



# Water For Development

## Background & Project Overview

Pakistan remains one of the most climate-vulnerable countries in the world. Rising temperatures, melting glaciers, floods, droughts, sea-level rise, deforestation, and unsustainable natural resource use continue to drive ecosystem degradation and biodiversity loss, with serious implications for inclusive development and climate resilience.

Focusing on Gilgit-Baltistan (GB), one of Pakistan's most climate-sensitive regions, the Water for Development (W4D) initiative strengthens climate adaptation and ecosystem resilience by addressing scientific, technological, and institutional gaps in environmental risk management.

Prioritizing water resource management, sustainable agriculture, and ecotourism, the project supports Pakistan's National Climate Resilience and Adaptation

Plan (2023–2030), contributes to global Sustainable Development Goals including SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), and SDG 15 (Life on Land), and promotes inclusive, community-led mountain development.

## Quick Facts



### Duration

Sep 2024 –  
Aug 2027



### Implementing Partners

EvK2CNR, UNDP  
Pakistan



### Funding Partners

Italian Agency for  
Development  
Cooperation  
(AICS)



### Location

Gilgit-Baltistan



### Total Budget

EUR3 million

## Objectives

- Improve water resource and disaster risk management by monitoring glacier activity and collecting, processing, and sharing data with local authorities such as the GB Environment Protection Agency (EPA-GB), the GB Disaster Management Authority (GBDMA), and academic institutions including the Karakoram International University (KIU) and the University of Baltistan (UoB).
- Upgrade agriculture and livestock quality management, in collaboration with the Department of Agriculture, by establishing phytopathology and zoo-prophylaxis laboratories to promote sustainable agricultural practices.
- Promote sustainable tourism as a strategic sector for environmental conservation and job creation. Using a community-based, value-chain approach, the project works in partnership with the GB Department of Tourism to promote an inclusive, sustainable model of local development.
- Strengthen the capacity of local governments and communities for sustainable natural resource and mountain ecosystem management through training, capacity building, and awareness campaigns targeting institutions, communities, and the private sector.

## Impact

The project directly benefits 1,400 individuals in GB, including 500 community members, 200 private sector representatives and faculty members, and 200 students. It is doing so by enhancing glacier and water resource monitoring through improved data systems and research capacity, boosting sustainable agriculture and livestock management through laboratory upgrades and training, and advancing eco-friendly tourism infrastructure by creating over 100 jobs in support of community-based sustainable tourism.

## Key Interventions



### Improving Glacier and Water Resource Monitoring

Building capacity for EPA-GB and GBDMA through the installation of four meteorological and hydrometric stations, upgrades to GIS systems, and enhancements to the KIU-IMARC glaciology laboratory. Efforts focus on generating data-driven water availability scenarios, developing early warning protocols, and training over 80 personnel, resulting in calibrated remote sensing models, improved water management, and informed disaster risk planning.



### Strengthening Agri-Livestock Value Chains

Upgrading laboratories for water analysis, phytopathology, and zoo-prophylaxis to support evidence-based agricultural practices. Training over 150 technicians and students, including 50 percent women, in water quality assessment, crop health, and livestock vaccination. More than 250 farmers benefit from lab services to ensure market compliance, leading to enhanced resource efficiency, better disease control, stronger market linkages, increased productivity, and improved food safety.



### Developing Eco-Sustainable Tourism

Setting eco-tourism criteria in line with GSTC/ISO standards, conducting impact assessments, and upgrading facilities such as renewable energy systems and waste management infrastructure. Training over 500 residents and tourism operators supports community-led tourism initiatives, creating more than 100 new jobs, diversifying livelihoods, preserving ecosystems, and building competitive eco-tourism models.



### Building Institutional and Community Capacity

Training over 1,000 government officials and community members through gender-inclusive programmes on mountain ecosystem management, ecotourism, and climate policy. Public awareness and communication campaigns share best practices and promote stakeholder collaboration, resulting in strengthened policy implementation, improved awareness, and long-term sustainability.