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**SENATE**

S. No. 957

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Introduced by Senator Manuel "Lito" M. Lapid

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**EXPLANATORY NOTE**

The Philippines is an archipelago of more than 7,107 islands. Scientific data show that most of these islands are of volcanic origin. There are 37 volcanoes of which 18 are still active. It means that an eruption of these volcanoes in the future can be expected. The most known active volcanoes are Mt. Pinatubo, Mt. Mayon and Taal Volcano. They are all located on the Island of Luzon.

We have witnessed the devastating effects wrought by the major eruption of Mt. Pinatubo in 1991. Volcanic eruptions have claimed many lives and cost billions of pesos in property damage. Ash eruptions pose hazards to high-flying jet aircrafts. Lava flows, toxic gas emissions, explosions impact, and mudflows pose a serious hazard to cities and transportation arteries as well as to our agricultural communities.

Modern technology, in the form of geophysical monitoring networks on the ground and the use of near-real time satellite data, makes possible warnings before eruptions, giving emergency response agencies and the public time to prepare, which minimizes potential damage to property and loss of life.

The efficacy of monitoring was demonstrated by the forecast and subsequent tracking of explosive eruptions of Redoubt Volcano by the Alaska Volcano Observatory, a partnership of the United States Geological Survey, the University of Alaska Fairbanks, and the Alaska Division of Geological and Geophysical Surveys.

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

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

  
**MANUEL "LITO" M. LAPID**  
Senator *[Signature]*

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**SENATE**

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**AN ACT**  
**TO PROVIDE FOR THE ESTABLISHMENT OF A NATIONAL VOLCANO**  
**EARLY WARNING AND MONITORING SYSTEM, APPROPRIATING**  
**FUNDS THEREFOR AND FOR OTHER PURPOSES**

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

**SECTION 1. SHORT TITLE.** - This Act may be cited as the "**National Volcano Early Warning and Monitoring System Act of 2009**".

**SECTION 2. DEFINITIONS.** - In this Act

- (1) Secretary -The term "Secretary" means the Secretary of the Department of Science and Technology (DOST).
- (2) Department - The term "Department" means the Department of Science and Technology.
- (3) Director. - The term "Director" means the Director of the Philippine Institute of Volcanology and Seismology.
- (4) Institute. - The term "Institute" shall mean the Philippine Institute of Volcanology and Seismology.
- (5) System. - The term "System" means the National Volcano Early Warning and Monitoring System established under section 3(a)(1).

**SECTION 3. NATIONAL VOLCANO EARLY WARNING AND MONITORING SYSTEM.** -

(a) Establishment.--

- (1) In general.--The Secretary shall establish within the Institute a program, to be known as the "National Volcano Early Warning and Monitoring System", to monitor, warn, and protect citizens from undue and avoidable harm from volcanic activity.

(2) Purpose.--The purpose of the System is to organize, modernize, standardize, and stabilize the monitoring systems of the volcano observatories in the country;

(3) Objective.--The objective of the System is to monitor all the volcanoes in the country at a level commensurate with the threat posed by the volcanoes by-

(A) upgrading existing networks on monitored volcanoes; and

(B) installing new networks on unmonitored volcanoes.

(b) System Components.--

(1) In general.--The System shall include--

(A) a national volcano watch office that is operational 24 hours a day and 7 days a week;

(B) a national volcano data center; and

(C) an external grants program to support research in volcano monitoring science and technology.

(2) Modernization activities.--Modernization activities under the System shall include the comprehensive application of emerging technologies, including digital broadband seismometers, real-time continuous global positioning systems, radar satellite interferometry, and spectrometry to measure gas emission.

(c) Management.--

(1) Management plan.--

(A) In general.--Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to Congress a 5-year management plan for establishing and operating the System.

(B) Inclusions.--The management plan submitted under subparagraph (A) shall include--

(i) annual cost estimates for modernization activities and operation of the System;

(ii) annual milestones, standards, and performance goals; and

(iii) recommendations for, and progress towards, establishing new, or enhancing existing, partnerships to leverage resources.

(2) Advisory committee.--The Secretary shall establish an advisory committee within the Department to assist the Secretary in implementing the System, to be

comprised of representatives of relevant agencies and members of the scientific community appointed by the Secretary.

(3) Partnerships--The Secretary may enter into cooperative agreements with universities and State agencies designating the universities and agencies as volcano observatory partners for the System.

(4) Coordination.--The Secretary shall coordinate the activities under this Act with the heads of relevant government agencies, including--

(A) the Secretary of Transportation and Communications;

(B) the Director-General of the Civil Aviation Authority; and the

(C) the Administrator of the Philippine Atmospheric, Geophysical and Astronomical Services Administration; and

(d) Annual Report.--Annually, the Secretary shall submit to Congress a report that describes the activities carried out under this Act.

**SEC. 5. APPROPRIATIONS.** - The amount necessary to carry out the provisions of this Act shall be included and incorporated in the annual general appropriations of the Department of Science and Technology.

**SEC. 6. REPEALING CLAUSE.** - All laws, decrees, executive orders, rules and regulations or parts thereof not consistent with the provisions of this act are hereby repealed or modified accordingly.

**SEC. 7. SEPARABILITY CLAUSE.** - If any provision or part of this Act, or the application thereof to any person or circumstance, is held unconstitutional or invalid, the remainder of this Act shall not be affected thereby.

**SEC. 8. EFFECTIVITY CLAUSE.** --This Act shall take effect fifteen (15) days from the date of its complete publication in the Official Gazette or in at least two (2) newspapers of general circulation.

**Approved,**