

Disaster Assistance and Resilience Building

Enhancing the ability to reduce risks, mitigate, adapt to, and recover from disasters



USAID Assistant Administrator Nancy Lindborg with evacuees outside Tacloban airport. Evacuees are flown to Manila aboard military cargo planes that transport emergency supplies to Tacloban. Very few C-130s leave the airport empty. Photo courtesy: Carol Han, OFDA

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PROJECT BACKGROUND

The Philippines is one of the world's most disaster prone countries, particularly vulnerable to tropical cyclones and floods, earthquakes, landslides and volcanic eruptions. The country hosts about 300 volcanoes, of which 23 are considered active. On average the country experiences 20 tropical typhoons a year, which is the highest frequency in the world. The Philippines is situated between two major active fault lines and experiences a high level of seismic activity.

Natural disasters can easily wipe-out development gains in the country. In 2009 the losses during tropical storms Ondoy and Pepeng were estimated to be 2.7 percent of gross domestic product (GDP). In the last two decades, more than 25 thousand people lost their lives and the country suffered economic losses of more than \$14 billion. The year 2013 was also a devastating year for the Philippines. The Government of the Philippines (GPH) was overwhelmed with responding to the effects of 20 typhoons, displacement in Zamboanga City due to conflict and armed incidents, and a magnitude 7.2 earthquake in the Central Visayas. Typhoon Haiyan (Yolanda), one of the most powerful typhoons on record, made its landfall in the Eastern Visayas on November 8, 2013, causing unprecedented destruction and massive loss of human life in the Philippines.

DISASTER ASSISTANCE

The United States Government's (USG) disaster assistance funding for the last five years increased by 14-fold compared to the previous five-year period -- from \$11 million in FY 2005-FY 2009 to nearly \$166 million in FY 2010-FY 2014. Over the ten-year period, the USG has provided \$177 million, of which \$14 million was for disaster risk reduction activities.

In Typhoon Haiyan (Yolanda), the USG relief assistance totals almost \$91 million -- \$35 million in USAID Office of Foreign Disaster Assistance (OFDA) included assistance in shelter and settlements, water, sanitation and hygiene, logistics and relief goods, protection, economic recovery and market systems and humanitarian coordination; more than \$20 million in USAID Food for Peace (FFP) to provide emergency food assistance, prevent acute malnutrition among children and support resilience building; more than \$34.5 million from the Department of Defense (DoD); and \$1.2 million from USAID/Philippines.

The USG is working closely with the GPH, the private sector, local communities, and civil society to help rebuild typhoon-affected region. USAID will provide a team of technical experts to assist President Aquino's Office of the Presidential Assistant for Recovery and Rehabilitation to coordinate and implement the GPH recovery efforts in all affected areas. In addition, USAID will assist local government units to develop engineering and related recovery plans needed by the national government to release recovery funds to the affected municipalities.

DRR & RESILIENCE BUILDING

USAID's DRR and resilience building efforts reduces the impact of natural hazards, protects development gains and decreases the need for repeated humanitarian assistance in vulnerable areas.



U.S. Marine Capt. Joseph White (left) and Philippine army Pfc. Vic D. Victorlano carry U.S. Agency for International Development relief supplies from an MV-22 Osprey, Nov. 18, 2013. Photo by U.S. Marine Corps Capt. Caleb Eames



Automated Early Warning Systems were installed along with Automated Weather Stations (AWS). The AWS monitor a range of meteorological data, such as barometric pressure, rain fall, rain rate, temperature and humidity. (Photo: WFP Philippines)

USAID's technology-based initiatives reduce risks, increase the capacity of communities to adapt to climate change, and improve the socio-economic conditions of vulnerable populations exposed to the impacts of climate change. Through its DRR and resilience building efforts:

- USAID and the U.S. National Oceanic and Atmospheric Administration (NOAA) is assisting the Philippines Department of Science & Technology with storm surge modelling, training, and study visits to NOAA scientific centers.
- USAID partnered with Department of Science and Technology (DOST), Microsoft, and local governments to use TV White Space technology to register 1.3 million fisherfolk, giving give them access to GPH basic services and help conserve fisheries.
- USAID piloted the Rapid Assessment of City Emissions Tool in Batangas City to address increasing levels of emissions due to mounting urbanization. The tool, which uses maps and geographic systems, provides information on estimate energy use, building needs, transportation, and flood hazard scenarios to assist Batangas City develop more effective and sustainable local planning.
- In support of DOST's smarter agriculture program, USAID completed the vulnerability assessments in the Abuan Watershed and is developing 3-D flood and hydro-agronomic models to inform farmers of the impacts of climate change, including the implementation of early flood warning system for flood-prone communities
- To increase climate change resilience in Agusan del Sur, USAID developed multi-hazard maps and early-warning systems using Geographical Information System (GIS), established integrated risks information and a created database system.

USAID is assisting the Philippines improve its ability to respond to natural disasters and adapt to the impacts of climate change by installing Early Warning Systems in flood and landslide-prone communities, introducing mobile and web-based applications technology, and promoting digital literacy.

Activities include:

- In partnership with the University of the Philippines Baguio, USAID created the Knowledge Management and Training Resource Center, which allows disaster managers and ordinary citizens to access DRR information, including advice from technical experts using the website and mobile devices.
- Using GIS, open source mapping applications and climate data downloaded from DOST and the Consultative Group on International Agricultural Research, USAID developed multi-hazard maps, including areas prone to the impacts of climate change.
- USAID installed solar-powered, automated weather stations that use realtime climate data in several communities that are prone to floods and landslides.
- USAID trained disaster managers of the Department of Social Welfare and Development on logistics management using geo-tagging and other mobile applications.
- USAID supported the Philippines Institute of Volcanology and Seismology in monitoring active volcanoes throughout the country to develop hazard assessments and eruption simulation models.