



## DEFENDING AGAINST NATURAL DISASTERS

Extreme weather-driven disasters are a growing threat to developed and developing countries alike, but they pose a particular challenge for the latter, where they amplify existing stresses and vulnerabilities. The devastation they cause to communities and economies can lead to a breakdown in social structures and the rule of law, creating opportunities for criminals and extremists. And the time and cost required to recover and rebuild can bring longer-term instability and create ripple effects that threaten U.S. national and economic security.

### THE IMPACT OF NATURAL DISASTERS THREATENS U.S. SECURITY

- Extreme weather-driven disasters are increasing in number and severity on a global scale: from 2000 to 2015, there were an average of 341 such disasters each year – an increase of 44 percent from the 1994-2000 average.
- These events disproportionately affect vulnerable developing countries, which have fewer resources for recovery and are more susceptible to civil unrest and radicalization.
- Many large and fast-growing urban populations are in locations with heightened risk for mass casualties or large-scale social disruption from natural disasters, including coastal cities such as Lagos, Jakarta, Manila, and Karachi.
- The loss of natural defenses, including wetlands, mangroves, forests, and reefs, increases the vulnerability of populated areas to storms and floods and amplifies the impact of these water-driven disasters.
- The displacement caused by severe drought, flooding, and other natural disasters can lead to forced migrations and refugee crises.
  - Since 2008, an average of 26.5 million people have been displaced every year by natural disasters.
- Natural disasters disrupt global markets and the supply chains of U.S. companies.
  - The Japanese tsunami severely affected supply chains for U.S. automakers.
  - Major flooding in Thailand caused a significant shortage of computer hard drives and skyrocketing consumer prices.
  - Weather-driven disasters in 2010 in several countries devastated global grain supplies, causing food prices to spike in the Middle East and helping ignite major unrest in several countries already struggling with socioeconomic tensions.

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## THE U.S. IS A GLOBAL LEADER IN MITIGATING NATURAL DISASTERS

The U.S. government is a leader in reducing the impact of natural disasters, working with other countries, international and non-governmental organizations, and private-sector partners.

- Through modest investments in natural disaster risk reduction and resilience programs, the U.S. is helping build early warning systems and providing access to better information and planning resources, as well as helping countries protect their natural defenses and build more resilient infrastructure.

## SMALL U.S. INVESTMENTS HAVE HUGE IMPACT

Dedicated U.S. funding helps communities plan for extreme weather events and protect the natural defenses that make them more resilient and less vulnerable. Modest investments from USAID and other agencies have:

- Helped countries around the world access and use climate and weather data and tools.
- Helped communities develop strategies to build resilience to extreme weather, including floods and storms, and slower-moving events such as droughts and sea-level rise.
- Protected coastal areas in countries such as Bangladesh, Mozambique, and the Philippines from extreme weather events by conserving mangrove forests, which dissipate wave energy and have been shown to reduce damage and loss of life, all while serving as nurseries for many coral reef fish.
- Created a framework that guides countries in building resilience into their development planning, ensuring they can cope with current and future changes to weather patterns while preserving development gains and minimizing damages.
- Built capacities and tools to promote information exchange, coordination, and stakeholder engagement; develop green infrastructure; and update and maintain disaster preparedness plans.
- Reduced U.S. expenditures on disaster relief through these more modest investments in resilience.

**By helping vulnerable countries prepare for and defend against natural disasters and extreme weather, including through more resilient recovery efforts, we reduce the damage and instability these events cause while building a safer world and protecting America's national security and economic interests around the globe.**