



U.S. Army Corps of Engineers Institute for Water Resources

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<http://www.iwr.usace.army.mil>

For More Information:
+1 (703) 428-9090

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Debris Management Planning Underway in Bangladesh

DHAKA, Bangladesh. *On the horizon, smoke billows. The air is filled with dust, choking out the scene. Street arteries that once teemed with rickshaws and blaring horns have fallen silent. Moving closer, widespread fires have been extinguished. Helicopters soar over the ruination, buzzing the destruction at a hurried pace. A 7.5 magnitude earthquake has resulted in nearly 70,000 structures crumbling to the ground or slouched in an unsteady heap. Search and rescue experts have done everything they can to pull survivors from the wreckage. Unfortunately, many people have perished. Now, it is time to recover and commence the seemingly insurmountable task of removing, reusing and recycling nearly 800 million tons or more of debris. Standing idle will result in a lost city. Standing up and moving forward will result in a slow and arduous return to normalcy.*

Consequence management experts, scientists and disaster risk reduction specialists predict the aforementioned scene could occur in Dhaka if it is ever directly impacted by a large-scale earthquake. Various reports indicate the amount of fallen debris would paralyze the city, far exceeding any urban disaster the world has experienced.

One of the largest tasks that will be required following an event of this type will be debris management. What is the populace to do with fallen debris and rubble that clogs streets? How are partially collapsed buildings to be demolished? How are buildings that are left standing assessed for safety? Where is the debris to be taken? How can it be reused and recycled? How should it be sorted?

The Government of Bangladesh, led by the Ministry of Disaster Management & Relief (MoDM&R) and the Department of Disaster Management (DDM), is asking these questions. The U.S. Army Corps of Engineers (USACE), with its debris mission experience under Emergency Support Function #3 of the U.S. National Response Framework, is sharing its experience and lessons learned to assist Bangladesh with the development of a draft plan to manage post-disaster debris recovery.

USACE traveled to Dhaka July 14-18 and met with the Government of Bangladesh to commence efforts with the development of a draft debris mission framework. In partnership with MoDM&R and DDM, USACE spoke with various institutions and stakeholders to better understand how waste and construction debris is managed in the city, how debris management fits into national and local disaster response plans, and what resources are already in place to support debris removal, reuse and disposal. The team distributed questionnaires, held interviews with technical experts and managers, and shared debris planning processes and documentation.

"It's an honor to be selected for this effort, but it is a daunting task," said USACE Debris Specialist Bob Chitwood. "The amount of debris that would be generated by a major earthquake in the City of Dhaka, one of the most densely populated cities in the world, is staggering to me."

The week concluded with a formal Debris Management Workshop on July 18. Debris management presentations were delivered by representatives from USACE, DDM, Bangladesh Army, U.S. Agency for International Development's

(USAID's) Office of Foreign Disaster Assistance, and others. Lessons learned and best practices were shared, and draft post-earthquake debris management concepts for Dhaka were reviewed and discussed. The event concluded with statements by senior leadership, including Ambassador Dan Mozena, from the U.S. Embassy in Dhaka; Minister Abul Hassan Mahmood Ali and Secretary Mesbah ul Alam, both from MoDM&R.

"Restoring public health and safety is the top priority in the aftermath of a major disaster," said Minister Abul Hassan Mahmood Ali. "The rapid removal of debris, while ensuring environmental protection, is critical...We are delighted for the opportunity to start this process with our colleagues from the U.S. Embassy and U.S. Army Corps of Engineers."

As USACE, MoDM&R and DDM move forward with this project, the team will start reviewing the information it has collected. It will prepare a draft framework, which will include roles and responsibilities, concept of operations, and supporting documentation. The Government of Bangladesh is aiming to have a draft report it can share with all debris management and emergency recovery stakeholders in the coming months.

USACE IWR Geographer Justin Pummell is assigned to U.S. Army Pacific (USARPAC) and acts as a liaison between USARPAC, USACE Pacific Ocean Division (POD) and IWR. He is responsible for USACE's International Capacity Development Program in the U.S. Army Pacific Command (USPACOM) area of responsibility. As part of IWR's International Capacity Development Program, he works directly with the USARPAC, USPACOM, U.S. Embassies and partner nations. He provides theater security cooperation support, geographic information system (GIS) technical expertise and disaster management planning to USARPAC, USPACOM and POD. He participated in this training exercise.

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