National Geohazard Assessment and Mapping Program

The Department of Environment and Natural Resources-Mines and Geosciences Bureau (DENR-MGB) has been implementing the National Geohazard Assessment and Mapping Program with the primary objective to identify areas in the country that are susceptible or prone to various geologic hazards and provide the vital information to various stakeholders in order to lessen or mitigate the impacts of these events. There are various kinds of geohazards, but the DENR-MGB focused its efforts mainly on landslide and flood.

The DENR-MGB has already completed the 1:50,000-scale assessment and mapping of 1,640 cities and municipalities nationwide in 2010, and the 1:10,000-scale in 2014. MGB personnel have issued have issued landslide and flood threat advisories to barangays assessed to be critically susceptible to landslide and flood. The advisories are complemented by reports of geohazard assessment and GIS-based geohazard maps which have been distributed to all Local Government Units (LGUs).

The DENR-MGB has conducted province-wide information and dissemination seminarworkshops and provided geohazard maps to LGUs and other stakeholders such as national and local disaster management and planning agencies including the Office of Civil Defense, National Economic and Development Authority, Department of the Interior and Local Government and the Department of Social Welfare and Development. Municipal and Barangay-level information dissemination and disaster awareness and preparedness campaigns were also conducted.

Technical assistance on the assessment of proposed relocation sites of areas affected by natural disasters were also provided by DENR-MGB. This was demonstrated in the recovery and rehabilitation efforts after the devastation caused by Typhoon Sendong in 2011, Typhoon Pablo in 2012, and Bohol Earthquake and Typhoon Yolanda in 2013.

For 2016 onwards, the above-mentioned activities are being complemented by additional undertakings such as a massive campaign to disseminate the digitized geohazard map sheets at 1:10,000 scale to the 50,500 barangays nationwide with corresponding information campaign on disaster mitigation, preparedness and rehabilitation; updating of geohazard maps; vulnerability and risk assessment of various cities and municipalities, prioritizing highly susceptible areas for geohazards; and systematic assessment and mapping for additional geohazards, including subsidence and coastal hazards.

Under the framework of the National Disaster Risk Reduction and Management Council (NDRRMC), the DENR-MGB has been actively collaborating with other hazard mapping agencies such as the Philippine Institute of Volcanology and Seismology, Philippine Atmospheric, Geophysical and Astronomical Services Administration, National Mapping and Resource Information Authority and the Office of Civil Defense in the implementation of disaster risk reduction and management projects such as the Hazards Mapping and Assessment for Effective Community-Based Disaster Risk Management (READY) Project, Enhancing Risk Analysis Capacities for Flood, Tropical Cyclone, Severe Wind and Earthquake for Greater Metro Manila (Risk Analysis) Project, and Enhancing Greater

Metro Manila's Institutional Capacities for Effective Disaster/Climate Risk Management towards Sustainable Development (GMMA-READY) Project. Furthermore, the DENR-MGB, being a core member of the multi-agency PreDisaster Risk Assessment (PDRA) group, provides valuable inputs in the preparedness efforts of the NDRRMC whenever there are forthcoming hydrometeorological and other hazard events threatening the country. The information provided by DENR-MGB is utilized by the Department of the Interior and Local Government, Local Government Units, Department of Social Work and Development; and other disaster preparedness and response agencies in making the necessary preparations appropriate for various levels of risks. The National Geohazard Assessment and Mapping Program contributed to the following outcomes: • Increased awareness and capacities of communities in their disaster preparedmess and management activities;

- Reduced loss of lives and properties through utilization by LGUs of geohazard maps and reports in their community-based disaster preparedness and management plans;
- More rational development and disaster preparedness plans complemented by effective zoning ordinances through utilization by LGUs of geohazard maps as guide in the updating of their Comprehensive Land Use Plans and development plans; and
- Safer settlement sites for people affected by natural disasters through identification by DENR-MGB of safe relocation sites