



## Our Emissions, Our Problem: Time for the United States to Accept Its Share of Responsibility for Global Warming

### Overview

Climate change is a study in injustice: Those people least responsible for it will be the ones suffering most from its effects, and those most likely to be affected are the ones least able to cope with the ramifications.

Today, one billion people live on less than \$1 a day, and 162 million people scrape by on less than 50 cents a day. CARE has been working alongside poor communities around the world for more than 60 years. We know firsthand what it means for people in extreme poverty to struggle to survive. They reside in the flimsiest shelters on the most precarious land. They are hit hardest by natural disasters. And they are most exposed to infectious diseases like HIV/AIDS, malaria and tuberculosis. They balance every day on the edge of crisis, even without the threat of climate change.

Poor people cope as best they can to changes in their environment but, ultimately, their vulnerability to climate change makes their situation that much more precarious. Agricultural production will likely decline in the poorest developing countries, especially in sub-Saharan Africa. Less reliable rainfall will impact planting seasons, crop growth and livestock health, and lead to increased malnutrition. Flooding will further diminish the quality of already-marginal soil and cause outbreaks of water-borne diseases such as cholera and dysentery.

Because poor communities lack the infrastructure to manage rainfall and store water long term, longer dry seasons will take a serious toll. Ongoing population growth, with its increased demand for irrigation and industrial development, will continue to compound the crisis.

Faced with potential climate shocks, poor families often become more risk averse. For example, they may select crops that are less sensitive to rainfall variation, but also less profitable. Following such shocks, they may feel compelled to take their children out of school, sell their assets or reduce the amount of food they eat in order to get by. The end result is deepening poverty.

### Addressing the Impact of Global Warming

Policy-makers have two options for responding to climate change: mitigation and adaptation. Mitigation refers to reducing greenhouse gas emissions. Policy-makers can do that by putting a cost on greenhouse gas pollution, either through a carbon tax or a tradable



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permit system for carbon emissions. Under this system, there is an agreed cap that limits the total amount of pollution allowed and sets up a market for permits to pollute up to the established cap. Policy-makers can also reduce greenhouse gas emissions by promoting carbon sequestration; for example, planting trees to help capture carbon from the atmosphere.

Adaptation refers to reducing vulnerability to and adverse impacts of climate change. Policy-makers can help people adapt by improving their ability to secure decent livelihoods and access social safety nets. This can mean increasing poor people's access to financial services, markets, education, health care and new crop varieties that are less climate sensitive and more profitable. It can also mean setting up policies and plans that reduce the effects of natural disasters.

Both mitigation and adaptation are absolutely essential to address climate change comprehensively.

### CARE's Experience

With support from CARE, poor communities and governments in developing countries are taking steps to adapt to new and harsher climate conditions. CARE's approach to community-based adaptation is people-centered. We foster more resilient livelihoods, link people to basic services, strengthen local capacity, support social change and engage in advocacy to address underlying causes of poverty and vulnerability.

In Tanzania, poor communities in the South Nguru Mountains describe how it has gotten hotter, the onset of rainy and dry seasons has become less predictable, and the frequency, intensity and duration of droughts and floods have greatly increased. At the same time, they are also experiencing more seasonal water shortages and crop failures, and tension over



forest reserves is high. While it is not possible to attribute these individual events to climate change, shifting climate patterns and resource implications described by people in the South Nguru Mountains are consistent with those expected for the region under climate change impact projections. Together with CARE and the Tanzania Forest Conservation Group, local authorities are responding to climate change. We have introduced new farming techniques, helped families develop off-farm income through activities that are less climate sensitive and improved forest resource management.

In Bangladesh, poor communities in coastal areas describe increased flooding, drought and the incursion of salinity in their water supplies. Again, while it is not possible to attribute these individual events to climate change, these shifts are consistent with climate change projections for the region. The Intergovernmental Panel on Climate Change concludes that coastal areas, especially heavily populated mega-deltas like Bangladesh, will be at risk of increased flooding from the sea and rivers, and that flooding will be paired with lengthened periods of drought, as more rain falls, but only during one season. With support from CARE, communities in southwestern Bangladesh are adapting to the consequences of climate change. Fourteen local governments have developed three-year plans for adaptation to environmental degradation and climate change. The plans include specific actions to address water logging and salinity, the promotion of rain-water harvesting and simple filtration technologies, and the installation of deep tube wells. As a result, access to potable water has increased, while drainage systems have improved and flooding reduced.

In Tajikistan, CARE is working with people in three villages located at different altitudes within the same watershed in Varzob District. Families there describe increasing snow pack, a shifting and lengthening of the winter season and increasingly erratic rainfall. They are concerned about the sensitivity

of their livestock, gardens and orchards to climate risks, as their livelihoods depend on these resources. When designing adaptation strategies, CARE focused on women because of their vital contribution to family well-being and their greater vulnerability. Social and religious norms keep women closer to home, and huge numbers of men have migrated to Russia for work, leaving large numbers of women-headed households. Our adaptation strategies are “user friendly” for women and manageable within the confines of their domestic responsibilities. Families are now using cold frames—simple wood and glass frame structures that act as small-scale greenhouses—to grow herbs and vegetables. Women have received hands-on training in food preservation and drying, giving them increased food security and variety over the winter season. Families are also using new technologies that boost the efficiency of stoves and kettles, as well as local materials to improve home and school insulation and energy efficiency.

### Key Recommendations

Community-based adaptation is a crucial element in the response to climate change. Yet, while adaptation can reduce the adverse impact of climate change, it can never bring that impact down to zero. Mitigation, urgently and on a grand scale, is a prerequisite for slowing the onset and reducing the eventual extent of global climate change.

The majority of the burden for responding to climate change must be borne by wealthy countries that have developed using cheap sources of energy with high greenhouse gas emissions. The United States is at the top of that list. It is the largest contributor in the world to climate change, based on historical emissions, and has the greatest capacity to invest in the future. The United States can demonstrate its global leadership by limiting greenhouse gas emissions in line with scientifically sound international targets to prevent warming beyond 3.6 degrees and signing on to a post-Kyoto agreement.

There is still time to reduce the severity of climate change in the near and long term. This will save money down the road, as it will be much more expensive to deal with the consequences later. It will also help safeguard global security. As food production declines, water scarcity rises and malnutrition increases, new and harsher climate conditions could lead to riots, migration, refugee crises and conflict over scarce natural resources. The heightened risk of infectious diseases, such as malaria and dengue, could contribute to further global health crises. In a world that is becoming ever smaller, it is in the interest of the United States to do its part to reduce global greenhouse gas emissions and to assist adaptation efforts in poor communities worldwide. ■