

## RISK REDUCTION SECTOR UPDATE – MARCH 2007

### SECTOR OVERVIEW

Natural and technological disasters adversely impact hundreds of thousands of people every year. USAID/OFDA is helping to minimize the impacts on vulnerable populations before, during, and after a disaster. USAID/OFDA works closely with communities as well as with national and local governments, international and regional organizations, and non-governmental organizations to identify, manage, and reduce the vulnerability to hazards through multi-sectoral and sustainable mitigation and preparedness programs.

In Fiscal Year (FY) 2006, USAID/OFDA supported risk reduction activities in Africa, Asia, the Middle East, Latin America, and the Caribbean. In addition to programming related to floods, droughts, extreme weather, tsunamis, earthquakes, landslides, and volcanoes, USAID/OFDA also provides technical assistance to strategically address risk reduction needs worldwide.

### RANET

In many developing countries, rural communities' economies and livelihoods are highly susceptible to fluctuations in weather and climate. A number of national, regional, and international efforts produce a wealth of hydrometeorological, or rainfall-related, information, but poor communication systems and a lack of training limit rural populations' ability to use such forecasts. The New Radio and Internet Technologies for the Communication of Weather and Climate Information for Rural Development Program (RANET) was developed by USAID/OFDA, the National Oceanic and Atmospheric Administration (NOAA), and partners to improve daily community decision-making and resilience to natural hazards. Since its inception in 2000, RANET has expanded to 16 African countries, with ongoing pilot activities in Asia and the Pacific. In 2006, RANET held an introductory technical training workshop in Washington, D.C., where representatives from Africa, Asia, and the Pacific learned the essentials of setting up RANET in their countries.



A community member uses RANET to share information (Kelly Sponberg, NOAA).

### BUILDING CAPACITY AT VOLCANO OBSERVATORIES IN INDONESIA

In 1986, USAID/OFDA's ongoing partnership with the U.S. Geological Survey (USGS) resulted in the establishment of the Volcano Disaster Assistance Program (VDAP). To date, VDAP has responded to 22 major crises and worked to build capacity in 11 countries, helping to save tens of thousands of lives and safeguard property worth hundreds of millions of dollars. USAID/OFDA has provided \$13 million to VDAP since its inception, including \$950,000 in FY 2006, primarily for projects in Latin America, the Caribbean, Asia, and the Pacific.

VDAP has worked with the Indonesian Center for Volcanology and Geologic Hazards Mitigation since FY 2005 to improve hazard monitoring and assessment through the construction of a regional volcano observatory for North Sulawesi, where more than 500,000 people live on the flanks of hazardous volcanoes. Field work, planning, and a recent crisis response to the Awu

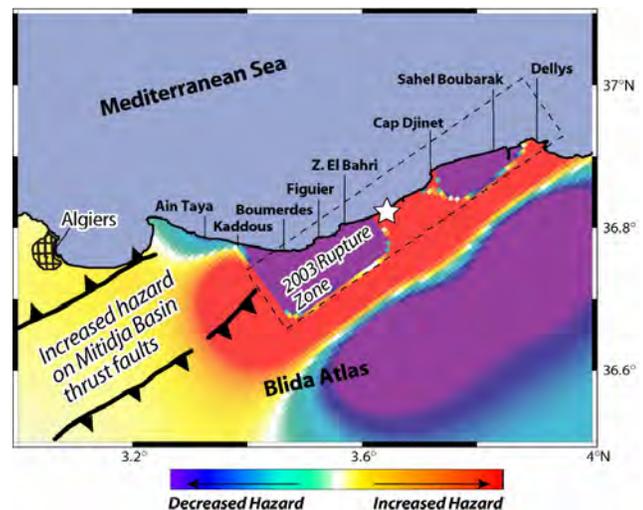
volcano eruption have shown that a modest investment in monitoring equipment, database development, and training can help to prevent future disasters.

## ASIA FLOOD NETWORK

In Asia, such hydrometeorological hazards as floods, droughts and cyclones affect more people than other types of natural disasters. Floods in particular affect the lives and livelihoods of millions of people every year. The Asia Flood Network (AFN) aims to strengthen the capacity of national hydrometeorological institutions in climate, weather, and hydrological forecasting while reducing vulnerability through data and information sharing concerning transboundary river basins. USAID/OFDA, NOAA, and USGS jointly implement AFN in collaboration with the International Center for Integrated Mountain Development and the Mekong River Commission (MRC). AFN builds regional capacity in flood forecasting and warning systems, the use of radio and the Internet to disseminate information in remote areas, and satellite-based precipitation estimation (SPE) and forecasting. USAID/OFDA and partners are transferring SPE technology to the Himalayan region.

## PROMOTING EARTHQUAKE MITIGATION IN ALGERIA

In May 2003, a shallow magnitude 6.8 earthquake struck 60 km east of Algiers, causing the deaths of approximately 2,300 people. To reduce the impact of future earthquakes in the region, USAID/OFDA provided \$220,000 for an earthquake mitigation project implemented by the USGS in partnership with the Woods Hole Oceanographic Institution, Institut de Physique du Globe in France, and Centre de Recherche en Astronomie Astrophysique et Géophysique in Algeria. The project has produced an improved assessment of earthquake risk in both the highly populated capital city of Algiers and the Tunisia–Northern Algeria–Morocco active seismic belt. In addition, project implementers have developed seismic hazard analysis tools that Algerian researchers can use to assess regional earthquake hazards and raise public awareness.



With USAID/OFDA support, USGS and partner organizations produced the above assessment of the earthquake hazard near Algiers (Ross Stein, USGS).

## WORKSHOPS AND UPCOMING SECTOR ACTIVITIES

- USAID/OFDA is co-sponsoring a regional training for scientists in Algiers in early 2007. Participants will learn more about seismotectonics, earthquake-stress modeling, and seismic-hazard assessments.
- The initial phase of volcano-monitoring field installations through VDAP began in North Sulawesi, Indonesia in early 2007.
- USAID/OFDA and MRC will initiate the first phase of flash-flood forecasting in MRC countries in FY 2007. In addition, the MRC Regional Flood Management and Mitigation Center will receive verified SPE technology.
- Additional RANET pilot sites will be implemented in Cambodia and Laos. RANET will extend coverage in Africa to increase its multi-sectoral content broadcast.
- USAID/OFDA signed an agreement with the U.N. Environment Program in partnership with USGS to develop and implement global methods for the characterization of flood hazards.
- USAID/OFDA and USGS will work with the Intergovernmental Authority on Development Climate Prediction and Applications Center on the transfer of operational flood forecasting systems for the greater Horn of Africa.