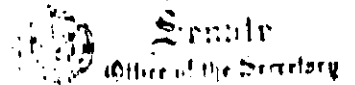


SIXTEENTH CONGRESS OF THE REPUBLIC }  
OF THE PHILIPPINES }  
Third Regular Session }



'15 DEC -7 AM 35

SENATE

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COMMITTEE REPORT NO. 329

Submitted jointly by the Committees on Environment and Natural Resources; Local Government; and Finance on DEC 07 2015.

Re : Senate Bill Nos. 841, 1034, 1541 and 2504.

Recommending that these be archived.

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**MR. PRESIDENT:**

The Committees on Environment and Natural Resources; Local Government; and Finance to which were referred Senate Bill No. 841, introduced by Senator Ejercito, entitled"

**"AN ACT  
TO DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, THROUGH THE NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, TOGETHER WITH THE NATIONAL DISASTER COORDINATING COUNCIL, TO IDENTIFY LOW-LYING AREAS OF THE PHILIPPINE TERRITORY VULNERABLE TO RISING SEA LEVELS AS A RESULT OF GLOBAL WARMING, AND AREAS AT HIGH RISK FOR NATURAL DISASTERS, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES"**

Senate Bill No. 1034, introduced by Senator Defensor Santiago, entitled:

**"AN ACT  
MANDATING THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, THROUGH THE NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, TO IDENTIFY LOW-LYING AREAS OF THE PHILIPPINE TERRITORY, VULNERABLE TO RISING SEA LEVELS AS A RESULT OF GLOBAL WARMING"**

Senate Bill No. 1541, introduced by Senator Ejercito Estrada, entitled:

**"AN ACT  
TO DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL  
RESOURCES, THROUGH THE NATIONAL MAPPING AND RESOURCE  
INFORMATION AUTHORITY, TOGETHER WITH THE NATIONAL  
DISASTER COORDINATING COUNCIL, TO IDENTIFY LOW-LYING  
AREAS OF THE PHILIPPINE TERRITORY VULNERABLE TO RISING SEA  
LEVELS AS A RESULT OF GLOBAL WARMING, AND AREAS AT HIGH  
RISK FOR NATURAL DISASTERS, APPROPRIATING FUNDS THEREFOR  
AND FOR OTHER PURPOSES"**

and Senate Bill No. 2504, introduced by Senator Lapid, entitled:

**"AN ACT  
REQUIRING MULTI-HAZARD MAPS AND FLOOD HAZARD MAPS IN  
EVERY LOCAL GOVERNMENT UNIT AND FOR OTHER PURPOSES"**

have considered the same and have the honor to report these bills back to the Senate with the recommendation that Senate Bill Nos. 841, 1034, 1541 and 2504 be archived.

The Geohazard Mapping and Assessment Program is an on-going priority program of the Department of Environment and Natural Resources (DENR), which is being implemented by the Mines and Geosciences Bureau (MGB). Its main objective is to identify areas in the country which are susceptible or vulnerable to various geologic hazards, or geohazards. The program also seeks to provide information to various stakeholders in order to lessen or mitigate the impact of these events.

The program comprises three major activities, namely:

- a) rapid assessment survey to generate geohazard maps that will indicate which areas are prone to natural dangers like landslides, flooding and ground subsidence;
- b) printing and reproduction of maps, manuals and information materials for public dissemination; and

c) conduct of seminars and workshops for local government officials and public school teachers to increase their awareness and preparedness on various natural hazards, as well as teach them on the proper use of the geohazard maps.

Accomplishments of the program include:

1) Identified the Top 10 provinces highly susceptible to landslides, to wit:

- a. Marinduque
- b. Rizal
- c. Cebu
- d. La Union
- e. Southern Leyte
- f. Benguet
- g. Nueva Vizcaya
- h. Batangas
- i. Mt. Province
- j. Romblon

2) Identified the Top 10 provinces highly susceptible to flooding, to wit:

- a. Pampanga
- b. Nueva Ecija
- c. Pangasinan
- d. Tarlac
- e. Maguindanao
- f. Bulacan
- g. Metro Manila

- h. North Cotabato
  - i. Oriental Mindoro
  - j. Ilocos Norte
- 3) Completed the geohazard assessment and mapping of all the 1,634 cities and municipalities, with a scale of 1:50,000;
  - 4) Distributed a total of 75,000 map sheets to all local government units down to the barangay level, with corresponding training and capability-building to interpret the maps; and
  - 5) Started the preparation of more detailed geohazard maps in 2011, with scale of 1:10,000, initially targeting 218 municipalities.

Geohazards are naturally occurring geological phenomena that pose danger to people's lives, properties, infrastructure and communities. These include landslides, flooding and land subsidence. However, in some cases, geohazards can also be induced by human activities.

Geohazards cannot be totally prevented but their impact on people and the environment may be lessened or mitigated.<sup>1</sup>


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<sup>1</sup> <http://denr.gov.ph/priority-programs/geo-hazard-mapping-and-assessment-program.html>

Respectfully submitted:

Chairpersons:



**FERDINAND R. MARCOS JR.**  
Committee on Local Government  
*Member, Committee on Environment and  
Natural Resources*  
*Member, Committee on Finance*

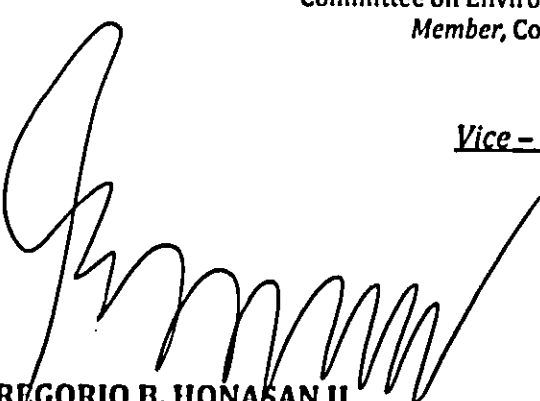


**LOREN LEGARDA**  
Committee on Finance  
*Vice-Chairperson, Committee on Environment and  
Natural Resources*  
Committee on Local Government

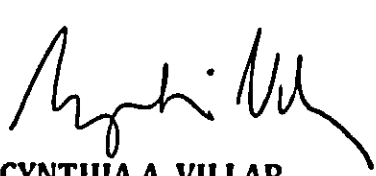


**FRANCIS G. ESCUDERO**  
Committee on Environment and Natural Resources  
*Member, Committee on Finance*


Vice - Chairpersons:




**GREGORIO B. HONASAN II**  
Committee on Environment and Natural  
Resources  
*Member, Committee on Local Government*



**CYNTHIA A. VILLAR**  
Committee on Environment and Natural Resources  
*Member, Committee on Local Government*  
Committee on Finance



**ANTONIO "SONNY" F. TRILLANES IV**  
Committee on Local Government  
*Member, Committee on Environment and  
Natural Resources*



**SONNY ANGARA**  
Committee on Finance  
*Member, Committee on Environment and Natural  
Resources*  
Committee on Local Government



**TEOFISTO L. GUINGONA III**  
Committee on Finance

**PAOLO BENIGNO "BAM" AQUINO IV**  
Committee on Finance  
*Member, Committee on Environment and Natural Resources*  
*Member, Committee on Local Government*

**SERGIO R. OSMEÑA III**  
Committee on Finance

Members:



**RAMON BONG REVILLA JR.**  
Committee on Environment and Natural Resources  
Committee on Finance

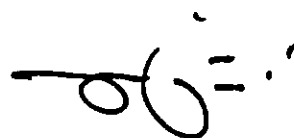
**GRACE POE**  
Committee on Environment and Natural Resources  
Committee on Local Government  
Committee on Finance

**PIA S. CAYETANO**  
Committee on Environment and Natural Resources  
Committee on Local Government  
Committee on Finance

**AQUILINO "KOKO" PIMENTEL III**  
Committee on Environment and Natural Resources  
Committee on Local Government  
Committee on Finance



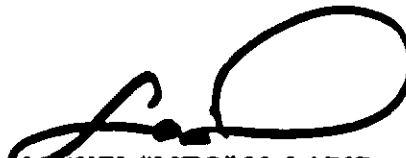
**MARIA LOURDES NANCY S. BINAY**  
Committee on Environment and Natural Resources  
Committee on Local Government  
Committee on Finance



**JOSEPH VICTOR G. EJERCITO**  
Committee on Environment and Natural Resources  
Committee on Local Government  
Committee on Finance



**VICENTE C. SOTTO III**  
Committee on Environment and Natural Resources  
Committee on Finance



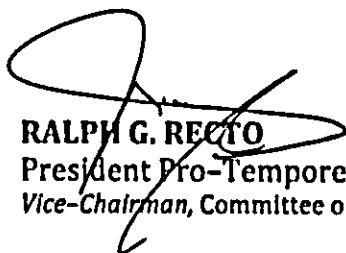
**MANUEL "LITO" M. LAPID**  
Committee on Environment and Natural Resources  
Committee on Local Government

**MIRIAM DEFENSOR SANTIAGO**  
Committee on Finance



**JINGGOY EJERCITO ESTRADA**  
Committee on Finance

Ex - Officio Members:



**RALPH G. RECTO**  
President Pro-Tempore  
Vice-Chairman, Committee on Finance

**ALAN PETER "COMPAÑERO" S. CAYETANO**  
Majority Leader

**JUAN PONCE ENRILE**  
Minority Leader

**Hon. FRANKLIN M. DRILON**  
President  
Senate of the Philippines  
Pasay City



Senate  
Office of the Secretary

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

13 JUL 17 1911

BY: *Ji*

**SENATE**

SENATE BILL NO. 841

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INTRODUCED BY SENATOR JOSEPH VICTOR G. EJERCITO

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**EXPLANATORY NOTE**

The world is now experiencing the impact of global warming in various ways, not only in simple increase in air temperature but in changing weather patterns and the unexpected deluge is raising global sea levels. The latter situation should be a foremost concern for the Philippines because of its archipelagic nature. Scientists say rising sea levels could eventually submerge island nations, flood cities, and expose millions of coastal residents to destructive storm surges.

In order to cope with the new trend, there is a need to promote a holistic approach to disaster reduction. Cooperation among all sectors of the society is crucial to promote a holistic approach to disaster reduction, also making early warning effective and mitigating disaster risk.

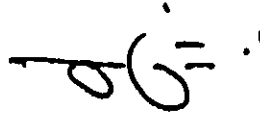
Hazard mapping could be a component of the approach. A national hazard map will be necessary to correctly inform the people of possible disasters and their potential damages. In order to obtain the widest reach of information and accurate data, there must be consultation with the applicable local government units and indigenous groups. Information sources should be diverse, with a combination of low-tech and high-tech methods. The hazard map must include simple and easy-to-understand information that the community will need. The hazard map also must be revised and updated regularly.

Three Caribbean countries are finalizing hazard maps which will be used in future planning as a part of their safe and resilient development thrust. Grenada's maps focus on flood, landslide, and coastal erosion. For St. Lucia, they are on flood, landslide, and wind/wave/storm surge. Belize has focused on coastal erosion and wind/wave/storm surge. As in these coastal nations, a mapping of



the Philippine archipelago is intended to assist the country's disaster management agencies in making decisions so as to achieve safe and resilient development in the future which in turn will reduce the level of damage from hazards.

For the foregoing reasons, the urgent passage of this bill is earnestly sought.

A handwritten signature in black ink, appearing to read 'J. V. Ejercito', with a stylized flourish extending to the left.

**JOSEPH VICTOR G. EJERCITO**

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Senate  
Office of the Secretary

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

'13 JUL 17 19:11

RECEIVED BY: *jin*

**SENATE**

SENATE BILL NO. 841

---

INTRODUCED BY SENATOR JOSEPH VICTOR G. EJERCITO

---

**AN ACT TO DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, THROUGH THE NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, TOGETHER WITH THE NATIONAL DISASTER COORDINATING COUNCIL, TO IDENTIFY LOW-LYING AREAS OF THE PHILIPPINE TERRITORY VULNERABLE TO RISING SEA LEVELS AS A RESULT OF GLOBAL WARMING, AND AREAS AT HIGH RISK FOR NATURAL DISASTERS, 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. Title.** - This Act shall be known as the "***National Hazard Mapping Act of 2013.***"

**Sec. 2. Declaration of Policy.** - It is the policy of the State to promote the public health, safety and general welfare. Towards this end, the State shall endeavor to formulate an orderly layout of the national land mass with identification of low-lying areas vulnerable to rising sea levels as a result of global warming, and areas at high risk for natural disasters.

The State shall likewise establish an organized and efficient system of evacuation from these areas in the event of imminent danger.

**Sec. 3. National Disaster Map.** - Within one (1) year after the effectivity of this Act, the Department of Environment and Natural Resources (DENR), through the National Mapping and Resource Information Authority (NAMRIA), together with the

National Disaster Coordinating Council (NDCC), is directed to submit a national disaster map of the Philippines, identifying the low-lying areas vulnerable to rising sea levels as a result of global warming and areas at high risk for natural disasters. It shall contain proper identification of lands bordering sea levels, exposed to volcanic eruptions and lying on earthquake faults, with the criteria for evacuation and illustration of recommended evacuation sites and routes

Information sources for the national disaster map should not be limited to scientific instrument-based data, but shall utilize a holistic approach which may include indigenous wisdom.

**Sec. 4. Appropriations.**-The amount necessary for the implementation of this Act shall be charged to the appropriations of the implementing agencies under the General Appropriations Act. Thereafter, such sums as may be necessary for its continued implementation shall be included in the annual General Appropriations Act.

**Sec. 5. Separability Clause.** - In the event that any provision of this Act is declared unconstitutional, the validity of the other provisions shall not be affected by such declaration.

**Sec. 6. Repealing Clause.** - All laws, decrees, orders, rules and regulations and other issuances or parts thereof which are inconsistent with the provisions of this Act are hereby repealed or modified accordingly


**Sec. 7. Effectivity.** -This Act shall take effect 15 days following its publication in the Official Gazette or in at least two newspapers of general circulation.

Approved,



'13 JUL 22 P5:13

SENATE  
S. No. 1034

RECEIVED BY: 

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Introduced by Senator Miriam Defensor Santiago

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#### EXPLANATORY NOTE

Global warming refers to the increase in the average temperature of the Earth's near surface air and oceans in recent decades and its projected continuation. The global average air temperature near the Earth's surface rose 0.74 ± 0.18 °C (1.33 ± 0.32 °F) during the last 100 years. The Intergovernmental Panel on Climate Change (IPCC) concludes that "most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations" via the greenhouse effect.

Climate models referenced by the IPCC project that global surface temperatures are likely to increase by 1.1 to 6.4 °C (2.0 to 11.5 °F) between 1990 and 2100. The range of values results from the use of differing scenarios of future greenhouse gas emissions as well as models with differing climate sensitivity. Although most studies focus on the period up to 2100, warming and sea level rise are expected to continue for more than a millennium even if greenhouse gas levels are stabilized.<sup>1</sup> This reflects the large heat capacity of the oceans.

An increase in global temperatures is expected to cause other changes, including sea level rise, increased intensity of extreme weather events, and changes in the amount and pattern of precipitation. Other effects include changes in agricultural yields, glacier retreat, species extinctions, reduced summer stream flows and increases in the ranges of disease vectors. Changes in the amount and pattern of precipitation may result in flooding and drought. There may also be changes in the frequency and intensity of extreme weather events.

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<sup>1</sup> Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Intergovernmental Panel on Climate Change (2007-02-05). Retrieved on 2007-02-02.

Due to these concerns, a topographical map should be crafted to identify the low-lying areas of the Philippine territory, vulnerable to rising sea levels as result of global warming.<sup>2</sup>

*act.* *Miriam Defensor Santiago*  
MIRIAM DEFENSOR SANTIAGO

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<sup>2</sup>Originally filed during the Fourteenth Congress, First Regular Session.



'13 JUL 22 P5:13

SENATE  
S. No. 1034

RECEIVED BY: *ji*

Introduced by Senator Miriam Defensor Santiago

1 AN ACT  
2 MANDATING THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES,  
3 THROUGH THE NATIONAL MAPPING AND RESOURCE FORMATION AUTHORITY,  
4 TO IDENTIFY THE LOW-LYING AREAS OF THE PHILIPPINE TERRITORY,  
5 VULNERABLE TO RISING SEA LEVELS AS RESULT OF GLOBAL WARMING

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

6 SECTION 1. *Short Title.* – This Act shall be known as the “Topographical Map of Low-  
7 Lying Areas in the Philippines Act.”

8 SECTION 2. *Declaration of Policy.* – It is the policy of the State to promote the public  
9 health, safety, and general welfare; to further the orderly layout of land and identification of  
10 low-lying areas vulnerable to rising sea levels as a result of global warming; and to establish the  
11 procedure for vacating these areas in the event of imminent danger caused by global warming.

12 SECTION 3. *Department of Environment and Natural Resources: National Mapping and*  
13 *Resource Information Authority; Local Government Units.* – Within one (1) year after the  
14 effectivity of this act, the Department of Environment and Natural Resources (DENR), through  
15 the National Mapping and Resource Information Authority (NAMRIA), is mandated to submit a  
16 topographical map of the Philippines, identifying the low-lying areas vulnerable to rising sea  
17 levels as a result of global warming. The DENR and the NAMRIA shall consult with the  
18 applicable local government units to come up with the most accurate data.

1           SECTION 4. *Appropriation of Funds.* – Seventy Million Pesos (₱70,000,000.00) is  
2 hereby appropriated from the National Treasury to fund the activities covered in this Act.

3           SECTION 5. *Separability Clause.* – If any provision or part thereof is held invalid or  
4 unconstitutional, the remainder of the law or the provision not otherwise affected shall remain  
5 valid and subsisting.

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

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

Approved,

SIXTEENTH CONGRESS OF THE REPUBLIC  
OF THE PHILIPPINES  
First Regular Session



13 SEP -5 P1 57

SENATE

Senate Bill No. 1541

RECEIVED BY: *J. R.*

---

INTRODUCED BY SEN. JINGGOY EJERCITO ESTRADA

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#### EXPLANATORY NOTE

The world is now experiencing the impact of global warming in various ways, not only in the simple increase in air temperature but in changing weather patterns and the unexpected deluge is raising global sea levels. The latter situation should be a foremost concern for the Philippines because of its archipelagic nature. Scientists say rising sea levels could eventually submerge island nations, flood cities, and expose millions of coastal residents to destructive storm surges.

In order to cope with the new trend, there is a need to promote a holistic approach to disaster reduction. Cooperation among all sectors of the society is crucial to promote a holistic approach to disaster reduction, also making early warning effective and mitigating disaster risk.

Hazard mapping could be a component of the approach. A national hazard map will be necessary to correctly inform the people of possible disasters and their potential damages. In order to obtain the widest reach of information and accurate data, there must be consultation with the applicable local government units and indigenous groups. Information sources should be diverse, with a combination of low-tech and high-tech methods. The hazard map must include simple and easy-to-understand information that the community will need. The hazard map also must be revised and updated regularly.

Three Caribbean countries are finalizing hazard maps which will be used in future planning as a part of their safe and resilient development thrust. Grenada's maps focus on flood, landslide, and coastal erosion. For St Lucia, they are on flood, landslide, and wind/wave/storm surge. Belize has focused on coastal erosion and wind/wave/storm surge. As in these coastal nations, a mapping of the Philippine archipelago is intended to assist the country's disaster management agencies in making decisions so as to achieve safe and resilient development in the future which in turn will reduce the level of damage from hazards.

For the foregoing reasons, the urgent passage of this bill is earnestly sought.

  
JINGGOY EJERCITO ESTRADA  
Senator



SIXTEENTH CONGRESS OF THE REPUBLIC )  
OF THE PHILIPPINES )  
First Regular Session )



Senate  
Office of the Secretary

'13 SEP -5 P1 57

SENATE

Senate Bill No. 1541

RECEIVED BY: *ju T.*

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INTRODUCED BY SEN. JINGGOY EJERCITO ESTRADA

---

AN ACT

TO DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, THROUGH THE NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, TOGETHER WITH THE NATIONAL DISASTER COORDINATING COUNCIL, TO IDENTIFY LOW-LYING AREAS OF THE PHILIPPINE TERRITORY VULNERABLE TO RISING SEA LEVELS AS A RESULT OF GLOBAL WARMING, AND AREAS AT HIGH RISK FOR NATURAL DISASTERS, 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. Title.** - This Act shall be known as the "*National Hazard Mapping Act of 2013*".

**SEC. 2. Declaration of Policy.** - It is the policy of the State to promote the public health, safety and general welfare. Towards this end, the State shall endeavor to formulate an orderly layout of the national land mass with identification of low-lying areas vulnerable to rising sea levels as a result of global warming, and areas at high risk for natural disasters.

The State shall likewise establish an organized and efficient system of evacuation from these areas in the event of imminent danger.

**SEC. 3. National Disaster Map.** - Within one (1) year after the effectivity of this Act, the Department of Environment and Natural Resources (DENR), through the National Mapping and Resource Information Authority (NAMRIA), together with the National Disaster Coordinating Council (NDCC), is directed to submit a national disaster map of the Philippines, identifying the low-lying areas vulnerable to rising sea levels as a result of global warming and areas at high risk for natural disasters. It shall contain proper identification of lands bordering sea levels, exposed to volcanic eruptions and lying on earthquake faults, with the criteria for evacuation and illustration of recommended evacuation sites and routes

Information sources for the national disaster map should not be limited to scientific instrument-based data, but shall utilize a holistic approach which may include indigenous wisdom.

**SEC. 4. Appropriations.** -The amount necessary for the implementation of this Act shall be charged to the appropriations of the implementing agencies under the General Appropriations Act. Thereafter, such sums as may be necessary for its continued implementation shall be included in the annual General Appropriations Act.

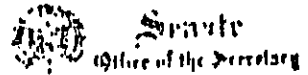
**SEC. 5. Separability Clause.** - In the event that any provision of this Act is declared unconstitutional, the validity of the other provisions shall not be affected by such declaration.

**SEC. 6. Repealing Clause.** - All laws, decrees, orders, rules and regulations and other issuances or parts thereof which are inconsistent with the provisions of this Act are hereby repealed or modified accordingly

**SEC. 7. Effectivity.** -This Act shall take effect 15 days following its publication in the *Official Gazette* or in at least two newspapers of general circulation.


*Approved,*

SIXTEENTH CONGRESS OF THE REPUBLIC )  
OF THE PHILIPPINES )  
Second Regular Session )



'16 DEC -9 P5:04

SENATE  
Senate Bill No. 2504

RECEIVED BY: 

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Introduced by Senator Manuel "Lito" M. Lapid

---

AN ACT  
REQUIRING MULTI-HAZARD MAPS AND FLOOD HAZARD MAPS IN EVERY  
LOCAL GOVERNMENT UNIT AND FOR OTHER PURPOSES

EXPLANATORY NOTE

Six months after super typhoon Yolanda devastated numerous cities and municipalities, the Department of Science and Technology (DOST) and the Department of Environment and Natural Resources (DENR) formally launched the Yolanda Rehabilitation Scientific Information (YORINFO) Center. The YORINFO Center collates all maps created by different government agencies, and creates multi- and flood hazard maps. These maps, which can go down to the barangay level, pinpoint areas which are most exposed to hazards, and which areas are the safest. These maps are an important tool for disaster planning, preparation, response, and rehabilitation. Despite the significance of these maps, only 1 of the 171 Yolanda affected areas have requested for these maps.

This bill aims to address this deficiency by requiring DOST and DENR to provide and educate all local government units on the value and use of these maps. Furthermore, it requires all local government units to disseminate the same information to all its barangays. This will enable local government units to improve their disaster response planning, preparation, response, and rehabilitation by basing it on scientific research and information. As such, the immediate passage of this bill is therefore requested.

  
MANUEL "LITO" M. LAPID

---

Introduced by Senator Manuel "Lito" M. Lapid

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**AN ACT  
REQUIRING MULTI-HAZARD MAPS AND FLOOD HAZARD MAPS IN EVERY  
LOCAL GOVERNMENT UNIT AND FOR OTHER PURPOSES**

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

1       **SECTION 1. DECLARATION OF POLICY.** - It is a policy of the State to prepare and  
2 protect its citizens from the adverse effects of natural disasters and calamities. To this end,  
3 the State shall provide mechanisms to adequately equip and inform local government units  
4 against impending disasters and calamities such as but not limited to storms, typhoons,  
5 floods, storm surges, earthquakes, and volcano eruptions including disaster planning,  
6 preparation, response, and rehabilitation.

7

8       **SECTION 2. SCOPE.** - This law shall apply to all local government units in the  
9 Philippines.

10

11       **SECTION 3. DEFINITION OF TERMS.** - The following terms used in this Act are  
12 hereby defined:

13

14       a. A multi-hazard map identifies the vulnerabilities of each local government unit to  
15 threats such as but not limited to landslides, flooding, sea level rise, and storm surges.

16       b. A flood hazard map identifies specific areas in the local government unit near river  
17 systems that may be inundated by varying amounts of rainfall.

18

19       **SECTION 4. MULTI-HAZARD MAPS AND FLOOD HAZARD MAPS.** - The  
20 Department of Science and Technology together with the Department of Environment and  
21 Natural Resources shall provide, free of charge, every three (3) years, an updated multi-  
22 hazard map and a flood hazard map for each local government unit in the country. The  
23 provision of these maps is mandatory, regardless of the presence or absence of a request for  
24 it.

1       **SECTION 5. SEMINAR ON THE USE OF THE MULTI-HAZARD MAP AND FLOOD**  
2 **HAZARD MAP.** - The Department of Science and Technology together with the Department  
3 of Environmental and Natural Resources shall provide, free of charge, a seminar on the use of  
4 these maps to representatives of each local government unit in the country.

5

6       **SECTION 6. ROLE OF THE LOCAL GOVERNMENT UNIT.** - Upon receipt of the  
7 multi-hazard map and the flood hazard map, the local government unit shall have the  
8 following duties and responsibilities:

9

- 10       a. Provide, free of charge, every three (3) years, an updated copy of each map to every  
11       barangay within its territory;
- 12       b. Use the maps in its disaster response planning, preparation, and training; and
- 13       c. Conduct a seminar every three (3) years for representatives and residents of each  
14       barangay on the use of these maps, as well as the municipality or city's updated  
15       disaster response plan incorporating these maps.

16

17       **SECTION 7. IMPLEMENTING RULES AND REGULATIONS.** - The Department of  
18 Science and Technology, the Department of Environment and Natural Resources, and the  
19 Department of Interior and Local Governance shall jointly promulgate rules and regulations  
20 necessary to implement the provisions under this law.

21

22       **SECTION 8. ALLOCATION OF FUNDS.** - The initial amount necessary for the  
23 implementation of this Act shall be charged to the appropriations of the Department of  
24 Science and Technology.

25

26       **SECTION 9. APPROPRIATIONS.** - The amount necessary to carry out the provisions of  
27 this Act shall be included in the General Appropriations Act of the year following its  
28 enactment into law and thereafter.

29

30       **SECTION 10. SEPARABILITY CLAUSE.** - If any provision or part of this Act shall be  
31 declared invalid or unconstitutional, the remaining parts or provisions not affected shall  
32 remain in full force and effect.

1        **SECTION 11. REPEALING CLAUSE.** - All laws, decrees, executive orders, issuances,  
2 rules and regulations or parts thereof inconsistent with the provisions of this Act are hereby  
3 repealed or modified accordingly.

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5        **SECTION 12. EFFECTIVITY CLAUSE.** - This Act shall take effect fifteen (15) days after  
6 its publication in the Official Gazette or in at least two newspapers of general circulation.

*Approved,*