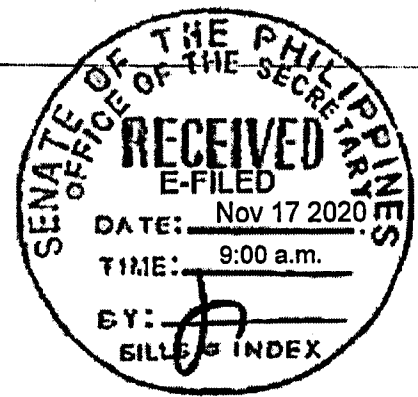


EIGHTEENTH CONGRESS)
REPUBLIC OF THE PHILIPPINES)
Second Regular Session)



SENATE

S.B. No. 1917

Introduced by **Senator Risa Hontiveros**

**AN ACT ESTABLISHING THE NATIONAL COASTAL GREENBELT PROGRAM,
PROVIDING FUNDS THEREFOR, AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

In 2013, super-typhoon Yolanda (Haiyan) hit Eastern Visayas and felt in other parts of the country as it left 6,201 killed and four million people lost their homes. It was estimated that over 14 million people were affected over 46 provinces. In 2020, a similar deadly Super Typhoon Rolly battered the Bicol Region and neighboring areas that killed at least 20 people, of which 14 were from Albay and 6 from Catanduanes, based from the report of the Office of Civil Defense. It also damaged agricultural crops and infrastructure worth Php6 billion as estimated by the Department of Agriculture and Department of Public Works and Highways.

Previous storms, Ondoy, Pablo and Sendong have wrought havoc to other cities and provinces in the past half-decade, crippling the economic and social development of the Filipino people. The Philippines is battered by more than 20 typhoons a year, with an increasing number in the super-typhoon category. These could bring as much damage as Yolanda and Rolly. The losses attributed were caused by storm surges and strong winds coming from the open ocean, particularly in the Eastern Pacific Seaboard. In the age of global climate change, this has unfortunately become the new normal.

The poor coastal communities' natural exposure to storm surges and lack of resources for preparation and recovery make them most vulnerable.

It is imperative to think of innovative, sustainable and cost-efficient ways for Filipinos to protect themselves, their properties and communities from the devastating impacts of natural disasters.

The Philippines is taking great strides in disaster preparedness. Recent laws created the Climate Change Commission through Republic Act No. (R.A.) 9729 and strengthened the National Disaster Risk Reduction and Management Council through R.A. No. 10121. In addition, the People's Survival Fund through RA No. 10174 was created to support adaptation activities of local governments and communities to increase their resilience.

Disaster preparedness comprises a whole suite of items, such as early warning systems, elevated shelters, hard engineering (e.g., breakwaters) and green engineering/infrastructure.

1. The establishment of greenbelts of mangroves and beach forests along coastlines is a proven green engineering intervention. Coastal greenbelts particularly mangroves plays an essential role in mitigating climate change and its impacts. Collectively termed as blue carbon ecosystem along with salt marsh and seagrass meadows have been regarded as powerhouse of carbon sequestration. The role of blue carbon ecosystems, particularly mangroves, are now being incorporated in the climate change mitigation modalities particularly in the Reducing Emission from Deforestation and Forest Degradation or REDD (IUCN 2012).

Nature-based solutions for climate such as coastal greenbelt protection and management, harness the power of nature to reduce greenhouse gas emissions and also help us adapt to the impacts of climate change and reduce disaster risks. They are win-win solutions that involve protecting, restoring and sustainably managing ecosystems to address society's challenges and promote human well-being. It also addresses our biodiversity crisis. Globally, around a million animal and plant species are now threatened with extinction - more than ever before in human history because of mangrove destruction.

As the Philippines' 36,000 km coastline is among the longest in the world, coastal greenbelts effectively mitigate the damaging impacts of waves and storm surges. Some of the scientifically proven benefits are:

- Wave height of wind and swell waves can be reduced by 13-66% over 100m of mangroves;
- Storm surge attenuation of 5-50 cm per kilometer width of mangroves;
- Surface wind waves can be reduced by more than 75% over one kilometer of mangroves;
- 50% reduction in storm surges by a 7-km band of mangroves.

Furthermore, coastal forests can reduce the force, depth and velocity of a tsunami, lessening damage to property and reducing loss of life.

Furthermore, mangrove root growth pushes the soil upward, resulting in a higher soil level. These processes can allow mangroves to keep pace with rising sea levels. Some mangroves sit on top of deep layers of mangrove peat that may be 6 meters deep or more, that were built up over thousands of years as sea levels rose. These mangrove soils grew vertically at rates of up to 10 mm per year in sites from Australia to Belize, suggesting that mangroves may be able to keep up with similar rates of sea level rise into the future, where local conditions allow. While not all mangroves may be able to fully "keep up" with rising seas, even a small increase in soil surface height over time may help to reduce the impact of sea level rise on coastal areas. Mangroves may be able to colonize landward areas if space is available, and thus, continue to provide coastal defense services against waves and storms.

Coastal greenbelts are also cost-effective for disaster preparedness in the long term. The total valuation of mangroves is estimated at US\$14,000-16,000 per hectare, of which about 80% is for coastal protection value. The cost of establishing coastal greenbelts to protect against storm surge and tsunami would only be a fraction of the damages that could be brought by the yearly battering of typhoons.

A number of existing laws, policies and regulations on mangroves have been issued over the years resulting in a fragmented and conflicting policy environment. This bill aims

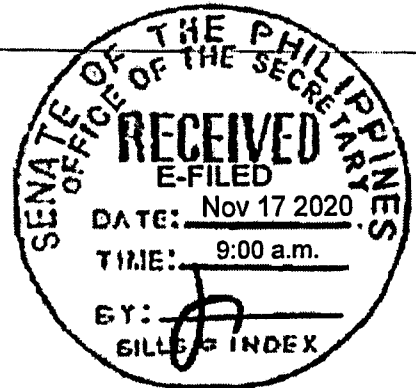
to come up with a strategic program to rationalize the development of mangroves and beach forests for coastal protection; it is anchored on a comprehensive policy framework that addresses the fragmented approach in the past.

Establishing the National Coastal Greenbelt Program shall provide appropriate agencies and government instrumentalities the mandates, funding, and general guiding principles for implementing a science-based and cost-effective program. The proposed National Greenbelt Program mandates establishment of 100-meter protection zones, initially for the Eastern Pacific seaboard, where typhoons make landfall. This Program can also reap added benefits. The establishment of science-based coastal greenbelts is expected to protect biodiversity, improve fisheries productivity, and enhance the tourism and livelihood potential of the area. Transforming vulnerable coastal villages into highly resilient and sustainable communities is a step towards a nation that is inclusive for all.

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


RISA HONTIVEROS
Senator

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



SENATE

S.B. No. 1917

Introduced by Senator Risa Hontiveros

**AN ACT ESTABLISHING THE NATIONAL COASTAL GREENBELT PROGRAM,
PROVIDING FUNDS THEREFOR, AND FOR OTHER PURPOSES**

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

1 **Section 1. Title.** – This Act shall be known as the “National Coastal Greenbelt
2 **Act.”**

3
4 **Sec. 2. Declaration of Policy.** – The State shall ensure the protection of the
5 rights of the people to a healthful and balanced ecology as enshrined in our 1987
6 Philippine Constitution. Consistent with the Climate Change Act of 2009 (R.A. No. 9729),
7 as amended by R.A. No. 10174, the State shall encourage the participation of the national
8 government, local governments, businesses, nongovernment organizations, local
9 communities and the public to prevent and reduce the adverse impacts of climate change.
10 The State shall also recognize that climate change and disaster risk reduction and
11 management are closely interrelated. The State shall incorporate a gender-sensitive, pro-
12 children and pro-poor perspective in all plans of disaster risk reduction and management
13 and applies the Ecosystem-Based Adaptation to climate change. These principles shall be
14 further integrated into climate change programs and initiatives. Taking into account the
15 effects of climate change and the need to conserve and develop the conditions of our
16 environment, the State shall take appropriate measures to protect the lives and property
17 of the people from the impacts in coastal areas of typhoons, tsunamis and similar natural
18 events.

19
20 **Sec. 3. Definition of Terms.** – As used in this Act, the following terms shall
21 mean:

- 22
23 a. *Coastal greenbelts* – a strip of natural or planted coastal vegetation, stretching
24 at least 100 meters in width from the sea towards land, primarily of mangrove
25 and beach forest species, which are designed to prevent coastal erosion, and
26 mitigate the adverse impacts of natural coastal hazards on human lives and
27 property.
28
29 b. *Designated area for coastal greenbelts* – site-specific stretch of vegetation in
30 the coastal zone, defined in relation to risk factors and vulnerability to coastal
31 hazards, and reserved for protection and maintenance under the National
32 Coastal Greenbelt Action Plan. The area may undergo rehabilitation,
33 reforestation or afforestation with locally appropriate species. Designated areas
34 with abandoned fishponds require the reversion of these fishponds to
35 mangroves through natural regeneration or replanting with locally appropriate
36 species. Designated areas with illegal structures (such as breakwaters,

- 1 permanent residential/ commercial structures, and the like) require removal of
2 such structures.
- 3 c. Ecosystem-Based Adaptation-is an approach to address climate change
4 through the use of biodiversity and ecosystem services as part of an over-all
5 adaptation strategy to help people to adapt to the adverse effects of climate
6 change (Convention on Biological Diversity, 2009)
- 7
- 8 d. *Local Coastal Greenbelt Action Plan (LCGAP)* – the local action plan shall be
9 based on the NCGAP. It shall contain the specific goals and targets for the
10 implementation of the program set in the NCGAP.
- 11
- 12 e. *National Coastal Greenbelt Action Plan (NCGAP)* – the operational plan that
13 shall serve as the guide for the Local Greenbelt Action Plan (LCGAP). It shall
14 contain the implementing guidelines on how to go about Section 4 of this Act.
15

16

17 **Sec. 4. National Coastal Greenbelt Action Plan (NCGAP).** – The Climate
18 Change Commission shall, within six (6) months, identify and convene all national
19 government agencies and instrumentalities responsible for foreshore management,
20 mangrove and beach forest protection and utilization, coastal land and sea-use planning,
21 coastal tourism development, social welfare of coastal communities, and other relevant
22 mandates, to prepare an National Coastal Greenbelt Action Plan (NCGAP). The NCGAP
23 will provide input to the National Climate Change Action Plan (NCCAP) and the Nationally
24 Determined Contributions that the Philippines will submit to the United Nations
25 Framework Convention on Climate Change (UNFCCC) as part of its commitment to the
26 Paris Agreement.

27

28 The NCGAP, at the minimum, contain the following:

- 29
- 30 a. Spatial representation, or if feasible, quick/ rapid inventory of the status of
31 coastlines and foreshores, including the status of mangroves, beach forests,
32 settlements, structures and fishponds at least within 100 meters therein;
- 33
- 34 b. Assessment of priority areas to be declared as coastal greenbelts, for each
35 coastal province, city and municipality, to protect by means of mangroves and
36 beach forests, based on vulnerability to storm surges, waves, tsunami and the
37 like. The Action Plan shall indicate that the assessment of priority areas shall
38 be completed within twelve (12) months from the adoption of the NCGAP. The
39 CCC through its National Panel of Technical Experts shall determine the criteria
40 for selection for the priority areas under the NCGAP;
- 41
- 42 c. Designation of priority areas for coastal greenbelts that are already included as
43 either a protected area under the National Integrated Protected Areas System
44 (R.A. No. 7586), or Expanded NIPAS (R.A. No. 11038) or as a fish refuge or
45 sanctuary under the Fisheries Code of 1998 (R.A. No. 8550, as amended by
46 R.A. No. 10654), or as a local marine protected area or fish sanctuaries as may
47 be declared by municipalities and cities through ordinances. The designation
48 shall be completed within six (6) months from the completion of the
49 assessment. Designation shall also be done through a proposal to the
50 appropriate agency, municipality or city as may be deemed necessary. If an
51 area is designated as a priority area, no structure shall be allowed in said area
52 unless it is approved by the DENR or BFAR, as may be appropriate;
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- d. Operational Plan for the rehabilitation, reforestation or afforestation of designated priority coastal greenbelts with ecologically appropriate mangrove and beach forest species, at least one hundred (100) meters in width. Existing forests or plantations greater than the minimum width shall not be reduced. The program for rehabilitation, reforestation or afforestation shall be community-based, long term and implemented through the municipality or city government. The Operational Plan shall indicate that the program for rehabilitation, reforestation and afforestation must cover a minimum target area of twenty percent (20%) of the designated priority areas in the first five (5) years for maximum protection of the most vulnerable communities in the city or municipality. The remaining priority areas must be completed within ten (10) years the designation of the priority area. When necessary, the plan shall be complemented and/or combined with simple engineer solution to support rehabilitation, reforestation or afforestation initiatives and provide additional services such as avoiding further coastal erosion, provide coastal protection from wind waves and storm surges if possible.

- e. Operational Plan for the reversion of all abandoned fishponds to mangroves through natural regeneration or replanting with locally appropriate species. The NCGAP shall indicate that the identification and recovery of possession from delinquent fishpond lease agreement holders shall be completed within twelve (12) months from the adoption thereof. All fishpond areas to be reverted to mangroves shall form part of the minimum target for the first year of implementation of the Action Plan. In addition the plan should also include a comprehensive study of carbon sequestration capacity of mangroves or carbon stock assessment in the country.;

- f. Operational Plan for the removal of illegal structures (such as breakwaters, permanent residential/ commercial structures, and the like), in the Identified priority coastal greenbelts. The NCGAP shall indicate that the declaration of and notice to persons responsible for removal of illegal structures shall be completed within twelve (12) months from the adoption thereof. The removal of illegal structures in and start of rehabilitation, reforestation or afforestation of these areas shall form part of the minimum target for the first year of implementation of the Action Plan.

- g. Monitoring and evaluation plan, with quantitative and qualitative targets consistent with (d), (e) and (f) above, appropriate indicators and reasonable means of verification. The plan shall become an integrated part of the Action Plan and Annual Report to Congress.

The Climate Change Commission (CCC) shall be responsible for consolidating the NCGAP not later than twelve (12) months from the date this Act takes effect.

Sec. 5. Key Implementing Agencies. – The following agencies shall take the lead in implementing components of the Program and Action Plan that are relevant to their mandates:

- a. The Climate Change Commission (CCC) shall be responsible for the congregation of relevant government agencies, facilitation of public participation in the preparation of the NCGAP, integration of the NCGAP into Local Coastal Greenbelt Action Plans and the preparation of the integrated

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report to Congress especially with regard to the expenditure of the appropriation and other pertinent matters under Section 8 of this Act;

- b. The Department of Environment and Natural Resources (DENR), through its relevant offices, shall be responsible for (a), (b), (c), (d), (e), and (f) of Section 4 of this Act in line with existing laws and mandates, and it shall provide the CCC all relevant information to aid in the monitoring and evaluation of the NCGAP. In particular, the DENR shall identify the Designated Areas that will need to be expropriated by the government and to recommend the expropriation plan to the CCC;
- c. The Bureau of Fisheries and Aquatic Resources (BFAR) of the Department of Agriculture (DA) shall coordinate with the DENR for (e) in Section 4 above or the Operational Plan that provides for the reversion of all abandoned fishponds to mangroves through natural regeneration or replanting with locally appropriate species in line with existing laws and mandates, and it shall provide the CCC all relevant information to aid in the monitoring and evaluation of the NCGAP;
- d. The Department of Interior and Local Government (DILG) through its relevant offices, shall provide technical guidance for provinces, cities and municipalities to develop Local Coastal Greenbelt Action Plans, design and implement community-based and ecologically appropriate rehabilitation, reforestation and afforestation programs, and monitor and evaluate their programs. In particular, the Local Inter Agency Committee (LIAC) shall coordinate with the Local Government Unit in implementing the action plans.

In addition, the National Housing Authority (NHA) shall provide appropriation for the relocation of the families or individuals who will be affected by the implementation of the NCGAP and the LCGAP. The other agencies that participated in the preparation of the Action Plan shall implement their commitments, as provided therein. The actions required of implementing agencies are immediately executable, based on the agreed NCGAP, and on other existing mandates, programs and budgets that are aligned with the NCGAP, without need for formulating implementing guidelines, rules and regulations for this Act.

Sec. 6. National Panel of Technical Experts. –

Consistent with R.A. No. 9729, the National Panel of Technical Experts shall provide scientific guidance to the CCC in the design, implementation and evaluation of actions under the NCGAP.

Sec. 7. Local Coastal Greenbelt Action Plan. –

Each coastal municipality and city in the identified priority coastal greenbelt areas in the Action Plan shall prepare a Local Coastal Greenbelt Action Plan (LCGAP) from its local climate change action plan (LCCAP) to facilitate the implementation of mandated actions in the NCGAP. The roles of the municipality or city, as provided in the LCGAP shall be to:

- a. Facilitate the implementation of the mandates of the national agencies under Section 4, by providing local data and other supporting measures;
- b. Implement complementary programs to assist local communities and local businesses that are affected by the actions under Section 4, such as relocation sites with basic services such as livelihood and transportation programs, zoning

- 1 or re-zoning of the priority coastal greenbelt areas, as appropriate, and the
2 like;
- 3 c. Provide the actual inventory of affected families in Designated Areas and to
4 ensure that a just and humane processes of relocation is done;
 - 5 d. Lead in the actual implementation of rehabilitation, reforestation and
6 afforestation, through the coastal barangays;
 - 7 e. Integrate the identified coastal greenbelts in the Comprehensive Land-Use
8 Plan;
 - 9 f. Provide data and qualitative feedback to the Key Implementing Agencies as
10 may be relevant.

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12 The provincial government shall provide technical and budgetary support to
13 component coastal cities and municipalities, and ensure consistency across contiguous
14 cities and municipalities sharing a common priority coastal greenbelt area.

15
16 **Sec. 8. Enforcement Actions. –**

- 17
18 a) In addition to the penalties provided under existing law, any person who
19 obstructs the DENR in the removal of illegal structures, or BFAR in the process
20 of reversion of abandoned fishponds, shall be liable to that agency for an
21 administrative fine of fifty thousand pesos (P50,000) per day that the agency
22 is prevented from performing its function.
- 23 b) No structure shall be built within the identified coastal greenbelts without a
24 permit from DENR or BFAR, consistent with their mandates. Any person who
25 violates this prohibition shall be liable to the agency for an administrative fine
26 of fifty thousand pesos (P50,000) per day from the time the structure was built
27 until its removal.
- 28 c) Proceeds from administrative fines under this Section shall be retained by the
29 agency imposing such fines and used exclusively for the implementation of its
30 mandate under this Act.
- 31 d) Legal actions filed in the exercise of rights and enforcement of obligations
32 under this Act shall be covered by the Rules of Procedure for Environmental
33 Cases.

34
35 **Sec. 9. Incentives to Local Government Units.** The CCC shall design an
36 Incentive award system for LGUs that have finalized their evidence-based LCGAP and
37 have supported the establishment of coastal greenbelts in their areas.

38
39 **Section 10. Annual Report to Congress. –** The Key Implementing Agencies
40 shall report to Congress on their progress in meeting the quantitative and qualitative
41 targets under the Action Plan for each fiscal year. The reports shall be consolidated by
42 the Climate Change Commission for presentation to the appropriate Committee in
43 Congress at a meeting called for the purpose.

44
45 **Sec. 11. Implementing Rules and Regulations. –** Within sixty (60) days from
46 the effectivity of this Act, the CCC, in consultation with the stakeholders, shall promulgate
47 the necessary rules and regulations for the effective implementation of this Act.

48
49 **Sec. 12. Appropriations. –** The Key Implementing Agencies shall draw from
50 their existing programs and budgets to implement their responsibilities under the Action
51 Plan and subject to additional funding in the annual national appropriations, to meet the
52 targets agreed in the Action Plan.

53

1 **Sec. 13. *Separability Clause.*** – Should any provision of this Act is declared
2 unconstitutional, the same shall not affect the validity of the other provisions of this Act.

3
4 **SEC. 14. *Repealing Clause.*** – All laws, decrees, orders, rules, and regulations
5 or other issuances or parts inconsistent with the provisions of this Act are hereby repealed
6 or modified accordingly.

7
8 **SEC. 15. *Effectivity.*** – This Act shall take effect fifteen (15) days after publication
9 in the Official Gazette and in two (2) newspapers of general circulation in the Philippines.

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11
12 Approved,