

Linking livelihoods and landscapes for adaptation

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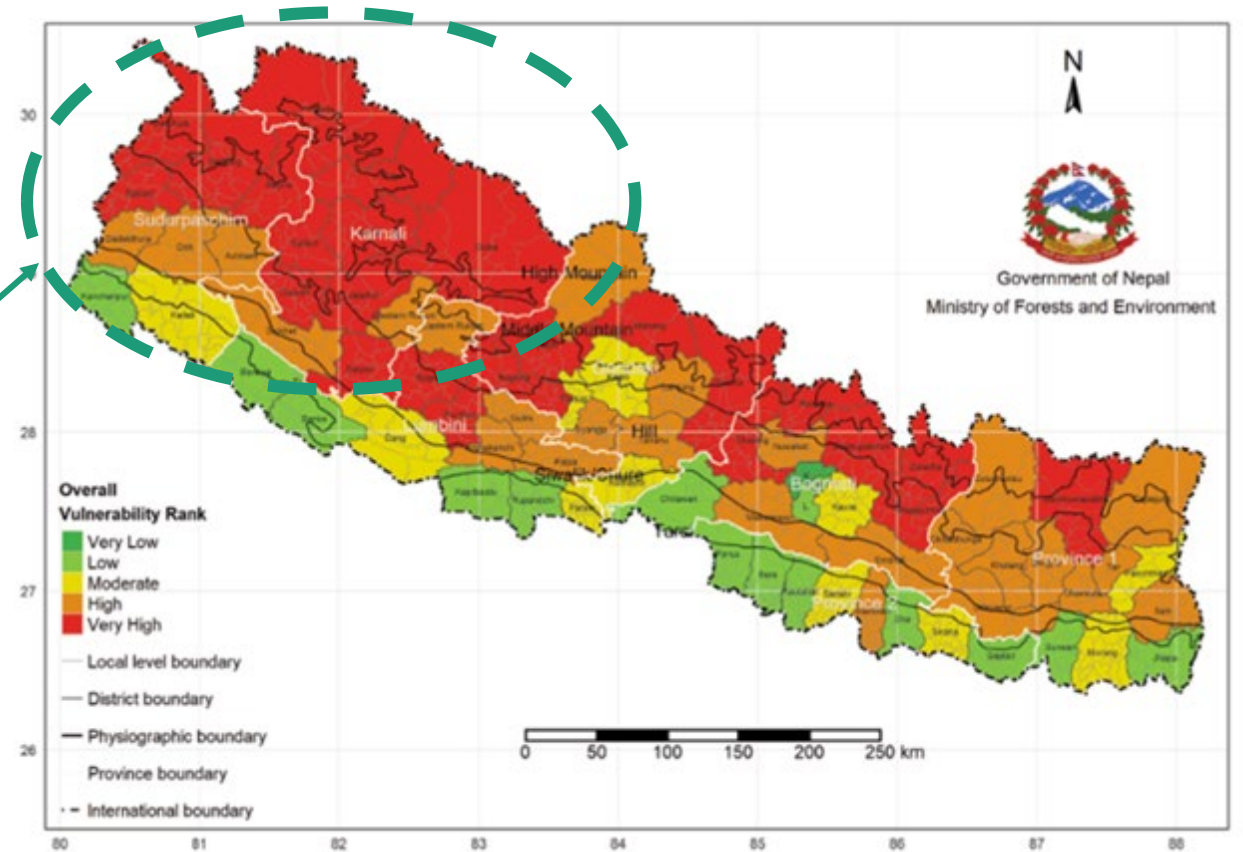
Context

Climate vulnerability

- Nepal ranked 10th on Global Climate Risk Index 2021
- Country's economy is forecasted to contract by 7% by 2050 due to climate change
- Karnali and Sudurpashchim, the most vulnerable based on the national vulnerability and risk assessment report

Karnali and Sudurpaschim Provinces

- **Remote and least connected:** Lowest road density, Karnali 0.12 km/km², Sudhrpaschim 0.27 km/km², national average 0.43 km/km²
- **Least developed and high rate of poverty:** Multidimensional poverty Karnali 51.2%, Sudhurpaschim 33.6%, national average of 28.6%
- **Food insecure:** Post Covid Karnali 24.1% and Sudhurpaschim 21.2% of households consuming inadequate diets



Problem Analysis

Variable climate and water resources

- Increase in temperature and change in monsoon pattern resulting in:
 - **Water insecurity:** "wet-get-wetter and dry-get-drier", water stress (drying of springs), drought, forest fires, floods, landslides
 - **Threat to traditional farming:** Upward shifts in agro-ecological zones

Degrading catchment

- Increasing run-off and soil erosion, lack of water retention, natural storage, and embankment stability
- Unsustainable land use, forest degradation (including forest fires)

Poor socioeconomic condition

- Subsistence livelihoods dependent on natural resources and agriculture
- Outmigration resulting in women-headed household, social in-equality

Lack of infrastructure and technology

- Poor water management infrastructure and techniques
- Insufficient investment in value addition of natural resources

Governance

- Poor research, data and analytical capacity
- Weak institutional and staff capacity to meet federalization requirements



NEP: Climate Resilient Landscapes and Livelihoods Project

Impact: Socioeconomic prosperity and resilience of society developed (National Climate Change Policy 2019)

Outcome: Climate resilience and water security of communities in Karnali and Sudurpashchim provinces strengthened

- Actions to manage hazards:**
- Nature-based and infrastructure solutions for integrated land and water management (surface run-off, infiltration, erosion control)
 - Catchment protection
 - Catchment treatment
 - Water harvesting small infrastructures

- Catchment protection:** forest management, agro-forestry, regenerative farming
- Catchment area treatment:** construction of integrated structural and bioengineering solutions
- Water harvesting:** construction of small-scale reservoirs and storage ponds, springs headwork, water offtakes, distribution and micro irrigation

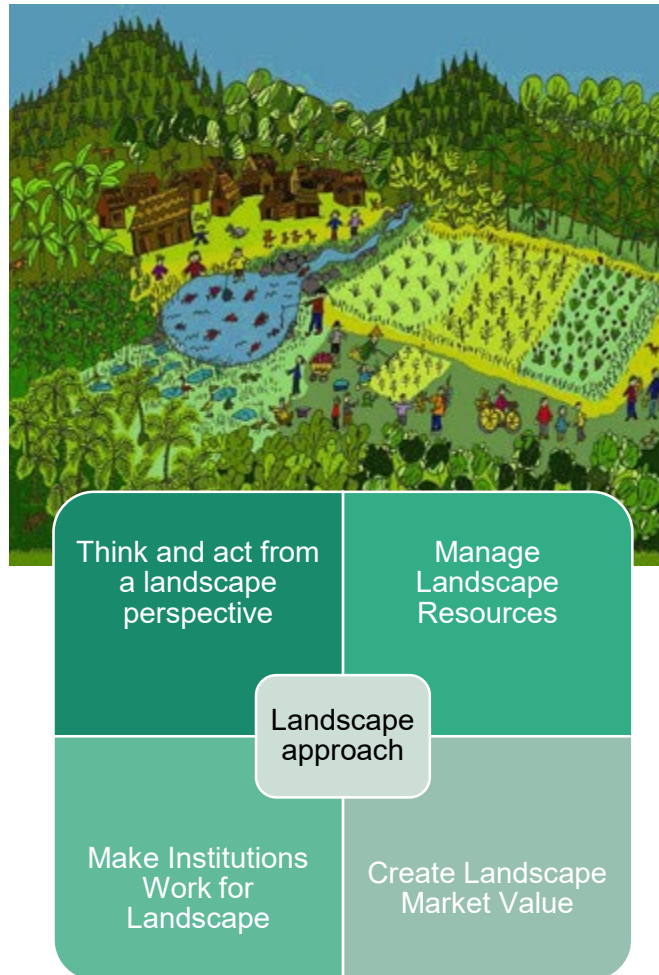


- Actions to manage vulnerability:**
- Nature-based livelihoods (diversification)
 - Production, processing, and marketing of forest products
 - Eco-cultural tourism plans and construction of small-scale infrastructure
 - Adaptation and Risk financing
 - Community mobilization, capacity building, and skills enhancement

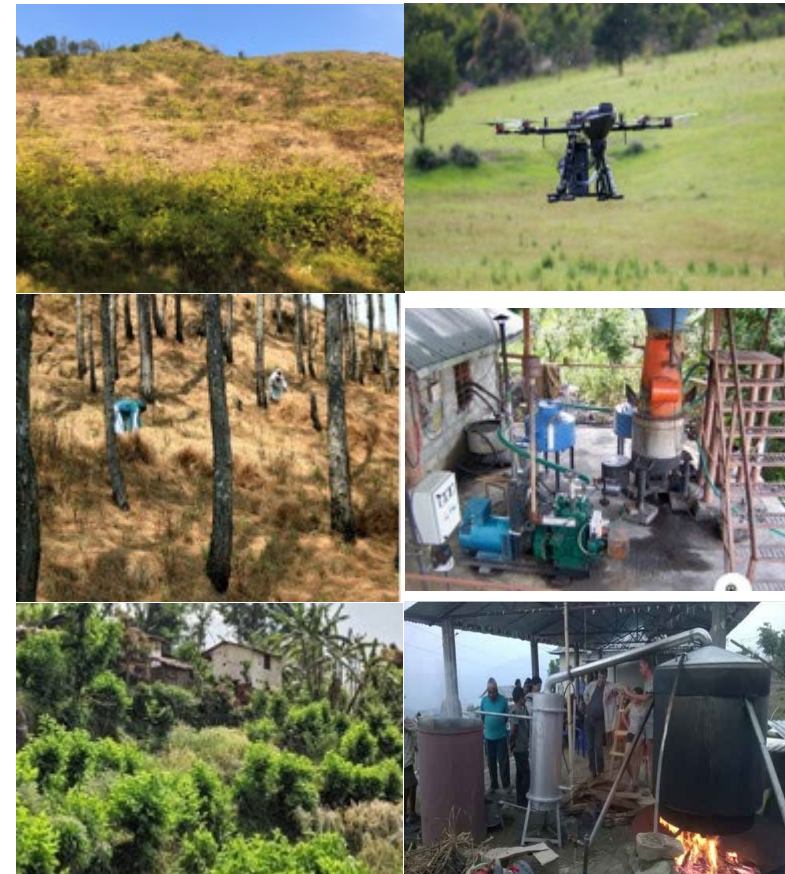
- Actions to manage exposure:**
- Hazard integrated land-use planning
 - Early warning system

Innovation

Approach



Technology and solution



Thank you

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