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Earthquake Preparedness

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Subcommittee on State, Local, and Private Sector Preparedness and Integration
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Chairman Pryor, Ranking Member Ensign, and members of the committee, I appreciate your inviting me to testify today on earthquake preparedness. I will address the U.S. Agency for International Development's (USAID) efforts to respond to the earthquakes in Haiti and Chile earlier this year, reflect briefly on our assistance in the aftermath of Hurricane Katrina, and also discuss the structures in place in the host countries that aided or hindered our response.

Haiti Overview

On January 12, 2010, at 1653 hours local time, a magnitude 7.0 earthquake struck southern Haiti. According to the U.S. Geological Survey (USGS), the earthquake's epicenter was located 10 miles southwest of the capital Port-au-Prince, West Department. The earthquake killed an estimated 230,000 people and affected approximately 3 million others, according to the Government of Haiti.

In the immediate aftermath of the earthquake in Haiti, President Obama designated USAID Administrator Rajiv Shah as the Unified Disaster Coordinator and assured there would be a swift, aggressive and coordinated U.S. Government relief effort. In less than 24 hours, USAID's Disaster Assistance Response Team (DART) was on the ground and working to coordinate the U.S. response effort.

Factors including the vast scale of destruction and Haiti's close proximity to the United States led to an unprecedented whole-of-government response from the United States. As the U.S. Government agency responsible for international disaster assistance, USAID coordinated the efforts of many federal government agencies including the Departments of State, Defense, Homeland Security, and Health and Human Services. We worked collaboratively with the Government of Haiti and other donor governments, the United Nations, international organizations, non-governmental organizations (NGOs), the private sector, and with thousands of generous and concerned individuals.

During the months following the earthquake, humanitarian efforts met the immediate needs of earthquake-affected populations, through search and rescue and the provision of safe drinking water, food, household items, emergency shelter assistance, and health care. USAID continues to work closely with other U.S. Government agencies, the Government of Haiti, international organizations, the United Nations, and nearly 35 NGOs to coordinate ongoing efforts and to facilitate the transition from

emergency relief activities to recovery operations, while preparing to respond to the potential for further deterioration in humanitarian conditions during the rainy and hurricane seasons.

The devastation of the earthquake in Haiti was great. The Haitian government systems that might have otherwise been in place to help manage a response were destroyed in the earthquake. Most of the municipal buildings in Port-au-Prince were severely damaged. The country was left without electricity or phone service, and the airport and ports in Port-au-Prince were non-functional. Everyone working in Haiti – including international aid organizations – lost staff, buildings, supplies and vehicles in the quake. This includes the United Nations, which lost more than 80 staff including the UN Special Representative and his deputy.

And even before the earthquake struck Haiti, the country faced countless problems. It is the poorest country in the Western Hemisphere with 80 percent of the population living under the poverty line and 54 percent in abject poverty. Most Haitians rely on remittances as their source of income, and many do not have reliable access to potable water.

Because of the catastrophic nature of the quake, the urban setting and the fact that the Haitian government and relief agencies in Haiti were themselves debilitated, the relief coordination system under the United Nations took additional time to assemble. However, once the U.N. cluster system – the post-disaster mechanism that provides strategic field-level coordination and prioritization in specific sectors such as health, shelter and food – was fully operational, the relief community was able to better coordinate efforts and more efficiently get aid to those in need.

To date, the U.S. Government has provided nearly \$1.14 billion to assist the people of Haiti in the aftermath of the earthquake. Within two weeks of the earthquake, USAID had provided an unprecedented \$254 million for search and rescue efforts and rapid distribution of food and other much-needed humanitarian assistance. At the height of our emergency response efforts, USAID had 545 Disaster Assistance Response Team, or DART, members in Haiti, including 511 urban search and rescue (USAR) personnel. This is in addition to the approximately 20,000 military and civilian personnel – such as our colleagues from the Federal Emergency Management Agency (FEMA) – that were deployed by the U.S. Government to aid in the relief effort.

The DART was composed of experienced international emergency humanitarian aid experts with technical knowledge in areas such as shelter, health, logistics, water and sanitation and hygiene. The DART was deployed by USAID as a self-sufficient body with enough food and water for ten days to ensure full support to field operations and not hamper the operations of the U.S. Embassy. The DART was fully equipped with computer and telecommunications equipment, such as satellite phones, portable satellite broadband terminals, secure wireless routers, and handheld radios and repeaters. The DART provided a satellite phone and communications technician to assist the staff of Haiti's President and Prime Minister immediately after the earthquake when local capabilities had been destroyed.

The search and rescue teams ended their operations on January 23rd and the DART stood down on April 28th, but humanitarian operations continue as unmet emergency needs are identified and the operation transitions to recovery and reconstruction.

Chile Overview

Less than two months after the earthquake in Haiti, at 0334 hours local time on February 27, a magnitude 8.8 earthquake struck near the coast of Maule Region in south-central Chile. According to the U.S. Geological Survey, the earthquake's epicenter was located offshore, 70 miles northeast of Concepción and approximately 200 miles southwest of Santiago, Chile's capital. The initial earthquake was followed by nearly 100 aftershocks measuring magnitude 5.0 or greater and a tsunami.

The United States immediately offered humanitarian assistance to Chile. Unlike many countries, Chile has the governmental capabilities and resources to respond in the aftermath of a disaster. Because of its long history with earthquakes and the resulting preparedness measures—including establishing rigorous building codes—the damage caused by the temblor was not as dire as one might expect in

the aftermath of one of the largest earthquakes in a century. In fact, there were less than 500 deaths, with 79 people reported missing.

With strong government and institutional capabilities, Chile did not request or need a vast amount of international assistance, and the Chilean government appealed to the international community for aid only after its initial assessments. The United States was asked to provide specific assistance that included the provision of satellite phones for use by the Government of Chile until communications networks were reestablished, support for the International Federation of Red Cross and Red Crescent Societies emergency appeal, funding to support the deployment of a U.S. Department of Defense Expeditionary Medical Support unit to affected areas, and the provision and transport of mobile water treatment units and rolls of plastic sheeting from the USAID warehouse in Miami, Florida.

The Government of Chile's National Office of Emergencies and Information, known by the acronym ONEMI, was coordinating the relief effort. Chilean officials met with United Nations agencies and donors, including USAID, to establish a clear plan for international assistance. USAID has worked with ONEMI for years on disaster mitigation and preparedness programs, and this pre-established relationship allowed USAID to quickly meet the Government of Chile's immediate relief needs and their longer-term disaster response plan. In addition, USAID has sponsored training for and provided equipment to Chilean search and rescue personnel over the years, which meant that local first responders were better equipped to respond in the aftermath of the February 2010 quake. The Chilean USAR team was also deployed to Haiti, where they worked alongside the U.S. teams to rescue those trapped in the rubble of Port-au-Prince.

In total, the U.S. Government provided approximately \$9.3 million in the aftermath of the Chilean earthquake. At the height of the response, the USAID DART for Chile comprised 16 disaster response experts, including a communications expert and a logistician to facilitate the rapid deployment of relief items. As in the case of any international DART deployment, the team arrived self-sufficient and equipped with computers and telecommunications equipment. As a result of a highly functional government with much experience in disaster preparedness, mitigation and response, the DART was able to stand down on March 23rd after less than one month of activation.

Hurricane Katrina

As the agency responsible for international disaster assistance, USAID does not normally engage in domestic disasters. Given the severity of the situation after Hurricane Katrina made landfall, however, USAID was called upon to assist FEMA in responding to the disaster. In support of FEMA's National Response Plan, which was in place at the time, USAID's Office of U.S. Foreign Disaster assistance helped coordinate offers of international assistance from over 80 countries.

To support FEMA's relief operations, USAID deployed a DART and stood up a Washington, DC-based Response Management Team. We had personnel serving as liaison officers at locations including the Department of Defense's Northern Command, FEMA headquarters, and the State Department Task Force. We also had field personnel in New Orleans, Baton Rouge, and Shreveport, Louisiana; Little Rock, Arkansas; and Mississippi, Alabama, and Georgia. The United Nations seconded personnel to USAID as well.

USAID field personnel worked to monitor and establish systems for receipt and delivery of relief supplies from international donors. USAID teams helped better identify immediate needs based on accurate stock reports of commodities supplied by the international community. This helped establish an effective supply "pull" system. Items received from the international community included, non-perishable food, generators, school supplies, shelter materials, emergency personnel, telecommunications equipment, and assorted relief commodities.

Prevention and Preparedness

It is important to note that USAID's Office of U.S. Foreign Disaster Assistance is not just focused on responding to disasters. In addition to disaster response activities, USAID is increasingly investing in programs designed to prepare for and mitigate both natural disasters and complex emergencies.

Recognizing vulnerabilities in the Latin America and Caribbean (LAC) region, USAID supports programs including risk identification, prioritization, and reduction, as well as post-disaster recovery and short-term rehabilitation projects. In the LAC region, USAID promotes local and national self-sufficiency in disaster preparedness and management. Our programs build upon and strengthen the capacity of established national and regional disaster management institutions, many of which already have the ability to meet most emergency needs after an event.

USAID has been working to strengthen USAR capacities in Haiti since the November 2008 collapse of a primary school in Port-au-Prince that resulted in the deaths of 100 people, mostly children. In the aftermath of the school collapse, USAID deployed the Fairfax County USAR team to assist Haitian firefighters and other rescue workers. In 2009, USAID deployed an assessment team composed of USAID disaster response professionals and USAR specialists from Fairfax County to Haiti for 10 days to help develop a USAR program support strategy. The team met with local authorities and technical specialists, as well as visiting fire services in five cities. With that visit, the Government of Haiti agreed to create a working group to develop a national USAR strategy and policy directions.

After the January 2010 earthquake, the USAID provided urban search and rescue training to twenty-five volunteer first responders in Haiti. USAR experts from Fairfax County, Virginia, and Los Angeles County, California, trained the all-volunteer first responders from fire departments throughout the West Department.

The USAID-sponsored training helped build the skills needed to locate and extricate trapped victims, focusing on the proper use of the search and rescue equipment donated by the USAR teams from Los Angeles and Fairfax counties to the Haitian Volunteer Firefighters Association in February 2010. The equipment, worth an estimated \$500,000, was used by the USAR teams deployed by USAID to help rescue 47 Haitians trapped under rubble after the major earthquake in Haiti on January 12.

In addition to building partnerships with national emergency response agencies, USAID frequently implements activities in conjunction with regional or technical organizations, such as the U.S. Geological Survey, the Pan American Health Organization (PAHO), and other offices within USAID.

For example, USAID has provided \$12.6 million to PAHO since 1998 in support of efforts to promote improved disaster preparedness and response in the health sector in Latin America. With USAID funding, PAHO has worked to increase preparedness capacity in the health sector through advocacy and technical support to update or improve health policy and legislation, in addition to continuous training of partner organization staff and Ministry of Health personnel. PAHO also works with local and national government counterparts to ensure that health facilities throughout the region have the capacity to operate during and immediately after disasters.

Relevant Lessons Learned

As the emergency phase begins to transition to early recovery and reconstruction, USAID conducts after action reviews to identify best practices and lessons learned from the disaster response. Many times, there are internal USAID after actions as well as interagency after action reviews conducted. USAID is currently leading an interagency Haiti response lessons learned process that began just four months after the earthquake, even as the response was still ongoing. USAID continues to identify lessons learned and is moving forward to quickly address issues to improve international disaster response.

In the context of the whole-of-government response to major disasters abroad, the engagement of multiple chains of command within the U.S. Government response points to the need for an international disaster response framework to better manage catastrophic events. This framework would help establish clear protocols as well as budgetary provisions for expanding response capacity when needed.

All teams deployed to an international disaster by the U.S. Government should arrive on the scene self-sufficient. The teams should have passports, adequate medical treatment prior to departure, and enough food and water to sustain a ten-day deployment. If the team is an urban search and rescue

team, it should be classified by the United Nations International Search and Rescue Advisory Group prior to deployment in an international response.

The United States responses in Haiti and Chile made it clear that there is a need for better data management, validation and sharing across agencies. Robust data and information will better determine specific resource needs, allowing the field to 'pull' additional resources rather than having resources 'pushed' based upon assumptions made in Washington.

The American people and businesses are very generous, and they want to help in the wake of a disaster. One of the issues we always confront during an international disaster is that of proper donations management and vetting of offers of in-kind assistance. The U.S. Government's position is and should remain that the most needed and efficient way of helping those impacted by disaster is to donate money to a reputable organization working in the affected area. When private sector in-kind donations are made, they should be fully coordinated and facilitated through non-governmental organizations already working on the ground.

As for the main lesson learned from USAID's involvement in the aftermath of Hurricane Katrina, we worked with FEMA and our interagency colleagues including the Department of State to assure there is a system in place to expeditiously vet offers of foreign government assistance in the aftermath of a domestic disaster. This International Assistance System includes a concept of operations to accept, allocate, disburse and track internationally donated in-kind relief supplies.

Conclusion

Good governance cannot prevent a catastrophic disaster, but it can help prepare for and respond to one. Although the Chilean quake was some 500 times greater than the January 2010 Haitian quake, Chile's urban centers of Concepcion and Santiago experienced severe shaking that was much less than the violent shaking experienced in Port-au-Prince. More intense shaking in more densely populated areas with weak building codes and enforcement coupled with limited preparedness and response capabilities helped contribute to Haitians facing significantly higher risk than Chileans.

Thank you for the opportunity to share with the committee the agency's experiences with responding to international disasters. I hope our experiences can help U.S. earthquake preparedness efforts.