

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



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SENATE

S. No. 860

RECEIVED BY: *[Signature]*

Introduced by Senator Ralph G. Recto

AN ACT
ESTABLISHING THE NATIONAL MARICULTURE PROGRAM, PROVIDING FUNDS
THEREFOR, AND FOR OTHER PURPOSES

Explanatory Note

This bill aims to strengthen the Philippine fisheries sector through the formulation of a National Mariculture Program adopting the ecosystem-based approach. It seeks to expand and strengthen Mariculture Parks and Zones and proposes the creation of the Maritime Zone Advisory Council consisting of representatives from the Bureau of Fisheries and Aquatic Resources-Department of Agriculture (BFAR-DA), the Local Government Unit (LGU) Agriculturist, the LGU Planning and Development Coordinator, fisherfolk cooperatives/organizations and business with direct involvement in mariculture.

The bill sets a P500-Million initial fund for its implementation and mandates the Land Bank of the Philippines to extend financial assistance to fisher-folk at easy terms, low interest rates and low amortizations. The BFAR and the Southeast Asian Fisheries Development Center shall extend technical assistance and recommend culture structures and procedures, among others, to ensure effective implementation. This bill provides for the establishment of physical, and socio-economic support infrastructures to ensure the viability of investments and equitable share of fisher-folk and LGUs from sustainable mariculture.

The Philippines is endowed with vast marine and coastal resources. Of the 2.2 million square kilometers of territorial waters, including the Exclusive Economic Zone, around 266,000 sq. kms. are under the jurisdiction of around 900 coastal cities and towns along the whole length of the country's 36,289 km. coastline. Our archipelago lies at the Earth's center of marine biodiversity, the Coral Triangle, which hosts thousands of endemic and migratory species. We also lie in the Western Central Pacific (Food and Agriculture Office Statistical Area 71), deemed to be one of the highly diverse marine areas and covered by the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean.¹

Fish is a major source of protein, constituting 11.7 percent of the Filipino diet, at 38 kilograms annual per capita.² In fine weather, coastal folk can depend on the sea for food and livelihood. The map of coastal areas largely reflects the most densely-populated areas, more so, of poor Filipinos migrating to where they can get *libreng ulam*. Likewise, coastal folk cut mangrove trees for fuel, charcoal production and house construction materials.

¹ Food and Agriculture Organization – Major Fishing Areas in the Pacific Ocean
<http://www.fao.org/docrep/w1310e/w1310E04.htm>

² Bureau of Fisheries and Aquatic Resources – Other Fishery Information 2014: Food Consumption
<http://www.bfar.da.gov.ph/profile?id=3#post>

This situation of use and misuse in light of abundant marine resources is best illustrated in the Verde Island Passage (VIP). An estimated seven (7) million people live in cities and towns along the VIP, which lies in the apex of the Coral Triangle, while 830,000 live right along the coastlines. Degradation of the VIP's coastlines has come from the destruction of mangrove forests, logging, various coastal developments and aquaculture.

Nationwide, our mangrove forests have whittled down to 248,000 hectares from the 450,000 hectares surveyed a hundred years ago. In addition, mangrove destruction has led to the loss of habitat of many species due to monoculture, or single-species aquaculture, such as prawn farming.

Decades of practicing unsustainable system of aquaculture has led to diminishing variety and volume of harvests with increasing numbers of abandoned, unutilized and underutilized aquaculture areas that had become less productive due to environmental degradation. In addition, Mariculture Parks and Zones are vulnerable to the pollution and contamination coming from farms, construction and other activities in inland waterways.

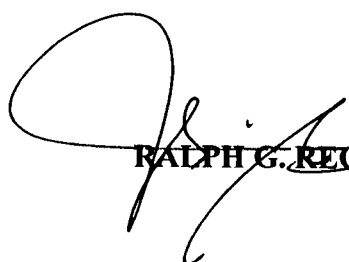
The latest BFAR data show total mariculture production in 2011 of 105,352 metric tons (mt) with the biggest production at 72,144 mt coming from Region I. However, reported figures are often not reliable because of the absence of a standard system for reporting yields and landings as well as collection and transmission of fees and earnings due the LGUs.

Despite the economic services derived from marine resources, the sector has one of the most insecure labor conditions. The Bureau of Labor and Employment Statistics reports that 1.36 million employed in Fishing and Aquaculture received an Average Daily Basic Pay of P201.11, which is P165.28 less or 45% smaller than the all industry daily basic pay of P366.39, as 2014.³ A fisherman working every day would earn P6,033.30 a month, which is P4,500 lower than the 2014 first-half poverty threshold of P10,534 and P1,316.70 lower than the food threshold of P7,350 a month. It is a basket case of food producers under the shadow of hunger. Municipal fisher-folk are one of the lowest-paid and most insecure workers in the country.

The issues of food safety and security, low wages and insecure livelihood, declining yields due to many factors such as habitat destruction or imprecise reporting systems, degradation of coastal ecosystems from anthropomorphic activities that affect the mariculture industry shall be addressed in the proposed bill. The Mariculture Zone Advisory Council to be created is tasked with the over-all management and supervision of Mariculture Parks and Zones as well as revenue collection and transmission of the same to local governments.

Food security and employment for millions of Filipinos are immediate direct benefits to be gained with the implementation of a sustainable ecosystem-based National Mariculture Program proposed herein.

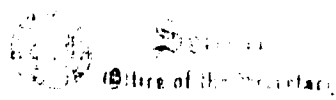
In light of the foregoing, immediate passage of the bill is earnestly sought.



RALPH G. RECTO

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³ 2014 Labor Force Survey



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SENATE
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REC. BY:

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AN ACT
ESTABLISHING THE NATIONAL MARICULTURE PROGRAM, PROVIDING FUNDS
THEREFOR, AND FOR OTHER PURPOSES

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

1 **SECTION 1. Title.** – This Act shall be known as “The National Mariculture Program of
2 2016”.

3 **Sec. 2. Declaration of Policy.** – The State shall ensure food security to everyone, utilizing
4 and developing the country’s natural wealth, and shall protect the aquatic resources as valuable
5 food reserve. Toward this end, the State shall ensure the utmost protection of the country’s
6 marine environment while optimizing the potential contribution to food security.

7 Likewise, the State shall uphold the rights and interests of the Filipino fisher folk and
8 they shall be given preferential use of the marine and fishing resources in the country.

9 To this end, there shall be a comprehensive program on marine technology and research,
10 financial and marketing assistance, and other services for the benefit of the fisher folk and the
11 local communities.

12 **Sec. 3. National Mariculture Program.** – The National Government, through the Bureau
13 of Fisheries and Aquatic Resources (BFAR), shall undertake a National Mariculture Program
14 (NMP), guided by the following objectives:

- 15 1. To promote mariculture as a major source of livelihood for fishermen;
- 16 2. To identify and establish mariculture parks in suitable areas adopting the ecosystem-
17 based approach;
- 18 3. To ensure food security and enhance socio-economic growth through a sustainable
19 mariculture industry;
- 20 4. To conserve, protect and manage the aquatic environment conducive to fisheries,
21 species management and mariculture investment;
- 22 5. To develop procedures in order to minimize the adverse effects from mariculture in
23 view of the multiple uses of marine and coastal areas where mariculture parks may be
24 established;

- 1 6. To develop the technical skills of fishermen throughout the production, harvesting,
- 2 processing, storage and transport stages in the value chain;
- 3 7. To provide appropriate infrastructure and equipment for post-harvest technology;
- 4 8. To provide stakeholders easy access to financial institutions; and
- 5 9. To enable stakeholders to implement activities for climate change resiliency and
- 6 disaster risk reduction and management capability.

7 **Sec. 4. *Definition of Terms.*** – As used in this Code, the following terms shall mean as
8 follows:

- 9 1. Mariculture shall refer to an integrated branch of aquaculture designed to produce fish
- 10 through sea cages, long lines and other culture structures in marine and coastal areas
- 11 to grow high value species, such as but not limited to bangus, siganid, seaweeds,
- 12 oysters, mussels, red snappers, groupers and other related species;
- 13 2. Mariculture Park or Zone shall refer to duly designated fishery areas where
- 14 mariculture is undertaken;
- 15 3. SEAFDEC shall refer to the Southeast Asian Fisheries Development Center, an
- 16 intergovernmental organization established for the purpose of sustaining fishery
- 17 development in Southeast Asia.

18 **Sec. 5. *Mariculture Development Parks and Zones.*** – Subject to the limitations set forth
19 under Sections 20 and 22 of Republic Act No. 8550, otherwise known as the Philippine Fisheries
20 Code of 1988, and Section 149 of Republic Act No. 7160, otherwise known as the Local
21 Government Code, the officials of the local government unit concerned shall supervise the
22 establishment of mariculture parks and zones in duly designated areas located within the
23 municipal waters. In case of waters located outside of municipal waters, the Department of
24 Agriculture (DA) shall designate and supervise the respective mariculture area.

25 The technical, social, economic viability and sustainability, as well as environmental
26 protection, shall be taken into consideration in selecting an area for a mariculture park or zone.

27 For this purpose, the province, city or municipality shall enter into a Lease Agreement
28 with the registered fisher-folk cooperative as well as private investors, where the terms and
29 conditions, as well as profit-sharing terms, are specified therein.

30 However, the BFAR shall provide a ceiling for rents to locators, in consultation with the
31 Sanggunian concerned, taking into consideration its affordability to ordinary fisher-folks and the
32 viability for its continued operation. In granting lease agreements, local government units shall
33 give preference to local fisher-folk.

34 A development plan shall always be required of applicants to form part of the bases for
35 the grant of a license by the Mariculture Zone Advisory Council.

36 Considering the competing uses of seas and ocean space, the Philippine Coast Guard
37 (PCG), shall be required to determine if a proposed mariculture park or zone and its facilities

1 therein pose a significant navigational hazard or obstruct safe travel, and, to issue a certification
2 of its findings and recommendations and submit the same to the Department of Agriculture
3 (DA).

4 **Sec. 6. *Ownership of Mariculture Parks.*** – Unless the Mariculture Park is established by
5 a private individual or corporation, the ownership of the park shall belong to the municipality or
6 city which has jurisdiction over the area. If the park is established outside the municipal waters
7 or within the territorial jurisdiction of two or more cities or municipalities, the ownership shall
8 belong to the provincial government which has jurisdiction over the area. If the area is within the
9 territorial jurisdiction of two or more provinces, the provinces concerned shall enter into a Joint
10 Venture Agreement where the issue of ownership shall be defined.

11 **Sec. 7. *Mariculture Zone Advisory Council.*** – The Mariculture Zone Advisory Council is
12 hereby created which shall be composed of the following:

- 13 1. Representative from the BFAR with a rank equivalent to a Director as Chairman;
- 14 2. The City or Municipal Agriculturist, or in the absence thereof, the Provincial
15 Agriculturist as Vice-Chairman;
- 16 3. The City or Municipal Planning and Development Coordinator;
- 17 4. A representative from the registered fisher-folk organization or cooperative; and
- 18 5. A representative from the private business sector directly involved with the
19 Mariculture Zone;

20 All members of the Advisory Council, and not their respective proxies, shall be required
21 to attend all council meetings.

22 **Sec. 8. *Functions of the Maritime Zone Advisory Council.*** – The Mariculture Zone
23 Advisory Council shall have the following functions:

- 24 1. To operate, administer, manage and develop the Mariculture Zone according to the
25 principles set forth in this Act;
- 26 2. To register, regulate and supervise the enterprises in the Mariculture Zone in an
27 efficient and decentralized manner;
- 28 3. To exercise general supervision over the development, plans, activities and operations
29 of the Mariculture Zone;
- 30 4. To ensure that all revenues of the Mariculture Zone are properly collected and
31 remitted to the local government unit/units.

32 **Sec. 9. *Mooring Spaces.*** – Grant of Mariculture Zone areas shall be based on mooring
33 spaces to ensure that usage of area for sea cages, long lines and other culture structures is limited
34 to the granted space as provided. Granted mooring spaces not developed/installed with culture
35 structures within six (6) months will be forfeited and awarded to other qualified applicants. The
36 BFAR shall prescribe the guidelines in the installation of sea cages, long lines and other culture
37 structures.

1 **Sec. 10. Support Infrastructures.** – To ensure reliable access, cost-effective distance and
2 economic feasibility of the Mariculture Park and Zone, the Advisory Council shall cause the
3 establishment of support infrastructures such as, but not limited to floating guardhouses, onshore
4 feed warehouse, net mending and drying shed, a pier, ice plant and cold storage facility.

5 To ensure fish safety and control diseases, the Advisory Council shall provide for a water
6 quality monitoring system to determine the presence of marine litter, agricultural run-off and
7 pathogenic contaminants in the Mariculture Parks and Zones.

8 In addition to the physical infrastructure, socio-economic infrastructure shall likewise be
9 placed to ensure the success of the Mariculture Park and Zone such as the registration of
10 fisherfolk, fisheries cooperatives and organizations.

11 **Sec. 11. Energy Supply.** – The Local Government Unit shall ensure 24-hour electric
12 power supply for the Mariculture Park and Zone cold storage facility through self-generation or
13 through a power supply agreement with an electric cooperative, distribution utility, sub-
14 transmission or transmission company serving the area nearest the Mariculture Park and Zone:
15 *Provided,* That the Advisory Council shall first determine the feasibility of installing a self-
16 generating renewable energy system for the exclusive use of the Mariculture Park and Zone:
17 *Provided, further,* That the Advisory Council shall utilize power from self-generation if the price
18 per kilowatt hour is lower than power from other entities.

19 **Sec. 12. Aquaculture Technical Assistance and Training to Local Government Units,**
20 *Fisherfolk Cooperatives and Associations, and, Non-Governmental Organizations.* – The
21 SEAFDEC, through its Aquaculture Department, shall provide technical assistance, training and
22 marketing support to local government units, coastal fishermen, fisher-folk
23 cooperatives/association, and non-government organizations with respect to the establishment,
24 utilization and management of mariculture systems in their respective jurisdictions. The
25 SEAFDEC shall closely coordinate with the stakeholders concerned for this purpose.

26 **Sec. 13. Private Sector as Economic Partners.** – Private individual investors or
27 enterprises shall, as far as practicable, be encouraged to take an active role in the establishment,
28 utilization and management of mariculture systems. Qualified private investors or entrepreneurs
29 shall coordinate with the local government officials concerned, local fishing community and
30 appropriate government agencies, for this purpose.

31 **Sec. 14. Financing Scheme.** – The Land Bank of the Philippines (LBP) shall provide
32 financial assistance to registered fisher-folk organizations/cooperatives for the construction of
33 the fish cage, long line and other culture structures and for the procurement of the initial stocks
34 and feeds. The LBP shall issue guidelines on the scheduled annual payments of the loan. It shall
35 reduce the interest rate and/or reduce the principal obligation to make the repayment affordable
36 for the fisher-folk. The LBP shall render quarterly reports on the disbursement of funds for the
37 National Mariculture Program.

1 **Sec. 15. Continuing Research and Development.** – The BFAR shall conduct continuing
2 research and development as well as application of technological advancements in the
3 mariculture industry. A one-hectare Research and Development area shall be designated within a
4 province, city or municipality for the conduct of research and demonstration activities as well as
5 a venue for the manpower capability trainings in the mariculture zone. This area shall be jointly
6 managed by the LGU and BFAR.

7 **Sec. 16. Monitoring and Evaluation.** – The DA shall monitor the implementation of
8 Research and Development programs and mariculture projects. The BFAR shall review all
9 existing mariculture parks and zones every four (4) years, to determine their viability or
10 effectiveness. The BFAR shall employ the services of independent evaluators to assess the
11 overall impact of the country's mariculture development. A quarterly Performance Evaluation
12 issued by independent evaluators shall be submitted to the BFAR for this purpose.

13 **Sec. 17. Appropriations.** – The initial amount of Five Hundred Million Pesos
14 (P500,000,000.00) is hereby appropriated to effectively carry out the provisions of this Act
15 during the first year of implementation. Thereafter, such sums as may be necessary for the
16 continued implementation of this Act shall be included in the succeeding General Appropriations
17 Act.

18 **Sec. 18. Identification of Mariculture Areas.** – Within six (6) months from the effectivity
19 of this Act, the BFAR shall identify the local government units which have potential areas for the
20 establishment of mariculture parks: *Provided*, That not later than one (1) year from the
21 effectivity of this Act, the BFAR, in coordination with the local government units concerned,
22 shall complete the blueprint of each mariculture park in the identified areas.

23 **Sec. 19. Annual Report.** – The DA, through the BFAR, shall render an annual report to
24 Congress on the accomplishment of the program. A review on the viability of the program which
25 includes a complete list suitable for the establishment of mariculture parks in the country with
26 their respective feasibility study shall be made by the agencies concerned after three (3) years of
27 its implementation.

28 **Sec. 20. Information Campaign.** – The BFAR shall undertake intensive public
29 information campaign within three (3) months from the effectivity of this Act.

30 **Sec. 21. Implementing Rules and Regulations.** – The DA, through the BFAR, together
31 with the Department of Interior and Local Government (DILG) and the representatives of the
32 League of Provinces, League of Cities, and League of Municipalities, shall adopt rules and
33 regulations necessary to implement the provisions of this Act within ninety (90) days upon the
34 approval of this Act.

35 **Sec. 22. Repealing Clause.** – All laws, acts, decrees, executive orders, issuances,
36 presidential proclamations and rules and regulations or parts thereof which are contrary to and
37 inconsistent with this Act are hereby repealed, amended or modified accordingly.

1 **Sec. 23. *Effectivity.*** - This Act shall take effect fifteen (15) days following its publication
2 in the Official Gazette or in at least two (2) newspapers of general circulation.

Approved,