## Putting in Place a Responsive Program for CCA-DRR in the Philippines

Alfredo Mahar Francisco A. LAGMAY National Institute of Geological Sciences University of the Philippines

After the devastating floods of the 2011 Tropical Storm Washi killed thousands in the southern island of the Philippines, the government of the Philippines requested scientists from the University of the Philippines to put in place a responsive program to address the disaster problem of the country. Learning the lessons from past local and international disasters of over two decades, a program called NOAH or Nationwide Operational Assessment of Hazards was established and launched on 6 July 2012. The program integrated 20 funded projects from different "data provider" agencies of government and the academe. Key actions and targets of the program included the use of high-resolution topography (LiDAR and IfSAR) for the generation of a nationwide multi-scenario, multi-hazard maps for floods, storm surges and landslides; installation of 1500 locally manufactured automated rain and water level sensors; use of near-real time information to complement forecasts in preparing for hazards; strategic communication of hazards information that considers the culture and mindset of Filipinos; Open Data access to all hazardsrelated information; development of platforms for the integration of big data such as interactive websites and mobile apps to empower local government units and people in communities; and participatory engagement in the country's disaster efforts. The success of NOAH since its launch is mirrored in at least 15 averted disasters, widespread support of the program from "data user" agencies, local government units, CSOs and private entities and recognition from international groups. The work of the multidisciplinary team of the NOAH program, which include scientists, engineers, environemental planners, social scientists and artists, however, is far from over. Mainstreaming of Climate Change Adaptation-Disaster Risk Reduction (CCA-DRR) to local government development plans are necessary for future resilience of communities. Moreover, the integration of the science and technology output (i.e. multi-scenario based maps and use of NOAH tools) into local government efforts is vital for building climate change adaptive communities. The long-term education of people on the key actions of the NOAH program, incorporated and implemented in comprehensive development plans of each and every community can stem the growing problem of disaster risk of the country. Continued support of this program that executes the tenets enshrined in the Sendai Framework is imperative. It helps further development of our nation and bolsters our chances for survival.