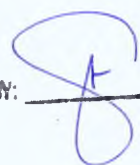


NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)



23 MAR 22 P5:05

RECEIVED BY: 

SENATE
S.B. No. 2041

Introduced by **SENATOR JOEL VILLANUEVA**

**AN ACT
INSTITUTIONALIZING THE PHILIPPINE ECOSYSTEM AND NATURAL
CAPITAL ACCOUNTING SYSTEM (PENCAS), APPROPRIATING
FUNDS THEREFOR AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

National income accounts measure a country's economic activity and economic wellbeing, including the flows from production to consumption, foreign trade, and asset accumulation, which are useful in economic analysis, decision-making, and policy formulation. The broadest and most widely used measure of national income is Gross Domestic Product (GDP). However, this is an incomplete assessment of a country's economic wellbeing as GDP only looks at one part of economic performance, i.e., output, and does not take into account the wealth underpinning this output, including a country's natural capital.

Natural capital includes resources such as minerals, energy, timber, agricultural land, fisheries, and water. It also includes ecosystem services, whose values are not readily captured in markets, such as air and water filtration, flood protection, carbon storage, and habitats for wildlife. Natural capital is particularly important to many developing countries as it makes up a large share of their total wealth and the livelihoods of several communities depend directly on healthy ecosystems.¹ Incorporating natural capital into national accounts will provide a broader picture of development progress than traditional measures of GDP. It will reveal how natural resources contribute to the economy and how the economy affects natural resources.

According to the Philippine Statistics Authority (PSA), our natural resources composed of mineral, cropland, timber, and coastal and marine resources make up an estimated 19% of the nation's wealth, contributing largely to our economic

¹ Wealth Accounting and Valuation of Ecosystem Services (WAVES). *FAQs on Natural Capital Accounting*. Available at <https://www.wavespartnership.org/en/frequently-asked-questions-natural-capital-accounting-nca>. Accessed on 17 March 2023.

development. However, rapid growth and climate change are adding pressure to our already strained natural resources.²

Thus, this bill seeks to develop a comprehensive information system and accounting framework that will take into consideration our natural capital and its impact on the country's economy, institutionalizing the Philippine Ecosystem and Natural Capital Accounting System (PENCAS). The PENCAS shall follow the international standard approved by the United Nations Statistical Commission called the System of Environmental-Economic Accounting (SEEA). This measure also aims to provide indicators that will facilitate the integration of environmental and natural resource concerns in national development planning and policy making.

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


JOEL VILLANUEVA 

² Philippine Statistics Authority. *Phil-WAVES*. Available at <https://psa.gov.ph/phil-waves>. Accessed on 22 March 2023.

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



23 MAR 22 P5:05

SENATE

RECEIVED BY: _____

S.B. No. 2041

Introduced by **SENATOR JOEL VILLANUEVA**

AN ACT
INSTITUTIONALIZING THE PHILIPPINE ECOSYSTEM AND NATURAL
CAPITAL ACCOUNTING SYSTEM (PENCAS), APPROPRIATING
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. Short Title.** – This Act shall be known as the “Philippine Ecosystem
2 and Natural Capital Accounting System (PENCAS) Act.”
3

4 **SEC. 2. Declaration of Policy.** – It is hereby declared the policy of the State to:
5

- 6 a) Promote the common good, conserve and develop our patrimony, as provided in
7 the Preamble of the Constitution, natural capital being the bedrock of the national
8 patrimony;
9
- 10 b) Develop a comprehensive information system and accounting framework that
11 will take into consideration the role of our natural capital, consisting of both
12 environmental and natural resources, and its impact on the country’s economy;
13
- 14 c) Include and institutionalize natural capital accounting as part of the national
15 income accounting system, strengthening and building on Republic Act No.
16 10625, otherwise known as the “Philippine Statistical Act of 2013,” on
17 environmental accounts and statistics;
18
- 19 d) Provide indicators that will facilitate the integration of environmental and natural
20 resource concerns in national development planning and policy making, in
21 allocation of budgets, and in designating statistics that will be produced regularly
22 for an identified period of analysis;
23
- 24 e) Establish and improve inter-agency coordination for the purpose of linking
25 economic with environmental and natural resource information and efficient data

1 management among concerned government agencies and their partner
2 institutions, and to establish an office to guide such coordination; and
3

- 4 f) Include nature's pricelessness, its intrinsic value, and its interdependencies in
5 the implementation of the foregoing policies to consider that nature and
6 ecosystems have intrinsic rights to exist, with an end in view of recognizing legal
7 rights that serve to protect endangered ecosystems and applying the
8 precautionary principle, especially when economic values cannot be estimated.
9

10 **SEC. 3. Definition of Terms.** – For purposes of this Act, the following terms are
11 hereby defined as follows:
12

- 13 a) *Ecosystem* refers to a complex community of living organisms, their physical
14 environment, and all their interrelationships in a particular unit of space, the biotic
15 and abiotic components of which are linked together through nutrient cycles and
16 energy flows;
17
18 b) *Capital* refers to a stock concept, which yields a periodic income, which is a flow
19 concept;
20
21 c) *Natural Capital* refers to the concept of nature as a stock that provides a flow of
22 benefits to people and the economy, and consists of stocks of natural assets,
23 both biotic and abiotic. It includes air, water, soil, minerals, forests, coral reefs,
24 seagrass beds, and all living things, and from which humans derive a wide range
25 of goods and services, which make human life possible;
26
27 d) *Ecosystem Services* refer to goods and services that natural capital provides,
28 such as food, water, energy or climate regulations;
29
30 e) *United Nations System of Environmental-Economic Accounting (SEEA)* refers to
31 the framework that integrates both economic and environmental data to provide
32 a more comprehensive and multipurpose view of the interrelationships between
33 the economy, the environment, and ecosystems, and the stocks and changes in
34 stocks of natural assets, as they bring benefits to humanity.
35

36 **SEC. 4. Philippine Environmental and Natural Capital Accounting System**
37 **(PENCAS).** – A system of Environmental-Economic Accounting is hereby
38 institutionalized within the government bureaucracy. The Philippine Environmental
39 and Natural Capital Accounting System (PENCAS) shall be based on the existing
40 environmental accounting frameworks that are covered by the UN SEEA and are
41 theoretically correct and accepted as evaluated based on international standards.
42 Among others, the PENCAS framework shall include a list of the officially designated
43 statistics on the depreciation of natural capital, environmental protection expenditures,
44 pollution and quality of land, air and sea, environmental damages, and genuine
45 savings. It shall conform to, and expound, expand and localize the UN SEEA. A
46 roadmap and manual for further development of these indicators for each of the
47 terrestrial (land and freshwater) and blue (marine) economies shall be formulated. The
48 roadmap and international manuals shall be customized to the ecosystems in the
49 Philippine archipelago that support the terrestrial and blue economies. All these data
50 shall constitute the Philippines' natural capital, the conservation of which shall be

1 paramount.

2
3 **SEC. 5. Objectives of the PENCAS.** – The PENCAS shall supplement the
4 current System of National Accounts and shall have the following major functions:

- 5
6 a) To support economic-environmental policy development and decision-making;
7
8 b) To generate the Philippine version of the UN SEEA satellite accounts covering
9 both the Central Framework and the Ecosystem Accounts;
10
11 c) To serve as a comprehensive data framework in the generation of PENCAS
12 statistics; and
13
14 d) To ensure that ecosystems and habitats, especially the ones in critical danger of
15 irreparable damage, are conserved and restored, in line with the objectives and
16 timelines of key Multilateral Environmental Agreements, including the United
17 Nations Decade of Ecological Restoration and the 2030 Agenda for Sustainable
18 Development.

19
20 **SEC. 6. National Economic and Development Authority (NEDA) as the Lead**
21 **Agency.** – The NEDA shall be the lead agency in fulfilling the objectives of this Act. It
22 shall coordinate the performance of the functions of the involved agencies enumerated
23 herein.
24

25 **SEC. 7. Involvement of Government Agencies.** – The following government
26 agencies and the concerned offices and bureaus under or attached to them shall be
27 involved in the establishment and institutionalization of the PENCAS:
28

- 29 a) National Economic and Development Authority (NEDA) as the Lead Agency;
30 b) Philippine Statistics Authority (PSA);
31 c) Department of Environment and Natural Resources (DENR);
32 d) Department of Agriculture (DA);
33 e) Department of Energy (DOE);
34 f) Department of Tourism (DOT);
35 g) Department of Transportation (DOTr);
36 h) Department of Public Works and Highways (DPWH);
37 i) Department of Trade and Industry (DTI)
38 j) Department of Health (DOH);
39 k) Department of the Interior and Local Government (DILG);
40 l) Department of Science and Technology (DOST);
41 m) Department of Human Settlements and Urban Development (DHSUD); and
42 n) Other agencies as necessary.
43

44 **SEC. 8. Creation of the Natural Capital Units.** – Natural Capital Units shall be
45 created within the organizational structure of the NEDA, PSA, DENR, DA, DOE, DOT,
46 DOTr, DPWH, DTI, DOH, DILG, DOST, DHSUD, and other agencies as necessary.
47

48 The head of the Natural Capital Units in the foregoing government agencies shall
49 be a Division Chief or higher. The head of the agency shall designate existing
50 personnel within the agency or hire new ones within its budget to operate its Natural

1 Capital Unit.

2
3 **SEC. 9. Natural Capital Units at National Agencies.** – The Natural Capital
4 Units at the NEDA, PSA, DENR, DA, DOE, DOT, DOTr, DPWH, DTI, DOH, DILG,
5 DOST, and DHSUD shall:

- 6
7 a) Develop and apply, with its various offices, attached agencies, GOCCs and
8 beneficiaries, the data collection, development and compilation of resource or
9 natural asset and ecosystem service accounts, environmental and emission
10 accounts, and ocean accounts, relevant to each agency's mandates, and
11 formulate viable data development approaches and methodologies in
12 coordination with PSA;
13
14 b) Collaborate with the science community in conducting studies and research in
15 support of policy development related to PENCAS;
16
17 c) Ensure that sustainable development principles, especially regenerative
18 resource use, resource conservation and climate, environmental and indigenous
19 biodiversity considerations, are integrated in all its bureaus and offices and in
20 their policy, national and project planning and implementation based on PENCAS
21 results; and strengthen its statistical capabilities, especially regulatory monitoring
22 to provide environmental and natural resources data and accounts to other
23 national government agencies, local government units (LGUs), private sector,
24 civil society, and other data users;
25
26 d) Prioritize the data generation for the PENCAS accounts for the blue economy,
27 particularly for areas of national patrimony most in danger of exploitation and
28 appropriation, such as the West Philippine Sea and the Philippine Rise; and
29
30 e) Institutionalize open data for the studies and research in support of policy
31 development related to PENCAS.

32
33 The DILG shall assist the LGUs in building capacity and performing the above
34 functions as far as they are able in order to build their own PENCAS accounts. It shall
35 also consolidate local government data and statistics and compare these with the
36 national accounts as generated by the other agencies.

37
38 **SEC. 10. Staffing Pattern for Natural Capital Units.** – The agencies concerned
39 shall, as far as practicable, utilize existing qualified employees for staffing the Natural
40 Capital Units. In case, however, of the lack of qualified employees who have the skills
41 and capabilities required of the functions of the Units, the concerned agency shall be
42 allowed to include new plantilla items, subject to the approval of the Department of
43 Budget and Management (DBM) and in accordance with the rules and regulations of
44 the Civil Service Commission (CSC).

45
46 **SEC. 11. Functions of the NEDA.** – The Natural Capital Unit at the NEDA shall:

- 47
48 a) Coordinate the conduct of consultations, orientations, and training seminars on
49 the PENCAS and its implementation for the national government agencies,
50 LGUs, and other concerned institutions, as well as the private sector and civil

1 society organizations, upon their request;

- 2
- 3 b) Coordinate the conduct of studies and research in support of policy development
4 related to PENCAS and provide training for non-governmental entities on
5 generating natural capital data and statistics;
6
- 7 c) Establish a mechanism for integration of environmental and regenerative
8 resource conservation considerations in national, regional, local and sectoral
9 planning, policy, project development and implementation based on PENCAS
10 results, particularly assuring that legally extracted resources and energy are
11 sufficient for the plans for their sustainable use;
12
- 13 d) Formulate and update indicators on the economy-environment interactions and
14 regenerative and sustainable development indices; and
15
- 16 e) Provide technical services to the (i) Development Budget Coordination
17 Committee (DBCC) for the integration of environment, ecosystems, natural
18 capital, and climate change in macroeconomic planning and allocation of
19 expenditures and capital outlays; (ii) NEDA Investments Coordinating Committee
20 (ICC) that would review completeness of project evaluation and ensure that it is
21 inclusive of economic benefits and costs, sources of proposed natural resources,
22 risks and uncertainty due to climate change, natural capital, environmental,
23 biodiversity and social safeguards, justification of use of non-renewable
24 resource, and matching of natural capital supply and demand; and (iii) any Task
25 Force/s or entities which may be created for the coordinated functioning of the
26 data-gathering agencies and quality decision-making.
27

28 **SEC. 12. Functions of the PSA.** – The Natural Capital Unit at the PSA shall:

- 29
- 30 a) Compile and collate PENCAS accounts, and study and formulate viable
31 approaches and methodologies for the PENCAS;
32
- 33 b) Formulate templates, guidelines and digital aids to ensure that all units,
34 especially local governments, generating PENCAS data do so in a manner that
35 can be efficiently consolidated, compared and analyzed, and ensure public
36 accessibility for these tools;
37
- 38 c) Explore ways and means to modify and improve current environmental and
39 economic statistics, in coordination with the concerned data producers and
40 users, including those in the academe, private sector, and non-governmental
41 organizations;
42
- 43 d) Include natural resource and environment-related questions in the PSA's census
44 and surveys, such as, but not limited to, Census of Establishments, Annual
45 Survey of Philippine Business and Industry, Family Income and Expenditure
46 Survey, Labor Force Survey, Survey on Tourism Establishments, Surveys of
47 Household and Establishment Energy Consumption, Fisheries and Aquaculture
48 Surveys, Agriculture, Livestock and Poultry Surveys, and Community Based
49 Monitoring System;
50

- 1 e) Collect data up to the fourth-digit level of the Philippine Standard for Industrial
2 Classification particularly for data needed in the ocean accounts;
3
- 4 f) Develop a satellite account for the oceans, including ocean-based and ocean-
5 related economic activities or sectors, coastal and marine ecosystems (e.g.,
6 mangroves, seagrass, coral reefs, tidal flats, etc.), and marine water quality;
7
- 8 g) Enhance the water accounts to include both water resources (quantity), water
9 quality for surface water and groundwater (water asset account), and water
10 supply and use account, including water supply in relation to climate trends of
11 extreme climatic events in coordination with DENR and its Environmental
12 Management Bureau (EMB) and National Water Resources Board (NWRB), and
13 DPWH and its Bureau of Research and Standards;
14
- 15 h) Update the Input-Output table regularly, incorporating the PENCAS accounts;
16 and
17
- 18 i) Serve as a repository of all PENCAS-related data and materials through the
19 National Statistical Information Center and make the PENCAS data available on
20 the PSA website.
21

22 **SEC. 13. Role of Local Government Units.** – In the planning and local
23 legislation duties, the LGUs shall endeavor to create and populate PENCAS accounts,
24 in compliance with templates and guidelines from the PSA and DILG, and in addition,
25 employ other innovative measures and methods of resource valuation, damage
26 estimation, ecosystem services and natural capital accounting to highlight their
27 ecological competitive edge.
28

29 **SEC. 14. Data and Research Support.** – The PSA shall, in coordination with
30 the involved agencies, designate the required environment and economic statistics in
31 the agencies and bureaus that shall be responsible for generating such data. The DBM
32 shall ensure that such research and data management are supported to prevent
33 government spending that would unduly compromise PENCAS accounts and
34 ecosystem services.
35

36 **SEC. 15. Government Planning Mechanisms and the Environmental Impact
37 Assessment System.** – In all government planning, considerations of PENCAS shall
38 be included. In the Environmental Impact Assessment System, the DENR shall ensure
39 that the natural environment, ecosystem services, and natural capital are framed as
40 opportunities, benefits, or assets as opposed to being merely a constraint or backdrop
41 to absorb impacts. The NEDA and the DENR shall ensure a wide availability of tools,
42 methods, and skills that can support the consideration of ecosystem services as part
43 of the Environmental Impact Assessment and ensure the inclusion of such in the
44 development of the Implementing Rules and Regulations (IRR), further including in
45 such rules accounting for activities that may degrade the natural capital considerably
46 despite not being under the coverage of the Philippine Environmental Impact
47 Statement (EIS) System.
48

49 **SEC. 16. PENCAS in the Educational System.** – The Department of Education
50 (DepEd), Commission on Higher Education (CHED), and Professional Regulation

1 Commission (PRC) shall lead in mainstreaming PENCAS in all relevant modules,
2 courses, curriculum, training, and licensure examination. They may establish
3 partnerships with different educational institutions and private entities for learning and
4 development in forms of resource sharing, module and training development,
5 standards development, and other similar forms.

6
7 **SEC. 17. Participatory Mechanisms and Citizen Remedies.** – Each Natural
8 Capital Unit shall institute consultative mechanisms, mass collaboration measures and
9 digital comment and recommendation solicitations to effectively popularize PENCAS
10 and ensure wide comprehensibility and usage of the accounts.

11
12 Any Filipino citizen shall have:

- 13
14 a) the right to information on any accounts generated under this Act;
15
16 b) the standing to compel the performance of any of the mandates under this Act;
17 and
18
19 c) the right to seek justification from any government agency who may have ignored
20 or neglected PENCAS data in their policy or decision-making.

21
22 Major PENCAS accounts, results on nature's wealth and the economic value of
23 ecosystem services shall be released along with all releases of national economic
24 data, such as GNP, GDP, and other similar indicators of economic condition, and
25 highlight the contribution of resources and ecosystems to the economy, income, and
26 employment.

27
28 **SEC. 18. Rights of Nature.** – Nothing in this Act shall be construed to mean that
29 nature has no intrinsic value separate and distinct from its economic value, or that it
30 loses interdependencies and pricelessness by such valuation. Whenever data or
31 accounts tend to show that valuation of ecosystems or discrete and identified life-
32 support mechanisms will commodify and/or degrade them, any citizen is authorized to
33 submit a registration to the NEDA for the latter's recognition of such intrinsic value and
34 the right of such ecosystem or mechanism to exist and maintain its integrity, which
35 registration the NEDA is required to accept. The generated data and accounts can still
36 be used but only for the purpose of the recognition of such rights rather than for
37 commodification or ecologically unacceptable trade-offs.

38
39 **SEC. 19. Appropriations.** – The amount necessary to implement this Act shall
40 be sourced from the excesses in funds, such as the funds under Republic Act No.
41 9147, otherwise known as the "Wildlife Resources Conservation and Protection Act,"
42 Republic Act No. 8749, otherwise known as the "Philippine Clean Air Act," and similar
43 special accounts, especially the ones that have remained dormant.

44
45 The allocations shall be based on the plan and priorities decided by the NEDA,
46 in coordination with the agencies performing the functions. These shall be included in
47 the budget preparation of each agency to be incorporated in the annual General
48 Appropriations Act under separate fund items.

49
50 **SEC. 20. Implementing Rules and Regulations (IRR).** – Within ninety (90)

1 days from the effectivity of this Act, the NEDA shall, in consultation and coordination
2 with appropriate national government agencies, civil society organizations, private
3 sector, and other stakeholders, promulgate the IRR for the effective implementation of
4 this Act.

5
6 **SEC. 21. Separability Clause.** – Should any provision of this Act or part hereof
7 be declared unconstitutional, the other provisions or parts not affected thereby shall
8 remain valid and effective.

9
10 **SEC. 22. Repealing Clause.** – All laws, decrees, orders, and issuances, or
11 portions thereof, which are inconsistent with the provisions of this Act, are hereby
12 repealed, amended, or modified accordingly.

13
14 **SEC. 23. Effectivity.** – This Act shall take effect fifteen (15) days after its
15 complete publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,