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SENATE

S. No. 1582

RECORDED BY: *ja*

Introduced by Senator Manuel "Lito" M. Lapid

EXPLANATORY NOTE

The Philippines is an archipelago with more than 7,107 islands. Scientific data shows that most of these islands are of volcanic origin. There are 37 volcanoes, eighteen (18) of which are still active. The most well-known active volcanoes are Mt. Pinatubo, Mt. Mayon, and Taal Volcano, all located in the Luzon area.

We witnessed the devastating effects wrought by the eruption of Mt. Pinatubo in 1991. Volcanic eruptions claim countless lives and cost billions of pesos in property damage. Ash eruptions pose hazards to high-flying jet aircrafts while lava flows, toxic gas emissions, explosions, and mudflows pose a serious hazard to urban areas, transportation arteries, and agricultural communities.

Modern technology, such as on-the-ground geophysical monitoring networks and near real-time satellite data increases the probability of issuing warnings before eruptions. Early warnings give emergency response agencies and the public time to prepare thus minimizing loss of or danger to life and property.

This bill seeks to establish a national volcano early warning and monitoring system to give emergency response agencies and the public time to prepare for eruptions. This will minimize potential damage to property and loss of life.

In view of the foregoing, approval of this bill is earnestly sought.


MANUEL "LITO" M. LAPID
Senator



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AN ACT
ESTABLISHING A NATIONAL VOLCANO EARLY WARNING AND
MONITORING SYSTEM

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

1 **SECTION 1. Short Title.** - This Act may be cited as the "**National Volcano**
2 **Early Warning and Monitoring System Act of 2013**".

3
4 **SECTION 2. Definitions.** - When used in this Act, the following terms shall refer
5 to the following

6 (1) "Secretary" shall refer to the Secretary of the Department of Science and
7 Technology (DOST).

8 (2) "Department" shall refer to the Department of Science and Technology.

9 (3) "Director" shall refer to the Director of the Philippine Institute of
10 Volcanology and Seismology.

11 (4) "Institute" shall shall refer to the Philippine Institute of Volcanology and
12 Seismology.

13 (5) "System" shall refer to the National Volcano Early Warning and
14 Monitoring System established under Section 3(a)(I).

15
16 **SECTION 3. Establishment of a National Volcano Early Warning and**
17 **Monitoring System.** - The Secretary shall establish a program within the Institute to be
18 known as the "National Volcano Early Warning and Monitoring System" for the purpose
19 of monitoring, warning, and protecting citizens from undue and avoidable harm from
20 volcanic activity. As such, the System shall organize, modernize, standardize, and
21 stabilize the monitoring systems of volcano observatories throughout the country. The
22 System shall monitor all the volcanoes in the country giving each one attention
23 commensurate to the threat posed. The System shall ensure the upgrade of existing

1 networks for monitored volcanoes and shall ensure the installation of new networks for
2 volcanoes that are still unmonitored.

3
4 **SECTION 4. *System Components.*** - The System shall include the following:

5 (A) A national volcano watch office that is operational twenty four (24) hours a
6 day and seven (7) days a week;

7 (B) A national volcano data center; and

8 (C) An external grants program to support research on volcano monitoring
9 science and technology.

10
11 **SECTION 5. *Modernization Activities.*** - Modernization activities under the
12 System shall include the comprehensive application of emerging technologies, including
13 digital broadband seismometers, real-time continuous global positioning systems, radar
14 satellite interferometry, and spectrometry to measure gas emission.

15
16 **SECTION 6. *Management.*** - Not later than ninety (90) days after the effectivity
17 of this Act, the Secretary shall submit to Congress a five year management plan for the
18 establishment and operation of the System. The management plan shall include:

19 (A) Annual cost estimates for modernization activities and operation of the
20 System;

21 (B) Annual milestones, standards, and performance goals; and

22 (C) Recommendations for establishing new or enhancing existing partnerships to
23 leverage resources.

24
25 **SECTION 7. *Advisory Committee.*** - The Secretary shall establish an advisory
26 committee within the Department to assist in implementing the System. Such committee
27 shall be composed of representatives of relevant agencies and members of the
28 scientific community appointed by the Secretary.

29
30 **SECTION 8. *Partnerships and Coordination.*** - The Secretary may enter into
31 agreements with universities and State agencies designating them as volcano
32 observatory partners for the System. The Secretary shall coordinate activities launched
33 pursuant to this Act with the heads of relevant government agencies, such as, the
34 Secretary of Transportation and Communications, the Director-General of the Civil
35 Aviation Authority, and the Administrator of the Philippine Atmospheric, Geophysical
36 and Astronomical Services Administration.

1 **SECTION 9. *Annual Report.*** - The Secretary shall submit to Congress an
2 annual report outlining the activities carried out under this Act.

3
4 **SECTION 10. *Appropriations.*** - The amount necessary to carry out the
5 provisions of this Act shall be included and incorporated in the annual general
6 appropriations of the Department of Science and Technology.

7
8 **SECTION 11. *Repealing Clause.*** - All laws, decrees, executive orders, rules
9 and regulations, or parts thereof not consistent with the provisions of this Act are hereby
10 repealed or modified accordingly.

11
12 **SECTION 12. *Separability Clause.*** - If any provision or part of this Act is held
13 unconstitutional or invalid, the other parts or provisions not affected thereby shall
14 continue to be in full force and effect.

15
16 **SECTION 13. *Effectivity Clause.*** - This Act shall take effect fifteen (15) days
17 from the date of its publication in the Official Gazette or in at least two (2) newspapers
18 of general circulation.

Approved,