



National Trust for Nature Conservation

Experiences, Lessons Learned, and Key challenges

From the Implementation of NTNC Projects in Nepal

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KEY CHALLENGES



The impacts of climate change disproportionately affect marginalized communities.

Recognition and targeted addressing of the effects on these disadvantaged groups are crucial.

Climate justice involves viewing the climate crisis through the lens of social justice.

Solutions must not only mitigate climate change but also safeguard and empower vulnerable communities.



Climate-Driven Water Instability

- Rising temperatures and shifting monsoon patterns
- More intense rainfall events but reduced groundwater recharge
- Longer dry spells and seasonal water imbalance
- Glacier retreat altering long-term river flows



Ecosystem Degradation Under Climate Stress

- Drying springs in mid-hills and Chure region
- Forest degradation reducing watershed recharge capacity
- Wetland shrinkage and biodiversity loss
- Increased soil erosion and sedimentation of rivers



Agriculture & Livelihood Vulnerability

- Erratic rainfall affecting crop cycles
- Increased drought frequency reducing productivity
- Growing food insecurity in climate-sensitive districts
- Rising dependence on groundwater extraction



Adaptation Gaps & Emerging Risks

- Limited integration of watershed-based planning
- Insufficient climate-resilient water storage systems
- Weak ecosystem-based adaptation implementation
- Drought-induced migration increasing urban pressure

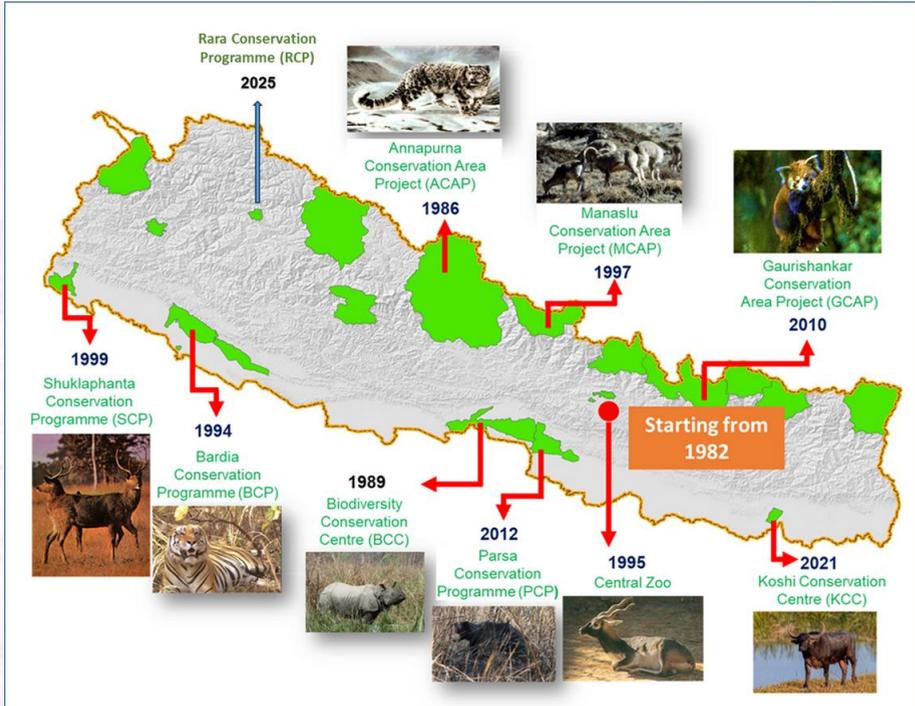
Urban Water & Infrastructure Stress

- Rapid urbanization increasing demand
- Over-extraction of groundwater in cities
- Declining water quality and ecosystem services
- Inadequate climate-resilient infrastructure

Nepal faces a convergence of climate variability, ecosystem degradation, and rising human demand — threatening long-term water security and climate resilience.

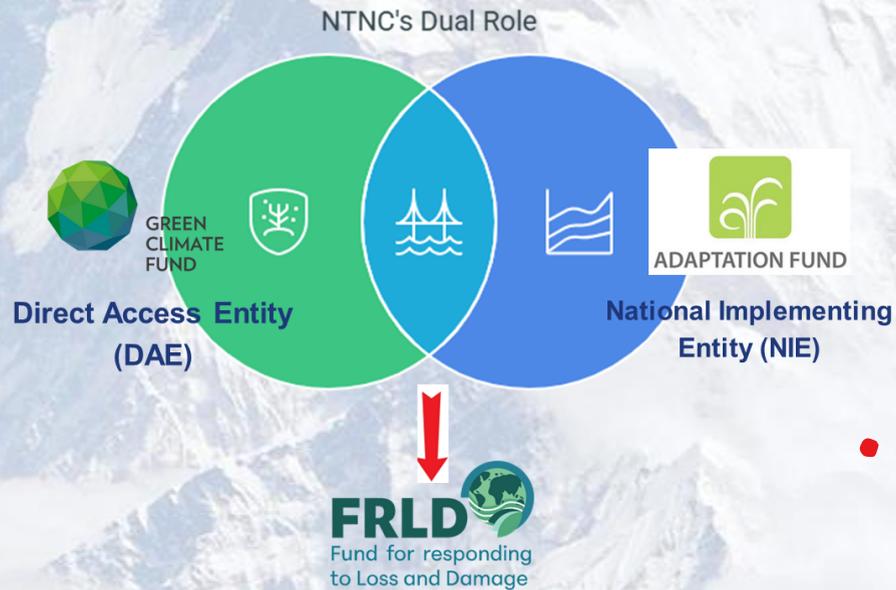
NTNC'S RESPONSE TO CHANGING CONTEXT

OUR PROJECTS & PROGRAMMES

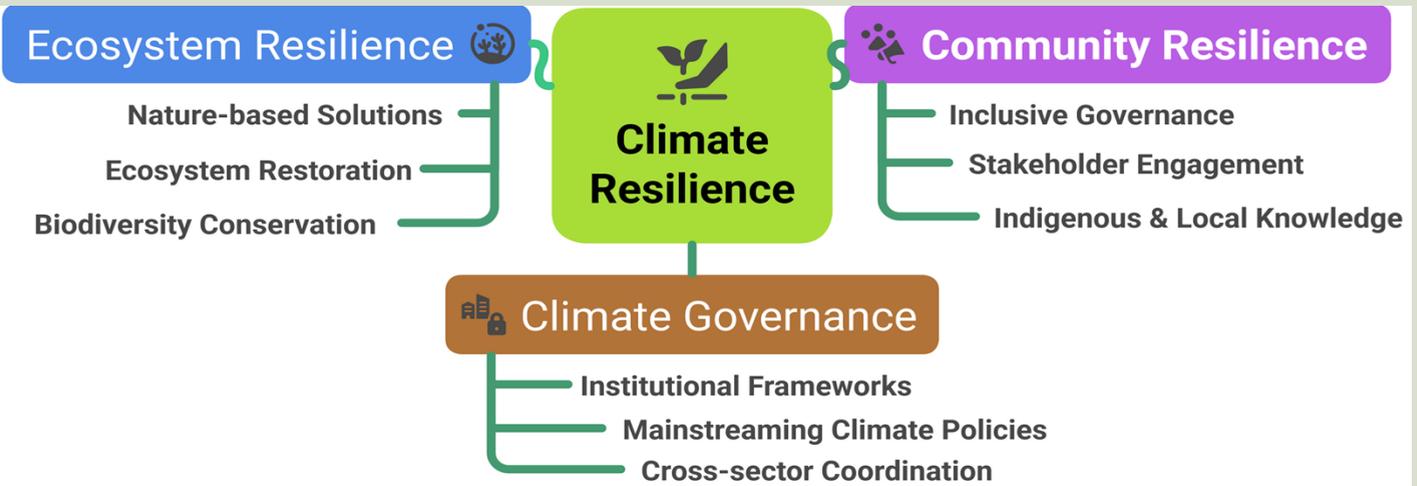


THEMATIC AREAS

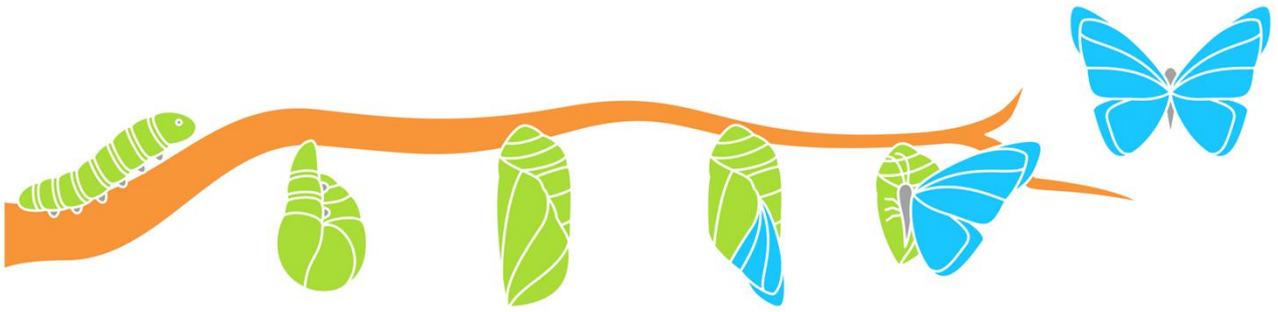
NTNC IN CLIMATE LANDSCAPE



NTNC's Role in Climate Adaptation

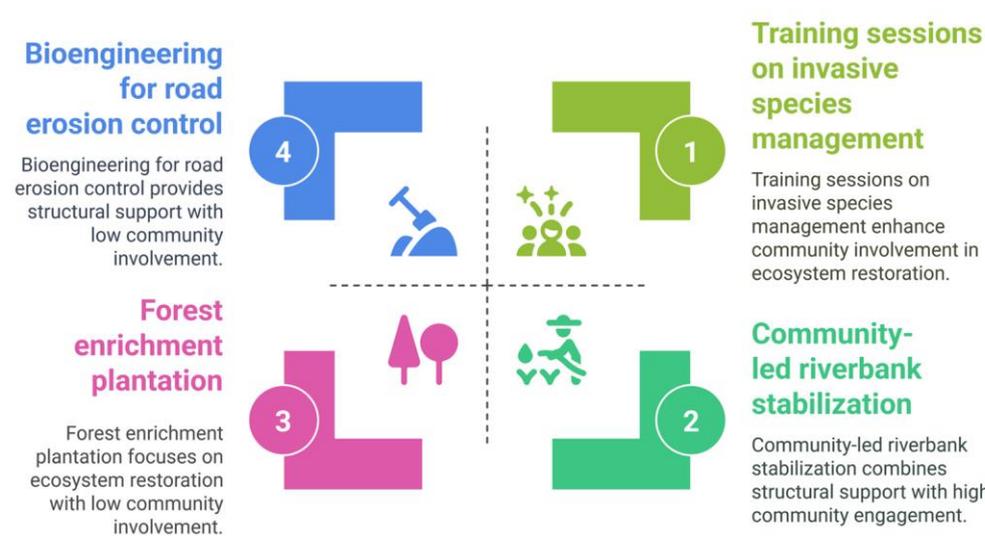


OUR EXPERIENCES & LEARNINGS

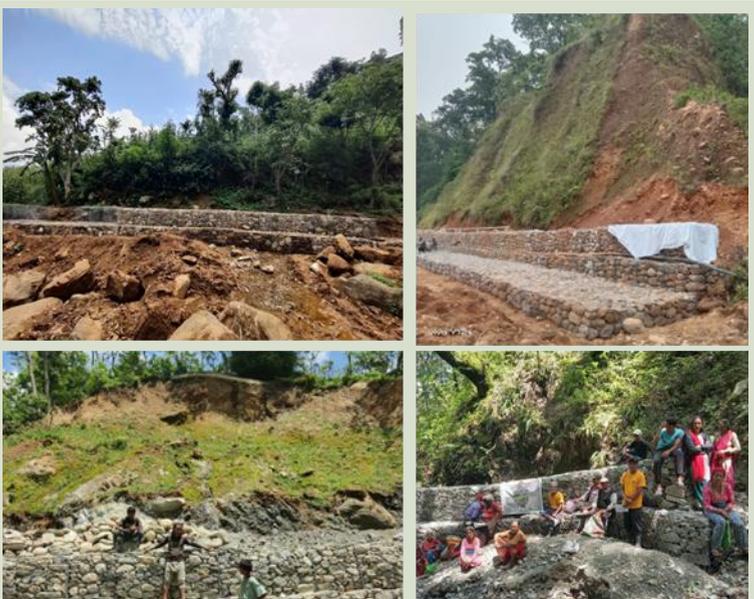


<p>Vulnerable Agriculture Low productivity & food insecurity</p>	<p>Promote CRCs Introduce climate-resilient crop varieties</p>	<p>Implement Water Management Identify water availability & Develop efficient irrigation systems</p>	<p>Farmer Engagement Conduct training and participatory trials</p>	<p>Monitor & Evaluate Assess impacts on productivity and resilience</p>	<p>Sustainable Agriculture Enhanced food security & farmer livelihoods</p>
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Prioritizing Climate Resilience Strategies in the Gandaki River Basin



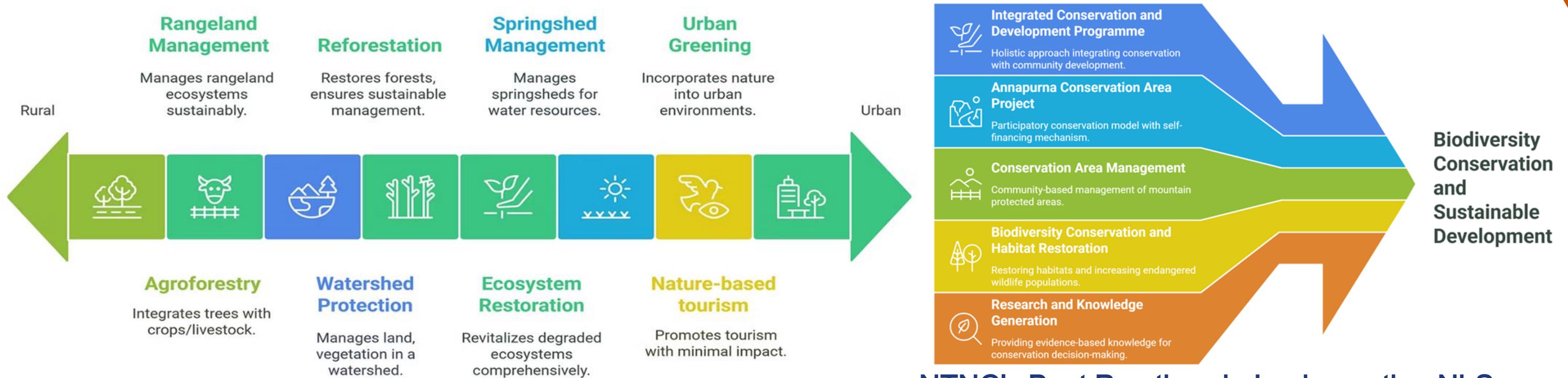
- Landslides treatment
- Enhancing Water Management Initiatives
- Basin Level Hydrological Model
- Riverbank plantation
- Invasive & Alien species management



- Advancing Climate-Resilient Agriculture
- Irrigation Schemes & Harvesting
- Capacity Building



NATURE-BASED SOLUTIONS SPECTRUM: INTEGRATING NATURE...RESTORING ECOSYSTEM

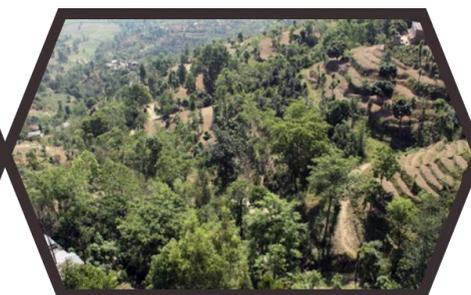


NTNC's Best Practices in Implementing NbS

Scaling these local solutions requires robust institutional backing and consistent financial investment to ensure widespread impact.



RECHARGE TRENCHES
Implementing recharge trenches has significantly improved dry-season flows in local springs.



COMMUNITY FORESTRY
Community-led forestry initiatives boost soil infiltration, enhancing groundwater and spring water availability.



TRADITIONAL KNOWLEDGE
Integrating indigenous practices sustains water sources and promotes long-term ecological balance.



SUCCESSFUL PILOTS
Demonstrated success in regions like Karnali and Gandaki proves the effectiveness of these localized interventions.

STRATEGIC PARTNERSHIPS & INVESTMENT FOR RESILIENCE

Building a climate-resilient Nepal requires robust strategic partnerships and significant investment across multiple fronts.



GLOBAL COLLABORATION

Engage with initiatives like the MBZWI to foster innovation, raise global awareness, and align Nepal's efforts with international water solutions.

CLIMATE FINANCE ACCESS

Secure funding from mechanisms like the GCF and Adaptation Fund to finance climate-resilient water infrastructure and adaptation programmes. Nepal's National Adaptation Plan (NAP 2021–2050) requires USD billion.

REGIONAL DIPLOMACY

Promote transboundary data sharing and collaborative watershed protection agreements with neighbouring countries, recognising Himalayan water as a shared lifeline.

STRENGTHENED GOVERNANCE

Clarify roles and responsibilities across federal, provincial, and local levels to enhance decision-making efficiency and ensure coordinated water management.



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THANK YOU!

