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**BUREAU FOR DEMOCRACY, CONFLICT, AND HUMANITARIAN ASSISTANCE (DCHA)  
OFFICE OF U.S. FOREIGN DISASTER ASSISTANCE (OFDA)**

## ***Disaster Risk Reduction (DRR) Programs***

Fact Sheet #1, Fiscal Year (FY) 2008

May 2, 2008

### **BACKGROUND**

Natural, technological, conflict-related, and human-induced disasters adversely affect millions of people every year. In an effort to minimize the impact on vulnerable populations, USAID/OFDA supports various disaster risk reduction programs aimed at saving lives; protecting livelihoods, assets, and infrastructure before, during, and after a disaster; and increasing the resilience of communities to natural hazards. USAID/OFDA programs promote self-sufficiency in disaster risk reduction by strengthening the capacity of governments at all levels and communities to identify, manage, and mitigate disasters through sustainable, multi-sectoral programs, as well as to prepare for potential crises efficiently.

USAID/OFDA and implementing partners engage communities, national and local governments, international and regional organizations, and non-governmental organizations (NGOs) to develop effective disaster risk reduction strategies. USAID/OFDA disaster risk reduction programs are tailored to the needs of communities. USAID/OFDA promotes dialogue and coordinated action among stakeholders to address disaster risk reduction in an integrated and comprehensive manner. In addition to supporting regional and country-level programming related to floods, droughts, cyclones, extreme weather events, tsunamis, earthquakes, and volcanoes, USAID/OFDA provides technical assistance and supports global disaster risk reduction initiatives. These initiatives will both mitigate the hazards affecting the community or household as well as build the resiliency of the community to those hazards.

As an example, many of USAID/OFDA's programs aim to reduce food insecurity in countries around the world. Responses include strong hazard prevention and mitigation components, intended specifically to increase the resilience of communities to future shocks. These interventions range from the promotion of drought-tolerant crops and agricultural extension services, to the further development of community water management systems and resources. Like the disaster risk reduction programs described below, USAID/OFDA's food insecurity interventions are designed to support local preparedness capacity and increase resilience.

Each USAID/OFDA disaster risk reduction program promotes at least one of the five priorities identified by the Hyogo Framework for Action (HFA). The following information is a brief description of ongoing USAID/OFDA disaster risk reduction programs active in FY 2007 and/or FY 2008, grouped according to the HFA priority<sup>1</sup> that the respective program promotes.

<b>USAID/OFDA Avian Influenza (AI) Preparedness Activities in FY 2007 .....</b>	<b>\$28,662,694</b>
<b>TOTAL FY 2007 USAID/OFDA DRR PROGRAMS, INCLUDING AI PREPAREDNESS .....</b>	<b>\$70,425,232</b>

### **PRIORITY 1 – Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.**

- Kathmandu Valley Earthquake Risk Management Project: The National Society for Earthquake Technology (NSET) in Kathmandu, Nepal, works with the Government of Nepal, NGOs, schools, and local communities to increase earthquake awareness and preparedness by coordinating the long-term earthquake disaster risk reduction plan for the Kathmandu Valley. The project began in September 2000.
- Pacific Islands Disaster Assistance Program (PDAP): Since 1995, USAID/OFDA has supported this program, which improves the capacity and performance of local and national disaster management agencies and individuals, develops and adapts training materials, and strengthens the capacity of South Pacific nations to organize and conduct disaster

<sup>1</sup> USAID/OFDA disaster risk reduction activities in this fact sheet are not necessarily listed in order of importance and are not grouped according to USAID/OFDA strategic priorities.

management courses. This program has been implemented in the Cook Islands, Fiji, Kiribati, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, the Federated States of Micronesia, and the Republic of the Marshall Islands.

- Wildfire Prevention and Preparedness in Mexico: USAID/OFDA partnered with the U.S. Forest Service (USFS), USAID/Mexico, and Government of Mexico National Forest Commission to develop a wildfire risk management plan. Program activities focused on prevention, preparedness, planning, and mitigating health, environmental, and economic damages. The program concluded in December 2007.
- Disaster Mitigation Facility for the Caribbean (DMFC): Between April 2000 and December 2006, USAID/OFDA provided more than \$1 million to the Caribbean Development Bank to establish a disaster mitigation facility in the region. The six-year program promoted sustainable development through reduced risk and losses from natural hazards in the English-speaking countries of the Caribbean. In addition, DMFC incorporated natural hazard considerations into new development projects financed by the bank.
- Tsunami and Coastal Hazards Warning System: In FY 2007, USAID/OFDA funded the Caribbean Disaster Emergency Response Agency (CDERA) to help establish a tsunami and coastal hazards warning system at regional and national levels among CDERA participating states. The two-year program will provide public education and awareness campaigns to help coastal communities respond to warnings and reduce the communities' vulnerability to hydrometeorological hazards. The program promotes a partnership among technical and specialized agencies, emergency managers, donors, and at-risk communities.
- Regional Disaster Risk and Vulnerability Reduction in Africa: In 2006, USAID/OFDA partnered with the University of Cape Town to build sustainable multi-tasking capabilities in disaster risk and vulnerability reduction in selected institutions of higher learning in Africa, consistent with global disaster reduction priorities reflected in the Hyogo Framework. This program is building on local energies and commitments already generated from within the continent by supporting the progressive development of university-based disaster risk reduction units and programs to build a range of context-specific capabilities in formal education, short course training, local research, and vulnerability reduction policy advocacy.
- Guidelines on Human Rights and Natural Disasters: USAID/OFDA is funding the Brookings–Bern Institute on Internal Displacement, in collaboration with national governments, civil society, and international and regional organizations, to implement a capacity-building program to develop and promote the Operational Guidelines on Human Rights and Natural Disaster, as well as an accompanying manual and CD-Rom. This capacity-building program includes training sessions, workshops, and technical assistance.
- Protection of the Rights of Internally Displaced Persons (IDPs): In FY 2007, USAID/OFDA funded the Brookings–Bern Institute on Internal Displacement to implement a capacity-building program to promote the incorporation of the Guiding Principles on Internal Displacement (GPID) into domestic laws and policies through translations into local languages and worldwide dissemination of the GPID and related materials. The project also included the redesign and maintenance of the project website and listserv and the development of a web-based database on IDP laws and policies.
- Urban Search and Rescue (USAR) Capacity in South Africa: In 2006, with support from USAID/OFDA and Rescue South Africa, trainers from Los Angeles County and Fairfax County fire departments conducted a “train-the-trainer” program with South African firefighters, focusing on urban rescues following a sudden-onset disaster. The program spurred the creation of a training cadre what will ensure continued operation and expansion of South Africa's USAR capacity.
- Incident Command System (ICS) Training: Co-funded by USAID/OFDA and USAID/India through an interagency agreement with the USFS, this capacity-building program provides ICS training and simulation exercises at the national and state levels in India and the region. The program also provides technical assistance and training to government and non-government disaster managers to assist them in developing coordinated disaster response planning.

## **PRIORITY 2 – Identify, assess and monitor disaster risks and enhance early warning.**

- Volcano Disaster Assistance Program (VDAP): The USAID/OFDA-funded VDAP, implemented by the U.S. Geological Survey (USGS) in 1986, provides technical assistance to national volcano monitoring organizations, and serves as the only international rapid-response volcano crisis team in the world. To date, VDAP has responded to 24

major crises and worked to build capacity in 12 countries, helping to save tens of thousands of lives and to safeguard property worth hundreds of millions of dollars.

- Asia Flood Network (AFN): AFN aims to strengthen the capacity of regional and national hydrometeorological institutions in climate, weather, and hydrological forecasting, directly involving at-risk communities to reduce vulnerability. USAID/OFDA, the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), the USGS, and partners in Asia are jointly implementing AFN. Current activities are focused on Cambodia, Laos, Thailand, Vietnam, and parts of China in the Mekong river basin and Afghanistan, Bangladesh, Bhutan, Burma, India, Nepal, and Pakistan, and parts of China in the Ganges-Brahmaputra–Megna river basin.
- Technical Assistance for the Development of the Pakistan National Seismic Network: Supported by USAID/OFDA through the USGS, this project assisted the Government of Pakistan in establishing a new seismographic network of stations in and around earthquake-prone cities. The USGS provided technical expertise to the Pakistan Meteorological Department to facilitate deployment of the network. This project aided in the construction of a critical national resource to protect vulnerable populations and minimize the loss of life.
- Inter-Governmental Authority on Development Climate Prediction and Application Center (ICPAC): With the World Meteorological Organization, ICPAC has implemented a regional seasonal climate prediction system and applications in various sectors in order to reduce the vulnerabilities associated with climate variability. In the ten Greater Horn of Africa countries, the project has improved climate monitoring, prediction, and applications, as well as early warning of climate-induced disasters.
- Radio and Internet for the Communication of Hydro-Meteorological and Climate Related Information (RANET): Developed by USAID/OFDA, NOAA, National Meteorological and Hydrological Services, and NGO partners, RANET provides access to and strengthens the use of hydrometeorological information by communities in day-to-day decision making to reduce vulnerability to natural hazards. Since its inception in 2000, RANET has expanded to 16 African countries, with ongoing pilot activities in Asia and the Pacific.
- Globally Applicable Methods for Characterization of Flood Hazards: The U.N. Environment Program and the USGS, in coordination with the U.N. Development Program's Global Risk Identification Program and regional and national entities, are implementing this program, which aims to increase the effectiveness of flood preparedness and mitigation activities. Using globally available geographic and hydrometeorological data sets for river basins, the project will develop techniques and tools to permit characterization of flood hazards worldwide.
- NOAA Technical Assistance: Through an interagency agreement with USAID/OFDA, NOAA provides access to weather, climate, and hydrometeorology experts and information to build the capacity of national, international, and regional response bodies in reducing vulnerability to extreme hydrometeorological events.
- The Center for Research on the Epidemiology of Disasters (CRED): USAID/OFDA supports the Emergency Events Database maintained by CRED. This tool is available to the public online and provides information on disasters that have occurred in the past 100 years, allowing for trend analysis and historical comparisons.
- Geographic Information Support Team (GIST) Data Repository – Information Technology Outreach Services (ITOS) at University of Georgia: The GIST Data Repository contains base geographic data for countries of concern and is available to the humanitarian community and the public. ITOS also provides data preparedness and off-site data processing services for humanitarian purposes.
- Natural Hazards Mitigation Interagency Agreement: An interagency agreement with USGS enables USAID/OFDA to quickly access experts in the fields of hydrology, meteorology, seismology, mapping/cartography/geographic information systems, biology, tsunamis, and landslides to assist before, during, and after natural disasters.
- Central America Mitigation Initiative Assessment: Following Hurricane Mitch in Central America in 1998, USAID/OFDA provided funding to USGS to enhance stream-flow monitoring in El Salvador, Guatemala, and Nicaragua, and to increase the capabilities of geographic information systems in Honduras. In September 2007, USGS began to assess the project's impact. The assessment will conclude in 2008.
- Caribbean Tsunami Early Warning System: In August 2006, USAID/OFDA entered into an agreement with the University of the West Indies Seismic Research Unit as part of a multi-national, regional project to strengthen the unit's

capacity to detect, monitor, and provide early warning of tsunamis and related geologic hazards. New software and equipment assist in the dissemination of information to disaster management officials, island governments, planning departments, and vulnerable populations. USAID/OFDA also provided funds to USGS to implement a six-day training in seismology and tsunami warnings in Trinidad and Tobago.

- Earthquake Monitoring and Surveillance in Bolivia: In FY 2007, USAID/OFDA provided funding to the Observatorio San Calixto (OSC), a small private observatory that monitors earthquake activity. With USAID/OFDA funds and utilizing portable seismic equipment, OSC is monitoring micro-earthquakes that occur near the capital city of La Paz. By determining where small earthquakes occur, OSC will identify the areas that are most vulnerable to larger earthquakes in order to prioritize future mitigation activities.
- Community Forest Fire Management Project in Guatemala: In FY 2007, USAID/OFDA funded the Wildlife Conservation Society (WCS) to implement a forest fire management project in El Petén Department in northern Guatemala. The project is benefiting the communities of Uaxactún, La Colorada, and Carmelita in the Maya Biosphere Reserve, and Paso Caballos located southeast of Laguna del Tigre National Park. WCS is implementing educational initiatives, including early warning systems and fire management guidance in order to prevent forest fires in these populated areas.
- Assessing Future Earthquake Risk in Algeria: Following the May 2003 earthquake that killed approximately 2,300 people, USAID/OFDA provided funding for an earthquake mitigation project implemented by the USGS, 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 Algiers and the Tunisia–Northern Algeria–Morocco active seismic belt and developed seismic hazard analysis tools for Algerian researchers to assess hazards and raise public awareness.
- Flood Early Warning Systems in Mozambique: Since FY 2004, USAID/OFDA has contributed to the Mozambique Integrated Information Network for Decision-Making (MIND) project, part of USAID's FEWS NET. MIND has strengthened early warning systems for cyclones and flooding and helped improve disaster management and contingency planning in the Limpopo River Basin. The project includes flood risk mapping, community flood education, planning and preparedness, and establishment of RANET stations in highly vulnerable remote locations.
- Technical Assistance for Earthquakes in Peru: In response to a magnitude 8.0 earthquake in Pisco on August 15, 2007, USGS, with the support of USAID/OFDA, assisted the Instituto Geológico Minero y Metalúrgico (INGEMMET) with field assessments, documented key geologic factors that contributed to the loss of lives, identified gaps in seismic hazard monitoring and public outreach, and assessed the status of earthquake hazard monitoring and mitigation since the 2001 earthquake. The findings from this mission will be used by the Peruvian geological agencies to prepare for future earthquakes in Peru.

### **PRIORITY 3 – Use knowledge, innovation and education to build a culture of safety and resilience at all levels.**

- International Center for Tropical Agriculture (CIAT) Global Seed Security Initiatives: Since 2001, USAID/OFDA has supported CIAT in improving the efficacy and cost efficiency of seed-based responses to agricultural disasters. CIAT is currently writing a manual for assessment of seed system security in chronic and acute emergencies, and is working on the training and dissemination of this assessment manual to practitioners around the globe.
- U.N. World Health Organization's Communicable Disease Control in Complex Emergencies: This program is designed to reduce morbidity and mortality due to communicable diseases in populations affected by complex emergencies. The program provides technical and operational support, sets standards and develops new tools, provides training courses, and strengthens partnerships with ministries of health, local authorities, U.N. agencies, and NGOs. The program focuses on complex emergencies in Afghanistan, Angola, the Democratic Republic of Congo, Liberia, Sierra Leone, and southern Sudan.
- Community Management of Acute Malnutrition (CMAM): USAID/OFDA has been supporting the CMAM approach for the treatment of acutely malnourished children. This approach brings nutrition services closer to the household and community through decentralized sites at existing community health facilities and in the community at large. With continued support from USAID/OFDA, the CMAM approach has moved from the pilot phase to larger-scale implementation in several countries and has been utilized during several emergency responses. In addition, USAID/OFDA is funding CMAM training for nutrition practitioners, actively advocating for the adoption

of CMAM protocols in additional countries, and a supporting the development, testing, and translation of a CMAM training manual. USAID/OFDA has supported CMAM programs in the Democratic Republic of the Congo, Ethiopia, Malawi, Somalia, Sudan, Mali, Burkina Faso, Niger, and Chad

- Program for the Enhancement of Emergency Response (PEER), Phase II: PEER promotes disaster preparedness through the development of national and regional cadres of professional emergency response instructors. PEER is geared primarily towards earthquake preparedness, but is widely applicable to any collapsed structure or mass casualty situation. The first phase of PEER, managed by the Asian Disaster Preparedness Center (ADPC) included India, Indonesia, Nepal, and the Philippines. Phase II, implemented by NSET, began in 2003 and continues the activities begun in the original countries with the addition of Bangladesh and Pakistan. USAID/OFDA has supported this program since 1998.
- Prompt Assessment of Global Earthquakes for Response (PAGER): With support from USAID/OFDA, USGS is enhancing PAGER, an automatic system to estimate human impact following significant earthquakes. In FY 2008, USGS will enhance the system by developing personal digital assistant-compatible PAGER content, creating a prototype system that distributes lists of critical infrastructure that experienced severe shaking, and implementing an Earthquake Impact Scale to reflect the anticipated impact on society. These enhancements will help emergency responders determine the likelihood and scale of earthquake responses.
- Managing the Psychosocial Aspects of Disasters and Complex Emergencies: In 2007, USAID/OFDA funded an ADPC project to examine disaster mental health and psychosocial resources that already contribute to the management and effective delivery of programs to disaster-affected populations in Asia. A team of psychosocial and disaster mental health specialists are consulting with representatives from national health ministries, universities, U.N. agencies, NGOs, and donors in Indonesia, the Philippines, Sri Lanka, and Thailand.
- Climate Forecast Applications: As a follow up to the Extreme Climate Events program implemented by ADPC in 1998, this project strengthens the national capabilities of Indonesia, the Philippines, and East Timor to manage and reduce the impacts of climate fluctuations through targeted demonstration projects and community participation. The project makes climate forecasting information available to farmers and local communities, and helps them utilize the data for planting and other decision making purposes.
- Drought Mitigation in Swaziland: In FY 2007, USAID/OFDA funded drought mitigation initiatives to strengthen the resilience of the most vulnerable communities in Southern Africa. In partnership with International Relief and Development, USAID/OFDA is strengthening food security through a community-based drought mitigation program in Shiselweni and Lubombo districts in Swaziland.
- Rehabilitation through Irrigation and Production Extension (RIPE II): Building on the successful implementation activities of the USAID/OFDA-funded RIPE I program in Malawi in 2005, USAID/OFDA is supporting Catholic Relief Services (CRS) to implement RIPE II. This program involves conducting irrigation activities to increase food production in the most vulnerable communities in Malawi.
- Drought Preparedness in Southeast Asia: With USAID/OFDA support, CARE is implementing drought preparedness activities in Cambodia, East Timor, and Vietnam. This program promotes community-based drought preparedness planning while also developing expertise in effective low-cost and innovative drought mitigation and preparedness technologies.
- Text Messaging Disaster Alert System in the Philippines: In FY 2007, USAID/OFDA provided funding through USAID/Philippines to help the Philippine National Red Cross (PNRC) implement a nationwide disaster alert system using text messages. This project is enabling the PNRC to issue alerts down to the sub-district level.
- Flood Early Warning Systems in the Mekong River Basin: In January 2003, USAID/OFDA and the Mekong River Commission, an inter-governmental river basin organization based in Laos, began an innovative demonstration project to strengthen warnings to communities most at risk to floods. The five-year program developed appropriate flood information to enable the most vulnerable communities in Cambodia to effectively prepare for floods.
- Community Flood Monitoring and Forecasting in Bangladesh: This five-year USAID/OFDA project supports a community-based approach for flood monitoring and forecasting implement by Riverside Technology Incorporated to reduce the vulnerability of communities living in flood plains and mitigate future flood damage in Bangladesh.

- Assessment of LAC Risk Management Curricula – Phases I and II: Implemented by the Florida International University (FIU), Phase I of this project, completed in August 2004, assessed the state of disaster, emergency, or risk management instruction in higher education institutions in the LAC region. In Phase II, FIU is supporting three higher education institutions in South America to strengthen disaster management learning through creative and innovative approaches.
- School Disaster Preparedness Project in Honduras: USAID/OFDA supported a pilot effort by World Vision U.S. to teach basic disaster preparedness principles to approximately 4,400 children in 42 schools and educational centers in disaster-prone departments of Honduras. The project enhanced risk management capacity for all community members, including parent associations, teachers, administrators, and program staff.
- Disaster Preparedness in Vulnerable Municipalities of Western Honduras: In September 2006, USAID/OFDA awarded a grant to Action of Churches Together (ACT) to train and organize local emergency committees in 40 highly vulnerable communities in Honduras. The committees created risk maps and contingency plans, installed an early warning system, and implemented small-scale mitigation projects. ACT strengthened local and municipal coordination with existing governmental structures and civil society groups.
- Strengthening Risk Management in El Salvador: With USAID/OFDA funding, the Centro de Protección de Desastres (CEPRODE) supports activities to strengthen risk mitigation and disaster management knowledge and capacities in the municipalities of El Congo, Santa Ana, and other communities on the eastern side of the Ilamatepec Volcano. The program promotes capacity for disaster risk reduction and prevention and appropriate emergency response actions. CEPRODE is coordinating efforts with a variety of partners, including the National Civil Protection System and the Government of El Salvador's Ministry of Education and Ministry of Health.
- Tufts University Livestock and Livelihoods, Phase II: Along with international experts and local stakeholders, Tufts University livestock specialists are producing the "Livestock Emergency Guidelines and Standards (LEGS)," an internationally accepted set of standards that is modeled after the Sphere standards. These guidelines will be specifically used to address livestock issues in various emergency situations. USAID/OFDA and other international donors are supporting this project.
- Earthquake Risk Management Conference in Pakistan: USAID/OFDA supported a conference hosted by the Government of Pakistan's Earthquake Reconstruction and Rehabilitation Authority in Islamabad, Pakistan, in April 2007. Organized by the U.N. International Strategy for Disaster Reduction, the U.N. Human Settlements Program, and NSET, the conference focused on best practices and lessons learned from recent geological disasters in Pakistan, particularly the October 2005 earthquake.
- Cholera and Shigella Workshops: USAID/OFDA is supporting hands-on training on emergency response to cholera and shigella epidemics for health specialists worldwide. The International Center for Diarrhoeal Disease Research in Bangladesh is conducting the training. Upon completion of the training, health workers develop an action plan for preparedness and response to epidemics for their respective organization.

#### **PRIORITY 4 – Reduce the underlying risk factors.**

- International Institute of Tropical Agriculture (IITA): In partnership with USAID/OFDA since 1999, IITA supports increased access to and availability of disease-free cassava cuttings and cassava mosaic disease (CMD) -resistant planting stock, as well as dissemination of information to farmers to combat the disease. With OFDA support, IITA is implementing programs throughout East and Central Africa.
- Assistance for Emergency Locust/Grasshopper Abatement (AELGA): AELGA provides technical, material, and financial assistance to mitigate and control the damage that emergency transboundary outbreak pests (ETOPs) can inflict on livelihoods and economies among affected countries and populations. Since 1987, USAID/OFDA and USAID's Bureau for Africa have supported AELGA in developing and integrating safer, more affordable, and more effective pest management tools and policies. AELGA works closely with and supports the U.N. Food and Agriculture Organization to strengthen national and regional capacities to avert ETOP crises. USAID/OFDA, through AELGA, supports initiatives that focus on disposing of toxic and dangerous obsolete pesticides.

- Drought Preparedness in India and Pakistan: CRS is implementing a three-year project to improve drought resilience among communities in Rajasthan, India, and Sindh, Pakistan. Through this program, vulnerable communities will be better able to harvest and store rainwater for increased domestic and agricultural use throughout the year, adopt water-efficient agricultural practices, utilize improved land-use techniques for agriculture and livestock, and engage with local government and other actors.
- Kabul Area Shelter and Settlements Project (KASS): In response to a rapid increase in Kabul's population in the past six years, as well as the significant seismic risks, USAID/OFDA designed and is providing technical support to the KASS, which is providing more than 3,600 households with safe, adequate, and habitable shelter assistance. Vulnerable households are benefiting from integrated shelter activities, including training programs in seismic hazard mitigation.
- Promoting the Private Sector Role for Disaster Assistance in China: USAID/OFDA is supporting The Asia Foundation (TAF) to enhance private sector participation in and contribution to disaster preparedness, and to promote multi-sectoral disaster management approaches. TAF is cooperating with Chinese business associations, the China Charity Federation, the Ministry of Civil Affairs, which has a lead role in disaster management in China, and the American Chamber of Commerce in China. The program also involves domestic NGOs, charities, and other organizations.
- Protection Against Livelihood Loss: In partnership with the U.N. World Food Program, USAID/OFDA is supporting the development of a drought insurance program to protect against livelihood loss in Ethiopia. This innovative program seeks to use financial markets as mechanisms to reduce risk and to protect Ethiopian farmers against severe livelihood loss amidst drought. The program is designed to support farmers in developing more productive coping mechanisms by providing them with resources to buffer against the liquidation of productive assets when faced with significant crop loss.
- Resistant Sorghum Multiplication and Distribution for Ethiopia: USAID/OFDA is funding CRS to work directly with the Ethiopian Agriculture Research Organization to multiply and disseminate sorghum seeds that are resistant to striga, a parasitic weed that affects sorghum and maize production in many parts of Africa, including Ethiopia. The dissemination of such seeds has increased household food security, especially for subsistence farmers in some of the most affected areas of Ethiopia.
- Flood Proofing for Households in the Mekong Delta, Vietnam: USAID/OFDA is supporting the flood proofing of homes in the poorest flood-prone villages in the Mekong Delta. In collaboration with the Government of Vietnam's Ministry of Agriculture and Rural Development, the program is also training officials and the affected populations on the use of flood mapping to reduce loss of life, economic consequences, and disruption of livelihoods. The program is implementing river flood alert systems and a television and radio flood disaster warning system in three provinces and at the national level.
- Private Sector Involvement in Disaster Assistance in LAC: Since July 2004, USAID/OFDA has supported the Pan American Development Foundation (PADF) to promote private sector engagement and contributions to emergency management activities before, during, and after disasters in the LAC region. PADF has helped businesses to develop strategies that encourage quick mobilization of private sector resources for disaster assistance, and has brought emergency management training to private enterprises.
- School Safety Curriculum in Costa Rica: In FY 2007, USAID/OFDA provided funding to the Universidad Estatal a Distancia for the development of a distance education school safety course. The module facilitates the dissemination of course contents to a greater number of institutions in Latin America.
- Development of Hurricane Hazard Maps for the Caribbean: In FY 2007, USAID/OFDA supported the Pan American Health Organization (PAHO) to develop wind hazard maps for the Caribbean basin, including all of the islands of the Caribbean and the Caribbean coastlines of South and Central America. The program will incorporate over 20 years of the region's data to improve the quality of currently available wind hazard information. The proposed maps will enable wind hazard experts, government authorities, and the engineering and architectural communities to obtain better wind hazard guidance for structural design of new hospitals and other relevant facilities.
- Fuel-Efficient Stove Study: USAID/OFDA and USAID's Bureau for Economic Growth, Agriculture, and Trade are supporting a technical evaluation of the efficiency of various types of stoves currently being used in northern Uganda

and Darfur, Sudan. NGOs are distributing these stoves to households in an effort to reduce fuel consumption and thereby protect women and girls from attack by decreasing the number of trips made to collect fuel.

**PRIORITY 5 – Strengthen disaster preparedness for effective response at all levels.**

- AI and Pandemic Influenza Preparedness: In FY 2006, USAID designated USAID/OFDA to help establish the United States Government Interagency Avian Influenza International Stockpile, as USAID/OFDA has years of experience procuring, transporting, and warehousing disaster relief supplies. USAID/OFDA developed and procured the required commodities for three standardized kits containing essential items needed to support infectious disease field outbreak investigation and disease control. USAID/OFDA has also supported AI preparedness efforts in Cambodia and China, working with the American Red Cross and host country Red Cross Societies to facilitate AI preparedness and response workshops. In addition, USAID/OFDA is providing technical input to the USAID Avian and Pandemic Influenza Unit to develop a preparedness program to respond to a potential influenza pandemic.
- Protection Surge Capacity Program (PROCAP): Through the Norwegian Refugee Council, USAID/OFDA is funding the PROCAP, a standby protection program that deploys qualified and experienced protection specialists. Through this program, an emergency team of at least 10 senior protection officers is at the disposal of the U.N.'s protection-mandated agencies – the Office of the U.N. High Commissioner for Refugees (UNHCR), the U.N. Children's Fund (UNICEF), the U.N. Office for the Coordination of Humanitarian Affairs (OCHA), and the Office of the U.N. High Commissioner for Human Rights (OHCHR). In collaboration with NGO partners, this project is supporting the development of a second tier of 90 trained protection officers.
- OCHA Field Information Services Unit (OCHA/FIS): With support from USAID/OFDA, OCHA/FIS oversees Humanitarian Information Centers (HICs) worldwide and is secretariat for the Geographic Information Support Team (GIST). HICs provide information coordination services during emergencies, and the GIST provides a forum for strategic information management planning and data preparedness activities for countries of potential concern.
- Regional Disaster Assistance Program (RDAP) in LAC: Through the International Resources Group (IRG), USAID/OFDA maintains a network of disaster assistance experts located throughout LAC who are available to deploy to disaster sites, perform damage assessments, and provide guidance on disaster preparedness and mitigation activities. IRG consultants also oversee a multi-course program with instruction in disaster management concepts, training methodology, and technical disciplines. Since the program's inception in 1989, USAID/OFDA has trained approximately 46,500 participants and certified more than 4,800 instructors in 26 countries.
- Strengthening Local Emergency Prevention and Response Capacities in Panama: Heavy rainfall in the highlands of Panama's Chiriquí Province and poor agricultural and waste disposal practices lead to frequent floods and landslides. In FY 2007, USAID/OFDA awarded a grant to the Fundación para el Desarrollo Integral Comunitario y Conservación de los Ecosistemas de Panamá (FUNDICCEP) to strengthen community capacities for prevention and response to emergency and disaster situations.
- Earthquake Simulation Exercise in Guatemala: In FY 2007, USAID/OFDA provided funding to the Coordinadora Nacional para la Reducción de Desastres (CONRED) to conduct a national earthquake simulation exercise. The preparedness exercise served as a tool for local disaster coordinators and enables the Government of Guatemala to assess the preparedness and capacity of authorities and the population to respond to disasters.
- Reducing Risk and Preparing Vulnerable Communities in Puerto Cabezas, Nicaragua: Between November 2005 and January 2007, USAID/OFDA supported the Nicaraguan Red Cross to strengthen the capacity of vulnerable communities in Puerto Cabezas, particularly in the geographically and socially isolated areas near the Wawa River. The project raised awareness of the importance of disaster risk reduction, improved understanding of natural hazards, and strengthened local capacity to respond to disasters.
- Disaster Risk Management Program in Haiti: With \$250,000 provided in FY 2005, USAID/OFDA supported the U.N. Development Program's (UNDP) efforts to reduce natural hazard risks faced by vulnerable populations in Haiti through February 2007. UNDP collaborated with Haiti's Civil Protection Department to strengthen local and national response, preparation, and training capacities and to develop disaster prevention and mitigation projects.
- National Flood Early Warning in Jamaica: In June 2007, USAID/OFDA provided funds to the Government of Jamaica's Office of Disaster Preparedness and Emergency Management to conduct a simulation test of the national



flood early warning system. The preparedness exercise is a practice tool for local disaster coordinators to assess the preparedness and capacity of authorities and local populations to respond to the threat of flooding.

- Getting Fuel on the Map: This program aims to promote a coordinated strategy for fuel needs in disaster settings in order to reduce the impact on the environment as well as the number of attacks on women and children collecting fuel. In April 2007, the Women's Commission for Refugee Women and Children convinced the Interagency Standing Committee to create a new Task Force on Energy, a crucial step in promoting the importance of energy issues in disaster contexts.
- Capacity Building for Flash Floods Management and Sustainable Development in the Himalayas: USAID/OFDA has supported technical assessments and forums for decision-makers and technical personnel from the Hindu Kush–Himalayan region to strengthen capacities on flash flood management, promote collaboration, and develop regional approaches to flood management, flood early warning systems, and broader transboundary water issues. A regional organization based in Nepal, the International Center for Integrated Mountain Development hosts the forums, which include participants from countries throughout South Asia and the Himalayan region.
- Program for Hydrometeorological Risk Mitigation in Asian Cities: Implemented by ADPC, this program promotes hydrometeorological disaster preparedness through demonstration projects in six highly vulnerable secondary urban centers in Bangladesh, Pakistan, the Philippines, Sri Lanka, Vietnam, and Indonesia.
- Strengthening Emergency Preparedness and Response in Indonesia: International Medical Corps (IMC) is promoting the technical, administrative, financial, and logistical capabilities of Ambulan 118, a leading Indonesian NGO, to respond rapidly and effectively to disasters in Indonesia. IMC is strengthening and expanding training in emergency relief best practices and creating a training-of-trainers program. Both IMC and Ambulan 118 have pre-positioned medical and non-medical equipment and supplies in the field. Through this project, medical teams from Ambulan 118 and IMC provided emergency medical care during the March and September 2007 Sumatra earthquakes and January 2007 Jakarta flooding.
- Indonesia and Bangladesh Mobile Water Treatment Units: In FY 2007, as part of ongoing disaster preparedness programming in Indonesia and Bangladesh, USAID/OFDA is providing six and ten mobile water treatment units, respectively, to USAID implementing partners for use in future humanitarian emergencies. Potable water is often a critical need in the immediate aftermath of a disaster.
- Conflict Preparedness Program in Mindanao, Philippines: Implemented by Save the Children/Philippines, the first phase of this initiative supported disaster preparedness activities in response to new internal displacement and provided prompt access to these populations in the conflict-affected areas of western Mindanao. The second phase supports returning IDPs through livelihood interventions and other assistance. The program also supports an emergency response network of local NGOs and community-based groups to implement preparedness and relief activities, provide grants to local NGOs, and create small stockpiles of locally procured relief items for emergencies.
- Emergency Flood Preparedness in Bangladesh: Save the Children/US, World Vision, and lead agency CARE joined to form the Emergency Working Group of Cooperative Sponsors (EWG) to improve emergency response to floods in Bangladesh. The EWG also works to reduce the incidence of health problems associated with a disaster, particularly water-borne diseases. With USAID/OFDA support, the EWG promotes coordination between communities and local authorities and maintains and operates mobile water purification plants, zodiac boats, and a mobile health unit.
- Kathmandu Valley Earthquake Water Supply: USAID/OFDA is providing funding to UNICEF to support earthquake preparedness in Lalitpur, Bhaktapur, and Thimi municipalities in the Kathmandu Valley. The preparedness program includes upgrading existing water supply facilities for emergency operation, developing and disseminating preparedness information, and training local government and NGO personnel in nutrition, sanitation, hygiene, and the protection of children separated from family members.
- Emergency Health Preparedness Program in LAC: Since 1998, USAID/OFDA has supported PAHO's efforts to promote improved disaster preparedness and response in the health sector. PAHO is increasing the capacity of health professionals to respond to disasters in the LAC region, and improving advocacy, technical information services, and human resources training in health, environment, and related sectors.

- The Third USAID/OFDA International Gender and Disaster Conference: USAID/OFDA has sponsored a series of international conferences at Kocaeli University in Turkey to bring together regional specialists to discuss how to better identify and address gender issues associated with all types of disasters. Preparedness and mitigation are significant themes in these conferences. The next conference is scheduled to take place October 2008.
- Gender and Disaster Network (GDN): USAID/OFDA supports the GDN, implemented by the North Umbria University in England. The GDN is the main repository on the web for issues, reports, and discussions concerning the connection between gender issues and disasters.