

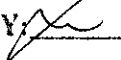
FIFTEENTH CONGRESS OF THE )  
REPUBLIC OF THE PHILIPPINES )  
First Regular Session )



'11 FEB 22 P5:39

SENATE

S.B. No. **2711**

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Introduced by SENATOR MANNY VILLAR

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### EXPLANATORY NOTE

Mangroves are various kinds of trees up to medium height and shrubs that grow in saline coastal sediment habitats in the tropics and subtropics. Such bosks are also part of the mangrove forest biome.<sup>1</sup> Mangroves protect coastal areas from erosion, storm surge especially during hurricanes, and tsunamis.<sup>2</sup> The mangroves' massive root systems are efficient at dissipating wave energy. Likewise, they slow down tidal water enough that its sediment is deposited as the tide comes in, leaving everything except fine particles when the tide ebbs. They also serve as breeding grounds and nursery of marine organisms as well as habitat for a number of wildlife species and resting place for migratory birds. Lastly, mangroves are good sources of raw materials for construction, furniture production and energy.

Healthy mangrove ecosystems provide an abundance of goods and services of critical importance to humans and other species. In contrast to human made capital, these benefits are provided in perpetuity with no depreciation or maintenance costs, continually renewed by solar energy.<sup>3</sup>

In spite of the benefits they provide, mangrove ecosystems are lost at an alarming rate around the world. Once covering some three quarters of tropical coastlines<sup>4</sup>, conversions to aquaculture, pollution, extraction, and coastal development have wiped out an estimated 1/3 of mangrove forests over the past 50 years<sup>5</sup> and at least 1/2 over the last century, with much of the loss occurring in the last two decades<sup>6</sup>. The country's mangrove resources continue to decline despite numerous laws protecting it. Efforts to restore it pale in comparison to the problems depleting it.

This bill aims to set a road-map responsive to the urgent needs of mangrove development and management in the Philippines in order to harmonize policy direction and institutions tending to the same end. Thus, the approval of this bill is earnestly sought.

  
MANNY VILLAR

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<sup>1</sup> World Vegetation, Mildred E. Mathias Botanical Garden, University of California

<sup>2</sup> "Tidal-Scale Hydrodynamics within Mangrove Swamps" Wetlands Ecology and Management, Mazda, Y.; Kobashi, D. and Okada, S. (2005)

<sup>3</sup> "Conserving Mangrove Ecosystems in the Philippines", Farley, Batker, De La Torre, and Hudspeth, 2006

<sup>4</sup> Farnsworth and Ellison 1997

<sup>5</sup> Daniel M. Alongi 2002

<sup>6</sup> GESAMP 2001

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**AN ACT  
PROMOTING A NATIONAL STRATEGY FOR THE SUSTAINABLE  
DEVELOPMENT, MANAGEMENT, AND PROTECTION OF MANGROVE  
RESOURCES IN THE PHILIPPINES AND FOR OTHER PURPOSES**

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

**ARTICLE I  
TITLE, DECLARATION OF POLICY AND OBJECTIVES**

**SECTION 1. *Title*** - This Act shall be known as the "Mangrove Resources Act of 2011."

**SECTION 2. *Policy*** - It is a recognized policy of the State to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. In order to achieve this, there should be a broad-based community participation in the development, management and protection of the country's mangrove forests.

In line with this, the State should ensure the success of development, management and protection of natural mangrove forests and associated ecosystems therein and rehabilitating those mangrove areas which are degraded and ruined. Sustainable utilization of mangrove resources is encouraged to serve as incentive to develop more areas within the framework of community-based and other socially-responsive approaches.

**SECTION 3. *Objectives***. - The objectives of this Act are:

- a. to provide appropriate direction and support for the sustainable development and management of mangrove resources in the country;
- b. to provide an orderly and clear procedure in the implementation of mangrove rehabilitation strategies;
- c. to enhance the mangrove communities' effective and meaningful participation in the development, management and protection of the mangrove forests under various government programs and promote their overall socio-economic well being;
- d. to provide the necessary institutional platforms that will carry out the nation-wide mangrove rehabilitation and protection programs.

**SECTION 4. *Definition of Terms.*** - For purposes of this Act, the following terms are hereby defined:

- a. **Mangroves** – refer to areas along rivers, tidal flats, island fringes and other coastal areas harbouring mangrove species which are periodically inundated due to tide actions.
- b. **Community or Mangrove community** – group or groups of people residing within or adjacent to the FSP mangrove subproject site who are willing and committed to participate in the implementation of the subproject and long- term community-based forest management on the site;
- c. **Community-Based Forest Management Agreement for mangrove areas** – a production sharing agreement entered into by and between a community and the DENR to develop, utilize, manage and conserve a specific portion of mangrove forest consistent with the principles of sustainable development;
- d. **Department** – refers to the Department of Environment and Natural Resources.
- e. **Mangrove enrichment planting** -refers to the direct planting of propagules or nursery -raised mangrove seedlings to sparsely vegetated or poorly stocked natural mangrove areas with the purpose of re-stocking and enriching the area;
- f. **Non -Government Organization (NGO)** – group of persons or organizations, commonly referred to as Assisting Organization (AO) with various expertise contracted by the DENR to assist in the implementation of its projects
- g. **People’s Organization (PO)** -a group of people living within or adjacent to DENR mangrove subprojects organized into an association, cooperative or any other appropriate form of organization to implement the component strategies of a particular community-based mangrove project;
- h. **Reforestation** – refers to planting of mangrove species in degraded areas formerly vegetated with mangrove species;
- i. **Afforestation** – refers to the establishment of mangrove plantations in suitable areas not previously vegetated with mangroves.
- j. **Multiple-use** – refers to the consideration and recognition of the multiple uses of mangrove forests and its ability to provide multiple benefits;
- k. **Aquasiviculture** – combination of tree plantation technologies and fish or other sea products culture designed to obtain optimum economic and environmental benefits from mangrove forests.
- l. **Sea ranching** – refers to the culture of economic fishes and other sea products in an enclosed or strictly protected area with the main purpose of utilizing or harvesting the mature individuals and in restocking adjacent areas.

**SECTION 5. *Basic Principles in Mangrove Management.*** - The basic guiding principle in the national mangrove management shall be sustained ecological soundness and economic viability of all mangrove areas in the country. As such, all mangrove forests whether natural or man-made shall be managed primarily to safeguard their ecological integrity as a life support system as well as

sustain the economic benefits derived through scientific and well-planned utilization strategies for the benefit of the communities dependent on them.

The continuous protection and sustainability of all mangrove areas shall be one of the basic requirements of any mangrove plan or development framework to be followed by all government agencies or private entities involved in mangrove development and management taking into consideration the multiple economic uses of mangrove forests. Any environmental protection strategy shall consider these two basic management principles aimed at deriving optimum economic and environmental benefits from mangrove resources.

**SECTION 6. Mangrove Development and Rehabilitation Strategies.** - Conversion of all natural mangrove forests into non-mangrove land uses shall not be allowed and all existing natural mangroves shall be strictly protected under RA 7586 otherwise known as the National Integrated Protected Areas System Act of 1992. Degraded mangrove areas, coastal areas appropriate for reforestation and afforestation and all current mangrove areas under intensive management shall be allowed to be developed and utilized under the following conditions:

- a. Natural mangrove stands shall be declared as protected areas and as such, no harvesting of mangrove trees for whatever purpose and the collection of tanbarks and other products shall be allowed;
- b. Second growth mangrove areas may be classified into protection forest and production forest. Likewise, no cutting and harvesting of mangrove products in second growth protection mangrove forest such as mangrove trees, tanbarks and *nipa* shall be allowed;
- c. New mangrove plantations developed strictly for protection and for ecological purposes shall not be subjected to harvesting;
- d. Second growth mangrove areas classified as production areas shall be developed and these can be subjected to sustainable harvesting as indicated in a mangrove management plan. Development can be in the form of reforestation or enrichment planting of appropriate mangrove species;
- e. Establishment of new mangrove plantations through afforestation may be undertaken in suitable areas within mangrove forests classified as production areas for sustained economic harvest such as *nipa* plantations for shingles and sap, *bakawan* plantations for timber production, and other mangrove plantations for products such as poles, fuel wood, exudates, tannin and other similar products. *Provided*, that no commercial harvesting shall be allowed. Harvesting of mangrove timber products shall be for domestic purposes only and this shall be subject to rules and regulations promulgated by the mangrove community with the approval of the Department. Fishpond development of not more than 10% of the afforested area may be allowed;
- f. Thinning of plantations and utilization of thinned materials are to include value added processing/marketing;
- g. Natural mangrove forests may be developed for ecotourism provided that physical structures to be built shall further enhance ecological functions of the area as well as conform with its overall development plan approved by the community, the LGUs and the Provincial Environment and Natural Resources Officer;
- h. Sea ranching in all appropriate mangrove areas are allowed provided that this shall be in consideration of reforestation or afforestation in suitable production mangrove sites;

Existing mangrove projects such as the Coastal Environmental Program (CEP), Forestry Sector Subprojects (FSP), Community-Based Resource Management (CBRM), and other government programs shall continue to operate under this Act. Additional project components consistent with those allowed in this Act may be identified for implementation subject to availability of funds within the respective programs, as allowed by law.

**SECTION 7. *Incentives and Institutional Support.*** - As incentive to plantation developers which include but are not limited to the communities, private sector, local government units and other interested parties, integration of fishpond development in the overall development plan whenever feasible is encouraged. *Provided*, that no natural mangrove stand shall be converted into a fishpond. *Provided, further*, that the area of the fishpond shall not be more than 10 % of the area earmarked for development and situated in production mangrove areas.

Selective cutting of mangrove plantations is also allowed until optimum plantation spacing is reached with enough provision for natural seeding. As such, initial closer spacing in all plantations is encouraged.

## **SECTION 8. *Management Strategies.*** -

### **8.1 Project Implementation Approaches**

**8.1.1 Community-Based Forest Management Approach (CBFM)** - The CBFM shall be the main project implementation approach for projects to be implemented under this Act. Communities living within or outside mangrove areas whose sources of livelihood are closely linked to the mangrove areas may apply for tenure of the same under the CBFM program.

Within one year from obtaining tenure over the mangrove area, the CBFM people's organization (PO) shall submit to the Department through the CENRO a sustainable mangrove forest development plan which includes, among others, the classification of the mangrove area in strict protection areas and production areas, plans to protect and maintain the strict protection areas and for developing the production area.

The CBFM permit may also be provided to communities within proclaimed protected mangrove areas. Similarly, a sustainable mangrove management plan shall be submitted by the PO to the Protected Area Management Board (PAMB) within one year from obtaining the tenure over the mangrove area. No harvesting shall be allowed in mangrove areas within protected areas. However, the PO may be allowed to develop the area for tourism purposes as well as other development projects compatible with the protected area status of the mangrove area as provided for in RA 7586 otherwise known as the National Integrated Protected Area System Act of 1992.

**8.1.2 Mangrove Forest Adoption by Private Organizations** - A program for the adoption of mangrove forests or portions thereof by private citizens, groups, partnerships or corporations shall be encouraged under this Act. Such arrangement shall be only be limited to the strict protection of mangrove forests as identified and development of degraded mangroves or other appropriate areas through different rehabilitation strategies. It shall be covered by a memorandum of agreement (MOA) between the DENR Regional Office concerned which would ensure the protection of the area. The State shall allow integration of income generating components under this arrangement such as but not limited to ecotourism, aqua-silviculture development and other economic activities allowed under Section 6 of this Act for purposes of generating funds to sustain the protection of the areas placed under such arrangements. The DENR Regional Office shall have the primary responsibility of monitoring and evaluating the compliance of its partners with respect to the terms and conditions of the MOA. Specific guidelines on this mangrove forest adoption program shall be issued by the DENR within six (6) months upon approval of this Act.

**8.2 Mangrove Research, Development and Extension** - The Ecosystems Research and Development Bureau (ERDB) and where appropriate, the Ecosystems Research and Development Services (ERDS) of the DENR shall undertake relevant basic and applied research and development projects. The ERDB shall also formulate additional approaches for new technology to develop, sustain and preserve mangroves while the implementation shall be undertaken by the ERDS.

To increase the value-added to mangrove products, the Forest Products Research and Development Institute (FPRDI) of the Department of Science and Technology (DOST) shall undertake research and development on mangroves.

FPRDI shall be responsible for extension services of technologies in collaboration with the ERDB and ERDS.

Appropriate state colleges and universities, particularly those situated close to mangroves are expected to undertake research, development and extension services with respect to the same. Social aspects of mangrove management and utilization shall be a major theme of these mangrove research and development initiatives.

Within one (1) year from the promulgation of this Act, the ERDB shall develop and submit to the DENR Undersecretary for Research and Development, a National Research, Development and Extension (RDE) program on mangroves. Such R and D program shall also include R and D projects outside of DENR. It shall also reflect the R and D projects identified under the National Research Development Agenda (NRDA) under the Presidential Coordinating Council for Research and Development (PCCRD) and also those identified under the Action Program of the Commission of Climate Change, should there be any.

**SECTION 9. Funding Requirements.** - All revenues generated from any production sharing agreements within mangrove areas shall be reverted back to the area where such revenue was realized for its continued development and preservation. Appropriate rules, regulations and mechanisms shall be formulated by the Department to enforce this provision. At least 20% from such revenues shall be allocated for the RDE.

The DENR shall set aside funds from the budget of the ERDB for the implementation of mangrove R and D projects as well as extension activities. Concerned ERDS of the Regional Offices of DENR shall also set aside funds for the implementation of RDE activities within their respective regions.

The DOST through PCARRD shall identify mangrove RDEs as priority areas and shall allocate funds for the implementation of such activities.

**SECTION 10. Separability Clause.** - If any provision or part hereof, is held invalid or unconstitutional, the remainder of the law or the provision not otherwise affected shall remain valid and subsisting.

**SECTION 11. Repealing Clause.** - Any law, presidential decree or issuance, executive order, letter of instruction, administrative order, rule or regulation contrary to or is inconsistent with the provision of this Act is hereby repealed, modified, or amended accordingly.

**SECTION 12. Effectivity Clause.** - This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved,