

Science & research

partnership as silver lining to disaster prevention



Japanese experts share their knowledge on earthquake and volcano monitoring with Filipino seismologists through a science and research partnership

Inside the sprawling University of the Philippines (UP) campus in Quezon City is with the office of a Philippine government – the Philippine Institute of Volcanology and Seismology (PHIVOLCS) – responsible for disaster mitigation arising from volcanic eruptions, earthquakes, and tsunamis.

Inside their facility, Filipino seismologists and some Japanese experts are monitoring data on earthquakes and other seismological observations.

The daily grind of their work tells us that being ready and being informed go a long way when disaster strikes.

Barely few months after an earthquake hit Japan in 2011, a team from PHIVOLCS together with Japanese researchers visited an earthquake-tsunami affected areas in Tohoku, Japan on a mission to survey the actual disaster situation.

Mylene Martinez-Villegas, chief of the Geologic Disaster Awareness and Preparedness Division of PHIVOLCS was part of the research team from the Philippines in the survey mission, "What happened in Japan has made countries like the Philippines look deeper into its own earthquake monitoring system and disaster preparedness strategies to protect the public and ensure their safety in case of natural disasters," she said.

"Educating the people to recognize danger and improve their decision making process are very important," Villegas said.

Even before the March 11 incident, the Philippines through the Philippine Institute of Volcanology and Seismology (PHIVOLCS), National Research Institute for Earth Science and Disaster Prevention (NIED) and several Japanese universities and research institutes have been working together to enhance earthquake and volcano monitoring.

The initiative is meant to boost disaster awareness and education in the Philippines under the Science and Technology Research Partnership for Sustainable Development (SATREPS) by the Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST). The survey mission likewise documented interviews from individuals and families affected in Tohoku for an educational material for the Filipinos on preparing for earthquakes and tsunami.

Aside from the joint research activities since the 1990s, Japan had provided equipment and know-how to Filipino seismologists and volcanologists to enhance earthquake and volcano monitoring.

"With assistance from JICA, we are also now equipped with state of the art instruments for real-time transmission of earthquake data," said Jane Punongbayan, supervising science research specialist at PHIVOLCS.

"The release of earthquake monitoring information as fast as possible is critical. But, one important lesson we learned is to go beyond enhancing scientific understanding. It is important to educate the communities to make their own decisions and act for fastest evacuation by observing the natural signs of tsunami," said Villegas.

Some of these natural signs for tsunami, according to Villegas, are the unusual sea level and rumbling sound of approaching waves.

"Information dissemination and public awareness are just as critical in lessening the impact of natural disasters and in saving lives," said Villegas.

It is often said that necessity is the mother of invention, but in the case of PHIVOLCS partnership with NIED, JICA, and other Japanese institutions, it only goes to show that necessity to boost disaster awareness is also the mother of strategic collaborations.

Educating people to recognize danger and improve their decision making process are very important. Aside from the joint research activities since the 1990s, Japan had provided equipment and know-how to Filipino seismologists and volcanologists to enhance earthquake and volcano monitoring.