

'22 JUL -4 A8:31

SENATE

s. No. 9

RECEIVED EY:

Introduced by Senator Loren B. Legarda

AN ACT

INSTITUTIONALIZING THE PHILIPPINE ECOSYSTEM AND NATURAL CAPITAL ACCOUNTING SYSTEM (PENCAS), MANDATING ITS USE IN POLICY AND DECISION-MAKING, DESIGNATING THE AGENCIES RESPONSIBLE FOR ITS IMPLEMENTATION, PROVIDING INSTITUTIONAL ARRANGEMENTS AMONG RESPONSIBLE AGENCIES, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES

EXPLANATORY NOTE

The national income accounts are important indicators for determining a country's development level. Conventional national income accounting systems measure economic performance by determining the value of goods and services produced in a country and aggregating them to come up with indicators of economic development such as the Gross National Product (GNP) and Gross Domestic Product (GDP). The goods and services that are included in this accounting system are those that are marketed. The basis for estimating the value of these goods and services is their prices, which are then included in computing economic indicators. This methodology reflects the goods and services produced, sold, and bought in the economy.

However, the conventional methodology for computing national income accounts has its shortcomings. The natural environment generates goods and services that are utilized but are not properly valued. The national income accounting fails to reflect the value of the consumption benefits of amenities provided by the natural

environment, waste disposal services, and pollution, as part of the production of marketed commodities.

Indicators and standards generated by the national income accounting system are considered vital information for economic management and policymaking. They serve as the basis for socio-economic planning, formulation of development programs, and policy analysis in aid of legislation, among others. Thus, it is important that the national income accounts reflect a more accurate state of development and economic performance of the country. It should incorporate both environmental and non-environmental economic inputs and outputs for policymakers to make responsive, relevant, and effective laws, plans, and programs necessary for national development.

This bill seeks to institutionalize a Philippine Ecosystem and Natural Capital Accounting System (PENCAS) to reflect environmental inputs and outputs in the determination of national income accounts.

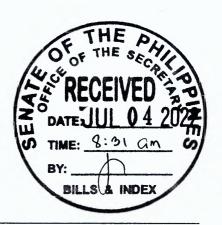
In view of the foregoing, the urgent passage of this bill is earnestly sought.



NINETEENTH CONGRESS OF THE	,
REPUBLIC OF THE PHILIPPINES	Ś
First Regular Session	,

SENATE

s. No. 9



Introduced by Senator Loren B. Legarda

AN ACT

INSTITUTIONALIZING THE PHILIPPINE ECOSYSTEM AND NATURAL CAPITAL ACCOUNTING SYSTEM (PENCAS), MANDATING ITS USE IN POLICY AND DECISION-MAKING, DESIGNATING THE AGENCIES RESPONSIBLE FOR ITS IMPLEMENTATION, PROVIDING INSTITUTIONAL ARRANGEMENTS AMONG RESPONSIBLE AGENCIES, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES

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

1 Section 1. Short Title. - This Act shall be known as the Philippine Ecosystem and 2 Natural Capital Accounting System (PENCAS) Law of 2022, which shall adhere to the 3 United Nations System of Environmental-Economic Accounting (SEEA). 4 Sec 2. Declaration of Policy. - It is hereby declared the policy of the State to: 5 a. Promote the common good, conserve and develop our patrimony, as provided in the Preamble of the Constitution, natural capital being 6 the bedrock of the national patrimony; 7 8 b. Develop a comprehensive information system and accounting framework that will take into consideration the role of our natural 9 10 capital, consisting of both environmental and natural resources, and its impact on the country's economy; 11 12 c. Include and institutionalize natural capital accounting as part of the 13 national income accounting system, strengthening and building on RA 10625 on environmental accounts and statistics; 14

d. Provide indicators that will facilitate the integration environmental and natural resource concerns in development planning and policymaking, in the allocation of budgets, and in designating statistics that will be produced regularly for an identified period of analysis. e. Establish and improve interagency coordination for the purpose of linking economic and environmental and natural resource

- information and efficient data management among concerned agencies and their partner institutions and establish an office to guide such coordination; and

 f. Include nature's pricelessness, its intrinsic value, and its
- f. Include nature's pricelessness, its intrinsic value, and its interdependencies in the implementation of the foregoing policies to consider that nature and ecosystems have intrinsic rights to exist, with an end view of recognizing legal rights that serve to protect endangered ecosystems and applying the precautionary principle, especially when economic values cannot be estimated;
- Sec. 3. *Definition of Terms*. For purposes of this Act, the following terms are hereby defined as follows:
 - a. *Ecosystem* a complex community of living organisms, their physical environment, and all their interrelationships in a particular unit of space, and the biotic and abiotic components are linked together through nutrient cycles and energy flows
 - b. *Capital* a stock concept, which yields a periodic income, which is a flow concept
 - c. Natural capital the concept of nature as a stock that provides a flow of benefits to people and the economy. Natural capital consists of the stocks of natural assets both biotic and abiotic. It includes air, water, soil, minerals, forests, coral reefs, seagrass beds, and all living things. It is from this natural capital that humans derive a wide range of goods and services, which make human life possible. The goods and services that natural capital provides, such as food, water, energy, or climate regulation, are called ecosystem services. These

1 provide people everywhere with the means for healthy lives and 2 underpin all economic activity 3 d. Ecosystem services - the flows of benefits, which people gain from 4 natural ecosystems, while natural capital consists of the stock of natural ecosystems or stock of renewable and non-renewable natural 5 6 resources from which these benefits flow 7 e. The United Nations System of Environmental-Economic Accounting 8 (SEEA) - a framework that integrates both economic and 9 environmental data to provide a more comprehensive and 10 multipurpose view of the interrelationships between the economy, the environment and ecosystems, and the stocks and changes in 11 12 stocks of natural assets, as they bring benefits to humanity. 13 Sec. 4. Philippine Environmental and Natural Capital Accounting System (PENCAS). - A System of Environmental-Economic Accounting is hereby 14 15 institutionalized within the government bureaucracy. The Philippine Environmental 16 and Natural Capital Accounting System (PENCAS) shall be based on the existing 17 environmental accounting frameworks that are covered by the UN SEEA and are 18 theoretically correct and accepted as evaluated based on international standards. 19 Among others, the PENCAS framework shall include a list of the officially designated 20 statistics on the depreciation of natural capital, environmental protection 21 expenditures, pollution and quality of land, air and sea, environmental damages, and 22 genuine savings. It shall conform to and expound, expand and localize the UN SEEA. 23 A roadmap and manual for further development of these indicators for each of the terrestrial (land and freshwater) and blue (marine) economies shall be formulated. 24 25 The draft roadmap and international manuals shall be customized to the ecosystems 26 in the Philippine archipelago that support the terrestrial (land and freshwater) and blue (marine) economies. All these data shall constitute the Philippines' natural 27 capital, the conservation of which shall be paramount. 28 29 Sec. 5. Objectives of the PENCAS. - The PENCAS shall supplement the current 30 System of National Accounts and shall have the following major functions: 31 a. To support economic-environmental policy development and

decision-making;

1	b. To generate the Finisppine version of the ON SEEA satemite accounts
2	covering both the Central Framework and the Ecosystem Accounts;
3	c. To serve as a comprehensive data framework in the generation of
4	PENCAS statistics; and
5	d. To ensure that ecosystems and habitats, especially the ones in critical
6	danger of irreparable damage, are conserved and restored, in line
7	with the objectives and timelines of key Multilateral Environmental
8	Agreements, including the United Nations Decade of Ecological
9	Restoration and the 2030 Agenda for Sustainable Development.
10	Sec. 6. Involvement of Government Agencies The following agencies and the
11	concerned offices under or attached to them shall be involved in the establishment
12	and institutionalization of the PENCAS:
13	a. Department of Environment and Natural Resources (DENR);
14	b. Department of Agriculture (DA);
15	c. Philippine Statistics Authority (PSA);
16	d. National Economic and Development Authority (NEDA);
17	e. Department of Energy (DOE);
18	f. Department of Tourism (DOT);
19	g. Department of Transportation (DOTr);
20	h. Department of Public Works and Highways (DPWH),
21	i. Department of Health (DOH);
2 2	j. Department of Interior and Local Government (DILG);
23	k. Department of Science and Technology (DOST);
24	1. Department of Human Settlements and Urban Development
25	(DHSUD);
26	m. National Water Regulatory Board (NWRB); and
27	n. Other agencies, as necessary.
28	Sec. 7. Duties of Specific Bureaus within the Agencies The following Bureaus
29	shall have special mandates for natural capital accounting herein based on their
30	primary functions:
31	a. Bureau of Fisheries and Aquatic Resources;
32	b. Bureau of Soils and Water Management;

1	c. All Bureaus of the DENR, including the National Mapping and
2	Resource Information Authority (NAMRIA), and National Water
3	Resources Board (NWRB);
4	d. National Renewable Energy Board (NREB);
5	e. Research and Development Institutes and Science and
6	Technology Services of the DOST;
7	f. Philippine Coconut Authority (PCA);
8	g. Philippine Rice Research Institute (PhilRice);
9	h. National Irrigation Administration (NIA);
10	i. Philippine Atmospheric, Geophysical and Astronomical Services
11	Administration (PAGASA); and
12	j. Philippine Institute of Volcanology and Seismology;
13	(PHIVOLCS)
14	Sec. 8. Creation of the Natural Capital Units Natural Capital units shall be
15	created within the organizational structure of the DENR, DA, PSA, NEDA, DOE,
16	DOT, DOTr, DPWH, DTI, DOH, DILG, DOST, DHSUD, and other agencies as
17	necessary.
18	The head of the Natural Capital Units in the foregoing government agencies
19	should be a Division Chief or higher level. The Department Head shall designate
20	existing personnel within the Department or hire new ones within its budget to
21	operate its Natural Capital Unit.
22	Sec. 9. Staffing Pattern for Natural Capital Units The agencies concerned shall,
23	as much as practicable, utilize existing qualified employees for staffing the Natural
24	Capital Units. In case, however, of a lack of qualified employees who have the skills
25	and capabilities required for the functions of the Units, the concerned agency shall be
26	allowed to include new plantilla items in accordance with the prescribed procedures
27	therefor.
28	Sec. 10. Functions of the Philippine Statistics Authority (PSA) The Natural
29	Capital Unit at the PSA shall have a pivotal role in the implementation of the
30	PENCAS:
31	a. Compile and collate PENCAS Accounts, and study and formulate viable

approaches and methodologies for the PENCAS;

b. Formulate templates, guidelines, and digital aids to ensure that all units, especially local governments, generating PENCAS data do so in a manner that can be efficiently consolidated, compared and analyzed, and ensure public accessibility for these tools;

- c. Explore ways and means to modify and improve current environmental and economic statistics, in coordination with the concerned data producers and users, including those in the academe, private sector, and non-governmental organizations;
- d. Include natural resource and environment-related questions in the PSA's census and surveys, such as, but not limited to, Census of Establishments, Annual Survey of Philippine Business and Industry, Family Income and Expenditure Survey, Labor Force Survey, Survey on Tourism Establishments, Surveys of Household and Establishment Energy Consumption, Fisheries and Aquaculture Surveys, Agriculture, Livestock and Poultry surveys, Community-Based Monitoring System, and any surveys these may change into or be added to them.
- e. Collect data up to the fourth-digit level of the Philippine Standard for Industrial Classification, particularly for data needed in the ocean accounts, and update the Input-Output and Supply and Use tables regularly.
- f. Develop a satellite account for the oceans, including ocean-based and ocean-related economic activities or sectors, coastal and marine ecosystems (e.g. mangroves, seagrass, coral reefs, tidal flats, etc.), and marine water quality;
- g. Enhance the water accounts to include both water resources (quantity) and water quality for surface water and groundwater (water asset account) and water supply and use account, including water supply in relation to climate trends or extreme climatic events in coordination with DENR (Environmental Management Bureau and National Water Resources Board), and DPWH (Bureau of Research and Standards);

h. Update the Input-Output tables regularly, incorporating the PENCAS accounts; and:

- Serve as a repository of all PENCAS-related data and materials through the National Statistical Information Center and make the PENCAS data available on the PSA website;
- Sec. 11. *Natural Capital Units at National Agencies.* The Natural Capital Units at the DENR, DA, NEDA, DILG, DOE, DOT, DOTr, DPWH, DTI, DOH, DILG, DOST, and DHUSD shall:
 - a. Develop and apply, with its various offices, attached agencies, GOCCs, and beneficiaries, the data collection, development and compilation of resource or natural asset and ecosystem service accounts, environment and emission accounts and ocean accounts, relevant to each agency's mandates, and formulate viable data development approaches and methodologies in coordination with PSA;
 - b. Collaborate with the science community in conducting studies and research in support of policy development related to PENCAS;
 - c. Ensure that sustainable development principles, especially regenerative resource use/resource conservation and climate and environmental and indigenous biodiversity considerations, are integrated into all its bureaus and offices and in their policy, national and project planning, and implementation based on PENCAS results; and Strengthen its statistical capabilities, especially regulatory monitoring, to provide environmental and natural resources data and accounts to other national government agencies, local government units, private sector, civil society, and other data users;
 - d. Prioritize the data generation for the PENCAS accounts for the blue economy, particularly for areas of national patrimony most in danger of exploitation and appropriation, such as the West Philippine Sea and the Philippine Rise;
 - e. Institutionalize open data for the studies and research in support of policy development related to PENCAS.

1	The DILG shall assist the local governments in building capacity and
2	performing the above functions as far as they are able in order to build their own
3	PENCAS accounts. It shall also consolidate local government data and statistics and
4	compare these with the national accounts as generated by the other agencies.
5	Sec. 12. Duties of Specific Bureaus within the Agencies The following Bureaus
6	shall have special mandates for natural capital accounting herein based on their
7	primary functions:
8	a. Bureau of Fisheries and Aquatic Resources
9	b. Bureau of Soils and Water Management
10	c. All Bureaus of the DENR, especially the National Mapping and
11	Resource Information Authority (NAMRIA)
12	d. National Renewable Energy Board (NREB)
13	e. Research and Development Institutes and Science and Technology
14	Services of the DOST;
15	f. Philippine Coconut Authority (PCA);
16	g. Philippine Rice Research Institute (PhilRice);
17	h. National Irrigation Administration (NIA);
18	i. National Water Resources Board (NWRB);
19	j. Philippine Atmospheric, Geophysical and Astronomical Services
20	Administration (PAGASA); and
21	k. Philippine Institute of Volcanology and Seismology (PHIVOLCS)
2 2	
23	Sec. 13. Functions of the National Economic Development Authority and the NEDA
24	Board The Natural Capital Unit at the NEDA shall:
25	a. Coordinate the conduct of consultations, orientations, trainings, and
26	seminars on the PENCAS and its implementation for the national
27	government agencies, local government units, and other concerned
28	institutions as well as on request by the private sectors and civil society
29	organizations, upon their request;
30	b. Coordinate the conduct of studies and research in support of policy
31	development related to PENCAS and provide training for non-
32	governmental entities on generating natural capital data and statistics:

c. Establish a mechanism for integration of environmental and regenerative resource conservation considerations in national, regional, local and sectoral planning, policy, project development, and implementation based on PENCAS results, particularly assuring that legally extracted resources and energy are sufficient for the plans for their sustainable use;

- d. Formulate and update indicators on the economy-environment interactions and regenerative and sustainable development indices;
- e. Provide technical services to the (i) Presidential Commission on Natural Capital, (ii) Development Budget Coordination Committee (DBCC) for the integration of environment, ecosystems, natural capital, and climate change in macroeconomic planning and allocation of expenditures and capital outlays, (iii) Investments Coordinating Committee that would review the completeness of project-evaluation and ensure that it is inclusive of economic benefits and costs, sources of proposed natural resources, risks and uncertainty due to climate change, natural capital, environmental, biodiversity and social safeguards, justification of use if nonrenewable resource, and matching of natural capital supply and demand, and (iv) any Task Forces or deputized or contracted entities, which the Presidential Commission on Natural Capital may create or partner with for the coordinated functioning of the data-generating agencies and quality decision-making; and
- f. The NEDA Board and its instrumentalities shall ensure that PENCAS is considered in all its policy decisions and project evaluation systems. In order to ensure this, the composition of the NEDA Board shall always include the departments that generate the most crucial data on PENCAS accounts, such as the DENR and DA.

Sec. 14. Data and Research Support. – The PSA, in coordination with the involved agencies, shall designate the required environment and economic statistics in the agencies and bureaus that shall be responsible for generating such data. The Department of Budget and Management (DBM) shall ensure that such research and data management are supported to prevent government spending that would unduly

compromise PENCAS accounts and ecosystem services or the deterioration of the national patrimony.

Sec. 15. Creation of the Presidential Commission on Natural Capital Accounting. – A commission is hereby created to ensure the fulfillment of the objectives of this law and coordinate the performance of the functions of the agencies enumerated. It shall have the following composition:

- a. The President or his appointee to the Commission as Chair;
- 8 b. An Economic statistician

- 9 c. An Environment and Natural Resources Economist
- d. A Terrestrial ecologist who shall ALSO cover freshwater ecosystems;
 - e. A Marine ecologist who shall cover coastal and marine ecosystems;
 - f. An Environmental Lawyer;

All Commissioners shall be appointed by the President from nominations by the agencies or civil society conglomerations.

Sec. 16. Functions of the Commission. – The Commission shall provide directions for the coordinated functioning and implementation of the Natural Capital Units. It shall create ad-hoc or permanent inter-agency committees and task forces that will support the data and technical requirements of the departments and their Natural Capital Units. It shall ensure that the Officials, as well as other instrumentalities of government, have access to PENCAS data and endeavor to ensure that such data are used in policy and decision-making, taking care, however, that there are security measures to prevent poaching or any foreign intrusion that could impact our utilization and enjoyment of our natural resources.

The designated Undersecretary level officials in charge of policy and planning in their agencies shall represent the member agencies for DENR, DA, DOE, DOT, DOTr, DPWH, DOST, DTI, DILG, DOH, DHUSD, NEDA, and PSA in all technical working groups constituted by the Commission.

The Commission shall compile existing surveys and data generation activities of all government agencies to ensure that the information needed for generating the accounts are efficiently captured, including but not limited to existing physical 1 accounts and monetary accounts, data from the Community-Based Monitoring

2 System, DENR's Biodiversity Assessment and Monitoring System and Socio-

3 Economic Assessment and Monitoring System, and monitoring data from projects,

4 such as the Wealth Accounting and Valuation of Ecosystem Services (WAVES),

5 Environment Natural Resource Accounting Project (ENRAP) and the National

6 Greening Program, the Department of Agriculture's Ocean accounts, data submitted

7 by license, permit and certification applicants, and the like.

Sec. 17. Government Planning Mechanisms and the Environmental Impact Assessment System. – In all government planning, considerations of PENCAS shall be included. In the Environmental Impact Assessment System, the DENR shall ensure that the natural environment, ecosystem services, and natural capital are framed as opportunities, benefits or assets as opposed to being merely a constraint or backdrop to absorb impacts. The Commission shall ensure a wide availability of tools, methods and skills that can support the consideration of ecosystem services as part of the Environmental Impact Assessment and ensure the inclusion of such in the development of the Implementing Rules and Regulations (IRR), further including in such rules accounting for activities that may degrade the natural capital considerably despite not being under the coverage of the Philippine EIS System.

Sec. 18. Role of the Local Government Units. – In their planning and local legislation duties, local governments shall endeavor to create and populate PENCAS accounts, in compliance with templates and guidelines from the PSA and DILG, and in addition, employ other innovative measures and methods of resource valuation, damage estimation, ecosystem services and natural capital accounting to highlight their ecological competitive edge.

Sec. 19. PENCAS in the Educational System. – The Department of Education (DepEd) shall cause the crafting of modules in all levels of the formal and non-formal education spheres to ensure that all citizens, and especially the academe, are able to help change the definition of economic success towards defining wealth inclusively, to generate, analyze and use the PENCAS to its maximum effect and assess the systemic extent of nature-related financial risk. The CHED shall include PENCAS in all curricula and the DepEd shall ensure that PENCAS is incorporated in current

courses on these subjects with the objective of generating credible, decision-grade data, which government, businesses and financial institutions and civil society can use to fully integrate nature-related considerations into their decision-making and assess and disclose their use of and impact on nature.

The Professional Regulation Commission (PRC) shall ensure that PENCAS is included in all professional examinations.

Sec. 20. *Rights of Nature*. – Nothing in this Act shall be construed to mean that nature has no intrinsic value separate and distinct from its economic value, or that it loses interdependencies and pricelessness by such valuation. Whenever data or accounts tend to show that the valuation of ecosystems or discrete and identified life-support mechanisms will commodify and or degrade them, any citizen is authorized to submit a registration to the Commission for the latter's recognition of such intrinsic value and the right of such ecosystem or mechanism to exist and maintain its integrity, which registration the Commission is required to accept. The generated data and accounts can still be used but only for the purpose of the recognition of such rights rather than for commodification or ecologically unacceptable trade-offs.

Sec. 21. Participatory Mechanisms and Citizen Remedies. – Each Natural Capital Unit shall institute consultative mechanisms, mass collaboration measures, and digital comment and recommendation solicitations to effectively popularize PENCAS and ensure wide comprehensibility and usage of the accounts.

Any citizen shall have to right to information on any accounts generated under this Act, have the standing to compel the performance of any of the mandates under this Act, and seek justification from any government agency who may have ignored or neglected PENCAS data in their policy or decision-making. Major PENCAS accounts, results on nature's wealth and the economic value of ecosystem services shall be released along with all releases of national economic data, such as GNI, GDP and other often-released measures of the state of the country's economic health and highlight the contribution of resources and ecosystems to the economy, incomes and employment.

Sec. 22. *Appropriations*. – The creation and initial funding of the Commission shall be Two Hundred Million Pesos (Php 200,000,000.00) to be sourced from excesses

1 in funds, such as, the funds under RA 9147, RA 8749 and similar special accounts, 2 especially the ones that have remained dormant. Two Billion Pesos (Php 2,000,000,000.00) shall be apportioned by the Department of Budget and Management 3 4 for the performance of agency functions required herein for the generation of data 5 through expeditions and scientific investigations in the terrestrial/freshwater and 6 marine disciplines. Eight Hundred Million Pesos (Php 800,000,000.00) shall be 7 apportioned to the agencies for the creation and improvement of their Natural Capital 8 Units. The apportionment and allocations shall be based on the plan and priorities 9 decided by the Commission in coordination with the agencies performing the functions. These shall be included in the budget preparation of each agency to be 10 11 incorporated in the annual general appropriations act under separate fund items.

Sec 23. Implementing Rules and Regulations (IRR). -The Commission shall constitute an interagency working group to craft the IRR and is hereby given the authority to adopt such IRR, the adoption of which shall constitute its inclusion as part of the administrative rules and regulations of all members of the Committee.

16

17

18

19

20

21

22

23

24

12

13

14

15

Sec. 24. Separability Clause. - If any provision of this Act is declared unconstitutional or otherwise invalid, the validity of the other provisions shall not be affected thereby.

Sec. 25. *Repealing Clause*. – All other laws, decrees, orders, rules and regulations, other issuances, or parts thereof inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

Sec. 26. Effectivity. - This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,