



USAID
FROM THE AMERICAN PEOPLE

BUILDING CLIMATE RESILIENCE: EVIDENCE FROM AROUND THE WORLD

USAID helps countries and communities predict and prepare for climate variability and change. Our efforts help to minimize losses and disruption so that communities can deal effectively with stresses related to climate and weather. This helps them sustain their livelihoods and thrive, which promotes stability.

For the world's most vulnerable populations, climate variability and change (e.g., recurrent droughts, changing precipitation patterns, rising temperatures and sea levels, and more intense storms) are “threat multipliers” that challenge U.S. strategic interests. These interests include: maintaining global food and water security, preventing the spread of infectious disease, promoting women's economic empowerment, reducing the need for disaster and humanitarian response, supporting reliable production and trade, and reducing conflict over resources. USAID has partnered with more than 24 countries to reduce vulnerability to weather and climate risks, thereby saving lives and maintaining economic growth. USAID programs provide technical assistance to countries so that they can build their own capacity to independently and sustainably manage these challenges.

As a result of 2010-2016 U.S. investments that support climate resilient activities, countries have:



Generated the climate and weather information and analyses they need to solve their own problems, leveraging the United States' unparalleled leadership in data and technology. As a result of USAID assistance, more than **7 million people** are using weather and climate data to make more informed decisions.



Developed 600 laws, policies and regulations that reduce risks to vulnerable sectors and populations, drawing on U.S. models of participatory and democratic governance, and practices like financial planning and spatial analysis. With USAID assistance, nearly **8,000 national and subnational institutions** have improved capacity to assess and address climate risks.



Taken action and adopted technologies to increase resilience across key economic sectors, strengthening agricultural production, water supply and management, and disaster preparedness. As a result of USAID assistance, more than **2.6 million stakeholders** now have increased capacity to adapt to the impacts of climate variability and change.



Mobilized finance for climate-resilient development by tapping into countries' own public and private sources of finance, maximizing the leverage and impact of USAID technical assistance, and moving them through the transition toward self-reliance. USAID funding for climate resilient activities has mobilized nearly **\$500 million in additional private and public sector resources** from governments, businesses and civil society organizations.

By providing technical assistance in these areas, USAID helps vulnerable populations in more than 24 countries to prepare for extreme weather and natural disasters, improve water security, and make agricultural production more resilient to climate variability and change. Some illustrative results in these three critical areas include:



DISASTER RISK REDUCTION

- In Mozambique, one million Mozambicans in five economically important port cities are less vulnerable to erosion, flooding, sea level rise and storms since municipal governments have developed and used evidence-based vulnerability maps for land use decisions and urban planning. About 500,000 Mozambicans also have access to a mobile phone-based early warning system that enables them to act quickly in the face of severe weather events.
- In Dominica, damage costs to one village after tropical storm Erika in 2015 were estimated to be half of what they would have been because of USAID support for clearing natural drainage areas and rehabilitating seawalls, and roadside and hillside drains that channel and divert floodwater.
- In the Philippines, local government units representing 2.8 million Filipinos across six cities are enforcing land use plans that include hazard maps and disaster risk reduction plans and reflect water resource vulnerability assessments. The plans help local officials make decisions on the design and siting of critical infrastructure, development of water resources, and responses to natural disasters.
- In the Pacific Islands, 64,000 people could prepare for and respond to a 2016 cyclone through the construction of rainwater catchment systems, coastal embankments and evacuation centers.
- In Vietnam, USAID is assisting 60 of the country's most vulnerable communes to conduct disaster risk and climate vulnerability assessments and prepare corresponding action plans to mitigate the identified risks. USAID is also helping more than 200,000 people prepare for climate impacts and natural disasters by taking actions such as storing fresh water and reinforcing their houses against more intense storms.
- In Bangladesh, USAID is building 100 multipurpose cyclone shelters in disaster-prone areas that provide shelter to affected people during natural disasters. In calmer times, they serve as schools, community centers and/or food distribution points. In 2016 alone, USAID completed 12 shelters that can accommodate 21,600 people.
- In Southern Africa, through the development of a disaster risk reduction plan that was informed by a climate vulnerability assessment, the Limpopo Watercourse Commission improved its ability to coordinate transboundary governance among South Africa, Botswana, Mozambique and Zimbabwe. As a region, these countries are now better prepared for recurring droughts and floods and can reduce impacts to marginalized populations and the potential for resource conflicts.
- In Senegal, USAID collaboration with authorities resulted in increased civil service capacity in modelling of marine meteorological conditions. Conditions are disseminated through SMS and voice messages by the Early Alert System, as well as a system of weather alert flags onshore to alert fisherfolk. These efforts contributed to a dramatic 80 to 100 percent reduction in accidents and deaths at sea from adverse oceanic weather conditions in communities with access to the service.



WATER SECURITY

- In the Philippines, water utilities representing 1.2 million customers in secondary cities and disaster-prone areas are implementing business and emergency response plans informed by vulnerability and hazard assessments and local disaster plans. These plans ensure continued water service in the event of typhoons, floods and drought and will protect critical water and other infrastructure from natural disasters. With USAID assistance, 1.8 million Filipinos gained access to improved drinking water.
- In Peru, rural communities in five regions developed their own plans to adapt to a water shortage/insecure environment and began to implement climate adaptation measures, including replanting trees and constructing reservoirs and water infiltration channels to ensure that enough water is captured to cover needs during the dry season.
- In Colombia, the Decision Support System for the Magdalena River Basin tool was introduced to bring together varied interests for resource management decisions that provide for a future stream of ecosystem services most beneficial to river-dependent communities.
- South Africa and Botswana can now make more informed decisions on the use of shared groundwater resources due to improved access to more reliable, accurate and scientifically advanced data from remote sensing surveys and groundwater analyses. This information is critical for regional water security.
- In Laos, as a result of USAID support, more than 1,400 villagers now benefit from new and improved water systems and enjoy improved water security during the dry season. Water collection is now a simpler and quicker task, saving women valuable hours each day to spend on other tasks.



FOOD SECURITY

- In Jamaica, a drought-forecasting tool and early warning system supported by USAID reduced crop losses significantly for farmers in 2014 during one of the worst droughts in 30 years. The tool is being used by the Caribbean Institute for Meteorology and Hydrology and is being considered for broader adoption by the World Meteorological Organization.
- In Senegal, 21,000 farmers now have regular access to critical climate information, such as rainfall data, to help determine when and what to plant. During a recent drought, this information allowed farmers to maintain their yields by planting early. Additionally, 18,000 farmers of rice, maize and millet now have access to crop insurance that provides protection against adverse climate shocks and encourages adoption of new technologies such as certified seeds. This resulted in a sharp increase in yields in the rainfed zones of the country, with farmers doubling and, in the case of rainfed rice, even tripling yields.
- In Ethiopia during the 2016 drought, two million households received transfers from the Productive Safety Net Safety Program, thanks to a drought contingency and risk financing mechanism supported by USAID. Households in communities reached by adaptation interventions were able to maintain their food security status during the severe El Niño drought in 2015–2016, whereas other households experienced a precipitous (nearly 30 percent) decline.
- In Vietnam, USAID is helping more than 5,000 farmers in the highly vulnerable Mekong and Red River Deltas to deal with sea level rise and saltwater intrusion. USAID's efforts introduced diversified crops and improved farming practices to help ensure food security for subsistence farmers and to build resilience in these low-lying river delta communities.
- In Southern Africa, more than 45,000 residents are now able to practice conservation agriculture and apply more sustainable, resilient food production and marketing practices to address the negative impacts of climate change on food and water security.