

NINETEENTH CONGRESS OF THE )  
REPUBLIC OF THE PHILIPPINES )  
*First Regular Session* )



23 MAY 17 P12:54

**SENATE**

RECEIVED BY: \_\_\_\_\_

**S. No. 2208**

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Introduced by **SENATOR CYNTHIA A. VILLAR**

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**AN ACT**  
**PROVIDING FOR THE MODERNIZATION OF THE NATIONAL MAPPING AND**  
**RESOURCE INFORMATION AUTHORITY (NAMRIA), AMENDING CERTAIN**  
**PORTIONS OF EXECUTIVE ORDER NO. 192, SECTION 22(a) AND FOR**  
**OTHER PURPOSES**

**EXPLANATORY NOTE**

In 1987, the National Mapping and Resource Information Authority (NAMRIA) was established through the Executive Order No. 192. Serving as the central mapping agency of the government, NAMRIA has been instrumental in handling the nation's natural resources data, establishing a nationwide geodetic network, and conducting research vital for national development planning, environmental and natural resource management, and maritime territories delineation.

However, with the evolution of technology and the growing demands of a rapidly advancing society, the necessity to modernize NAMRIA has become more essential than ever. This modernization is crucial not only to maintain but enhance the accuracy, efficiency, and relevance of the geospatial information provided by NAMRIA, ensuring its effective contribution to national development programs.

This proposed legislation, referred to as the "NAMRIA Modernization Act", seeks to reaffirm the State's commitment to the prosperity of the nation and the welfare of its people. It acknowledges the crucial role of accurate geospatial information in planning and implementing economic development programs. The Act


aims to promote and pursue technology-based infrastructure and facilities for data acquisition, production, integration, sharing, and widespread dissemination of geospatial information.

The modernization program proposed under this Act aims to enhance NAMRIA's present capabilities, implement modern data acquisition programs, improve the production and management of analog and digital geospatial products, establish a national geospatial data infrastructure, and implement a continuing human resource development program.

The Act also includes definitions of key terms related to the field of mapping and resource information, which are necessary for a common understanding and uniform interpretation of the Act's provisions. The program components, ranging from the National Topographic Base Mapping Program to Human Resource Development, are laid out with clear objectives, ensuring comprehensive modernization of NAMRIA's operations.

Overall, the "NAMRIA Modernization Act" is a comprehensive legislative measure aimed at equipping NAMRIA with modern technology and practices, thereby enabling it to efficiently fulfill its role of providing accurate and reliable geospatial information to the government, private sector, and the public.

Hence, I recommend the immediate approval of this bill.

  
**CYNTHIA A. VILLAR**

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

1 Section 1. *Short Title.* – This Act shall be known as the “NAMRIA  
2 Modernization Act”.

3 Sec. 2. *Declaration of Policy.* - It is hereby declared the policy of the State to  
4 ensure the prosperity of the nation and free the people from poverty by adopting  
5 policies and programs that will ensure national security, and provide adequate social  
6 services, stimulate and improve the efficiency of economic activities, empower the  
7 people to raise their standard of living, and increase their resiliency against climate  
8 change, and natural and man-made disasters.

9 The State recognizes the importance of accurate geospatial information in the  
10 planning and implementation of economic development programs. The State shall  
11 therefore promote and pursue technology-based infrastructure and facilities for data  
12 acquisition, production, integration, sharing and widest dissemination of geospatial  
13 information. This shall be achieved through the modernization of the National  
14 Mapping and Resource Information Authority (NAMRIA) to enable the agency to  
15 effectively and fully perform its mandate to act as the central surveying and

1 mapping agency of the Republic of the Philippines, and provide the government and  
2 the private sector with reliable geospatial information.

3           Sec. 3. *Definition of Terms.* – For purposes of this Act, the following terms  
4 are thus defined:

5           a) *Aerial Photograph* - refers to a photograph of the earth's surface taken  
6           from an aircraft in flight.

7           b) *Base map* - refers to a map or chart showing certain fundamental  
8           information, used as a base upon which additional data of specialized  
9           nature are compiled or overlaid.

10          c) *Elevation* - refers to the vertical distance of a feature of the earth's surface  
11          from a reference level such as sea level.

12          d) *Environment and Natural Resource (ENR) Datasets* - refers to datasets on  
13          specific characteristics of land and water areas such as land cover and  
14          land use, as well as their legal and regulatory status such as protected  
15          areas, national parks, mineral reservations, etc.

16          e) *Geospatial* - refers to the geographic location and characteristics of natural  
17          or constructed features and boundaries on, above, or below the earth's  
18          surface; esp. referring to data that is geographic and spatial in nature.

19          f) *Geospatial Information* - is information describing the location and names  
20          of natural and cultural features beneath, on or above, or below the earth's  
21          surface. It includes the basic information found on a topographic map, but  
22          also includes different location-related datasets combined into complex  
23          layers that show information such as land use and population density.

24          g) *Geodetic network* - refers to a network or system of points selected in a  
25          definite manner, marked on the ground and accurately surveyed, serving  
26          as control points for topographical surveying and geodetic measurements  
27          on the ground.

- 1 h) *Geodetic survey* - refers to the type of surveying which considers the size  
2 and shape of the earth. This type of survey covers a large area and  
3 intends primarily to establish a reference system from which all other  
4 surveys are referred to.
- 5 i) *Geodetic reference system* - refers to a coordinate system and a set of  
6 reference points, used to locate points or objects on the Earth.
- 7 j) *Geographic information system (GIS)* – refers to a computer-based  
8 technology for capturing, storing, editing, manipulating, analyzing and  
9 displaying geographic information. The system provides rapid access and  
10 exchange of information. Data inputs include maps, remotely sensed data  
11 and statistics.
- 12 k) *Geodetic coordinates* - refers to the three-dimensional coordinates on the  
13 earth's surface as expressed in latitude, longitude and height above mean  
14 sea level measured on the spherical earth.
- 15 l) *Geophysical* – refers to the structural and physical properties of the earth.
- 16 m) *Hydrographic survey* - refers to a survey having for its principal purpose  
17 the determination of data relating to bodies of water to include: depth of  
18 water; nature and configuration of bottom; tidal phenomena; and location  
19 of fixed objects for survey and navigational purposes.
- 20 n) *Land classification* - refers to a system of determining and segregating  
21 which part of the unclassified lands of the public domain are to be  
22 declared as forestland and those as alienable or disposable lands.
- 23 o) *Mapping* - refers to the representation on a plane surface, at a given  
24 scale, of the physical features (natural or artificial) of a part or the whole  
25 of Earth's surface, by means of signs and symbols.
- 26 p) *Nautical charting* - refers to the process of compiling, constructing and  
27 reproducing a special purpose map (called a chart) for marine navigation  
28 or other particular purposes.

1 q) *Nautical chart* - refers to a special purpose map portraying water bodies in  
2 relation to land indicating depths of water, dangers and aid to navigation  
3 and other information necessary for safe marine navigation and other  
4 practical purposes.

5 r) *Physical oceanographic survey* - refers to the measurement of tides (sea  
6 level), waves and currents, salinity, temperature, density, turbidity,  
7 nutrient contents, etc. at various positions, depths and time; an expedition  
8 for the purpose of gathering water sample and measuring the above data.

9 s) *Satellite Imageries* - refers to imageries of the earth's surface taken from  
10 an artificial satellite in orbit.

11 t) *Surveying* - refers to the orderly process of determining data relating to  
12 any physical characteristics of the Earth such as the location or boundaries  
13 of land or bodies of water.

14 u) *Topographic map* - refers to a graphic representation of the earth's  
15 surface showing the relative size, position of features, and relief at a given  
16 scale.

17 v) *Topographic survey* - refers to the surveys made to determine the  
18 configuration of the Earth's surface and to locate natural and cultural  
19 features on it.

20 Sec. 4. *Objectives of the NAMRIA Modernization Program.* – The NAMRIA  
21 modernization program shall be implemented in accordance with the following  
22 objectives:

23 (a) To enhance and modernize its present capabilities to undertake programs  
24 and projects in furtherance of its mandate as the central surveying,  
25 mapping and resource information agency of the government;

26 (b) To implement a modern data acquisition program and to upgrade its  
27 capabilities in the conduct of geodetic, geophysical, topographic,  
28 hydrographic, oceanographic and land classification and related surveys;

1 (c) To improve and accelerate the production and management of analog and  
2 digital geospatial products and services;

3 (d) To establish a national geospatial data infrastructure that will ensure inter-  
4 operability of geospatial data, and facilitate the integration, sharing, and  
5 dissemination of geospatial data produced by different agencies and  
6 organizations; and

7 (e) To implement a continuing human resource development and  
8 management program for its personnel, as well as to reorganize, revitalize  
9 and restructure its organizational set-up, as needed, in order to meet the  
10 demands of its modernization program.

11 Sec. 5. *Components of the NAMRIA Modernization Program.* – The NAMRIA  
12 modernization program shall consist of the following components:

13 (a) *National Topographic Base Mapping Program.* The program involves the  
14 continuing acquisition of high-resolution imageries of the earth's surface  
15 (such as satellite imageries and aerial photographs), high-resolution  
16 elevation data, as well as digital map production systems to provide  
17 nationwide map coverage and periodic updating thereof.

18 (b) *National Geodetic Network Development.* The program involves  
19 development and maintenance of a globally consistent geodetic reference  
20 system that will serve as reference for all surveying and mapping activities  
21 in the country.

22 (c) *Hydrographic, Oceanographic and Nautical Charting Program.* The  
23 program involves the measurement of the physical features of the oceans  
24 and seas for the production of nautical charts for safety of navigation  
25 within Philippine waters and sustainable use of the country's coastal and  
26 marine resources.

27 (d) *Environment and Natural Resources Mapping Program.* The program  
28 involves the production of up-to-date environment and natural resources

1 datasets and maps for use of government agencies, local government  
2 units, business and the general public.

3 *(e) Philippine Geospatial Data Infrastructure.* The program involves the  
4 establishment and management of an online access facility to enable  
5 integration and sharing of geospatial data generated by government  
6 agencies, the academe and other organizations using a common set of  
7 standard topographic base maps.

8 *(f) Human Resource Development.* The program includes upgrading the skills  
9 of NAMRIA's personnel, both civilian, commissioned and enlisted services;  
10 develop, implement and institutionalize a program designed to optimize  
11 personnel capabilities through sustained trainings.

12 *(g) Research, Development and Extension.* The program involves the  
13 assessment of existing and development of new systems and procedures  
14 to enhance the delivery of NAMRIA products and services, and support the  
15 development of the geospatial information industry in the country.

16 Sec. 6. All government agencies, Local Government Units, State Universities  
17 and Colleges, Government Owned and Controlled Corporations, and other  
18 Government Instrumentalities are mandated to coordinate their geospatial  
19 information activities with NAMRIA to avoid duplication of efforts and optimize the  
20 use of geospatial resources.

21 Sec. 7. *Appropriations.* – The amount necessary for the implementation of  
22 this Act shall be included in the annual General Appropriations Act.

23 Sec. 8. *Use of Income.* - The NAMRIA is hereby authorized to utilize any  
24 income derived from its products and services in furtherance of the objectives of this  
25 Act.

26 Sec. 10. *Reporting Requirements.* - Within the first quarter of the succeeding  
27 year, the Administrator of the National Mapping and Resource Information Authority  
28 through the Secretary of the Department of Environment and Natural Resources



1 shall submit to the House Committee on Appropriation, the Senate Committee on  
2 Finance, and the Committees on Science and Technology of both Houses of  
3 Congress, a detailed report on the utilization of prior year's expended  
4 balances/savings in appropriations to implement the NAMRIA's modernization  
5 program.

6       Sec. 10. *Transitory Provision.* – All existing laws, rules and regulations  
7 governing the NAMRIA shall continue to be in effect until repealed, revised, or  
8 amended.

9       Sec. 11. *Repealing Clause.* – Any laws, executive orders, rules and regulations  
10 inconsistent with or contrary to this Act are hereby deemed repealed or amended.

11       Sec. 12. *Separability Clause.* - If any provision of this Act shall be  
12 unconstitutional or invalid, the other provisions not otherwise affected shall remain  
13 in full force and effect.

14       Sec. 13. *Effectivity Clause.* – This Act shall take effect fifteen (15) days after  
15 its publication in at least two (2) newspaper of general circulation.

Approved,