Nepal



Organization: Rural Development Initiative
Location: Mustang's Muktinath Valley, Nepal
Solution: Developing community-driven adaptation strategies for rangelands in Nepal, addressing environmental pressures
Factsheet Period: One round of UNDP AFCIA funding (18 months)



A team from the Rural Development Initiative monitoring rangelands in Varagung Muktichhetra @RDII

Farming communities in Nepal's Mustang region face significant challenges from climate change, including extreme weather events, declining snowfall, drought and livestock diseases (Asian Journal of Agriculture and Development, 2018). Migrant herders, who are already socially and economically marginalized, are particularly vulnerable. The region also experiences high levels of outmigration, with mainly women left behind in its villages (IOM, 2024). To address these challenges, the Rural Development Initiative employs locally led adaptation strategies to develop a community-based approach for tackling chronic rangeland issues. The initiative focuses on sustainable landscape management and capacity building to strengthen the resilience of Mustang's Indigenous communities across Dzong, Putak and Chhyongkar villages in adapting to the impacts of climate change.

Key achievements

- Conducted ecosystem assessments with communities of rangelands to identify areas of degradation by grazing practices and climate change, as well as identify healthy areas for protection.
- Strengthened climate resilience and sustainable livelihoods for 150 community members in Dzong, Putak and Chhyongkar.
- Completed Upper Mustang's first comprehensive and integrated Ecological & Hydrological Assessment, combining Indigenous knowledge with scientific data to guide pilot interventions.
- Conducted participatory workshops that engaged 80 herders, herd owners and other community members, successfully closing knowledge gaps on pasture rotation, spring care and predator management.
- Developed a scalable "Water House" pilot, blending local architecture with solar-powered filtration.
- Restored and improved management of 600 hectares of landscape.
- Developed an open-access Co-Design Toolkit now requested for replication by two NGOs in neighbouring Himalayan districts.
- Influenced local policy, with recommendations reflected in the draft adaptation plan of Lo-Ghekar Damodarkunda Rural Municipality.
- Established strong partnerships with central, regional and local governing bodies of the Annapurna Conservation Area Project.



Social impact

- Enhanced climate resilience: Strengthened the ability of local households to adapt to climate impacts while ensuring sustainable income opportunities.
- Improved livelihoods: Revitalized rangeland management practices, bolstering the economic and social well-being of community members.
- Empowered communities: Fostered local ownership and leadership in developing and implementing solutions to address climate challenges.
- Gender inclusivity: Promoted gender empowerment by actively involving women in the co-design of rangeland adaptation strategies and infrastructure development processes.

Adaptation benefits

- Adopts a multidisciplinary framework that combines governance, environmental sustainability and economic resilience to address climate challenges.
- Implements sustainable land management practices that protect rangelands, promote eco-friendly fuel sources and reduce drought vulnerability.
- Improves water security by increasing the land's capacity to absorb water, thereby helping maintain livestock fodder and reducing reliance on uprooted shrubs for fuel.
- Leverages Indigenous knowledge and community resources to strengthen local capacity for independent, sustainable climate adaptation in rangelands.







Innovation

- Utilizes community-driven design and implementation to foster long-term commitment and ownership of adaptation strategies.
- Adopts an iterative approach with ongoing monitoring and evaluation, allowing for continuous adjustments based on learnings from pilots.
- Prioritizes needs of marginalized herder communities in the design of climate solutions.
- Ensures gender integration by mainstreaming it throughout the rangeland strategy and infrastructure co-design process.

Replication potential

- The co-design process is scalable and adaptable to other small, rural communities facing climate change. In the Himalayas, a dedicated Knowledge Exchange Framework facilitates the sharing of best practices and lessons learned among communities.
- The solution successfully applies Locally Led Adaptation principles, providing a strong model that can be replicated in similar communities facing climate challenges.

Funding snapshot

- UNDP-AFCIA grant: US$60,000 (initial grant)



ADAPTATION FUND Climate Innovation Accelerator

ADAPTATION FUND

To read their story, visit UNDP-AFCIA

To watch their video, click here

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