



**Technical Assistance:** Customized weather and climate information system for climate-resilient agriculture

**Location:** Mountainous regions of Nepal

**Solution:** Climate-resilient water resources management system (rainwater harvesting, micro-irrigation, and community-based watershed management)

**UNEP CTCN grant:** USD 250,000



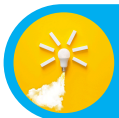
Terraced farming in Nepal. © UNEP-CTCN

Communities in mountainous regions are increasingly vulnerable to climate-induced hazards such as landslides and floods. This project implements nature-based solutions (NBS) for disaster risk reduction. It focuses on restoring and managing ecosystems to stabilize slopes and enhance water management, to reduce the impact of natural disasters.



## Objectives

- The primary objective is to improve water availability and agricultural productivity in Nepal’s mountainous regions by implementing sustainable watershed management practices.
- The project targets local communities, particularly smallholder farmers and vulnerable households, by providing them with the tools and knowledge necessary to manage water resources sustainably.



## Social Impact

- The project supported a total of 162 beneficiaries, including 12 direct beneficiaries and 150 indirect beneficiaries.
- Among both direct and indirect beneficiaries, 30% were women, and 25% were youth.
- The project's focus on climate-resilient water resources management has enhanced water availability, improved agricultural productivity, and strengthened community resilience, particularly benefiting women and youth.



## Adaptation Impact

- **Enhanced Water Security and Agricultural Resilience:** The project enhances water security by implementing rainwater harvesting systems and micro-irrigation techniques that optimize water use and reduce dependency on unreliable water sources. This leads to increased agricultural productivity and resilience to climate variability.
- **Sustainable Natural Resource Management:** By integrating watershed management practices, the project promotes sustainable management of natural resources, reduces soil erosion, and enhances the conservation of biodiversity, contributing to the overall resilience of local ecosystems.
- **Improved Livelihoods:** The project supports improved livelihoods by increasing agricultural productivity and food security, which are critical for the well-being of rural communities in Nepal’s mountain regions.



### Other Co-Benefits

- Reduced soil erosion.
- Enhanced biodiversity conservation.
- Strengthened community engagement in natural resource management.



### Innovation & Technology

- Rainwater Harvesting Systems: Collection and storage of rainwater to provide a reliable water source for agricultural and domestic use.
- Micro-Irrigation Systems: Use of efficient irrigation techniques, such as drip irrigation, to optimize water use and reduce waste.
- Community-Based Watershed Management: Involvement of local communities in the management of watersheds to ensure sustainable water use and protect natural resources.



### Replication Potential

- The project entails solutions that are conducive to replication in other mountainous regions where climate-resilient water resource management systems are needed to navigate scarcity for agricultural or household use.

### Key Figures

- USD 250,000 project budget
- 162 people benefitted in total
- 7 different experts engaged in project implementation
- 14 national and local stakeholders engaged in the project, including associations of youth and women
- The project contributed to the following SDGs:

