



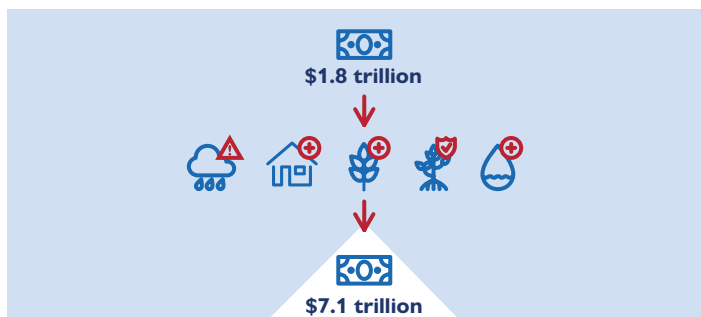
THE ECONOMIC CASE FOR ADAPTATION

2024 PREPARE Snapshot Series

The President’s Emergency Plan for Adaptation and Resilience (PREPARE) responds to growing evidence that investing in climate adaptation is a cost-effective use of limited taxpayer dollars. The world experienced more than \$313 billion dollars in estimated lost revenue due to climate and severe weather impacts in 2022, and in 2023, these losses increased to \$380 billion (Aon, 2023 and 2024). S&P Global found that between 3.2 percent and 5.1 percent of world gross domestic product (GDP) could be lost as a result of climate hazards annually by 2050, absent adaptation. Investments in climate-resilient infrastructure, climate-smart technologies like drought-tolerant seeds, and innovative finance and risk reduction strategies will save U.S. taxpayers later in potential humanitarian assistance and disaster response costs. PREPARE focuses on interventions today that will save money tomorrow.

PREPARE SUPPORTS THE EFFICIENT AND EFFECTIVE USE OF U.S. TAXPAYER DOLLARS

Funding adaptation and resilience initiatives, including climate-resilient infrastructure, is a cost-effective investment that also saves lives. The Global Commission on Adaptation (GCA) found that a \$1.8 trillion investment in adaptation actions by 2030 could yield more than \$7 trillion in economic benefits and avoided costs from responding to the impacts of climate change.



Whereas infrastructure disruptions cost households and businesses in low- and middle-income countries an estimated \$391 billion to \$647 billion annually, climate-resilient infrastructure can reduce these losses and free up U.S. funding for other needs. For example, in 2022, when devastating floods inundated Pakistan, the 109 schools that the U.S. Agency for International Development (USAID) helped to build in accordance with U.S. climate-resilient building standards remained intact while 19,000 other schools were destroyed. These U.S.-funded schools were able to serve as critical first-response shelters and aid distribution centers, and the \$197 million the U.S. contributed in flood relief and recovery initiatives in Pakistan could be used for urgent humanitarian needs rather than repairing the schools.

PREPARE HELPS AVOID ECONOMIC LOSSES

Just 24 hours of warning before a coming storm or heat wave can cut the resulting damage by 30 percent, and spending \$800 million on such systems in developing countries would avoid losses of \$3 billion to \$16 billion per year, according to the GCA. Through PREPARE, USAID and the National Aeronautics and Space Administration (NASA) are expanding such systems in places like Bangladesh, where much of the land is barely above sea level and storms and floods are becoming more frequent and severe. The U.S. government is strengthening flash flood early warning systems and helping local governments use satellite data and forecasting systems to better prepare for and respond to changing weather conditions. In 2022, USAID and NASA provided 250,000 farmers in Bangladesh with access to timely and location-specific weather advisories, resulting in farmers saving an average of \$467 each by avoiding losses due to climate impacts – crucial savings in a country where the average annual income is just under \$3,000.

Improved weather and climate services generate significant economic benefits. The U.S. Department of State invests in the [Systematic Observations Finance Facility](#), which provides





long-term financial and technical assistance in the most vulnerable countries to support the generation and sharing of basic weather and climate observations. This helps countries develop their observation systems in accordance with the World Meteorological Organization's (WMO) global standards. It also helps countries accelerate and improve weather, water, and climate information services, including early warnings, across the globe. According to a 2021 World Bank study, the potential benefits of this type of investment could exceed \$5 billion per year.

PREPARE INVESTMENTS CREATE ECONOMIC VALUE FOR COMMUNITIES, BUSINESSES, AND COUNTRIES

“Last year, as much of the African continent was pummeled by drought and high food prices, we worked with the Gates Foundation and over 80 local seed companies to get these drought-tolerant seeds into the hands of seven million farm families, covering 20 million acres. Even in tough climate conditions, those seeds boosted crop yields by an average of 25 percent, helping cut food costs for around 44 million people, while generating an additional 1.5 billion in continent-wide GDP.”

— **USAID Administrator Samantha Power, “The End of Climate Shocks” speech, January 2024.**

By 2050, infrastructure investors are at risk of losing over half of their portfolio, including through supply-chain disruptions, if adaptation actions are not taken. Avoiding these losses will require upfront investment yet will provide outsized benefits. Aligned with the goals of PREPARE, the Millennium Challenge Corporation (MCC) is investing \$310 million in Mozambique to improve the quality and climate-resilience of essential roads and bridges in Zambezia Province. Improvements to roads and bridges, and reducing deferred maintenance, is increasing access for the rural population to district capitals, main markets, and social services (e.g., schools and health clinics) in the larger cities. More than 57 million people are expected to benefit from this project.

Through innovative strategies, PREPARE is creating economic value for partner countries that often lack fiscal space to invest their own budgets in adaptation. In 2023, the U.S. International Development Finance Corporation (DFC) announced \$500 million in political risk insurance supporting a bond for marine conservation in Gabon, which will improve Gabon's debt profile

and create a dedicated funding stream to support the country's commitment to nature-based resilience through protected areas management. Working with The Nature Conservancy, the Government of Gabon, and Bank of America, DFC's contribution enabled a \$500 million debt conversion for Gabon that is expected to generate \$163 million in dedicated marine conservation funding over the next 15 years. The refinancing will unlock \$5 million each year for conservation action and create an endowment expected to grow to approximately \$88 million by 2038 to fund conservation in Gabon.



Fishermen in Pursat, Cambodia, use bamboo traps to catch fish in flooded rice fields. This USAID project trains 140 communities to protect fish habitats, benefiting 290,000 people and ensuring sustainable resources.

Photo credit: Fani Llauradó / WorldFish.

