



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
Second Regular Session

HOUSE BILL NO. **10543**



Introduced by Representative Crispin Diego “Ping” D. Remulla

AN ACT
INSTITUTIONALIZING A NATIONAL SEAGRASS MAPPING, MONITORING,
AND PROTECTION PROGRAM, ESTABLISHING A NATIONAL SEAGRASS
DATABASE, AND APPROPRIATING FUNDS THEREFOR

EXPLANATORY NOTE

The Philippines, being an archipelagic state with one of the highest marine biodiversity indices in the world, hosts extensive seagrass meadows across its coastal waters. Seagrass ecosystems provide critical ecological services, including carbon sequestration (“blue carbon”), fisheries support, shoreline protection, and habitat for endangered marine species.

Despite the importance of seagrass ecosystems, it is significantly under-mapped, under-monitored, and under-protected in national policy frameworks, which have historically focused on coral reefs and mangroves. This legislative gap limits the country’s ability to conserve marine biodiversity and harness blue carbon potential under climate change mitigation strategies. While the Republic Act No. 8550 or the Philippine Fisheries Code already prohibits fishing methods that destroy seagrass beds, no existing national law mandates the systematic mapping, monitoring, and centralized data management of seagrass ecosystems that this Act seeks to institutionalize.

This bill seeks to institutionalize a National Seagrass Mapping, Monitoring, and Protection Program, mandate periodic nationwide mapping every five (5) years using modern

geospatial technologies, local scientific collaboration, and community participation, and establish a centralized National Seagrass Database under the Department of Environment and Natural Resources (DENR), in coordination with the Bureau of Fisheries and Aquatic Resources (BFAR) and academic institutions.

By strengthening baseline data and continuous monitoring, this measure ensures science-based policymaking, enhances coastal resilience, and secures long-term ecological and economic benefits for Filipino communities. We cannot protect what we do not measure, and we cannot sustain our fisheries while ignoring the very nurseries that feed them.

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

A handwritten signature in black ink, appearing to read 'C. D. Remulla', with a stylized flourish at the end.

CRISPIN DIEGO “PING” D. REMULLA



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. **10543**

Introduced by Representative Crispin Diego “Ping” D. Remulla

AN ACT
INSTITUTIONALIZING A NATIONAL SEAGRASS MAPPING, MONITORING,
AND PROTECTION PROGRAM, ESTABLISHING A NATIONAL SEAGRASS
DATABASE, AND APPROPRIATING FUNDS THEREFOR

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

1 **SECTION 1. Short Title** – This Act shall be known as the “National Seagrass Mapping
2 and Protection Act.”

3 **SEC. 2. General Mandate.** – It is hereby declared the policy of the State to protect,
4 conserve, and rehabilitate marine ecosystems as an integral component of national
5 environmental stewardship and sustainable development. The State recognizes seagrass
6 ecosystems as critical marine habitats that contribute to biodiversity conservation, fisheries
7 productivity, coastal protection, and climate change mitigation through significant blue carbon
8 sequestration. The State likewise affirms the importance of science-based decision-making and
9 the development of comprehensive environmental databases to guide national and local
10 government planning. Accordingly, the State shall institutionalize systematic mapping,
11 monitoring, and protection of seagrass ecosystems throughout the country.

12 **SEC. 3. Definition of Terms.** - For purposes of this Act, the following terms are defined,
13 as follows:

- 14 a) Seagrass Ecosystems shall refer to submerged flowering plants found in shallow marine
15 and coastal waters that form underwater meadows supporting diverse marine life

- b) Mapping shall refer to the process of identifying, delineating, and recording the spatial distribution and condition of seagrass ecosystems through the use of satellite imagery, drones, sonar technology, and field validation methods.
- c) National Seagrass Database will refer to a centralized digital repository managed by the government that stores geospatial, ecological, and temporal data on seagrass ecosystems nationwide.
- d) Blue carbon ecosystems shall refer to coastal ecosystems, such as seagrass meadows, mangroves, and salt marshes, that can capture and store significant amounts of carbon.
- e) Ecologically Critical or High-Risk Coastal Areas shall refer to seagrass habitats identified by the DENR, in consultation with BFAR and relevant scientific institutions, as being subject to high anthropogenic pressure, rapid degradation, significant biodiversity value, or climate-related vulnerability, as determined pursuant to the Implementing Rules and Regulations of this Act.
- f) Seagrass Stewards shall refer to trained community volunteers, local fisherfolk, and coastal residents who are accredited by the DENR and deputized to assist in ground-truthing, monitoring, and reporting activities under this Act

SEC. 4. *Establishment of the National Seagrass Mapping and Monitoring Program.* –

There is hereby established a National Seagrass Mapping and Monitoring Program, hereinafter referred to as the “Program,” under the Department of Environment and Natural Resources (DENR), in coordination with the Bureau of Fisheries and Aquatic Resources (BFAR), the Philippine Space Agency (PhilSA), state universities and colleges, local universities and colleges, and other relevant research institutions.

The Program shall be responsible for conducting nationwide seagrass mapping every five (5) years using modern geospatial and remote sensing technologies, supplemented by field validation and community-based data collection. It shall also conduct interim monitoring activities every two (2) years in ecologically critical or high-risk coastal areas to ensure timely detection of degradation or loss.

The Program shall promote the use of satellite imagery, drone surveillance, sonar mapping, and scientific diving expeditions, ensuring that all data generated is scientifically validated and standardized for national integration.

SEC. 5. *National Seagrass Database.* – There is hereby established a National Seagrass Database under the DENR, which shall serve as the official repository of all data generated under this Act. The Database shall consolidate geospatial maps, ecological assessments, biodiversity records, and temporal monitoring data of seagrass ecosystems across the country.

1 The Database shall be designed to ensure interoperability with existing national
2 environmental information systems and shall support data sharing among government
3 agencies, academic institutions, and accredited research organizations. A public-facing
4 component of the Database shall likewise be developed to provide accessible summary
5 information for educational, scientific, and transparency purposes, subject to applicable data
6 protection and security standards.

7 **SEC. 6. *Institutional Responsibilities.*** – The DENR shall serve as the lead
8 implementing agency of this Act and shall be responsible for the overall coordination,
9 integration, and policy direction of the Program. The Bureau of Fisheries and Aquatic
10 Resources shall provide technical assistance in relation to fisheries and coastal resource
11 interactions with seagrass ecosystems.

12 The Philippine Space Agency shall provide satellite imagery, remote sensing analysis,
13 and geospatial technology support necessary for national-scale mapping. State universities and
14 colleges, as well as local universities and colleges, shall participate in research, field validation,
15 and capacity-building activities related to seagrass assessment and monitoring.

16 Local government units shall assist in the implementation of field activities within their
17 jurisdictions, support community engagement, and integrate seagrass conservation measures
18 into local coastal resource management plans. The Department of Science and Technology
19 shall provide research funding, technical innovation support, and scientific capacity
20 development relevant to the implementation of this Act. To facilitate inter-agency coordination,
21 a National Seagrass Technical Committee, hereinafter referred to as the “Technical
22 Committee,” is hereby constituted, composed of representatives from the DENR, BFAR,
23 PhilSA, DOST, the Commission on Higher Education, and at least two (2) representatives from
24 accredited civil society organizations working on coastal resource management. The Technical
25 Committee shall meet at least twice (2) a year, serve as the primary body for resolving inter-
26 agency operational disputes, and advise the DENR Secretary on Program implementation.

27 This DENR shall institutionalize and initiate the participation of coastal communities
28 in the implementation of this Act by promoting citizen science initiatives and community-based
29 monitoring systems. Local fisherfolk, coastal residents, and trained volunteers shall be engaged
30 as “Seagrass Stewards” to assist in ground validation, reporting, and monitoring activities.

31 Appropriate training programs shall be developed to enhance local capacity in
32 identifying seagrass habitats and reporting ecological changes. Traditional ecological
33 knowledge shall likewise be recognized and integrated into scientific assessments, where
34 applicable, to ensure inclusivity and contextual accuracy in coastal resource management.

1 **SEC. 7. *Protection and Conservation Measures.*** – All identified seagrass ecosystems
2 mapped under this Act shall be accorded appropriate protection and conservation measures.
3 These ecosystems shall be safeguarded against destructive activities, including, but not limited
4 to, illegal reclamation, unregulated dredging, and environmentally destructive fishing
5 practices. Local government units shall be encouraged to integrate seagrass protection zones
6 into their coastal resource management plans and zoning ordinances. National agencies shall
7 likewise ensure that infrastructure and development projects undergo proper environmental
8 assessment processes that take into account the presence and ecological importance of seagrass
9 habitats.

10 **SEC. 8. *Reporting and Review.*** – The DENR shall submit to Congress a comprehensive
11 national seagrass status reports every five (5) years following the completion of each
12 nationwide mapping cycle. The report shall include updated maps, ecological condition
13 assessments, identified threats, and policy recommendations for improved conservation and
14 management. The said report shall be transmitted to the Committee on Ecology and the
15 Committee on Aquaculture and Fisheries Resources of both chambers of Congress.

16 Biennial progress reports shall likewise be submitted to monitor the implementation of
17 the Program, including updates on data collection, database development, and inter-agency
18 coordination efforts.

19 **SEC. 9. *Appropriations.*** – The initial funding necessary for the implementation of this
20 Act shall be sourced from the amount of One Hundred Million Pesos (PHP 100,000,000.00),
21 which shall be charged against the current appropriations of the DENR and other concerned
22 agencies, or from any available funds in the National Treasury not otherwise appropriated.
23 Thereafter, such sums as may be necessary for the continued implementation of this Act shall
24 be included in the annual General Appropriations Act.

25 The implementation of this Act may likewise be supported by grants, official
26 development assistance, climate finance mechanisms, and other lawful sources of
27 environmental funding.

28 **SEC. 10. *Implementing Rules and Regulations.*** – Within ninety (90) days from the
29 effectivity of this Act, the Department of Environment and Natural Resources, in coordination
30 with the Bureau of Fisheries and Aquatic Resources, the Department of Science and
31 Technology, the Philippine Space Agency, academic institutions, and local government units,
32 shall promulgate the necessary rules and regulations for the effective implementation of this
33 Act.

1 **SEC. 11. *Penal Provisions.*** – Any person or entity who willfully destroys seagrass
2 ecosystems, intentionally and without authority causes destruction to seagrass ecosystems
3 through commercial, industrial, or large-scale activities, falsifies mapping or monitoring data,
4 or obstructs authorized activities under this Act shall, upon conviction, be penalized with
5 imprisonment ranging from six (6) months to six (6) years and a fine ranging from Five
6 Hundred Thousand Pesos (PHP 500,000.00) to One Million Pesos (PHP 1,000,000.00), without
7 prejudice to the filing of administrative and civil liabilities under existing environmental laws.

8 This Act shall not be construed to penalize incidental damage caused by traditional or
9 subsistence fishing activities of municipal fisherfolk operating within their legal rights under
10 the Philippine Fisheries Code, as amended.

11 **SEC. 12. *Separability Clause.*** – If any provision of this Act is declared unconstitutional
12 or invalid, the remaining provisions not affected thereby shall continue to be in full force and
13 effect.

14 **SEC. 13. *Repealing Clause.*** – All laws, presidential decrees, executive orders,
15 issuances, rules, and regulations inconsistent with the provisions of this Act are hereby repealed
16 or modified accordingly.

17 **SEC. 14. *Effectivity Clause.*** - This Act shall take effect fifteen (15) days after its
18 complete publication in the Official Gazette or in at least two (2) newspapers of general
19 circulation.

Approved,