

## CLIMATE CHANGE AND THE DEVELOPING WORLD: A DISPROPORTIONATE IMPACT March 2021

2020 tied as the hottest year ever recorded, with record-breaking extreme weather and climate-driven disasters from fires to floods to hurricanes. While global leadership on climate change will require multi-faceted policy solutions, there is consensus that extreme weather and disruption from drought, flooding, and conflicts over natural resources disproportionately affect the developing world, particularly the poor and most vulnerable including women and children. With destruction from torrential storms like Hurricane Dorian, these disruptions in the developing world impact America's long-term security and economic interests, driving mass displacement and threatening progress on preventing conflict, combating hunger, and fighting global poverty.

The impacts of the COVID-19 pandemic are likely to exacerbate the impact of climate-driven challenges and disrupt efforts to address them. Climate-driven disasters threaten to overwhelm local health systems at a time when they are already under extreme stress, and the costs of damage and recovery from a natural disaster when compounded with the pandemic are estimated to be as much as 20% higher than normal.

To advance U.S. interests and our nation's values, addressing these dramatic effects of climate change will require smart, strategic investments in global development by helping at-risk countries build resilience to extreme weather and adapt for the future.

## THE FACTS: HOW CLIMATE CHANGE DISPROPORTIONATELY IMPACTS THE DEVELOPING WORLD

Throughout the developing world, the effects of climate change are already creating greater instability in fragile and emerging countries and markets:

- Fragility, Conflict, and Displacement: The Pentagon has described the effects of climate change as "threat multipliers" and catalysts for conflict, and the State Department's Global Fragility Strategy identifies environmental degradation as a key driver of fragility. As an example, security experts suggest Al Qaeda has exploited openings for recruitment and influence as a result of desertification in Northwest Africa. Extreme weather has contributed to conflict and terrorism in fragile states that have led to the displacement of 80 million people from their homes, now the highest level in human history. By 2050, more than 143 million people could be driven from their homes by conflict over food and water insecurity and climate-driven natural disasters according to the World Bank. And by 2070, almost 20% of the planet could be too hot to be habitable.
- **Food and Water Security:** Of the 124 million people worldwide who face "crisis levels" of acute food insecurity, 76% were affected by climate shocks and extremes, <u>according to the Food and Agriculture Organization</u>, and more than half of the people in developing countries live in rural communities dependent on agriculture a sector highly vulnerable to environmental conditions. Rising temperatures increase the costs of agricultural production and threaten biodiversity, with <u>one million species</u> in danger of extinction that affect crop growth, fisheries, and livestock.
- Global Health: Warmer temperatures could expose as many as one billion people to deadly infectious diseases such as Zika, dengue, and chikungunya. In the U.S. alone, disease cases from mosquitoes, ticks, and fleas more than tripled from just under 30,000 to almost 100,000 a year from 2004 to 2016. A warmer climate could lead to an additional 250,000 people dying of diseases including malaria each year between 2030 and 2050, according to the World Health Organization. The Red Cross estimates that more than 50 million people around the world have been jointly affected by COVID-19 and climate change.
- **Economic Development:** The World Bank estimates that the effects of climate change could push an additional 100 million people below the poverty line by 2030. In addition, the impact of extreme weather is resulting in \$520 billion in annual consumption losses and is pushing 26 million people into poverty each year. In addition, major commercial ports in developing countries including Rio de Janeiro, Mumbai, Guangzhou, and Dar es Salaam face the threat of being submerged by rising sea levels, and by 2050 at least 300 million people will live in coastal areas threatened by dangerous flooding. A Stanford University study found that climate change has increased economic inequality between developed and developing nations by 25% since 1960.

## **BUILDING SOLUTIONS: CREATING RESILIENCE TO CLIMATE CHANGE**

America's investments in development and diplomacy help countries adapt to climate change and build resilience, defined by USAID as the ability of communities and countries to "mitigate, adapt to and recover" from shocks, natural disasters, and conflict while reducing chronic vulnerability. These investments are essential for advancing U.S. interests and confronting the security, economic, and humanitarian consequences of climate change:

- Reducing Impact of Droughts and Floods: America's global food security initiative, Feed the Future, has helped lift more than 23 million people from poverty and supports research on climate-resilient crops. As one example, East Africa's agriculture-driven economy has long been vulnerable to droughts and floods. Yet comprehensive resilience programs in Ethiopia have demonstrated that communities can weather severe droughts, while neighboring communities without interventions have seen their food security decline by 30%. In addition, these programs have provided 100,000 maize farmers with hybrid varieties that have doubled their crop yields through a partnership with DuPont Pioneer.
- Increasing Access to Clean Water: As extreme droughts and water scarcity continue to rise, U.S. investments in access to safe, clean water is essential to create resilience, reduce conflict, and help communities adapt. As one example, in Cabo Verde, only 9% of poor households have access to a public water supply conditions made even worse by a 2017 drought. The Millennium Challenge Corporation's climate-resilient development programs in the country include a nearly \$40 million project to construct water infrastructure, and the program has already created more than 3,500 new connections to the water network in this water-scarce nation.
- Addressing Migration: Whether from rising sea levels or resource-related conflicts, climate-driven migration will continue to increase in the coming decades. U.S. leadership and resources within the global humanitarian system will be essential to help manage and respond to the increasing flows and movements of people, along with investments to help promote stability and alternative livelihoods for communities that are permanently displaced.
- Financing Resilience for Coasts and Cities: The World Bank and United Nations launched the Invest4Climate initiative to catalyze and coordinate the public and private financing needed to adapt to extreme weather. The initiative has helped city and national governments identify barriers to investment and identify potential projects to build climate resilience including preventing coastal erosion in West Africa, providing risk insurance to the Philippines to limit the costs of climate-driven disasters, and financing more sustainable cocoa production in Ghana and Côte d'Ivoire.
- **Reforestation:** The reforestation of depleted forests and woodlands around the world help build resilience to climate shocks, strengthen biodiversity, and sustain economic livelihoods. USAID's Sustainable Landscapes program has leveraged more than \$500 million in investments and partnered with companies with more than \$4 trillion in global sales in support of bilateral and global programs in countries like Bangladesh, Colombia, India, and Zambia.
- Predicting Extreme Weather: Increasing the ability to predict extreme weather has proven to help reduce its impact on communities in the developing world. Servir, a partnership between NASA and USAID, uses satellite data to help more than 45 countries predict weather conditions and improve land use, better preparing them to prevent and respond to climate-driven instability and natural disasters. Efforts like these have led to earlier flood warnings in Bangladesh, reduced Kenya's crop losses from frost by 40%, and improved Laos's flood response efforts following a burst dam.

## PUBLIC-PRIVATE PARTNERSHIPS CENTRAL TO ADDRESSING CLIMATE CHANGE

A wide range of stakeholders including the private sector, foundations, multilateral institutions, and international NGOs are focused on addressing the effects of climate change in the developing world. Together – along with institutions like the United Nations and the World Bank – they are partnering with local, regional, and national governments to build resilient communities and foster sustainable economic growth. Examples include:

- The Green Climate Fund are engaged in was established in 2010 as partnership between over 190 countries that seeks to help developing countries respond to climate change, using public investment to catalyze private finance. The Fund has raised over \$10 billion since 2014, and has directed resources to projects dedicated to both mitigation and adaptation. Through partnering with a number of international organizations, NGOs, and private sector companies, the Fund has helped build resilience for an estimated 350 million people worldwide. Special Climate Envoy John Kerry recently stated that the United States would recommit to the Fund as part of renewed efforts to support global climate finance.
- Over 50 global business leaders representing companies that generated more than \$1.3 trillion in revenue in 2017 released a <u>statement</u> in 2018 pledging their ongoing commitment to tackling climate change calling it a "major threat to our environment, societies and economy, endangering our well-being and prosperity."
- Hundreds of NGOs are engaged in public-private partnerships to combat the disproportionate impact of climate change on the world's most vulnerable. This includes groups like CARE, which, as an example, has highlighted the impact of climate change on smallholder farmers nearly half of whom are women and worked to change laws that limit women's ownership of land and property that can prevent them from being able to feed their families in the face of more frequent droughts.
- The Bill and Melinda Gates Foundation provides grants to address the impacts and effects of climate change. This includes efforts to improve agricultural productivity in the face of extreme droughts and flooding, such as the Seed Systems and Varietal Improvement (SSAVI) which helps smallholder farmers to diversify their crop varieties and create more sustainable agricultural ecosystems.
- The Rockefeller Foundation launched a new Climate and Resilience initiative to focus on market-changing opportunities that increase climate and resilience capital flows, building on the work of the 100 Resilient Cities initiative of which half of the cities are in the developing world.