Natural and Technological Risks: Hydrometeorological Hazards Update

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HYDROMETEOROLOGICAL HAZARDS SUBSECTOR OVERVIEW

Climate, weather, and water-induced disasters, such as floods, droughts, cyclones, and tsunamis, account for the largest number of natural disasters worldwide and affect more people than any other type of natural hazard. Extreme weather and climate events often have severe socioeconomic consequences, including loss of life, property, and livelihoods; scarcity of food, water, and energy; and adverse impacts on health and the environment. USAID's Office of U.S. Foreign Disaster Assistance (USAID/OFDA) supports hydrometeorological Disaster Risk Reduction (DRR) activities aim to reduce populations' vulnerability to climate and weather hazards through an integrated and multi-sectoral approach that addresses community needs while emphasizing locally sustainable and environmentally sensitive measures. USAID/OFDA works closely with vulnerable communities, as well as national and local governments, international and regional organizations, universities, and non-governmental organizations (NGOs) to increase resilience to climate- and weather-induced disasters.

ENHANCING GLOBAL FLASH FLOOD GUIDANCE AND EARLY WARNING SYSTEMS

Water surrounds a house in Thailand during floods in October 11. *(Photo by Ben Hemingway/USAID)*

Each year, flash floods result in an average of 5,000 deaths globally. In an effort to reduce the loss of life and the economic impact of floods, USAID/OFDA—in partnership with the U.N. World Meteorological Organization (WMO), the National Oceanic and Atmospheric Administration (NOAA), the Hydrologic Research Center, and the national meteorological and hydrological services (NMHSs) of host countries—initiated a collaborative program in 2008 to assist NMHSs to monitor potential flash floods, thereby improving early warning lead time and enabling quick response. Through implementing technologies, conducting forecaster trainings, and providing technical assistance, the program aims to provide flash flood early warning guidance in countries where no such early warning capacity exists. In Fiscal Year (FY) 2013, systems were operational or in various stages of development in over 50 countries in Central America, the Caribbean, the Middle East, South Asia, Southeast Asia, Central Asia, southeastern Europe, and southern Africa.

BUILDING CAPACITY THROUGH CLIMATE VARIABILITY AND PREDICTION WORKSHOPS

In response to increased demand for improved national and regional capacity, USAID/OFDA and NOAA, in partnership with WMO and NMHSs, have organized a series of workshops throughout the world to establish and strengthen national preparedness for hydrometeorological events. The regional climate variability and prediction workshops aim to address the transboundary nature of climate by encouraging cross-continental information exchange, including sharing lessons learned, among meteorologists. In addition, trainings seek to increase meteorologists' capacity to produce climate information for decision-makers to reduce the impact of climate fluctuations on local populations. In June 2013, representatives from 33 countries participated in the fifth annual workshop and symposium, held in Istanbul, Turkey.

INTEGRATED FLOOD MANAGEMENT: A MANUAL FOR GOOD PRACTICES

In FY 2013, USAID/OFDA supported an initiative by the World Wildlife Fund (WWF) to develop a Good Practices manual to reduce flood risk and improve flood management by utilizing natural resource management. The manual uses an Integrated Flood Management approach, facilitating the incorporation of community-based knowledge and coping mechanisms with government systems to manage flood water risk and watershed resources. With the new guidance, WWF intends to assist communities, local governments, and DRR practitioners to better understand natural flood management, ways to implement natural resource-based mitigation measures at the local level to address both applied and policy issues, and how to approach the challenges associated with such interventions.

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