



**Technical Assistance:** Development of a locally-led technology transfer action plan and a blueprint for a rainwater harvesting system

**Location:** Khyber Pakhtunkhwa, Balochistan, Potohar region, and Punjab region

**Solution:** Technology transfer plan for the deployment of rainwater harvesting systems

**UNEP CTCN grant:** USD 187,440



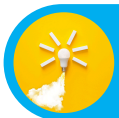
Rainwater harvesting technology in Pakistan. © UNEP-CTCN

Climate variability and shrinking glaciers causes severe water scarcity, threatening local communities' livelihoods and food security in Pakistan. This project develops a locally-led technology transfer plan for rainwater harvesting. The plan focuses on capturing surface runoff and enhancing groundwater recharge, ensuring a sustainable water supply for water-scarce areas. By empowering local communities with the necessary tools and knowledge to manage their water resources, the project improves water security, boosts agricultural productivity, and strengthens resilience to climate change.



## Objectives

- The primary objective is to develop and implement a technology transfer plan that facilitates the deployment of rainwater harvesting systems in water-scarce regions.
- The plan will also engage local government agencies and stakeholders in the process, ensuring that the technologies are adapted to local conditions and can be effectively managed by the communities themselves.



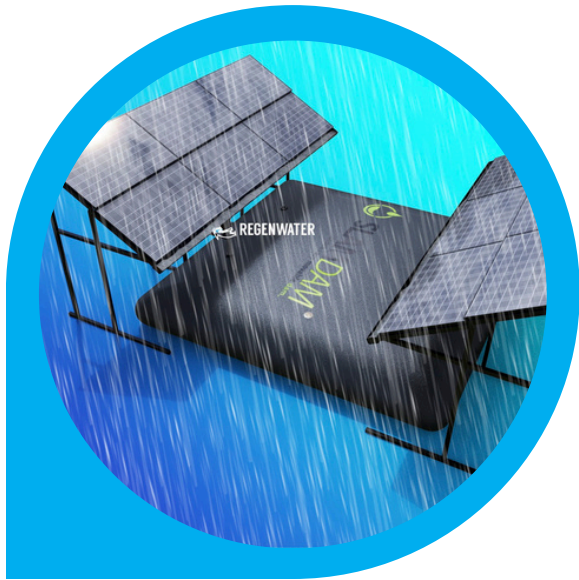
## Social Impact

- The project successfully targeted a total of 50,005 beneficiaries, including 5 direct beneficiaries and 50,000 indirect beneficiaries.
- Among both direct and indirect beneficiaries, 50% were women, and 30% were youth.
- Improved access to sustainable water management practices will reduce the burden on women and youth, enhancing food security and livelihoods across the region.



## Adaptation Impact

- **Improved Water Security and Climate Resilience:** The project improves water security by implementing rainwater harvesting systems that store surface runoff and recharge groundwater, providing a reliable source of water in regions affected by climate variability and water scarcity due to shrinking glaciers.
- **Sustainable Water Management:** By promoting the use of rainwater harvesting, the project ensures sustainable water management practices. This reduces dependency on conventional water sources and mitigates the impact of climate change.
- **Enhanced Community Resilience:** The project empowers local communities to manage their water resources effectively, reducing vulnerability to drought and water shortages, and improving overall resilience to climate change.



### Other Co-Benefits

- Reduced water-related conflicts.
- Improved groundwater recharge.
- Enhanced agricultural productivity.
- Conservation of natural resources and the protection of ecosystems.



### Innovation & Technology

- Rainwater Harvesting Systems: Implementation of rainwater harvesting technologies that capture and store surface runoff for agricultural and domestic use.
- Groundwater Recharge: Use of advanced techniques to enhance groundwater recharge, ensuring a sustainable water supply for future use.
- Community-Led Management: Development of locally led management models that involve communities in the planning, implementation, and monitoring of rainwater harvesting systems.



### Replication Potential

- The project demonstrates a high replication potential in arid and semi-arid regions where rainwater harvesting and groundwater recharge techniques can help solve a water crisis. Likewise, the project entails community-led management practices, which can be replicated broadly.
- As part of the project, 3 potential co-funding sources were identified.

### Key Figures

- USD 187,440 project budget
- 50,005 people successfully targeted in total
- 3 stakeholder consultation events organized
- 7 climate technologies evaluated, 2 out of which were selected
- The project contributed to the following SDGs:

