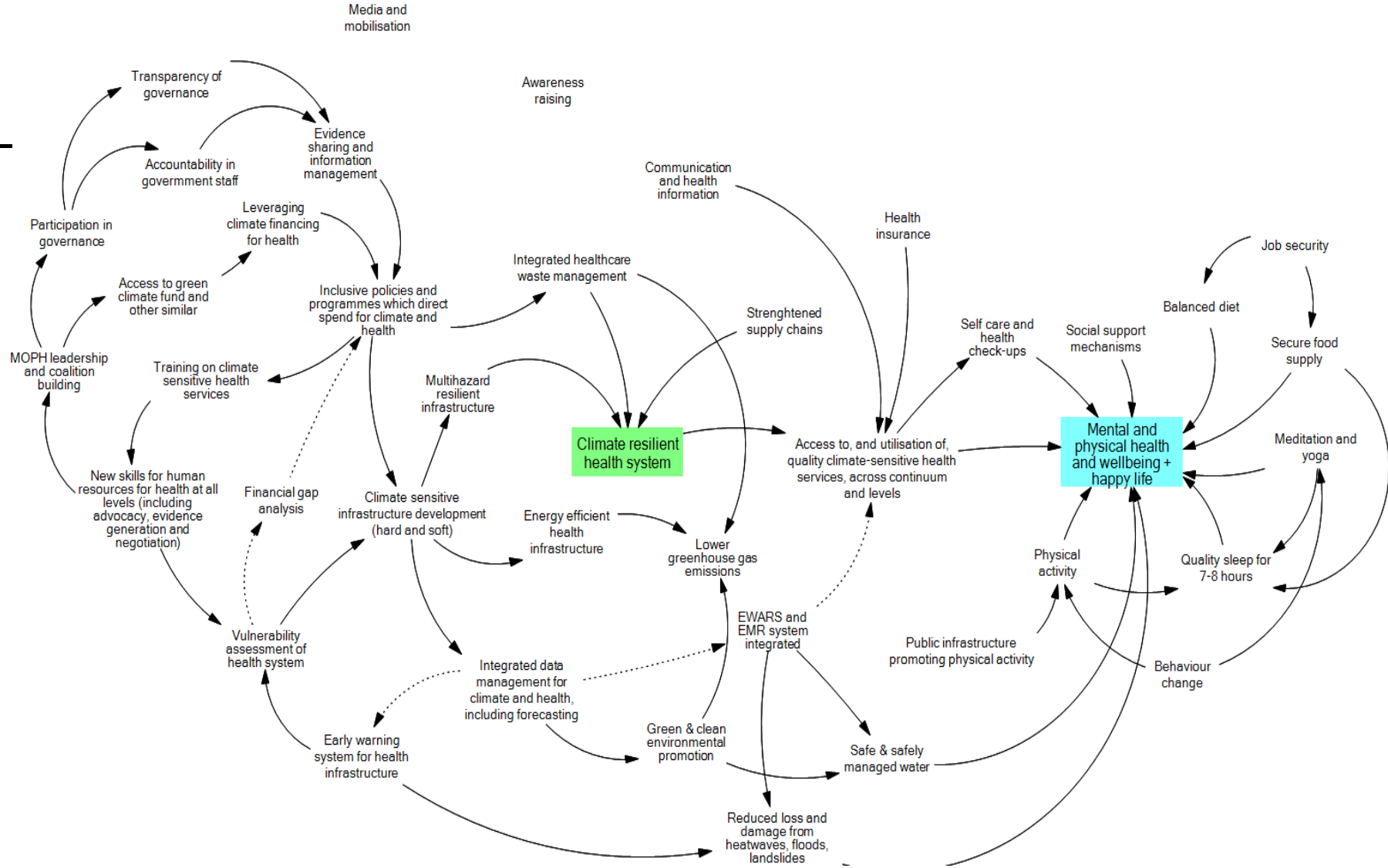
- Conceptual understanding and practical application in health–climate policy remain weak across governance levels.
- Documents emphasize multi-sectoral coordination and inclusive governance, but collaborative practice among multidisciplinary teams is minimal.
- Data use exists, yet quality, integration of diverse perspectives, and siloed approaches constrain effectiveness.
- Stakeholders value refresher training, call for stronger systems thinking tools, policy innovation at sub-national levels, and comprehensive evidence synthesis.
- Integrated data systems, effective early warning mechanisms, climate-sensitive disease surveillance, and inclusive community engagement to harmonize climate information and drive proactive action.

Findings (2)

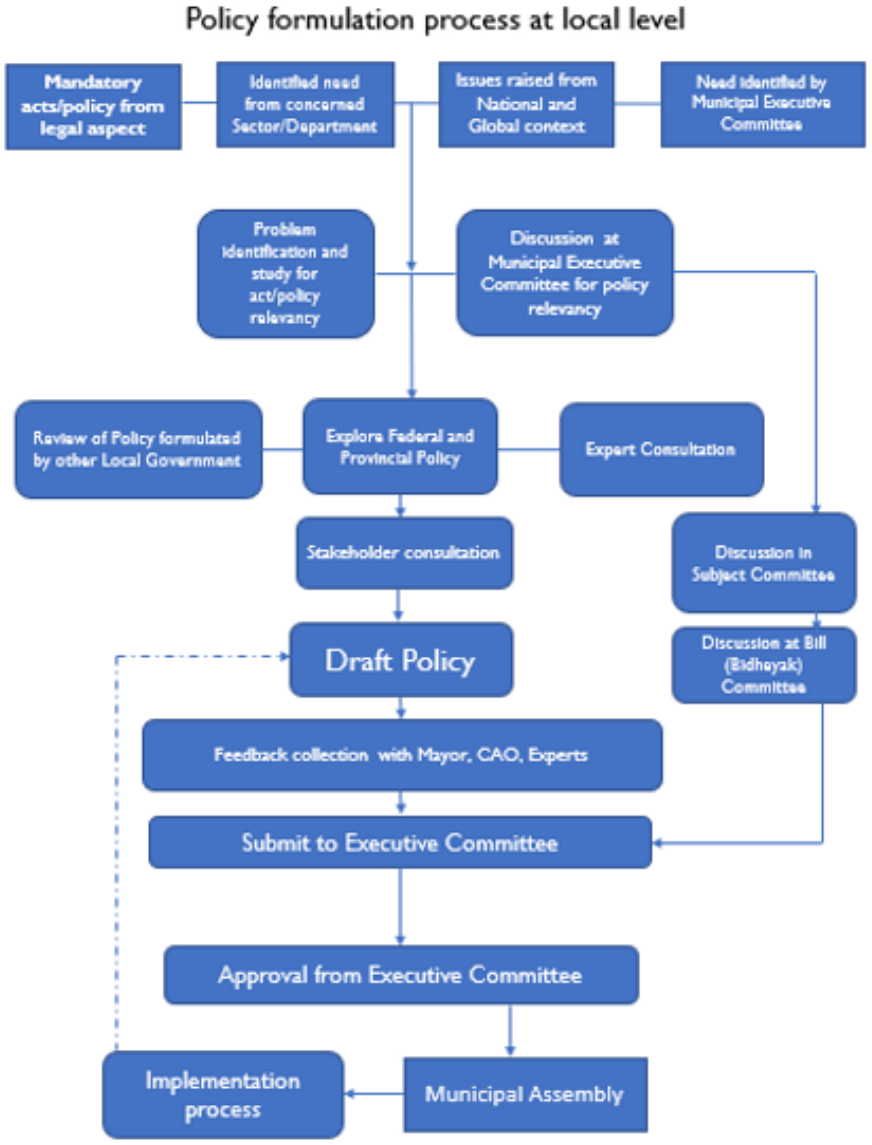
Group Model Building

Governance elements—such as transparency, accountability, and inclusive leadership—anchor the system, enabling coordinated action across sectors.

Climate resilience in health is not achieved through siloed interventions.



Findings (3)



Policy development begins with legal mandates, sectoral needs, and municipal executive's needs and issues.

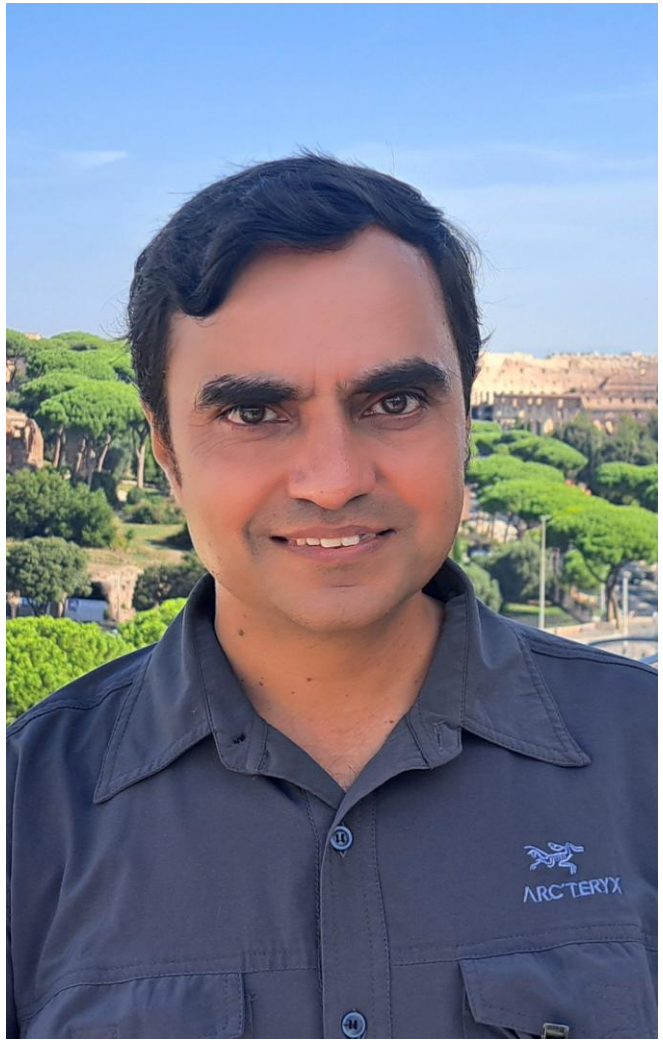
It involves problem analysis, peer policy reviews, expert and stakeholder consultations, and multiple committee discussions.

Better intersectoral coordination, capacity-building, evidence synthesis, and providing guidelines to improve ownership are needed.

Conclusions

- Systems thinking as a research method remains underutilized and weakly institutionalized.
- Climate–health linkages are hard to translate into actionable insights for decision-makers.
- Use of locally available data and stakeholder engagement is present, but limited in depth.
- Developing systems thinking skills and embedding them into policy processes is essential.
- Institutionalizing systems thinking can guide the creation of equitable, climate-resilient health systems responsive to emerging challenges.

Presenter



Dr. Deepak Paudel is a Health Systems Researcher with a focus on strengthening health systems. He served as the Principal Investigator of *Policy Impact through Systems Thinking in Climate Change and Health* at HERD International, a study funded by the Alliance for Health Policy and Systems Research. His research interests span health systems strengthening, systems thinking, burden of disease, methodological studies, and the translation of evidence into policy and practice.