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SENATE
S.B. No. 651

RECEIVED BY: 

Introduced by: Senator Paolo Benigno "Bam" A. Aquino IV

**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 left thousands of people dead. Millions more became homeless and now, are struggling to cope with the loss of loved ones, life savings and livelihood.

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. The losses attributed were caused by storm surges and strong winds coming from the open ocean. 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 (R.A. No. 9729) and strengthened the National Disaster Risk Reduction and Management Council (R.A. No. 10121). In addition, the People's Survival Fund (R.A. 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.

An establishment of greenbelts of mangroves and beach forests along coastlines is a proven green engineering intervention. 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.

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 the agency 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.


Senator Paolo Benigno A. Aquino IV



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*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**
2 **Greenbelt Act.**"

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

17 **SECTION 3. Definition of Terms.** - As used in this Act, the following terms
18 shall mean:

- 19 a. *Coastal greenbelts*- a strip of natural or planted coastal vegetation,
20 stretching at least 100 meters in width from the sea towards land,
21 primarily of mangrove and beach forest species, which are designed to
22 prevent coastal erosion, and mitigate the adverse impacts of natural
23 coastal hazards on human lives and property.

- 1 b. *Designated area for coastal greenbelts* - site-specific stretch of vegetation
2 in the coastal zone, defined in relation to risk factors and vulnerability to
3 coastal hazards, and reserved for protection and maintenance under the
4 National Coastal Greenbelt Action Plan. The area may undergo
5 rehabilitation, reforestation or afforestation with locally appropriate
6 species. Designated areas with abandoned fishponds require the
7 reversion of these fishponds to mangroves through natural regeneration
8 or replanting with locally appropriate species. Designated areas with
9 illegal structures (such as breakwaters, permanent
10 residential/commercial structures, and the like) require removal of such
11 structures.
- 12 c. *National Coastal Greenbelt Action Plan (NCGAP)* - the operational plan
13 that shall serve as the guide for the Local Greenbelt Action Plan (LCGAP).
14 It shall contain the implementing guidelines on how to go about Section 4
15 of this Act.
- 16 d. *Local Coastal Greenbelt Action Plan (LCGAP)* - the local action plan shall
17 be based on the NCGAP. It shall contain the specific goals and targets for
18 the implementation of the program set in the NCGAP.

19 **SEC. 4. National Coastal Greenbelt Action Plan (NCGAP).** - The Climate
20 Change Commission shall, within six (6) months, identify and convene all national
21 agencies responsible for foreshore management, mangrove and beach forest
22 protection and utilization, coastal land and sea-use planning, coastal tourism
23 development, social welfare of coastal communities, and other relevant mandates,
24 to prepare an integrated National Coastal Greenbelt Action Plan (NCGAP).

25 The NCGAP shall, at the minimum, contain the following:

- 26 a. Spatial representation, or if feasible, quick/rapid inventory of the status
27 of coastlines and foreshores, including the status of mangroves, beach
28 forests, settlements, structures and fishponds within 100 meters therein;
- 29 b. Assessment of priority areas to be declared as coastal greenbelts, for
30 each coastal province, city and municipality, to protect by means of
31 mangroves and beach forests, based on vulnerability to storm surges,
32 waves, tsunami and the like. The Action Plan shall indicate that the
33 assessment of priority areas shall be completed within twelve (12)
34 months from the adoption of the NCGAP;
- 35 c. Designation of priority areas for coastal greenbelts that are already
36 included as either a protected area under the National Integrated
37 Protected Areas System (R.A. No. 7586), or as a fish refuge or sanctuary
38 under the Fisheries Code of 1998 (R.A. No. 8550), or as a local marine
39 protected area as may be declared by municipalities and cities through
40 ordinances. The designation shall be completed within six (6) months

1 from the completion of the assessment. Designation shall also be done
2 through a proposal to the appropriate agency, municipality or city as may
3 be deemed necessary. If an area is designated as a priority area, no
4 structure shall be allowed in said area unless it is approved by the DENR
5 or BFAR, as may be appropriate;

6 d. Operational Plan for the rehabilitation, reforestation or afforestation of
7 designated priority coastal greenbelts with ecologically appropriate
8 mangrove and beach forest species, not less than one hundred (100)
9 meters in width. Existing forests or plantations greater than the minimum
10 width shall not be reduced. The program for rehabilitation, reforestation
11 or afforestation shall be community-based, long-term and implemented
12 through the municipality or city government. The Operational Plan shall
13 indicate that the program for rehabilitation, reforestation and
14 afforestation must cover a minimum target area of twenty percent (20%)
15 of the designated priority areas in the first five (5) years for maximum
16 protection of the most vulnerable communities in the city or municipality.
17 The remaining priority areas must be completed within ten (10) years the
18 designation of the priority area;

19 e. Operational Plan for the reversion of all abandoned fishponds to
20 mangroves through natural regeneration or replanting with locally
21 appropriate species. The NCGAP shall indicate that the identification and
22 recovery of possession from delinquent fishpond lease agreement
23 holders shall be completed within twelve (12) months from the adoption
24 thereof. All fishpond areas to be reverted to mangroves shall form part of
25 the minimum target for the first year of implementation of the Action
26 Plan;

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

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

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

1 **SEC. 5. Key Implementing Agencies.** - The following agencies shall take the
2 lead in implementing components of the Program and Action Plan that are relevant
3 to their mandates:

- 4 a. The Climate Change Commission (CCC) shall be responsible for the
5 congregation of relevant government agencies, facilitation of public
6 participation in the preparation of the NCGAP, integration of the NCGAP
7 into the Local Action Plans including the power of approving putting up
8 necessary structures in the Designated Areas, and the preparation of the
9 integrated report to Congress especially with regard to the expenditure of
10 the appropriation and other pertinent matters under Section 8 of this Act;
- 11 b. The Department of Environment and Natural Resources (DENR), through
12 its relevant offices, shall be responsible for (a) (b), (c), (d), (e) and (f) of
13 Section 4 of this Act in line with existing laws and mandates, and it shall
14 provide the CCC all relevant information to aid in the monitoring and
15 evaluation of the NCGAP. In particular, the DENR shall identify the
16 Designated Areas that will need to be expropriated by the government
17 and to recommend the expropriation plan to the CCC;
- 18 c. The Bureau of Fisheries and Aquatic Resources (BFAR) of the Department
19 of Agriculture (DA) shall coordinate with the DENR for (e) in Section 4
20 above or the Operational Plan that provides for the reversion of all
21 abandoned fishponds to mangroves through natural regeneration or
22 replanting with locally appropriate species in line with existing laws and
23 mandates, and it shall provide the CCC all relevant information to aid in
24 the monitoring and evaluation of the NCGAP;
- 25 d. The Department of Interior and Local Government (DILG) through its
26 relevant offices, shall provide technical guidance for provinces, cities and
27 municipalities to develop Local Coastal Greenbelt Action Plans, design
28 and implement community-based and ecologically appropriate
29 rehabilitation, reforestation and afforestation programs, and monitor and
30 evaluate their programs. In particular, the Local Inter Agency Committee
31 (LIAC) shall coordinate with the Local Government Unit in implementing
32 the action plans.

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

1 **SEC. 6. National Technical Advisory Committee.** - The Climate Change
2 Commission shall convene a National Technical Advisory Committee (NTAC)
3 composed of:

- 4 a. A technical representative from the Climate Change Commission (CCC);
- 5 b. A technical representative from the Department of Environment and
6 Natural Resources (DENR);
- 7 c. A technical representative from the Bureau of Fisheries and Aquatic
8 Resources (BFAR);
- 9 d. Two (2) known experts in mangrove and beach forest ecosystems,
10 oceanography or other related disciplines; and
- 11 e. A representative from a non-government organization or a people's
12 organization that demonstrates capacity to promote the public interest
13 and with identifiable leadership, membership and structure that has been
14 actively involved in mangrove research and has produced actual
15 publication in mangrove research as among the criteria that shall be set
16 by the DENR, BFAR and CCC.

17 The National Technical Advisory Committee shall provide scientific guidance
18 in the design, implementation and evaluation of actions under the NCGAP. The
19 experts shall serve in the Committee without compensation, but may be reimbursed
20 for basic expenses to attend meetings and prepare technical reports.

21 **SEC. 7. Local Coastal Greenbelt Action Plan.** - Each coastal municipality and
22 city in the identified priority coastal greenbelt areas in the Action Plan shall prepare
23 a Local Coastal Greenbelt Action Plan (LCGAP) to facilitate the implementation of
24 mandated actions in the NCGAP. The roles of the municipality or city, as provided in
25 the local LCGAP shall be to:

- 26 a. Facilitate the implementation of the mandates of the national agencies
27 under Section 4, by providing local data and other supporting measures;
- 28 b. Implement complementary programs to assist local communities and
29 local businesses that are affected by the actions under Section 4, such as
30 relocation sites with basic services such as livelihood and transportation
31 programs, zoning or re-zoning of the priority coastal greenbelt areas, as
32 appropriate, and the like;
- 33 c. Provide the actual inventory of affected families in Designated Areas and
34 to ensure that a just and humane process of relocation is done;
- 35 d. Lead in the actual implementation of rehabilitation, reforestation and
36 afforestation, through the coastal barangays;
- 37 e. Integrate the identified coastal greenbelts in the Comprehensive Land-
38 Use Plan;
- 39 f. Provide data and qualitative feedback to the Key Implementing Agencies,
40 as may be relevant.

41 The provincial government shall provide technical and budgetary support to
42 component coastal cities and municipalities, and ensure consistency across

1 contiguous cities and municipalities sharing a common priority coastal greenbelt
2 area.

3 **SEC. 8. Enforcement Actions. -**

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

21 **SEC. 9. Annual Report to Congress. -** The Key Implementing Agencies shall
22 report to Congress on their progress in meeting the quantitative and qualitative
23 targets under the Action Plan for each fiscal year. The reports shall be consolidated
24 by the Climate Change Commission for presentation to the appropriate Committee
25 in Congress at a meeting called for the purpose.

26
27 **SEC. 10. Implementing Rules and Regulations. -** Within sixty (60) days from
28 the effectivity of this Act, the Department of Environment and Natural Resources
29 (DENR) shall promulgate the necessary rules and regulations for the effective
30 implementation of this Act.

31 **SEC. 11. Appropriations. -** The Key Implementing Agencies shall draw from
32 their existing programs and budgets to implement their responsibilities under the
33 Action Plan, and through the People's Survival Fund, where appropriate, subject to
34 additional funding in the annual national appropriations, to meet the targets agreed
35 in the Action Plan.

36 **SEC. 12. Separability Clause. -** Should any provision of this Act is declared
37 unconstitutional, the same shall not affect the validity of the other provisions of this
38 Act.

39 **SEC. 13. Repealing Clause. -** All laws, decrees, orders, rules, and regulations
40 or other issuances or parts inconsistent with the provisions of this Act are hereby
41 repealed or modified accordingly.

1 **SEC. 14. Effectivity.** - This Act shall take effect fifteen (15) days after
2 publication in the Official Gazette and in two (2) newspapers of general circulation in
3 the Philippines.

4 *Approved;*