



EFFECTIVE WATER RESOURCE MANAGEMENT ENHANCES CLIMATE RESILIENCE

2024 PREPARE Snapshot Series

Many people will first experience the impacts of climate change through water, whether too much of it or too little. Roughly half of the world's population experiences severe water scarcity for at least some part of the year. Water-related disasters account for roughly 74 percent of natural disasters globally, impacting marginalized and vulnerable groups most intensely, according to UN Water.

The President's Emergency Plan for Adaptation and Resilience (PREPARE) and the U.S. Global Water Strategy (GWS) work hand-in-hand towards a water-secure world that supports human health as well as economic and ecosystem needs in a changing climate. PREPARE prioritizes rapidly increasing water storage capacity, improving water use efficiency, and enhancing water quality while strengthening the climate resilience of water, sanitation, and hygiene (WASH) services. The GWS is a primary vehicle for implementing these efforts with a comprehensive approach to sustainable and equitable water resource management and access to safe drinking water, sanitation services, and hygiene. Together, these strategies aim to integrate adaptation into water resource management maximizing the benefits of both adaptation and effective water resource management. By enhancing water security and climate resilience, they also contribute to food security, ecosystem health, and conflict mitigation in the face of escalating climate risks.

U.S. GOVERNMENT ACTIONS SUPPORTING PREPARE AND THE GLOBAL WATER STRATEGY

Recharge Pakistan: Many partner countries are seeking climate finance for large-scale adaptation projects. In 2023, the U.S. Agency for International Development (USAID) helped unlock critical Green Climate Fund co-funding, enabling an overall investment of \$77.8 million over seven years from the GCF, USAID/Pakistan, The Coca Cola Foundation, and World Wildlife Fund for Recharge Pakistan. In collaboration with the Government of Pakistan, Recharge Pakistan is investing in ecosystem services and green infrastructure to restore degraded watersheds and build resilience in regions hardest hit by the 2022 floods, such as Khyber Pakhtunkhwa and Balochistan. This includes implementing 127 green infrastructure interventions to maximize flood resilience for vulnerable communities. The project will also improve economic opportunities by reducing losses due to climate-related disasters, increasing groundwater storage, and supporting climate-smart agriculture and climate-resilient businesses.

Climate Risk Informed Decision Analysis (CRIDA) for Water Management in Angola, Botswana, and Namibia: Climate change is having an outsized impact on the 27 million people relying on or residing in the tri-border Cubango-Okavango River Basin, as a 40-year drought continues to devastate the region. The drought makes it extremely challenging for leadership to help local communities and governments make effective decisions on development, agricultural management, or resource management of water, wildlife, or minerals. The State Department and U.S. Army Corps of Engineers are working to improve decision-making by the Okavango River Basin Commission and the governments of Angola, Botswana, and Namibia through the use of climate information. As part of this work, an aerial survey of the delta was conducted to establish baseline data. In addition, CRIDA has supported multiple technical exchanges and consultations among government officials, local stakeholders, and scientists to understand current decision-making processes and



determine methods to incorporate future environmental factors and risks into basin planning.

Since 2021...



AMBASSADOR'S WATER EXPERTS PROGRAM supports direct capacity building in:

- 20+ countries**
- 1,200 experts** trained in:
 - integrated water management
 - climate-resilient and water-smart agriculture
 - drought preparedness and response

Ambassador's Water Experts Program: In addition to direct funding for water resource management, PREPARE promotes exchanges that build local capacity in developing countries. Through the Ambassador's Water Experts Program (AWEP), the U.S. Department of State and the U.S. Department of the Interior provide demand-driven support to countries experiencing critical water and climate adaptation challenges. Since 2021, AWEP has deployed U.S. experts to support more than 20 technical- and capacity-building engagements in over 20 countries, promoting long-term international collaboration on water security. For example, the Government of Fiji sought technical assistance through AWEP to better understand the increased risk of saltwater intrusion and overexploitation of surface sources of drinking water due to climate change. In response, AWEP funded technical support to the Fiji Ministry of Lands and Mineral Resources Department (MRD) as it undertakes a national inventory of Fiji's groundwater resources. In 2024, at the request of the Government of Mauritania, U.S. experts conducted an onsite analysis of the Oued Seguellil wadi and Fom Gleita Dam and developed recommendations for ensuring dam safety as the demand for water increases with rising temperatures. In 2024, AWEP is expanding to include an additional 25 technical- and capacity-building engagements in regions all over the world.

Natural Infrastructure for Water Security in Peru: The increased frequency and intensity of the droughts, floods, fires, and landslides Peru has faced in recent years, along with increased glacial melting, are tangible evidence of Peru's vulnerability to climate risks. To address these compound climate risks, USAID and the Government of Peru have a longstanding partnership to support natural ecosystems – such as forests, wetlands, grasslands, and shrublands – and to invest in traditional practices to conserve water. USAID's National Infrastructure for Water Security (NIWS) activity in Peru is working to address obstacles and gaps in the implementation of natural infrastructure solutions that can improve water regulation and reduce erosion. NIWS works with the Government of Peru and the private sector, in addition to collaborating with Indigenous peoples to leverage traditional pre-Incan water infiltration approaches. Since 2021, NIWS has developed a robust portfolio in natural infrastructure investments of \$95 million, contributing to a total value surpassing \$370 million over the life of the activity. As part of one such investment, in 2022, the regional government of Piura began implementing a \$2.1 million public investment to recover watershed services. The investment will support the reforestation of 744 hectares with native species, improving rainwater storage so that water is slowly released downhill during drier weather, improving the water security of 22 communities and their resilience to changing precipitation patterns.



Calacoa community member from Peru's Moquegua region produces plants for reforestation to improve water storage during the rainy season.

Photo Credit: Forest Trends/NIWS