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SUCCESS STORY

USAID Deploys Structural Engineers to Earthquake-Affected Ecuador

USAID deployed four structural engineers to Ecuador to assist the Government of Ecuador with damage assessments following the April 2016 earthquake.

Photo courtesy of Andres Salvador

USAID-sponsored structural engineers from the U.S. arrive in Manta.

The engineers worked with local authorities to inspect the structural integrity of hundreds of homes and businesses, as well as high-priority public buildings and infrastructure, helping affected communities recover more quickly from the impacts of the disaster.

Photo by Adam McBride, USAID

Fairfax County Fire and Rescue structural engineer Tom McLaughlin and USAID staff coordinate with local officials prior to inspecting buildings in Portoviejo.

In response to the magnitude 7.8 earthquake that struck Ecuador on April 16, 2016, USAID deployed four structural engineers to help the Government of Ecuador quickly assess earthquake-damaged buildings and infrastructure.

The USAID-sponsored engineers, who arrived in Ecuador's most populous city of Guayaquil on April 22, included two members of Los Angeles County Fire and Rescue, one member of Fairfax County Fire and Rescue, and one structural specialist from Bogotá, Colombia.

Together, the team met with Government of Ecuador officials to determine the greatest areas of need, identifying Ecuador's severely affected province of Manabí as a priority zone for assessments. Three engineers then traveled to Manabí, while one remained in Guayaquil to assist with inspections of buildings critical to the functioning of Ecuador's largest city.

"It was very important that we got in there and made sure that buildings were safe to occupy so that people could continue their work," shared Fairfax County Fire and Rescue structural engineer Tom McLaughlin.

The structural engineers coordinated with national and local government officials to conduct assessments in some of the hardest-hit areas along the coast of Ecuador, including Manta city, Pedernales town, Portoviejo city, and numerous remote villages, where communities faced the substantial challenge of assessing thousands of damaged homes, businesses, and other structures.

"When you have a disaster of this magnitude, you have to be organized," said McLaughlin. "This was a big event, and it was crucial that we coordinated with other teams on the ground so as not to duplicate efforts."

USAID's structural engineers teamed up with Ecuadorian structural engineers to assess more than 100 structures during their time in Ecuador, marking which were safe to re-enter, which needed repairs, and which would require demolition. The assessments also provided valuable information on the structural integrity of the Poza Honda dam, schools, hospitals, and other critical infrastructure.

Structural engineering assessments were just one aspect of the U.S. Government response in the aftermath of the earthquake in Ecuador. As of May 6, 2016, the U.S. Government had provided nearly $3 million in emergency assistance for the people of Ecuador.