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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

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BACKGROUND

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

USAID/OFDA and implementing partners engage communities, national and local governments, international and regional organizations, and non-governmental organizations (NGOs) to develop effective DRR strategies tailored to the needs of at-risk populations. USAID/OFDA promotes dialogue and coordinated action among stakeholders to address DRR 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 DRR initiatives. These initiatives will reduce vulnerability to natural hazards affecting the community or household, as well as build the resilience of the community.

USAID/OFDA is among the global leaders in supporting worldwide DRR activities, as well as participates in larger U.S. Government (USG) efforts. USAID/OFDA participates in DRR globally through membership on governing boards, influencing the development of sound DRR policies among key partners, such as U.N. humanitarian agencies and the World Bank Global Facility for Disaster Reduction and Recovery. In addition, USAID/OFDA DRR and sectoral experts have contributed to the development of technical guidelines, such as the Sphere standards, and provided technical expertise to host nations on DRR.

Many countries face a wide range of challenges and constraints in their efforts to reduce disaster vulnerability. USAID/OFDA has implemented activities in various sectors to assist in preparedness for and reduction of disasters worldwide, including agriculture and food security, health, nutrition, economic recovery and market systems, protection, shelter and settlements, and water, sanitation, and hygiene (WASH). USAID/OFDA's efforts focus on reducing the impact of natural hazards in vulnerable regions by enhancing local and regional early warning systems; improving local disaster planning and response, including search and rescue activities; strengthening conceptual and implementation models for improving food security; and building the capacity of international and local partners to reduce countries' vulnerability to disasters.

Each USAID/OFDA DRR 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 DRR programs active in FY 2009, grouped according to the HFA priority¹ that the respective program promotes.

FY 2009 USAID/OFDA DRR PROGRAMS² \$86,712,116

PRIORITY 1 – Ensure that DRR is a national and a local priority with a strong institutional basis for implementation.

- Pacific Islands Disaster Assistance Program (PDAP): Since 1995, USAID/OFDA has supported the PDAP 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

¹ USAID/OFDA DRR activities in this fact sheet are not necessarily listed in order of importance and are not grouped according to USAID/OFDA strategic priorities.

² This figure does not include DRR activities incorporated into past or ongoing response activities.

disaster management courses. 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 participate in the program.

- Capacity Building on Human Rights and Natural Disasters: USAID/OFDA is funding the Brookings-Bern Project on Internal Displacement to build the capacity of national governments, civil society, and international and regional organizations to address protection of natural disaster-affected individuals, including internally displaced persons (IDPs). The Brookings-Bern Project offers training workshops based on the Operational Guidelines for Human Rights in Natural Disasters and is revising the field manual that accompanies the Operational Guidelines.
- Surveillance, Treatment, and Prevention of Malnutrition in West Africa: Since 2006, USAID/OFDA has supported Helen Keller International (HKI) to develop models for prevention and treatment of malnutrition in Burkina Faso, Mali, and Niger. The project includes development of district-level health program models; national-level support of policy and health system capacity strengthening; and regional-level coordination, lessons-learned dissemination, and policy development. In 2007, the project expanded to establish a nutrition surveillance system in five neighborhoods of Conakry, Guinea, through *Suivi des Enfants, des Femmes et Familles en Alimentation – Nutrition* (SEFAN).
- Food and Nutrition Technical Assistance II (FANTA II) Project: In FY 2009, USAID/OFDA provided funding to USAID's Bureau of Global Health (USAID/GH) for the FANTA II Project to improve nutrition and food security policies, strategies, and programs through technical support to USAID, host country governments, international organizations, and NGOs.
- Community Management of Acute Malnutrition (CMAM) in Ethiopia: In FY 2009, USAID/OFDA supported Concern in Ethiopia to provide technical training, capacity building, and logistics support to the Government of Ethiopia Ministry of Health (MoH) for nutrition response activities using the CMAM model.
- Technical Assistance to the South Africa Disaster Management Coalition: This project is designed to strengthen the capacity of South Africa Development Community (SADC) member states in understanding information regarding the impacts and risks of climate change. With USAID/OFDA support, the Government of South Africa Department of Science and Technology (DST) and the Council for Scientific and Industrial Research is working with SADC's Regional Remote Sensing Unity and the Drought Monitoring Center to develop a broad risk and vulnerability atlas based on currently accepted climate change information and scenarios for the region, improving the National Meteorological and Hydrological Services' ability to use, interpret, and understand new climate data.
- 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 DRR plan for the Kathmandu Valley. NSET also aided other countries, such as Pakistan, in earthquake DRR.

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

- Tsunami and Coastal Hazards Warning System: In FY 2007, USAID/OFDA funded the Caribbean Disaster Emergency Management Agency (CDEMA)³ to establish a tsunami and coastal hazards warning system at regional and national levels among participating states. In collaboration with the Intergovernmental Oceanic Commission's Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions, the program promotes public education and awareness campaigns and partnerships between technical and specialized agencies, emergency managers, donors, and at-risk communities.
- Volcano Disaster Assistance Program (VDAP): In FY 2009, USAID/OFDA continued to support VDAP—an interagency agreement with the U.S. Geological Survey (USGS) that enables USAID/OFDA to access and deploy the only international rapid-response volcano crisis team in the world. The program works with local observatories to build and maintain volcano monitoring systems to improve independent volcano responses in the future. VDAP assistance also includes instruction on conducting risk assessments and development of early warning plans, as well as transfer of volcano monitoring equipment and technology. In 2009, VDAP and partners organized a workshop to

³ Previously known as the Caribbean Disaster Emergency Response Agency (CDERA).

support seismologists who monitor volcanoes in Latin America to increase cooperation, upgrade equipment, and develop a seismicity manual related to volcanic activity in the region.

- Disaster Needs and Damage Assessment in Asia: USAID/OFDA is assisting the Association of Southeast Asian Nations (ASEAN) in developing a manual on disaster needs and damage assessment by adapting best practices to the Southeast Asian context. In FY 2008, USAID/OFDA facilitated a capacity-building workshop for ASEAN country focal points in the Philippines, as well as provided funding through USAID's Regional Development Mission in Asia to Nathan Associates Inc. to promote disaster assistance capabilities in ASEAN.
- 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. The AFN is implemented by USAID/OFDA, the National Oceanic and Atmospheric Administration (NOAA), and USGS in collaboration with the Mekong River Commission, the International Center for Integrated Mountain Development, and National Meteorological and Hydrological Services (NMHSs) in Asia. Current activities are focused on Cambodia, China, Laos, Thailand, and Vietnam in the Mekong river basin and Afghanistan, Bangladesh, Bhutan, India, Nepal, and Pakistan in the Ganges–Brahmaputra–Megna basin.
- Seismic Hazard Training for Pakistan and Nepal: USAID/OFDA supported a June 2009 USGS-implemented workshop in Kathmandu to train young Pakistani and Nepalese professionals to use freely available, state-of-the-art computer tools to assess earthquake hazards and develop a community of seismic hazard practitioners.
- Inter-Governmental Authority on Development Climate Prediction and Application Center (ICPAC): With the U.N. World Meteorological Organization (WMO), ICPAC has implemented a regional seasonal climate prediction system and applications in various sectors to reduce vulnerabilities associated with climate variability. In 10 Greater Horn of Africa countries, the project has improved national and regional capacity on climate prediction and sectoral applications of climate outlooks, such as disaster management, food security, water resource management, and health.
- Global Flash Flood Guidance and Early Warning: In partnership with WMO, NOAA, the Hydrologic Research Center, and NMHSs, USAID/OFDA has initiated a program to develop global infrastructure, protocols, and procedures; implement regional applications of technology; and build capacity to lessen the impacts of flash floods. The global infrastructure will enable national authorities to assess flash flood potential and improve lead time for early warning.
- Globally Applicable Methods for Characterization of Flood Hazards: The U.N. Environment Program and USGS, in coordination with the U.N. Development Program's Global Risk Identification Program and regional and national entities, are implementing this program to increase the effectiveness of flood preparedness and mitigation activities. Using globally available geographic and hydrometeorological data sets for river basins, the project developed techniques and tools to map flood inundation worldwide.
- Radio and Internet for the Communication of Hydro-Meteorological and Climate Related Information (RANET): Developed by USAID/OFDA, NOAA, NMHSs, donors, and NGO partners, RANET is designed to make climate, weather, hydrological, and other related information more accessible to remote populations to aid in day-to-day resource decisions and preparation against natural hazards. Since its inception in 2000, RANET has expanded to 16 African countries, with ongoing pilot activities in Asia and the Pacific.
- NOAA Technical Assistance: Through an interagency agreement with USAID/OFDA, NOAA provides access to weather, climate, and hydrology experts and information to build the capacity of national, international, and regional response bodies in reducing vulnerability to extreme hydrometeorological events. For example, in 2009, radar experts from NOAA provided technical assistance to the Guatemala Meteorological Service on the location of meteorological radar equipment and support infrastructure. Proper placement of meteorological equipment improves the detection of heavy rainfall that may lead to flash floods and debris flow.
- 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; seismology; mapping, cartography, and geographic information systems; biology; tsunamis; and landslides to assist before, during, and after natural disasters.
- Integrated Information Network for Decision-Making (MIND): Since FY 2004, USAID/OFDA has contributed to the USAID-funded Famine Early Warning Systems Network (FEWS NET)-implemented MIND project to strengthen early warning of cyclones and flooding and help improve disaster management and contingency planning in the Limpopo River Basin in Mozambique. The project includes flood risk mapping, community flood education, planning and preparedness, and establishment of RANET stations in highly vulnerable remote locations.
- Vulnerability Assessment Committees (VACs) in Southern Africa: USAID/OFDA supports FEWS NET to provide technical support to national VACs in southern Africa, including assisting in integrating food security scenarios and market and trade analysis into VAC processes and products.
- Nutrition Early Warning System in Guinea: HKI is supporting the continued development of a simple, community-based nutritional surveillance system in urban Conakry and a program expansion to Kankan Region. The system will strengthen national capacity to identify and respond to acute malnutrition and advocate for use of the monthly data collected by the Government of Guinea, donors, and humanitarian agencies.
- Zambezi River Basin Initiative: USAID/OFDA is supporting the International Federation of Red Cross and Red Crescent Societies (IFRC) and a related WMO-led program to reduce flood vulnerability in the seven countries encompassing the Zambezi river basin—Angola, Botswana, Malawi, Mozambique, Namibia, Zambia, and Zimbabwe. IFRC will help vulnerable communities adapt to climate-related threats through conservation-based farming techniques, soil conservation, water-harvesting techniques, and reforestation.
- Zambezi River Flood Early Warning and Mitigation: Complementing IFRC’s efforts, WMO, NOAA, USGS, NMHSs, and disaster management agencies are supporting an initiative to assess flood early warning capacity in riparian countries and formulate a consensus strategy. Focusing on basin-wide cooperation and an integrated approach to flood early warning, the activity will address the technical, institutional, and capacity-building issues related to developing flood preparedness and early warning systems.
- DRR in China: USAID/OFDA supported USGS to promote earthquake and landslide mitigation activities in response to the May 2008 earthquake in Sichuan, China. The program aims to improve China’s ability to conduct probability forecasts for aftershocks, develop China’s capacity to conduct real-time monitoring and notification of major earthquakes, assess the current and future risk of earthquake-induced landslides, and exchange technical expertise.
- Southeastern Cyprus Seismic-Hazard Assessment Program: In FY 2009, USAID/OFDA provided funding to USGS to provide technical assistance and transfer technology to increase Government of the Republic of Cyprus (GoRC) capacity to mitigate seismic-hazard risks. The data and analyses are critical to determining the extent of historical seismic damage in the region and anticipating frequency and magnitude of future seismic events.
- Strengthening Humanitarian Information: In FY 2009, USAID/OFDA supported the Overseas Development Institute (ODI) for a series of special analyses and reports. ODI’s Active Learning Network for Accountability and Performance (ALNAP) produced the Humanitarian Action *8th Review of Humanitarian Action* and a new comprehensive “State of the System” report, as well as projects to improve monitoring and evaluation. USAID/OFDA also funded ODI’s Humanitarian Policy Group (HPG) to research the diversified networks and actors that comprise the international humanitarian system and map their interactions in the research paper, “The Role of Networks in the International Humanitarian System.” Through the Humanitarian Futures Program (HFP), USAID/OFDA supported a research paper, “Humanitarian Crisis Drivers of the Future: Preparing Now for What Might Be,” on disaster drivers based on extensive literature review, interviews, meetings, and workshops.
- InterAction Coordination Efforts: For the past 10 years, USAID/OFDA has supported InterAction’s Humanitarian Coordination Project. The program supports InterAction’s overall humanitarian coordination efforts and is designed to improve the effectiveness of the NGO community in defining and meeting the critical needs of targeted vulnerable

populations. Specific support is also provided to advance NGO security; increase the professionalism of key NGO sectoral interventions, such as in the areas of shelter and settlements and livelihoods; support NGO staff care; and improve humanitarian policy efforts. InterAction's Coordination Project also includes a DRR working group.

- Climate Forecast Applications: This project aims to strengthen 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, as well as makes climate forecasting information available to farmers and local communities.

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

- North American Shelter and Settlements Network (NASSN): In FY 2009, USAID/OFDA fully funded NASSN, hosted by InterAction. The network seeks to promote improved shelter and settlements practices through stronger linkages to international discussions on sector issues, training and outreach activities, and relevant publications.
- 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 has published 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 (WHO)'s Communicable Disease Control in Complex Emergencies: The WHO 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 MoHs, local authorities, U.N. agencies, and NGOs.
- Community Management of Acute Malnutrition (CMAM) Approach: With support from USAID/OFDA, the CMAM approach, which brings nutrition services closer to households and communities through decentralized sites at existing community health facilities and in the community, has moved from the pilot phase to larger-scale implementation in several countries and been utilized during several emergency responses. USAID/OFDA is also funding CMAM training for nutrition practitioners, advocating for the adoption of CMAM protocols, and supporting the development, testing, and translation of a CMAM training manual.
- Management of Severe Malnutrition in Burkina Faso: In 2009, USAID/OFDA supported Action Contre la Faim (ACF) to provide training to reinforce local capacity in the management of severe acute malnutrition in children under five years of age and pregnant and lactating women in the East Region of Burkina Faso. ACF focuses on training local health staff, particularly in stock management of drugs and supplies, in the five provinces of East Region.
- Program for the Enhancement of Emergency Response (PEER), Phase III: PEER promotes disaster preparedness through development of national and regional cadres of professional emergency response instructors. Phase I of PEER began in 1998 in India, Indonesia, Nepal, and the Philippines. Phase II expanded activities to Bangladesh and Pakistan, increased the corps of trainers, adapted courses to national requirements, and created a coordinating network of disaster responders in each country. In April 2009, Phase III began, with activities focusing on establishing a system to enhance first responder capacity and improve hospital and medical facility capacity.
- DRR in the Americas: In FY 2008, USAID/OFDA entered into a cooperative agreement with Florida International University (FIU) to encourage new DRR activities in the Latin American and the Caribbean (LAC) region, while strengthening existing programs. FIU plans to create and manage an inventory of DRR initiatives in the LAC region and identify, promote, and strengthen 12 existing DRR communities of practice, comprising the public and private sectors, universities, international organizations, NGOs, and civil society groups.
- Assessment of LAC Risk Management Curricula, Phase IV and Phase V: Phase IV of this program focused on strengthening successful disaster, emergency, or risk management programs in higher education institutions in the LAC region and making each program more sustainable through the provision of scholarships, faculty and student exchanges, and public and private sector internships. In addition, six universities in the LAC region received small grants to carry out community DRR projects. During Phase V, which began in July 2009, FIU is working to create three-year scholarships for disaster management and is establishing Bell Centers at several universities in the region.

- Partners Enhancing Resilience to People Exposed to Risks-Universities (Periperi-U): To meet the increasing demands for skilled professionals to reduce and manage disaster risks in Africa, USAID/OFDA has supported the Periperi U program since FY 2006. Periperi U aims to strengthen the capacity of 10 African universities in disaster-related scholarship and practice. The Periperi U network currently includes universities in Algeria, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Senegal, South Africa, Tanzania, and Uganda.
- Policy Change and School-Based Risk Management and Mitigation in Honduras: In FY 2008, USAID/OFDA funded World Vision to extend the use of the Risk Management Methodological Guide and conduct training and community disaster mitigation activities in Honduras. In addition, World Vision implemented a pilot project in five communities, enabling participating Municipal Emergency Committees to develop community-driven risk mitigation strategies and initiatives through the provision of small sub-grants and additional training.
- DRR Activities in Honduras: With USAID/OFDA funding, GOAL identified and documented traditional practices of disaster preparedness, prevention, mitigation, and response in 13 Miskito and Garifuna communities located in disaster-prone areas in Gracias a Dios Department in Honduras. At program completion, GOAL used the findings of the study to design a comprehensive program to strengthen disaster coping strategies in vulnerable indigenous communities.
- Risk Management in El Salvador: The Centro de Protección de Desastres has worked to strengthen risk mitigation and disaster management knowledge and capacities in communities located near the Ilamatepec Volcano in El Salvador. In coordination with local authorities, the program promoted the formation of school, municipal, and community civil protection commissions; the development of action plans and risk maps; and the identification of evacuation routes, drills, and shelters.
- School and Community-Based DRR in the Philippines: With USAID/OFDA funding, Save the Children/Philippines (SC/Philippines) is providing training to local government units and teachers in disaster preparedness and conducting preparedness activities focused on children in the Bicol region, which is highly vulnerable to volcanoes and typhoons.
- Strengthening Peri-Urban Risk Reduction in Zambia (SPURRZ): In FY 2009, USAID/OFDA supported CARE's efforts to reduce flood hazard risks among peri-urban populations living in Kanyama settlement in Lusaka through community-led DRR programming. Project activities included drainage construction, canal clearing, garbage removal, managing floods and epidemics, and developing DRR-sensitive municipal development plans.
- Tufts University Livestock and Livelihoods, Phase II: Along with international experts and local stakeholders, Tufts University livestock specialists produced the "Livestock Emergency Guidelines and Standards (LEGS)," an internationally accepted set of standards modeled after the Sphere standards. The guidelines, supported by USAID/OFDA and other international donors, address livestock issues in various emergency situations. USAID/OFDA partner organizations are currently using the guidelines in the development of new programs, and the LEGS development group is promoting courses for training of trainers worldwide.
- Building Resilience in the Dominican Republic: USAID/OFDA is supporting Plan USA to strengthen the disaster management capacity of seven communities in hurricane-affected Azua Province through the integration of DRR activities into long-term development programs. Plan USA is also collaborating with government and Civil Defense officials to develop an early warning system to increase the effectiveness of future alert and evacuation procedures.
- Institutionalizing Technologies for Safer Housing Reconstruction in Peru: In September 2009, USAID/OFDA funded CARE to improve rural families' access to safe, earthquake-resistant housing in Chincha Province, Peru—an area that sustained major damage during an earthquake in August 2007. Building on a pilot project, CARE is developing self-help housing construction models using a variety of materials available at a low cost.
- Kabul Capacity-Building Program: USAID/OFDA has supported Shelter for Life (SFL) to build the urban recovery capacity of Kabul Municipality through technology transfer and technical assistance. USAID/OFDA also funds the International Organization for Migration (IOM) in support of a full-time urban planning advisor who works directly with Kabul Municipality officials and staff on urban planning and humanitarian issues.
- Strengthening Food Security and Market Analysis in West Africa: USAID/OFDA has provided support to the U.N. World Food Program (WFP) to conduct a baseline assessment of regional markets in the Western Basin of West Africa,

including the Gambia, Guinea, Guinea-Bissau, Senegal, and Mauritania, to better understand trade routes and trader behaviors and improve food security analysis. WFP will also conduct market analysis training to promote best practices at the national level to assist governmental organizations and NGOs to improve analytical capacity.

- Getting Fuel on the Map: With USAID/OFDA support, the Women’s Commission for Refugee Women and Children promotes a coordinated strategy for fuel needs in disaster settings to reduce the impact on the environment, as well as the number of attacks on women and children collecting fuel.
- Tulane Disaster Resilience Leadership Academy: USAID/OFDA supports the Tulane Disaster Resilience Leadership Academy, the first university program in the United States to offer training through the doctoral level in international disaster management.
- Incorporating Gender Issues into DRR: In FY 2009, USAID/OFDA provided assistance to IOM to support workshops in the LAC region focused on the incorporation of protection and gender issues into DRR planning and activities. IOM is conducting three workshops in 2010, designed to promote interaction and dialogue to ensure the comprehensive integration of humanitarian response, gender equality, and environmental analysis into DRR programming.
- Child-Focused Preparedness in Haiti: In August 2009, USAID/OFDA provided support to SC to increase the use of best practices in disaster preparedness, mitigation, and management among children, parents, and teachers associated with 20 schools in and around Gonaïves, the city most affected by hurricanes and tropical storms in 2008. SC is forming school emergency response teams to develop and implement school disaster preparedness plans and conduct hazard and vulnerability assessments.⁴
- Cholera Preparedness in Guinea: With USAID/OFDA support, Concern Universal is conducting cholera preparedness efforts by encouraging coordination between the health system and humanitarian organizations and focusing on WASH training and capacity building for local organizations.
- DRR Degree Program for Southern Africa: USAID/OFDA is supporting the development of a flexible, multi-sphere, and trans-disciplinary DRR formal degree program aimed at practitioners working in disaster management and related fields in southern Africa.

PRIORITY 4 – Reduce underlying risk factors.

- Reducing Food Insecurity: Many of USAID/OFDA’s programs aim to reduce food insecurity in countries around the world through strong hazard prevention and mitigation components intended 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.
- Community-Based Health Programs: USAID/OFDA also supports community-based approaches to prevent and manage common illnesses, including vaccinations, health education, and community-based treatment of diseases, such as malaria, pneumonia, diarrhea, and maternal and neonatal complications. USAID/OFDA partners provide families and community health providers with tools to meet essential health needs in the aftermath of a disaster.
- Drought Mitigation in Swaziland: International Relief and Development (IRD) is strengthening food security through a community-based drought mitigation program in Shiselweni and Lubombo districts in Swaziland. IRD has installed rooftop water harvesting systems at 14 primary schools located in the two districts and is supporting hygiene training for students, school committee members, and parents. IRD is also training nearly 700 farmers in conservation agriculture, a practice that promotes soil and water conservation and reduces losses during drought.
- Rehabilitation through Irrigation and Production Extension (RIPE II): Building on the successful implementation of the RIPE I program, USAID/OFDA is supporting Catholic Relief Services (CRS) to implement RIPE II. The program involves conducting irrigation activities to increase food production in the most vulnerable communities in Malawi.

⁴ Gonaïves city was not directly affected by the 2010 earthquake in Haiti. USAID/OFDA-supported activities in Haiti like this continue to help vulnerable populations prepare for and mitigate the impacts of the upcoming hurricane season.

- Drought Mitigation in Malawi: The USAID/OFDA-funded CARE program, initiated in 2009, extends the drought mitigation approaches developed under RIPE to three additional districts in Malawi. CARE prioritized the districts due to the terrain's suitability for small-scale irrigation approaches, the urgent need for conservation agriculture to prevent top soil loss, and the high number of localized crop failures resulting from both drought and flooding.
- Drought Preparedness in Southeast Asia: With USAID/OFDA support, CARE is implementing drought preparedness activities in Cambodia, East Timor, and Vietnam. These activities promote community-based drought preparedness planning, while also developing expertise in low-cost and innovative drought mitigation and preparedness technologies.
- Milk Matters Study in Ethiopia: In FY 2009, Tufts University and SC/US launched the second phase of USAID/OFDA-supported Milk Matters, a three-year study on milk in pastoralist communities in Somali Region, Ethiopia. The research team is evaluating milk interventions with the goal of designing food assistance that reflects the importance of milk and ultimately improves understanding of the causes of chronically high malnutrition rates in pastoralist areas to prioritize interventions.
- U.N. Food and Agriculture Organization (FAO) Livestock Disease Surveillance Project in Ethiopia: In FY 2009, USAID/OFDA supported FAO's efforts to strengthen livestock disease surveillance in Somali Region. The FAO program works to improve the capacity of public and private veterinary services through training community animal health workers on disease surveillance and treatment and facilitating greater information sharing on livestock diseases, availability of veterinary drugs and vaccines, rangeland conditions, and livestock migration patterns in Somali Region.
- FAO Root and Tuber Multiplication Project in Ethiopia: With USAID/OFDA support, FAO implemented a Root and Tuber Multiplication project in Oromiya and Southern Nations, Nationalities, and Peoples Region, Ethiopia. FAO is working to increase access for area farmers to high-yield, drought-tolerant, and disease-resistant root and tuber crops and planting materials.
- Emergency Nutrition Network (ENN): In FY 2009, USAID/OFDA supported ENN's efforts to improve supplementary feeding program (SFP) accountability and effectiveness through a series of working groups. Participants drafted comprehensive SFP reporting standards and helped improve understanding of reasons for beneficiary dropout. USAID/OFDA also provided funding to ENN for the creation of an online forum allowing field nutritionists to rapidly seek and offer technical advice.
- International Institute of Tropical Agriculture (IITA): In partnership with USAID/OFDA, IITA has supported increased access to and availability of disease-free cassava cuttings and cassava mosaic disease-resistant planting stock, as well as dissemination of information to farmers to combat the disease. With USAID/OFDA support, IITA is implementing programs throughout East and Central Africa.
- Kabul Seismic Awareness Program: With USAID/OFDA support, SFL is working to develop seismic-mitigation infrastructure in several target communities and train construction teams to use cost-effective, seismic-resistant materials and building designs. Through trainings, demonstrations, media messaging, and mock drills, the program improves seismic awareness and preparedness for nearly 1 million people in Kabul.
- 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 FAO 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.
- Pesticide Risk Reduction through Stewardship Networking: USAID/OFDA also continues to support relevant national ministries to develop a pesticide stewardship network and training program to coordinate and promote the appropriate use, handling, and management of pesticides in developing countries. The stewardship network engages governments, public interest groups, development partners, the private sector, and other stakeholders in the implementation of safe pesticide use strategies to reduce human health risks and environmental pollution.

- Drought Preparedness in India and Pakistan: With USAID/OFDA support, CRS is working to improve drought resilience among communities in Rajasthan, India, and Sindh, Pakistan. Through this program, drought-vulnerable communities are 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 to improve resilience to drought.
- Kabul Area Shelter and Settlements Project (KASS) Project, Phase II: In response to a rapid increase in Kabul's population and significant seismic risks, USAID/OFDA NGO partners provided seismic-resistant shelter and service upgrades through the KASS project in 2006. Since FY 2008, USAID/OFDA has provided funding to implement Phase II of the project, which aims to provide 10,000 vulnerable households with seismic-resistant structures and a total of 82,000 people with upgraded services and income-generation opportunities.
- Jalalabad Area Shelter and Settlements Program: Recognizing growing similarities between Kabul and Jalalabad, USAID/OFDA also funded CHF International to begin implementing an integrated shelter and settlements project—much like KASS—in Jalalabad. The program also features seismic-resistant shelter construction.
- Private Sector Engagement in Disaster Assistance in China: In FY 2007, USAID/OFDA supported 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 second phase of the program engages more Chinese businesses in disaster preparedness and management initiatives and expands preparedness activities to additional communities.
- Earthquake Recovery and Rural Housing Rehabilitation in China: USAID/OFDA is also supporting TAF to promote safe rehabilitation of rural shelters and to improve disaster preparedness and mitigation in schools and communities in earthquake-affected areas of Sichuan Province.
- Private Sector Partnerships in India: USAID/OFDA is supporting Project Concern International to increase private sector participation in disaster mitigation, preparedness, and response in India, focusing on 20 districts in Bihar—the poorest and most flood-prone state in India. The project focuses on training representatives from large private sector firms, universities, national and state government agencies, and local NGOs in disaster risk management.
- Private Sector Role in DRR in Indonesia: With USAID/OFDA support, Mercy Corps is working to better prepare communities, local governments, and private sector actors in West Sumatra and Benklulu provinces to collaborate to mitigate and respond to natural disasters. Mercy Corps is establishing district-level working groups focusing on disaster preparedness and conducting participatory hazard mapping, preparedness surveys, and activities to raise awareness in local schools and communities.
- Promoting Household-Level Food Security in Africa: To facilitate improved post-harvest storage in Burkina Faso and Ethiopia, USAID/OFDA supported CRS, GOAL, and Mercy Corps in FY 2009 for the creation of household-level seed and grain storage units. The interventions aim to identify and scale up successful traditional storage models, identify improvements on traditional models and field test these improvements with local farmers, or introduce a new model for field testing for effectiveness and acceptability to farmers.
- 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.
- Caribbean Hurricane Hazard Maps: In FY 2007, USAID/OFDA supported the Pan American Health Organization (PAHO) to develop wind hazard maps for the Caribbean basin. In collaboration with the U.N. International Strategy for Disaster Reduction, the Caribbean Division of the Institution of Structural Engineers, the Council of Caribbean Engineering Organizations, the Caribbean Development Bank, and other agencies, PAHO incorporated more than 20 years of the region's data into maps to improve the quality of existing wind hazard information.

- Development of Zambezi River Basin Atlas: With USAID/OFDA support, FEWS NET is developing an atlas of the Zambezi River Basin, including livelihood baseline data, maps, graphs, and a variety of food security-related analysis of the Basin's livelihoods and coping strategies.
- Drought Vulnerabilities in Swaziland: In southern Swaziland, IRD is working to reduce drought vulnerability through a combination of agriculture activities and livestock management and water provision interventions, as well as introduction of water management schemes to enhance the sustainability of water supply activities.
- WASH Initiatives in Kenya: In FY 2009, USAID/OFDA funded Welthungerhilfe to work with local communities in arid and semi-arid regions of Kenya to harvest and store rainwater for use during drought emergencies. Rock catchments and water storage tanks constructed through the project provide a steady supply of water when local rivers have dried up, ensuring continuing water availability in rural communities during extended periods without rain.
- Integrated Water Management and Crop Diversification in Southern Zambia: Implemented by Africare, this project focuses on building resilience to external shocks and improving food security for smallholder farmers in two drought-prone districts in southern Zambia. The project promotes sustainable water management techniques and technologies, encourages crop diversification, expands seed multiplication for open-pollinated varieties, encourages the use of drip irrigation and treadle pumps, and introduces goat production.
- Mountain Integrated Conservation Agriculture: CARE and CRS are jointly working to strengthen rural mountain livelihoods in Lesotho by combining the promotion of conservation agriculture techniques with improved access to markets and improved seed varieties and fertilizers, as well as training community farmer groups in project planning, management, and marketing to enable communities to effectively manage natural resources and surplus production.
- Lesotho Irrigation Project II (LIP II): The LIP II intervention focuses on gravity-fed irrigation of field crops and homestead gardens. The project is establishing new irrigation schemes to complement other ongoing agriculture and food security projects while expanding and enhancing current LIP sites to improve community access to water for irrigation. The project is implemented through a consortium of CRS, World Vision, and CARE.
- Multi-Use Water Source Development in Southern Madagascar: With USAID/OFDA support, CRS is implementing a project in southern Madagascar to promote drought mitigation measures through multi-use water source development for both agriculture and consumption. The program is accompanied by intensive community education on basic hygiene practices and home vegetable gardening supported by small-scale irrigation systems.
- The River Value Program: IRD is working with communities in Mozambique to utilize opportunities created by floods. The River Value program is working with local disaster risk management committees to increase production of staple post-flood crops and cash crops, increase access to clean water, and promote hygiene and sanitation.
- Drought and Cyclone Vulnerabilities in Southern Mozambique: With USAID/OFDA support, IRD is working to reduce household drought and cyclone vulnerabilities in three districts of Inhambane Province. Activities increase the production of drought-resistant crops such as sorghum, cassava, and legumes; increase market linkages; and promote the establishment of other income-generating activities, including apiculture and marketing of oil seeds. IRD will also work with vulnerable communities to establish cyclone early warning systems.
- Agriculture and Food Security in the Democratic Republic of the Congo (DRC): In North and South Kivu provinces in DRC, USAID/OFDA has supported Action Against Hunger (AAH) interventions against banana wilt disease, which diminished livelihoods by destroying an important cash crop. In addition to assisting farmers whose crops were already affected, AAH trained farmers' groups in techniques to reduce the likelihood and effects of future outbreaks.
- Strengthening Capacity in the Hindu Kush-Himalayas: USAID/OFDA has implemented activities to build and strengthen the capacity of communities, community organizations, and national partners to reduce the risk of flash flood disasters in the Hindu Kush-Himalaya region, including China, India, Nepal, Pakistan, and other countries. The project also aims to increase understanding of the physical and socioeconomic dimension of flash floods in the target areas, enhance and encourage transboundary coordination, and share lessons learned in the Himalaya region.
- Program for Hydrometeorological Risk Mitigation in Asian Cities (PROMISE): PROMISE promotes disaster preparedness through demonstration projects in six hydrometeorological disaster-affected urban areas: Chittagong,

Bangladesh; Hyderabad, Pakistan; Dagupan City, the Philippines; Kalutara, Sri Lanka; Da Nang, Vietnam; and Jakarta, Indonesia. In the target cities, the Asian Disaster Preparedness Center (ADPC) has facilitated preparedness and mitigation action planning workshops, conducted hazard mapping and vulnerability assessments, and established community-based early warning mechanisms. Additional programming included implementing training and capacity building for risk-based urban land use planning, piloting community-based flood forecasting and warning systems, developing city-level disaster management information systems and public awareness and advocacy campaigns, and assisting micro-credit enterprises to improve resistance of houses to disasters.

- Increasing Resilience in Mozambique: With USAID/OFDA support, World Vision is working to reduce the vulnerability of households and communities to recurrent climate and weather-induced disasters and increase resilience against poor harvests in Mozambique.
- Drought Mitigation in Mozambique: World Vision is also working in Gaza Province to help mitigate food insecurity and Vitamin A deficiency in drought-affected communities. World Vision is working with the affected communities to promote the cultivation and consumption of high yielding, drought-tolerant, and Vitamin A-rich sweet potato varieties.
- DRR in Rural Afghanistan: In FY 2009, USAID/OFDA funded partner FOCUS to implement community-based DRR programs in 30 of the most hazard-prone villages in Badakhshan and Baghlan provinces. FOCUS works with local councils and first responders to institute DRR measures, such as fortified river banks and other structural improvements, and enhance preparedness and response mechanisms through trainings and materials transfer.

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

- Avian Influenza (AI) and Pandemic Influenza Preparedness: In FY 2006, USAID designated USAID/OFDA to help establish the U.S. Government Interagency AI International Stockpile. USAID/OFDA subsequently developed and procured the required commodities—including personal protective equipment (PPE), disinfectant, and rapid field diagnostic supplies—for three standardized kits containing essential items needed to support infectious disease field outbreak investigation and disease control. In FY 2009, USAID/OFDA continued to support the stockpile by providing more than \$1.3 million through USAID/GH for the purchase of PPE units for the stockpile.
- Tri-Lateral Commodity Stockpile: In December 2008, USAID/OFDA, the Government of Mexico, and the Canadian International Development Agency (CIDA) entered into an agreement with the IFRC Pan American Disaster Response Unit (PADRU) to support a stockpile of emergency relief supplies for the LAC region. Through the initiative—the first of its kind—commodities valued at \$1 million have been pre-positioned in Panama. The stockpile will improve IFRC's response efforts in the LAC region, allowing PADRU to rapidly deliver emergency supplies to populations in need. PADRU supports approximately 35 National Red Cross Societies and 16 overseas branches in the LAC region.
- American Red Cross (AmRC) Readiness to Respond - Phases I and II: In FY 2008, USAID/OFDA funded AmRC to support increased disaster preparedness capacity in the Caribbean. The program provided training benefitting as many as 10,000 individuals in 10 vulnerable communities in Guyana, St. Lucia, and Trinidad and Tobago in coordination with the Guyana Red Cross Society, IFRC, and host governments. In September 2009, USAID/OFDA supported AmRC to implement Phase II, focusing on Antigua and Barbuda, the Bahamas, Haiti, St. Kitts and Nevis, and St. Lucia. Phase II is designed to compliment the Caribbean Disaster Management Strategy and serve as a tool for benchmarking and measuring progress of countries in the LAC region.
- Protection Surge Capacity Program (PROCAP): Through the U.N. Office for the Coordination of Humanitarian Affairs (OCHA), USAID/OFDA continues to support 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), 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 the 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 the LAC region 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 more than 53,700 participants and certified 5,430 instructors in 32 countries.
- Emergency Prevention and Response in Panama: In response to frequent floods and landslides, USAID/OFDA supported the Fundación para el Desarrollo Integral Comunitario y Conservación de los Ecosistemas de Panamá to strengthen community prevention and response capacities in Chiriquí Province, Panama.
- Response and Risk Management in Haiti: In August 2009, USAID/OFDA funded PADF to enhance Haiti's community level disaster preparedness capacity. PADF is building on previous and ongoing activities in Artibonite Department, reinforcing the capacities of civil protection officials, developing and updating local risk maps, conducting disaster drills, and supporting local and national government officials in risk mitigation projects.⁵
- Urban Community DRR in Jamaica: With USAID/OFDA funding, CRS is working to increase the awareness and response capacity of vulnerable populations in Jamaica through the establishment of emergency action committees (EACs) among young adults. The EACs are undertaking a series of community improvement activities designed to reduce risk, including gutter and street cleanup and house repairs.
- U.N. Humanitarian Response Depot (UNHRD): Through WFP, USAID/OFDA supported the UNHRD system, a network of warehouses in strategic locations worldwide. The network provides storage, logistics support, and services to U.N. humanitarian agencies, international humanitarian organizations, governmental organizations, and NGOs—reinforcing capacity for humanitarian emergency response.
- Strengthening Emergency Preparedness and Response in Indonesia: International Medical Corps (IMC) is promoting technical, administrative, financial, and logistical capabilities of Ambulan 118, a leading Indonesian NGO, to respond rapidly and effectively to disasters in Indonesia. In addition, Ambulan 118 and IMC have pre-positioned medical and non-medical equipment and supplies. Through this project, medical teams from Ambulan 118 and IMC provided emergency medical care during disasters including the March and September 2007 Sumatra earthquakes, the January 2007 Jakarta flooding, and the May 2006 Yogyakarta earthquake.
- Indonesia Mobile Water Treatment Units: As part of ongoing disaster preparedness programming in Indonesia, USAID/OFDA provided six high-capacity mobile water treatment units to USAID implementing partners for use in future humanitarian emergencies. Safe drinking water is often a critical need in the immediate aftermath of a disaster.
- Conflict Preparedness in Mindanao, Philippines: Implemented by SC/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 program 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. The second phase supports returning IDPs through livelihood interventions and other assistance.
- Flood Preparedness in Bangladesh: The Emergency Working Group (EWG) of Cooperative Sponsors, consisting of SC/US, World Vision, and CARE, works to improve emergency response to floods in Bangladesh, as well as reduce the incidence of health problems associated with disasters. The EWG promotes coordination between communities and local authorities and maintains mobile water purification plants, zodiac boats, and a mobile health unit. The EWG used USAID/OFDA pre-positioned equipment and materials to support Cyclone Alia response efforts in May 2009.
- Emergency Health Preparedness in LAC: Since 1998, USAID/OFDA has supported PAHO to promote improved disaster preparedness and response in the health sector, including increasing the capacity of health professionals and improving advocacy, technical information services, and human resources training in health, environment, and related

⁵ Artibonite Department was not directly affected by the 2010 earthquake in Haiti. USAID/OFDA-supported activities in Haiti like this continue to help vulnerable populations prepare for and mitigate the impacts of the upcoming hurricane season.

sectors. PAHO is also working to increase health preparedness capacity through advocacy and technical support to update or improve health policy and legislation, in addition to partner organization and MoH staff training.

- Annual Disaster Management Conference: In cooperation with CIDA, USAID/OFDA provided funds to support the CDEMA three-day third annual Disaster Management Conference, held in December 2008 in Barbados. The conference provided an opportunity for disaster management professionals to share ideas and experiences to improve DRR and response in the region.
- DRR in the Dominican Republic: In FY 2009, USAID/OFDA provided funding to CRS to strengthen and establish Emergency Preparedness and Response Committees to provide guidance in the development of community-level disaster management plans in Azua Province. The program also includes mitigation activities, such as canal clearing in flood-prone areas.
- Improving Capacity in Guatemala: In FY 2009, USAID/OFDA provided funds to SHARE Guatemala for DRR training to improve municipal and local capacities for coordinated risk management and disaster response. Activities associated with the program focus on improving coordination between national and local stakeholders.
- Promoting Community-Based Preparedness in Nepal: In FY 2009, USAID/OFDA supported SC/US to provide relief supplies to affected populations when disasters occur, repair and rehabilitate community water and sanitation facilities, and improve hygiene and sanitation practices.
- Preparedness in Rural Afghan Communities: In FY 2009, IOM and the Agency for Technical Cooperation and Development replenished emergency relief supply stocks in 10 provinces in Afghanistan following spring floods, and partner FOCUS repositioned nine new stockpiles in flood-prone areas of the north and northeast. To augment local preparedness efforts in Kunduz and Jawzjan provinces, IOM also procured sandbags to reinforce river banks.
- Cholera Response Plan for Guinea and Guinea-Bissau: USAID/OFDA is supporting UNICEF to develop an integrated, evidence-based, sub-regional cholera response plan for Guinea and Guinea Bissau. The project will conduct field research to improve targeting of cholera response, build the capacity of the coordinating institutions, and develop a plan for effective emergency response activities.
- Community-Based Disaster and Natural Resource Management in Zambia: With USAID/OFDA funding, Concern is implementing a program to increase the capacity of local government and community structures to prevent, mitigate, and respond to the impacts of disasters in the Western Province of Zambia. The program also helps to protect rural household assets through community-based disaster management activities and improved household production.
- Strengthening Community Resilience in Ethiopia: In FY 2009, USAID/OFDA provided support for an innovative three-year program designed to protect vulnerable and food insecure households and increase community resilience for climatic shocks, such as drought, in Ethiopia. The initiative focuses on protecting, building, and diversifying household assets, and includes cash-for-work activities and mechanisms to improve access to microfinance systems. Programs promote efficient market-based businesses and diversified income sources.
- Tearfund Global DRR Initiatives: In FY 2009, USAID/OFDA supported DRR research and capacity building activities through NGO partner Tearfund in approximately 40 countries. Program activities aimed to increase community and government awareness of hazards and build capacity to prepare for, respond to, and recover from disasters.