

POLICY BRIEF: CLIMATE CHANGE ADAPTATION AND FOOD SECURITY

Problem: Climate change is a serious threat to poor people all over the world. In some countries in Africa, yields from rain-fed agriculture could fall by 50 percent by 2020.¹ In general, the poorest countries and communities face the most severe impacts of climate change, yet have least capacity to adapt to its impacts. Only a fraction of the funds needed to help countries adapt to climate change have been pledged, and currently the United States has not committed any dedicated funding for adaptation. Climate change could erase the gains from many development efforts, plunging nations into repeated food crises and other natural disasters and threatening their people with chronic hunger and disease.

Recommendations: The Administration and Congress must enact legislation to reduce the US emissions that contribute to increasing climate variability. In addition, it is imperative that the US government provide substantial funding for climate change adaptation, both through US legislation and renewed engagement in the international climate negotiations. Climate adaptation funds must be additional to existing foreign assistance to help poor countries cope with the impacts of a global climate crisis that they did not create.

Actions: The US Congress and the Obama Administration should:

- Actively re-engage in the international negotiations process to achieve a post-2012 climate treaty that would set binding climate change mitigation targets for developed countries at least 40 percent below 1990 levels by 2020, and by more than 80 percent below 1990 levels by 2050; join with other developed countries to provide new funding for climate change adaptation in the range of \$67 - \$86 billion a year; ensure that funding for climate change pass through a multilateral fund within the U.N. Framework Convention on Climate Change (UNFCCC); and make vulnerable groups such as women and indigenous communities central to the effort.
- Pass comprehensive climate legislation which, through an auction-based cap-and-trade or carbon tax system, could generate at least \$5 billion dollars for international adaptation in 2012, rising to at least \$15 billion by 2030.
- Commit at least \$200 million in FY2010 to the Least Developed Countries Fund, rising to at least \$1 billion a year in 2012.
- Support proposals by the G-77 and civil society to establish a new global climate mechanism as part of the UNFCCC that includes active participation and decision-making power of affected communities on how funds are disbursed, used, monitored, and evaluated. Women's rights must be emphasized, as women are particularly vulnerable to the impacts of climate change and are also leaders of change and innovation with respect to adaptation.
- Ensure that a significant portion of adaptation funding supports rural livelihoods, food security, and sustainable agricultural development,² with special emphasis on the needs, knowledge, and capacities of small-scale farmers, who are particularly impacted by climate change.

Results: Swift and serious actions to reduce greenhouse gas emissions will slow the accelerating impacts of climate change on the poorest countries. Significant adaptation funding channeled through effective and democratic mechanisms will help developing countries move beyond coping with increasing droughts and flooding to build resilience and manage the risks associated with climate change. The threat of increasing food insecurity around the world can be reduced, creating conditions for sustainable development and improvements in rural livelihoods.

¹ Intergovernmental Panel on Climate Change, Fourth Assessment Report (AR4) 2007.

² As recommended by the 2008 International Agricultural Assessment on Science, Technology and Development (IAASTD), available at <http://www.agassessment.org/>

Background:

“I am a farmer. My mother was a farmer. For my mother, rains used to come from October to April. Today, because of climate change, the rains come in December and end in March. Our local varieties do not have time to mature. We are forced to buy hybrid crops, which are much more input intensive, and we cannot afford these inputs. We are poor. So we are starving in Malawi.” - Joyce Tembenu, a widow and mother of three who farms in Salima, Malawi.

Climate change is already a dire threat to poor people around the world. The Nobel Prize-winning Intergovernmental Panel on Climate Change (IPCC) identifies agriculture as a sector particularly vulnerable to climate change. Seventy percent of the world’s extreme poverty is found in agricultural areas³ where subsistence farmers depend on rain for their harvests. In Central and South Asia, crop yields could fall by up to 30 percent by 2050 because of climate change. India could lose 18 percent of its rain-fed cereal production.⁴ Participatory vulnerability analysis conducted by ActionAid has revealed that poor and excluded people themselves have already identified loss of crops due to climate change as a key factor increasing their vulnerability.⁵

The eight richest countries, which represent just 13 percent of the world’s population, are responsible for over 40 percent of the greenhouse gas emissions that cause global warming.⁶ The cumulative emissions of the United States between 1950 and 2005 are more than 25 percent of the world’s total emissions, even though the United States represents less than five percent of the world’s population. Yet it is the poorest countries in the world that will face the worst impacts of climate change. The United Nations Development Program estimates that adaptation will cost \$86 billion a year by 2015. Based historic emissions and capacity to pay, the United States share of that cost would be more than \$30 billion a year. To date, however, United States has not contributed any dedicated funding to adaptation.

These funds should be channeled through multilateral mechanisms that can direct the funds where they are most needed. One such mechanism is the recently established Adaptation Fund, which allows governments and civil-society organizations to access resources directly. Additionally, a proposal by the G77 for a new global climate mechanism builds on many principles established in the Adaptation Fund, including direct access, equity, common but differentiated responsibilities, and democratic governance.

New and better funding for adaptation has the potential to substantially alleviate the impacts of climate change. With respect to agriculture, for example, investment in improved irrigation and flood systems, rural infrastructure to facilitate crops reaching the market, and training in sustainable farming techniques, such as the use of organic fertilizers, would all help to lesson the impacts of climate change. A shift to more sustainable farming practices would also make direct contributions reducing greenhouse gas emissions, particularly if large emitters such as the US were also to make such changes.

It would be difficult to overstate the gravity of the current climate crisis. US leadership on both mitigation and adaptation is necessary, and the time for that leadership is now.

³ <http://www.fao.org/DOCREP/004/ac349e/ac349e03.htm>

⁴ Prioritizing Climate Change Adaptation Needs for Food Security in 2030. David B. Lobell, Marshall B. Burke, Claudia Tebaldi, Michael D. Mastrandrea, Walter P. Falcon, Rosamond L. Naylor, *Science* 1 February 2008: Vol. 319, no. 5863, pp. 607 – 610.

⁵ ActionAid. *The Time is NOW: Lessons from Farmers Adapting to Climate Change*. December 2008.

⁶ WRI Greenhouse Gas Index