S. No. 2825 H. No. 10730

> Republic of the Philippines Congress of the Philippines

~

Aletro Alanila

Nineteenth Congress

Third Regular Session

Begun and held in Metro Manila, on Monday, the twenty-second day of July, two thousand twenty-four.

[REPUBLIC ACT NO. 12180]

AN ACT PROVIDING FOR THE MODERNIZATION OF THE PHILIPPINE INSTITUTE OF VOLCANOLOGY AND SEISMOLOGY (PHIVOLCS), AND APPROPRIATING FUNDS THEREFOR

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

SECTION 1. Short Title. – This Act shall be known as the "PHIVOLCS Modernization Act".

SEC. 2. Declaration of Policy. - It is the policy of the State to utilize scientific and technical knowledge and information as effective instruments to ensure the safety, well-being, and economic security of the people; safeguard the environment; and promote national progress and sustainable

socio-economic development through various applications of geosciences and allied sciences. The State adheres to existing treaties and international agreements on geologic activities to which the Philippines is a signatory, to ensure international cooperation, peace, and security. The State recognizes the need to strengthen the capability of government personnel tasked to monitor volcanic and seismological activities, perform related services, and provide adequate and timely information to the public. Towards this end, the State shall undertake the modernization of the Philippine Institute of Volcanology and Seismology (PHIVOLCS) to improve its technological operational capacity; strengthen its role as the principal authority mandated to mitigate hazards of volcanic eruptions. earthquakes, tsunamis, and other related geotectonic phenomena through reliable and accurate detection, forecast, and warning systems; and to attain its vision as a center of excellence for geotectonic information services.

SEC. 3. Objectives. – A PHIVOLCS Modernization Program shall be established to provide PHIVOLCS with state-of-the-art equipment, highly trained personnel, and more seismic stations that shall effectively increase the capability to detect and locate earthquake, volcanic, and tsunami events, particularly in communities at risk.

It shall be implemented in accordance with the following objectives:

(a) Upgrade physical resources and operational standards through the acquisition and development of state-of-the-art instruments, equipment, facilities, and systems to enhance capabilities in providing critical, timely, accurate, and reliable volcanological and seismological data and localized warning and information services for decision support in disaster preparedness, climate change adaptation, water resources security and management, agriculture, transportation, health, tourism, and other sectors;

(b) Advance research and development capabilities by adopting a systematic approach and integrating all developed methodologies focused on the improvement of vital operations and specialized functions and services; (c) Expand volcanological and seismological monitoring stations in strategic sites in the country to broaden the base for the delivery of services in the countryside;

(d) Strengthen a state-of-the-art data center consistent with international standards, in order to centralize the provision of volcanic, earthquake, tsunami, and other related information to the public and stakeholders involved in Disaster Risk Reduction and Management (DRRM);

(e) Facilitate the appreciation and enhance the delivery of information, products, and services, including education and advocacy on geoscience and geotectonic phenomena, their dangers and impacts, and the risks and vulnerabilities of communities and the different sectors of society to decision makers, national and local DRRM planning, media, and the general public towards sustainable socio-economic development;

(f) Strengthen linkages and cooperation at the national level among the various providers and users of geological, seismological, and other services;

(g) Provide opportunities for continuous learning and improvement of the knowledge, skills, and capacities of PHIVOLCS personnel; and

(h) Provide a more competitive base pay and benefits for the PHIVOLCS personnel to promote professionalism and commitment to the service.

SEC. 4. Definition of Terms. - As used in this Act:

(a) *Disaster Risk* refers to the potential loss of life, injury, or destruction or damage of assets, which could occur in a system, society, or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity;

(b) *Hazard* refers to a process, phenomenon, or human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption, or environmental degradation; 4

(c) *Risk transfer* refers to the process of formally or informally shifting the financial consequences of particular risks from one (1) party to another whereby a household, community, enterprise, or state authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party;

(d) Seismology refers to the scientific study of the sudden, violent movements of the earth connected with earthquakes;

(e) *Tsunami* refers to a series of large waves of extremely long wavelength and period usually generated by a violent, impulsive undersea disturbance or activity near the coast or in the ocean;

(f) Volcanology refers to the multidisciplinary study of volcanoes, volcanic processes, eruptions, hazards, impacts, and other related aspects including the monitoring, modeling, assessment, and communication of the same;

(g) Vulnerability refers to the conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of an individual, a community, asset, or system to the impacts of hazards;

(h) Whole-of-Government Approach refers to an approach that instills and fosters collaboration among all the government instrumentalities at both the national and local levels toward shared sustainable development goals and outcomes; and

(i) Whole-of-Society Approach refers to an approach that encourages the meaningful and active participation and synergy of the different stakeholders of society toward climate change adaptation and DRRM at the national and local levels.

SEC. 5. Mandate. - The PHIVOLCS is mandated to:

(a) Predict volcanic eruptions, earthquakes, tsunamis, and related geotectonic phenomena through reliable and accurate detection, forecast, and warning systems;

1

(b) Determine how volcanic eruptions, earthquakes, tsunamis, and related geotectonic phenomena occur, the possible hazards thereof, and the areas at risk; and

(c) Mitigate the impact of volcanic eruptions, earthquakes, tsunamis, and related geotectonic phenomena by providing appropriate volcano, earthquake, and tsunami information, education, products, and services for disaster preparedness.

SEC. 6. Organizational Structure. – The PHIVOLCS shall be an attached agency of the Department of Science and Technology (DOST) for purposes of policy and program coordination to ensure alignment with national science and technology policies and priorities.

The PHIVOLCS shall be headed by an Executive Director, with the rank and compensation of a Department Undersecretary. The Executive Director shall be assisted by three (3) Deputy Executive Directors with the rank and compensation equivalent to a Department Assistant Secretary under the following services:

(a) Operations;

(b) Research and Development and Science and Technology (S&T); and

(c) Administration, Finance, and Information and Communication Technology.

The Executive Director and Deputy Executive Directors shall be appointed by the President of the Philippines upon recommendation of the Secretary of the DOST.

SEC. 7. *Qualifications*. – The Executive Director shall have the following qualifications:

(a) Must be a natural-born citizen permanently residing in the Philippines;

(b) Must have good moral character; and

(c) Must have an advanced degree in geosciences, engineering, or other related fields, and at least five (5) years of expertise and competence in volcanology, geophysics, or allied sciences: *Provided*, That the Executive Director and the three (3) Deputy Executive Directors shall be Career Executive Service Officers (CESOs).

SEC. 8. Components of Modernization. – The PHIVOLCS Modernization Program shall have the following components:

(a) Upgrading and Maintenance of Physical Resources and Operational Standards. – It shall entail the acquisition and/or upgrade of state-of-the-art instruments, equipment, facilities, systems, and operational techniques, with emphasis on volcano, earthquake, and tsunami monitoring and disasterresilient warning and communication systems: *Provided*, That prior to such acquisition and/or upgrade, an inventory of existing government volcanological and seismological instruments nationwide shall be undertaken;

(b) Volcano Monitoring Network and Information System Development. – It shall involve sustained development of volcano monitoring networks and observatories for all active volcanoes in the Philippines that will ensure early warning of volcanic activity;

(c) Earthquake Monitoring Network and Information System Development. – It shall entail the establishment, operation, and maintenance of an advanced system for earthquake and tsunami monitoring throughout the Philippines that operates with high performance standards, gathers critical data, and effectively provides information products and services independently and directly to meet the needs of the stakeholders;

(d) Reliable Monitoring. – It shall ensure uninterrupted monitoring of volcanoes, earthquakes, and other related geotectonic phenomena throughout the Philippines, including earthquakes that may precede a volcanic eruption or cause a tsunami, with special focus on regions of moderate to high hazard and risk;

(e) Enhancement of Earthquake Monitoring Network for the Protection or Conservation of the Built Environment. – It shall thoroughly measure strong earthquake shaking at ground sites and in buildings and critical structures, with focus on urban areas and near major active fault zones to gather critical data and information for reducing earthquake impacts on buildings and structures;

(f) Development of Forecasting Capability for Impending Major Earthquakes or Tsunami Events. – It shall develop machine-learned capability to determine earthquake parameters. The resulting information will automatically be broadcast on mobile phones, social media accounts, and other platforms whenever a significant earthquake or tsunami occurs;

(g) Enhancement of Research and Development Facility. – It shall involve the enhancement of research and development facilities including the establishment of state-of-the-art earthquake and volcano research laboratories, focusing on the transdisciplinary approach on the generation of knowledge for the provision of science-based recommendations;

(h) Enhancement of Public Information and Linkages with Local Government Units (LGUs) and Other Stakeholders. – It shall include continuous sharing of information with LGUs and other stakeholders to help in disaster planning, preparation, and disaster mitigation, among others;

(i) Enhancement of Data and Information Dissemination Services. - It shall involve the development of communication strategies to ensure the use of easily understandable local language, non-technical terms, and familiar graphical presentations, in combination with science-based information that will ensure the delivery of accurate, updated, and timely earthquake-, tsunami-, and volcano-related information to create greater public awareness and draw appropriate response for disaster risk reduction: Provided, That the PHIVOLCS shall partner with the Komisyon sa Wikang Filipino (KWF). various Sentro ng Wika at Kultura institutions, Philippine Commission on Women (PCW), and other rights-based organizations for the development or enhancement of socially inclusive products. The PHIVOLCS shall collaborate with public and private organizations to effectively disseminate data and products:

(j) Strengthening of the Human Resource Development Program (HRDP). - The HRDP shall be aligned with PHIVOLCS' strategic goals. The PHIVOLCS, in consultation with the Department of Budget and Management (DBM), shall create new plantilla positions. The HRDP shall likewise ensure that personnel have access to equal opportunities for continuous learning to be competent, motivated, and rewarded.

It shall prioritize the complementation and capacity building of a wide range of experts in volcanology, seismology, engineering, information technology, communication, social and other related sciences to efficiently develop, operate, and maintain advanced monitoring systems and distill and communicate accurate volcanic, earthquake, and tsunami information for public guidance. Support for continued professional learning shall ensure skills development and motivation that will translate to better S&T services;

(k) Provision of Risk Information. – This involves the sharing of risk information with LGUs and other stakeholders in disaster planning, preparation, mitigation, and risk transfer, among others, to provide social and economic protection and increase resilience in times of disaster;

(l) International Cooperation. – It shall enhance interaction and cooperation with the international community and ensure that the Philippines has official representation in the geoscientific community;

(m) PHIVOLCS Hazards and Risk Information Platforms. – The PHIVOLCS shall exert sustained efforts to collaborate and align with LGUs, including on platforms for information sharing and monitoring, so that the agency's hazards and risk information systems, such as GeoRiskPH and Rapid Earthquake Damage Assessment System (REDAS) platforms, can be updated regularly for disaster planning, preparation, disaster mitigation, among others; and

(n) Establishment of Permanent PHIVOLCS Main Office Building and Facilities. – This includes land acquisition for the Data Receiving/Operation Centers for real-time volcano, earthquake, and tsunami monitoring, among others. This shall ensure the stability and protection of government investments in scientific, technical equipment, and research laboratories.

-

SEC. 9. Whole-of-Government and -Society Approach. – This Act shall be implemented using a whole-of-government and -society approach to ensure proper and effective coordination of various aspects in disaster risk mitigation and response across all areas of government policy spanning local governance, education, communication, S&T, among others. The PHIVOLCS shall engage with the private sector, civil society, academic community, and other stakeholders to pursue areas of collaboration consistent with Section 5 of this Act. The PHIVOLCS Modernization Program shall be aligned with national policies and priorities. Accordingly, the PHIVOLCS shall:

(a) Incorporate its latest geohazard maps and scientific studies in the appropriate seismic provisions in the National Structural Code of the Philippines and its future revisions;

(b) Include the teaching of volcano, earthquake, tsunami, and other hazards related to geotectonic phenomena as part of the regular school curriculum, in consultation with the Department of Education (DepEd) and other concerned agencies;

(c) Support the development and promotion of volcanology, seismology, and other related courses in state universities and colleges (SUCs) and higher education institutions (HEIs) in communities at risk to active volcanoes, earthquakes, and tsunamis, in coordination with the Commission on Higher Education (CHED);

(d) Collaborate with academic institutions and research organizations by providing technical assistance, sharing data and resources, and supporting studies that promote disaster risk reduction and resilience; and

(e) Closely coordinate with Telecommunications Service Providers (TSPs) in the allocation of ports, Virtual Private Networks (VPNs), and other related facilities that will help ensure the unimpeded transmission of critical real-time data to and from PHIVOLCS stations and equipment. The TSPs shall assign a PHIVOLCS counterpart that will ensure the expeditious resolution of concerns crucial to the effective implementation of this Act. 10

SEC. 10. Collaboration or Linkages with LGUs. – The PHIVOLCS shall develop and strengthen collaboration with LGUs to cover the following areas:

5002

(a) Disaster Risk Mitigation. – In the implementation of the National Building Code of the Philippines and its implementing rules and regulations, the PHIVOLCS shall closely collaborate with LGUs to ensure that its geohazard maps and other research outputs are incorporated in the disaster risk mitigation plans such as the Comprehensive Land Use Plan;

(b) Public Intermediary. – The local government, national and local news media, and the emergency management community shall act as intermediaries between the PHIVOLCS and the general public, institutional decision makers, and emergency responders in crafting plans attuned to the local needs of its constituents, to increase public resilience to earthquakes, tsunamis, and volcanic eruptions; reduce or eliminate long-term risk to human life and property; and shorten recovery periods based on risk assessments;

(c) Information Dissemination. – The PHIVOLCS shall work closely with the national and local disaster agencies to craft appropriate information messages, regularly test and evaluate their dissemination communication channels, and help identify gaps and dissemination problems, to ensure that accurate information on volcanic unrest, earthquake, tsunami, and related hazard reach the intended users in a timely manner;

(d) Awareness and Promotion. – The PHIVOLCS shall encourage the LGUs and other stakeholders to promote their own interfaces with the enhanced PHIVOLCS services in local and international recognition programs, to help expand the coverage and benefits to the public. In collaboration with the PHIVOLCS, a regular public education and awareness campaign on the hazards of volcanic eruptions, earthquakes, tsunamis, and disaster risk reduction procedures shall be designed and implemented by the LGUs concerned, considering the special needs of different communities, such as the marginalized, indigenous peoples, and persons with disabilities. Information on volcanic, seismic, tsunami risks, and measures taken in case a threat of a hazard is present in the area, shall be simplified and made available in a commonly understood local language or dialect;

(e) Data Inputs and Exchange. – The PHIVOLCS shall enlist the contribution of LGUs in reviewing local research and updating information used in DRRM to ensure that the exposure database of PHIVOLCS is updated and the LGU is kept abreast with the latest information to ensure readiness so that appropriate guidelines are consistently crafted and local support infrastructure to the enhanced PHIVOLCS systems are funded; and

(f) Other Assistance. – The PHIVOLCS shall seek the assistance of the LGUs in the identification and acquisition of lands under their jurisdiction where new PHIVOLCS offices and/or stations for equipment shall be established.

SEC. 11. Components of the HRDP. - The HRDP component shall include:

(a) Increase in Plantilla Positions. – The PHIVOLCS, subject to the review and approval of the DBM, and in accordance with existing civil service laws, rules, and regulations, shall determine the necessary human resource requirements for the PHIVOLCS Modernization Program;

(b) New Salary Scale for PHIVOLCS Personnel. – The DBM shall develop a new salary scale for the PHIVOLCS personnel, in consonance with Republic Act No. 8439, otherwise known as the "Magna Carta for Scientists, Engineers, Researchers and other S & T Personnel in the Government", as amended, with a corresponding increase in base pay, allowances, and other benefits;

(c) PHIVOLCS Personnel Retention Incentive. – An additional incentive to be known as the "Personnel Retention Incentive" shall be provided to qualified technical PHIVOLCS personnel, as determined by the PHIVOLCS in consultation with the DBM, in an amount not exceeding twenty percent (20%) of the monthly basic salary, subject to the implementing rules and regulations (IRR) which shall be hereafter formulated; (d) Development of Regional and International Cooperation Program. - This shall entail the development of appropriate collaborative arrangements with relevant regional and international bodies and government institutions to complement the national effort for modernization; and

(e) Scholarship Program. - Not later than three (3) years from the enactment hereof, scholarships shall be provided for undergraduate and graduate studies in volcano- and seismology-related fields, as well as for specialized training programs, in coordination with the DOST, CHED, and HEIs. Cooperation on human resources upgrading and capability enhancement with regional and international organizations shall also be undertaken.

SEC. 12. Disaster Preparedness, Public Information and Dissemination Services. – The modernization of the PHIVOLCS shall enhance public information, education, and advocacy on earthquake, tsunami, and volcanic hazards and risks. To facilitate the appropriate appreciation and delivery of science-based information to target stakeholders for proper response before, during, and after the occurrence of these hazards, there shall be a:

(a) Data Receiving Center (DRC). – A fully equipped state-of-the-art DRC shall serve as PHIVOLCS' centralized reception, processing, visualization, and dissemination hub for real-time earthquake, tsunami, and volcano monitoring and data;

(b) Modern Learning Hub. – The PHIVOLCS shall establish a Modern Learning Hub consisting of the following:

(1) Library. – A state-of-the-art library that utilizes both traditional and modern research and learning facilities. The library shall continue to be updated with the most recent scientific journals relevant to the mandate of the PHIVOLCS;

(2) Exhibit Area. – An exhibit area that can accommodate large groups and is equipped with the latest audio-visual equipment and simulation facility;

(3) Training Center. - A fully equipped and well-staffed training center that shall serve as a platform for planning, implementing, monitoring, and evaluating capacity development programs for various stakeholders regarding mitigation and preparedness for volcanic eruptions, earthquakes, and tsunami-related hazards;

(c) Media Room. – A fully equipped media room that shall serve as a venue for press conferences and interviews; and

(d) Other facilities that aim to improve and enhance the dissemination of public information, education, and advocacy on hazards and risks.

SEC. 13. Formulation and Submission of the PHIVOLCS Modernization Program. – The Executive Director of the PHIVOLCS, in coordination with the Secretary of the DBM and the Director-General of the National Economic and Development Authority (NEDA), shall formulate the PHIVOLCS Modernization Program and oversee its implementation based on the policy objectives provided in this Act.

The PHIVOLCS Modernization Program shall, among others, indicate the:

(a) PHIVOLCS' requirements in terms of personnel, equipment, and facilities during the various stages of modernization;

(b) Modernization projects, which shall indicate the equipment and technology acquisitions, including major construction or upgrade of facilities and the particular objective and components for such intended acquisition, construction, and upgrading; and

(c) Priorities, schedules, and estimated cost of each modernization project.

Within ninety (90) days from the effectivity of this Act, the PHIVOLCS Modernization Program shall be submitted to the President for approval. SEC. 14. Period of Implementation. - The PHIVOLCS Modernization Program shall be implemented for a period of five (5) years: Provided, That payments for multi-year contract obligations incurred under this Act may extend beyond this period: Provided, further, That PHIVOLCS shall continue to modernize and update its operational capabilities to keep pace , with best international practices.

SEC. 15. *PHIVOLCS Modernization Fund.* – There is hereby created the PHIVOLCS Modernization Fund to be used exclusively for the PHIVOLCS Modernization Program, which shall be sourced from the following:

(a) An amount of Seven billion pesos (P7,000,000,000.00) appropriated by Congress under the General Appropriations Act (GAA) which shall be treated as a distinct and separate budget item from the regular appropriation for the DOST. For five (5) years following the effectivity of this Act, an amount of One billion two hundred fifty million pesos (P1,250,000,000.00) per year for the first four (4) years and Two billion pesos (P2,000,000,000.00) for the fifth (5th) year shall be appropriated for the PHIVOLCS Modernization Fund. The entire amount of Seven billion pesos (P7,000,000,000.00), including any interest income thereon, shall be used exclusively for capital outlay; and

(b) The Secretary of the DOST, with the approval of the NEDA and subsequently, the Department of Finance (DOF), is hereby granted the authority to enter into loan agreements with foreign financial institutions, and to receive grants, bequests, and donations, whether from local or foreign sources.

The PHIVOLCS Modernization Fund shall be administered by the Executive Director of the PHIVOLCS in accordance with existing government budgeting, accounting, and auditing rules and regulations.

SEC. 16. Official Site. – The PHIVOLCS shall acquire available land within the greater Metropolitan Manila as a first choice for establishing its new headquarters under this Act. Alternatively, an area under the administration of the Bases Conversion Development Authority (BCDA) within the Clark Special Economic Zone in Tarlac may be leased exclusively for the PHIVOLCS, with an option to purchase, based on terms and conditions agreed upon by the BCDA and the PHIVOLCS, in accordance with applicable laws, rules, and regulations.

SEC. 17. Tax Exemptions. – Donations, grants, gifts, endowments, legacies, and contributions used actually, directly, and exclusively by the PHIVOLCS shall be exempt from donor's tax and considered as allowable deduction from gross income for purposes of computing the taxable income of the donor, in accordance with Section 34(H)(2)(a) of the National Internal Revenue Code of 1997, as amended: *Provided*, That such other transfers of ownership and/or possession of real or personal properties of all kinds shall be exempt from all taxes.

SEC. 18. Simplification of Documentation Requirements. -

(a) Consignment of equipment sent by international collaborative research partners shall be cleared or released based on a simplified equipment declaration, which shall contain the minimum information as may be required by the Bureau of Customs (BOC), to identify the equipment and object, accompanied by a Declaration of Undertaking to complete the information or submit the necessary supporting documents within a specified period;

(b) The requirements for the declaration, release, and clearance for all import of equipment by or on behalf of international collaborative research partners and any supporting document relating thereto shall be simplified and lodged without fee;

(c) Economic prohibitions and restrictions on designated categories of special goods and equipment, as identified by the PHIVOLCS, may be waived;

(d) Clearance for imported equipment shall be granted without regard to the country of origin or the country from which the goods have arrived, subject to monitoring for public health and security;

(e) Urgent and necessary monitoring equipment required during an ongoing volcanic eruption shall be immediately released; and (f) Scientific and technical equipment rendered unrecoverable due to extreme and damaging volcanic eruptions, earthquakes, tsunamis, and weather conditions shall not be the accountability of the PHIVOLCS personnel handling such equipment, unless there is fault or negligence on the part of the relevant personnel. The Commission on Audit (COA) shall formulate rules and regulations for waiving accountabilities in the above specific cases.

SEC. 19. Annual Report. – The Executive Director of the PHIVOLCS shall prepare an annual report on the implementation status of the PHIVOLCS Modernization Program which shall be submitted through the DOST Secretary, to the President of the Philippines, and to the Chairpersons of the Committees on Science and Technology of the Senate and the House of Representatives not later than June 30 of the succeeding year.

SEC. 20. Appropriations. – The amount necessary to carry out the initial implementation of this Act shall be charged against the current year's appropriations of the DOST-PHIVOLCS. Thereafter, such amount needed for the continued implementation of the PHIVOLCS Modernization Program shall be included in the annual GAA.

SEC. 21. Implementing Rules and Regulations. – Within ninety (90) days from the effectivity of this Act, the PHIVOLCS, in consultation with relevant stakeholders, shall formulate the rules and regulations to effectively implement the provisions of this Act.

SEC. 22. Separability Clause. - If any provision or part of this Act is declared unconstitutional, the remainder hereof not otherwise affected shall remain in full force and effect.

SEC. 23. *Repealing Clause.* – All laws, presidential decrees, executive orders, letters of instruction, proclamations, or administrative regulations that are inconsistent with the provisions of this Act are hereby repealed, amended, or modified accordingly.

SEC. 24. *Effectivity*. – This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,

FERDINAND MARTIN G. ROMUALDEZ Speaker of the House of Representatives

FRANCIS "CHIZ" G. ESCUDERO President of the Senate

This Act, which is a consolidation of Senate Bill No. 2825 and House Bill No. 10730, was passed by the Senate of the Philippines and the House of Representatives on February 4, 2025.



House of Representatives



Approved: APR 2 4 2025





FERDINAND ROMUALDEZ MARCOS JR. President of the Philippines



