

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



'14 MAY 22 P4:24

SENATE
S. NO. **2237**

RECEIVED BY: *Ji*

Introduced by Senator Miriam Defensor Santiago

AN ACT
ESTABLISHING A NATIONAL MANGROVE REFORESTATION PROGRAM FOR
COASTAL AREAS

EXPLANATORY NOTE

Marine plants are important natural resources that provide shelter, food and nursery areas to a big number of fish species. Marine plants, as well as with rocky foreshores, mud flats, reefs and sand bars, are a fundamental part of fish habitats as they help sustain fish for the future for commercial, traditional and recreational fishing. Mangroves are among the most productive and biologically complex ecosystems. They allow many species to thrive from starfish to monkey and are important for local communities living along the coast lines.

A study of the 2004 Asian tsunami found that areas near healthy mangroves suffered less damage and fewer deaths. Despite their ecological and economic importance, mangroves are under threat worldwide. Over the past 50 years, aquaculture and commercial fish farming has destroyed a third of the world's mangrove forests. In some regions of the world such as the Philippines the loss has been up to 80 percent. The International Union for Conservation of Nature (IUCN) classifies the Philippines as the "center of the center" of marine ecosystem diversity. The Philippines is home to about half the world's mangrove species. However, despite Philippine laws that since 1975 have

banned mangrove clearing, enforcement has been virtually absent, and mangrove destruction still occurs widely.


We can learn from the experiences of other countries. Vietnam is one of the most typhoon-hit nations in Asia. Annually, an average of four typhoons and many more storms wreak havoc on this low-lying country. In what may seem as an uncommon advocacy for a humanitarian organization, the Vietnam Red Cross (VNRC) has been planting and protecting mangrove forests in northern Vietnam since 1994. The reason for its commitment to mangrove protection, which has included planting nearly 12,000 hectares of trees and defending them from shrimp farmers who want to hack them down, is simple: mangroves protect Vietnam's coastal inhabitants from the effects of typhoons. These submerged, coastal forests act as buffers against the sea, reducing potentially devastating 1.5 meter waves into harmless ripples of water. The mangroves planted by the VNRC protect 110 kilometers of the 3,000-kilometre sea dyke system that runs up and down Vietnam's coastline.

In financial terms alone, the mangrove program proves that disaster preparedness pays. The planning and protection of 12,000 hectares of mangroves has cost around \$1.1M, but has helped reduce the cost of dyke maintenance by \$7.3M annually. In lives spared, one need only look to the dividend reaped during typhoon Wukong in October 2000. This typhoon struck three northern provinces, but caused no damage to the dykes behind regenerated mangroves and no deaths inland from these dykes. In the past waves would breach the coastal dykes and flood the land of poor coastal families. Apart from the lives, possessions and property saved from floods, the VNRC estimates that the livelihoods of 7,750 families have benefited from the replanting and protection of the mangrove forests. Local fishermen and their families now earn additional income selling the crabs, shrimps and mollusks which mangrove forests harbor.

This is the same situation in Kenya. Over the last 10 years, conservationists in the region have planted an estimated 10 million mangroves, and the forests have in turn provided for the community. During the peak tourism season, which runs from August to March, the Dabaso Creek Conservation Group earns over 300,000 Kenyan shillings (around \$3,600) from the eco-restaurant, birding excursions, and selling crabs and fish to hotels in Dabaso.

Mangrove conservation is important in the fight against climate change, and not just because mangroves can slow storm surges, prevent erosion, and lower disaster risk for coastal communities. An Earth Watch study reported that 1 hectare of mangroves can sequester 1.36 tons of carbon in a year, equivalent to the annual emissions of six cars. Another study showed that mangroves and other coastal vegetation like sea grasses and salt marsh grass, which are collectively known as blue carbon, can sequester carbon up to 100 times more effectively than terrestrial forests.

For these reasons, the urgent passage of this bill is earnestly requested.¹

ack.

MIRIAM DEFENSOR SANTIAGO

¹ Source: This is the Senate counterpart of House Bill No. 3525 bill filed by Cong. Regina Ongsiako Reyes in the House of Representatives during the 16th Congress.

14 MAY 22 P 4 :24

SENATE
S. NO **2237**

RECEIVED BY: 

Introduced by Senator Miriam Defensor Santiago

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

1 AN ACT
2 ESTABLISHING A NATIONAL MANGROVE REFORESTATION
3 PROGRAM FOR COASTAL AREAS
4

5 SECTION 1. *Short Title.* - This Act shall be known as the "Mangrove
6 Reforestation Act of 2014."

7 SECTION 2. *Declaration of Principles and Policies.* - The Constitution provides
8 that the State shall protect and advance the right of the people to a balanced and healthful
9 ecology in accord with the rhythm and harmony of nature.

10 The State recognizes the need to reforest our coastlines with mangroves to serve as
11 a habitat for fish species and to serve as a natural defense against typhoons, storm surges,
12 and other ecological disasters that usually affect coastal areas.

13 SECTION 3. *Definitions.* - As used in this Act, the following terms shall mean:

14 (a) Mangroves - a community of intertidal plants including all species of trees,
15 shrubs, vines and herbs found on coasts, swamps, or border of swamps;

16 (b) Coastal Area/Zone - is a band of dry land and adjacent ocean space (water and
17 submerged land) in which terrestrial processes and uses directly affect oceanic
18 processes and uses, and vice versa; its geographic extent may include areas
19 within a landmark limit of one (1) kilometer from the shoreline at high tide to
20 include mangrove swamps, brackish water ponds, nipa swamps, estuarine

1 rivers, sandy beaches and other areas within a seaward limit of 200 meters to
2 include coral reefs, algal flats, sea grass beds and other soft-bottom areas.

3 (c) Department shall refer to the Department of Environment and Natural
4 Resources.

5 SECTION 4. *Reforestation of Coastal Areas.* – Coastal areas shall be reforested
6 with mangroves according to standards set by the Department. The Department shall
7 identify the areas that are most vulnerable to storm surges and flooding and shall
8 prioritize these areas in terms of reforestation.

9 For the areas that are most affected by typhoons and other natural disasters, the
10 Department shall, as much as practicable, hire local workers for the projects to be
11 completed under this Act.

12 SECTION 5. *Fish Refuge and Sanctuaries.* – The Department may establish fish
13 refuge and sanctuaries. At least fifty (50%) of bays, foreshore lands, continental shelf or
14 any fishing ground shall be set aside for the cultivation of mangroves to strengthen the
15 habitat and the spawning grounds of fish. Within these areas no commercial fishing shall
16 be allowed. All marine fishery reserves, fish sanctuaries and mangrove swamp
17 reservations already declared or proclaimed by the President or legislated by the
18 Congress of the Philippines shall be continuously administered and supervised by the
19 Department.

20 SECTION 6. *Conversion or unauthorized utilization of Mangroves.* – It shall be
21 unlawful for any person to convert mangroves into fishponds or for any other purposes or
22 to cut down or utilize mangroves without a license from the Department.

23 SECTION 7. *Appropriations.* – For the first three (3) years of this Act, the amount
24 of one hundred million pesos (P100,000,000) shall be appropriated for its initial stages. In
25 the succeeding years, there shall be appropriated such sums as may be necessary to carry
26 out the provisions of this Act.

1 SECTION 8. *Separability Clause.* – If any provision or part hereof, is held invalid
2 or unconstitutional, the remainder of the law or the provision not otherwise affected shall
3 remain valid and subsisting.

4 SECTION 9. *Repealing Clause.* – Any law, presidential decree or issuance,
5 executive order, letter of instruction, administrative order, rule or regulation contrary to
6 or is inconsistent with the provision of this Act is hereby repealed, modified, or amended
7 accordingly.

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

Approved,

/dpm