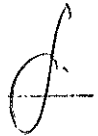

Introduced by Senator Miriam Defensor Santiago



EXPLANATORY NOTE

The Philippines is regularly hit by typhoons and monsoon rains that cause widespread devastation to crops, homes, and cost hundreds, if not thousands of lives. A joint study by the University of Adelaide, Flinders University and the University of Waikato found that the Asia Pacific region is among the world's most prone to environmental hazard. This regional "hot spot" is due to the impact from storms, water stress, coastal vulnerability due to sea level rise, and riparian flooding. The Asian Development Bank reported that Southeast Asia will be among the regions worst affected by global warming.

Flooding causes some of the biggest damage to life and property in the event of a storm. A study by the Economy and Environmental Program for Southeast Asia also identified floods as one of the dominant hazards for the Philippines. Felipe Palafox Jr., an urban planning expert, estimated the cost of flooding at P20 billion annually and recommended that it is more practical for the government to take a preventive and proactive stance by investing in implementing complete strategies to deal with flooding.

This bill seeks to protect the public from the risks caused by typhoons and other natural disasters by providing adaptive measures. The means proposed by this bill is through a geohazard mapping system that will identify the flood prone areas so businesses and individuals can best prepare for the possibility of heavy flooding in the event of a typhoon.


MIRIAM DEFENSOR SANTIAGO

SENATE
S. B. No. **3262**

Introduced by Senator Miriam Defensor Santiago

1 AN ACT
2 CREATING A FLOOD AND OTHER NATURAL DISASTER
3 ADAPTATION PROGRAM THROUGH THE USE OF
4 A NATIONAL GEOHAZARD MAP

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

5 SECTION 1. *Short Title.* – This Act shall be known as the “Natural Disaster Adaptation
6 Act of 2012.”

7 SECTION 2. *Declaration of policy.* – The State recognizes that flood prevention and
8 management are necessary to protect lives and property from the dangers caused by typhoons
9 and other atmospheric conditions that cause heavy precipitation. The State shall observe the
10 principles of unified and national planning, consideration of all stakeholders, the adoption of
11 integrated measures for flood management, and a coordinated effort from all concerned
12 government agencies and local government units.

13 SECTION 3. *Definitions.* – As used in this Act, the following terms shall mean:

14 (a) Geohazard – shall refer to any geological or hydrological process that poses a threat
15 to people and/or their property;

16 (b) Geohazard Mapping – shall refer to the identification of geohazards as found in a
17 diagrammatic representation of an area of land or sea showing its physical features,
18 political subdivisions and other identifiable characteristics.

19 SECTION 4. *Lead Agency.* – The Department of Environment and Natural Resources
20 (DENR) and the Department of Science and Technology (DOST) shall be the lead agencies in
21 the flood adaptation efforts provided by this Act.

1 SECTION 5. *Geohazard Mapping.* – The DENR shall create a Geohazard Map of the
2 Philippines which shall include the following information rated according to level of
3 vulnerability:

- 4 (a) Flood susceptible areas;
- 5 (b) Landslide susceptible;
- 6 (c) Earthquake susceptible areas;
- 7 (d) Any special geological or atmospheric vulnerability

8 SECTION 6. *Other areas to consider.* – The DENR shall also include the following in
9 carrying out this project:

- 10 (a) Aerial photo interpretations including the identification of land facets and geohazards;
- 11 (b) Soil profiling;
- 12 (c) Soil permeability testing;
- 13 (d) Soil analysis interpretations;
- 14 (e) Geotechnical database compilation.

15 SECTION 7. *Warning System and Information Dissemination.* – There shall be an
16 integrated flood warning system for every region. It shall be posted on a website and
17 disseminated to the major television and radio news networks once the threat of flood is detected.
18 The lead Departments shall also undertake an information dissemination campaign to inform the
19 public about the existence of the Philippine Geohazard Map and how it can be accessed.

20 SECTION 8. *Regular updates.* – The lead agencies shall update the Philippine Geohazard
21 Map every five (5) years unless they discover a new geohazard that justifies an update before the
22 five (5) year limit ends.

23 SECTION 9. *Appropriations.* – The Departments shall immediately include the
24 implementation of this Act in their programs, the funding of which shall be included in the
25 annual General Appropriations Act and every year thereafter.

1 SECTION 10. *Separability Clause.* – If any clause, sentence, paragraph or part of this
2 Act shall be declared unconstitutional or invalid, such judgment shall not affect, invalidate or
3 impair any other part of this Act.

4 SECTION 11. *Repealing Clause.* – Any law, presidential decree or issuance, executive
5 order, letter of instruction, administrative order, rule or regulation contrary to or inconsistent
6 with, the provisions of this Act is hereby repealed, modified, or amended accordingly.

7 SECTION 12. *Effectivity Clause.* – This Act shall take effect fifteen (15) days after its
8 publication in at least two (2) newspapers of general circulation.

Approved,

abg